Part 2/Partie2

CASE STUDIES: EASTERN AND SOUTHERN AFRICA

ETUDES DE CAS: AFRIQUE DE L'EST ET AUSTRALE

Trends in forest ownership, forest resources tenure and institutional arrangements in Mozambique: Are they contributing to better forest management and poverty reduction?

Case study from Mozambique

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Summary

The legal framework in Mozambique is moving towards implementation of the principles of sustainable forest management (SFM). Establishment of long-term forest concessions, instead of one-year logging licences, is a strategy to increase the private sector's role in the management of natural forests. The number of forest concessions and the area concerned have increased since the first concessions were approved in 2001. Analysis shows that about 26 percent of productive forests have been requested for management under the forest concession regime, and 21 percent have already been approved.

The attribution of 20 percent of forest and wildlife revenues to local communities is a clear signal of government commitment to the participatory management of natural resources. Although this process has taken longer than expected and has generated much debate, communities are finally obtaining monetary benefits. It is yet to be seen what the communities will spend the money on, but the government is achieving the social objective of the forest and wildlife development strategy by contributing to rural development.

There are apparent contradictions between the Land Act and the Forest and Wildlife Act regarding ownership of the land and the resource on it. The Land Act recognizes customary rights as being on the same level as acquired land-use rights, while the Forest and Wildlife Act does not automatically allow the use of the land's wild resources for commercial purposes, thereby limiting access to these resources. Analysis shows that when communities have registered land-use rights, they are empowered to negotiate access to resources. This has proved to be useful when private investors are interested in the resources of a community area. In such cases, the community benefits from 20 percent of the revenue, direct investments in the area and employment opportunities.

When there is no interested private investor, communities require external support for community-based natural resource management (CBNRM) to generate income for community benefit. The cost-to-benefit ratio for this can be high, especially in the initial phase.

Giving land-use rights to communities has proved to be the key to ensuring community benefits. The distribution of the population – with people living in areas under all forest management categories, including protected areas – gives rural communities the opportunity to control access to resources and obtain benefits from resource use. There are, however, questions regarding communities in multiple-use areas (open access) where there is no potential for the commercial use of resources.

Analysis of forest management regimes shows that the government plays a key role as resource owner, legislator, monitoring agency and law enforcement agency. This multiple involvement of the State is sometimes seen as detrimental to the sustainable management of forest resources, particularly in situations where the State has limited information on forests. Private ownership with an independent monitoring system could provide a better environment, reducing the State's role to that of legislator and law enforcement agency. Although the management of concession forests is the responsibility of private concessionaires, it is the government's role to evaluate and monitor the management plans for forest concessions.

Protected areas under the Ministry of Agriculture are referred to as forest reserves; the State is responsible for managing these. Participatory or co-management of forest reserves with local communities has been established as the appropriate strategy, given the huge numbers of inhabitants within protected areas and the lack of clear regulations regarding whether or not settlements are allowed within protected areas. In addition, participatory management of forest resources contributes to rural poverty alleviation by providing income-generating opportunities for forest reserve dwellers. The current situation is unsatisfactory, however; forest reserves do not seem to attract private investment, so lack initiatives aimed at generating incomes from forestry-based activities. In the meantime, forest reserve dwellers have been converting forest land to agriculture for subsistence and income generation, thereby threatening the conservation objective of the reserves.

A few areas are under forest plantations, but the massive reforestation campaigns of the 1980s have lost their momentum, and very few areas have been planted over the last 15 years. New initiatives are under way, particularly in Niassa and Manica provinces, with large company interventions. The role of local communities in private plantation initiatives is conflictual as a result of overlays in land-use rights, with forest companies being granted rights over community lands where communities also have land-use rights. This situation may lead to conflicts between private companies and local communities. It is urgent that the roles of private companies and local communities be clarified in the relevant legislation, and that an environment be created for improving the relationship between communities and plantation forest companies.

In spite of the important role they had in the 1990s, forest plantations on community land and agroforestry systems are not important interventions at present. Reforestation under these schemes included not only timber species, but also fruit and fodder trees, which contribute to food and protection. Planting in community land has created difficulties regarding tree ownership, with some plantations becoming open-access resources and others being left with no proper management regime for assuring benefits to local communities.

Research, innovation and technology transfer are crucial to increasing communities' participation in forest management and establishing community-based enterprises to generate benefits that are less dependent on the private sector. This requires not only research, but also capacity building at the community level.

Introduction

This study was commissioned by FAO as part of a survey of 20 African countries to provide information for the Forest Resource Assessment (FRA). It is intended to complement FRA's quantitative information with detailed qualitative information on the components of forest tenure and their implications, especially for resource ownership, management agreements and institutional arrangements.

The objective of this study is to improve understanding of the relation between forest resource tenure and forest management, and particularly the implications for poverty alleviation. The results of the study will support the development of policy and law in countries in the region. It will also help to raise awareness about the linkages between forest ownership, management agreements and institutional arrangements on the one hand, and sustainable forest management (SFM) and poverty alleviation on the other.

Although the original Terms of Reference for the study requested quantitative information on forest resource tenure, it was not possible to obtain such information. Loose regulations for land and natural resource tenure mean that statistics on tenure issues are scattered across different offices (government institutions) at different levels of organization (from national to provincial). The study collected information on forest concession and protected areas, but the data on planted forest are out-of-date and do not include statistics on planted and harvested areas. The directory of participatory community natural resource initiatives provides some information on initiatives, including their management objectives and general locations, but little on the areas that they cover.

Most information about annual logging licences is handled at the provincial level and reports the harvested volumes but not the areas. The area under this regime changes from year to year.

Mozambique's legislation has changed significantly over the last ten years and includes the Land Act (1997), the Forest and Wildlife Act (1999) and the Forest and Wildlife Regulation (2002). Owing to the interrelations among these legal instruments, they are difficult to separate, and this study refers to them jointly as key drivers. The available literature discusses land and land resources as closely related issues, and the forest sector's links to the wildlife sector in Mozambique make it difficult to separate land and wildlife issues from strictly forestry aspects. Because of this and the variety of definitions used to describe these issues, this study uses the terms "wild resources", "natural resources", and "forest and wildlife resources" interchangeably.

The National Directorate for Land and Forest (NDLF), formerly the National Directorate of Forests and Wildlife (NDFW), in partnership with the Mozambique office of the World Conservation Union (IUCN-Mozambique) and other institutions, organized three national conferences on communities and natural resource management (NRM) in 1998, 2001 and 2004. The proceedings of these conferences helped to guide the discussion in this study by bringing together participants from a variety of community-based natural resource management (CBNRM) initiatives. Papers presented explored theoretical and practical aspects of legislation and technical issues, as well as ecological and social aspects, and covered a wide variety of views and perceptions of participatory community forestry in Mozambique.

The tenure system

DEMOGRAPHICS AND POVERTY INDICATORS

Estimates by the Population Reference Bureau (PRB, 2005) indicate that Mozambique has 19.4 million inhabitants, and annual population growth of 2.2 percent. The population is predominantly young, with 44 percent of the total being under 15 years and only 3 percent over 65 years. Life expectancy is 42 years, and the urban population accounts for 32 percent of the total. The national average incidence of poverty (defined as those living on less than US$1 per day), based on the household survey of 2002/2003, is estimated at 54 percent, with higher poverty in rural areas (PRB, 2005). The rural poverty profile of 1996 characterized the poor as living in extremely isolated households with little access to production inputs, no incentives to increase production, and insecure property rights (Cuco, Songane and Matusse, 2003).

Botolo (2003) refers to the importance of forest products in poverty alleviation. Forest products can provide food (wild fruits, leaves and tubers), medicinal plants, building materials (poles, ropes and thatch grass) and other goods for subsistence and income. The use of forests as sacred sites for communicating with ancestors and holding traditional rain ceremonies is well known across the country. Forests and forest products are also involved in coping strategies; Sitoe (2004) identifies such products as charcoal, bamboo poles, honey and medicinal plants as sources of income to compensate for lost agricultural production during droughts and floods. Wild foods have are also used intensively during years of famine and by poor households with few alternatives for income. In this context, Cuco, Songane and Matusse (2003) argue that effective management of Mozambique's forests represents a practical way of contributing to poverty alleviation in rural areas.

Most of the forest products used by local communities do not appear in national accounts, so the forest sector's contribution to the national economy and poverty alleviation is underestimated. Alberto (2004) estimates that between 1996 and 2001 the forest and wildlife sector contributed from 3.1 to 3.8 percent of national production.

Poverty alleviation requires the prioritization of activities and the identification of communities whose livelihoods are based on forest products. Linking of the forest sector programme to Mozambique's Poverty Reduction Strategy (PRS) is also necessary.

The ultimate objective of community participation in forestry is to provide adequate land-use alternatives for sustainable rural development (Couto, 2004). The increase in projects for community participation in forest and wildlife management over the last decade demonstrates a willingness to contribute to rural poverty alleviation. Adam, Mate and Simão (1998) report on 30 CBNRM projects, and Couto (2004) on 60. This is a clear indication of how important CBNRM is for rural development.

FOREST AREA, TYPES AND CONDITIONS

The information on forest area presented in this study may be out-of-date because it is based on the national forest inventory of 1994 (Saket, 1994).[51] The report of an updated national forest inventory, made in 2006, will be available in 2007.

The national forest inventory of 1994 estimated that there were 60 million ha of forests and other wooded land out of a total national land area of 80 million ha. This figure implies rich natural forest and woodland resources, and scarce agriculture and other land uses. Although 80 to 90 percent of the working population is engaged in agriculture, only 5 percent of the country's 36.1 million ha of

[51] Table 1 covers the land defined by Saket (1994) as "productive forests" or "forests". "Other wooded land" includes wooded vegetation types such as thickets, savannahs and wooded grasslands. Other wooded lands are sometimes identified as forests or non-productive forests.

arable land was under cultivation in the period 1992 to 1994 (Boyd, Pereira and Zaremba, 2000); this increased to 11 percent in 2003 to 2004 (PRB, 2005). Civil war during the 1980s and early 1990s affected the distribution of forest and wildlife resources and displaced human populations, drastically reducing the cultivated area and causing increased secondary growth within forests and other wooded land.

TABLE 1
Forest types in Mozambique

Forest type	Code	Description	Total area (ha)
Closed montane forests	MF1	Forests on mountains with crown cover greater than 70%, usually undisturbed owing to inaccessibility	57 200
Medium closed montane forests	MF2	Montane forests with 40 to 70% crown cover	54 600
Open montane forests	MF3	Open stands with 10 to 40% crown cover. This class reflects either an ecological transition from forest to another vegetation class or degradation by agriculture, fires or forest product extraction	79 200
Closed lowland forests	LF1	Forests in lowlands with crown cover greater than 70%, resulting from low impact of human interference because of inaccessibility or distance from settlements	1 853 200
Medium closed lowland forests	LF2	Crown cover between 40 and 70%	4 912 800
Open lowland forests	LF3	Crown cover between 10 and 40%, with impact from human activities	12 392 800
Total			**19 349 800**

Source: Adapted from Taquidir, 2002.

By now, 14 years after the peace accords and 12 years after the first general multiparty elections, the distribution of forest resources is expected to have changed significantly. Localized studies, such as Argola (2004), report increased agricultural areas and other changes to the wooded land area that imply a deforestation rate of about 25 percent from 1991 to 1999 in the four districts along the Beira corridor in Manica and Sofala provinces. Although deforestation resulting from agriculture, logging and fuelwood collection is leading to environmental problems, some authors (e.g., Moyo *et al.*, 1993) do not consider it a major national problem, but rather a localized concern. Regions with high timber potential include the central and northern provinces of Sofala, Zambézia and Cabo Delgado, where most forest concession areas are concentrated. In October 2006, according to NDLF's archives, 135 forest concessions had been requested nationwide, totalling 5.5 million ha. Of these, 94 are located in these three provinces, and total 3.7 million ha.

TABLE 2
Forest property regimes

Forest ownership category	Description	Management regime	Examples of community participation initiatives
Protected areas (national parks, forest reserves, hunting reserves)	National protected areas established by the State to protect biological, cultural and historic values	State-managed, but may include co-management with community, community participation, or delegation of authority to community	Derre (Zambézia) and Mecuburi (Nampula) forest reserves
Protected areas (local, historic and cultural reserves)	Established by local initiative to protect sacred forests and forests of local importance	Community-managed, but facilitated by the State or an NGO, with or without private partner	Chirindzene (Gaza) and Potone (Nampula) community reserves
Community land on multiple-use areas	Forest lands in areas not designated for permanent forest production	Community-managed, but facilitated by the State or an NGO, with or without private partner	Goba (Maputo) community forestry area
Private forest concessions on natural forests	Natural forests of high timber productivity granted for long-term private use	Managed by private concessionaires. A forest management plan is required before a forest concession is granted	Matondo (Sofala)

Private forest plantations	Exotic species forest plantations, mainly with Eucalyptus and Pinus	Managed by private companies	Penhalonga (Manica)
Public forest plantations	Exotic species forest on public land designated for protection, timber or biomass production	Managed by the State through the Forest Service of the district administration	Bilene (Gaza), Inhaca (Maputo), Namaacha, Milha 8 (Sofala)
Community forestry plantations and agroforestry	Woodlots, home gardens, hedgerows and other agroforestry arrangements on household and community land	Established and managed by communities, but tree tenure not well established	Xai-Xai (Gaza) afforestation project

Source: Adapted from Mansur and Cuco, 2002.

Of the total forest area, only 21 percent (4.5 million ha) is currently under forest concessions, with an additional 5 percent (1 million ha) requested for concessions. The remaining area is under a variety of management regimes (see Table 3): an estimated 5 million ha being managed as forest concessions, protected areas and forest plantations; and 14.2 million ha left unmanaged as multiple-use and open-access areas. Forest concession areas have increased over the last five years as a consequence of new policies and regulations. The area under community forestry also seems to have increased, but there are no data to confirm this. Plantation forests do not seem to have changed in area until 2005, when private investments in plantation forests were first made in Manica and Niassa. There is no detailed information on the size of these new plantations, but they are estimated to be small as they are still in the training phase.

TABLE 3
Forest land uses, by category

Forest use category	**Area (ha)**		
	1990	**2000**	**2005**
Forest concessions	N.D.	1 919 735	4 547 062[a]
Protected areas (forest reserves)	447 332	447 332	447 332
Forest plantations	38 000	38 000	38 000
Multiple-use and open-access	19 526 668	17 106 933	14 229 606[b]
Total forest area	**20 012 000**	**19 512 000**	**19 262 000**

N.D. = no data available.

[a] According to the Forest Service archives, in October 2006 the forest concession areas was 4 547 062 ha (see Table 5).

[b] This value is calculated as the difference between the total and the other forest use categories.

Source: FAO, 2005b.

Changes and trends

FOREST TENURE TRENDS

During the colonial period, the government allocated land to concessionaires, who became independent centres of power. In 1870, concessions and monopoly rights were granted to private companies in order to foster private investment. These companies provided basic public services and levied taxes. Although Africans were allowed to control large areas, their rights to land were residual and subject to confiscation for the development of new settlements and plantations. There were no designated communal lands where local communities' land rights were protected. In general, small-scale family agriculture sustained the local people, but they needed to supplement this with paid labour to pay taxes (Boyd, Pereira and Zaremba, 2000). Individual property rights in rural areas applied only to cultivated land, where users could exclude others from access to the land and its resources. Pastures and forests were held in common, and it was not possible to exclude outsiders from access to uncultivated land and resources (Nhantumbo, 2000).

These characteristics of the land tenure system shaped the relationship between rural communities and the government, and – in part – continue to influence it today, regardless of policy changes.

The Forest Regulation of 1965 (Article 41) made it possible to establish community forests for local populations, in coordination with the Forest Services and other relevant institutions. The Forest Service facilitated commercial exploitation, and benefits were shared between the service and local communities. Although no clear definition of local community was made, it was understood that the community was represented by the local administrative authority. The regulation stipulated that the benefits of forestry were to be used for the social development of local communities.

The same regulation (Article 79, 1 and Article 86) exempted local communities from the cutting licence and taxes on open land for products they used for their own consumption or for carving. Because the concept of community was not well developed, there were no specific provisions for the protection and development of community forestry, but it was understood that local communities owned the forest resources on open land. Open land was defined as land that was neither private property (demarcated land for private use) nor production forest. The latter was land specifically reserved for commercial purposes, and concessionaires were required to prove financial and technical competence before being allocated these areas for periods of five to ten years.

Since independence in 1975, two periods can be distinguished in Mozambique's history. The first period was marked by the nationalization of private property, centralized ownership and State control of the land and its resources as the key components of socialism. Socialization of the countryside involved the development of State enterprises and cooperatives in the plantations and companies left by the Portuguese colonizers. Areas outside these schemes were defined as the "family sector", and were also subject to socialist principles. The 1979 Land Act gave secure rights to areas cultivated in the family sector, but not to the extensive natural forests that remained uncultivated.

The civil war that took place throughout most of the 1980s and early 1990s severely limited accessibility to land and its resources. Displaced people were concentrated in secure areas around urban centres and the main road networks, putting pressure on the land and its resources. At the same time, extensive abandoned areas in the countryside were left to regenerate with natural vegetation and wildlife.

During this period, the colonial forest regulation remained unchanged, but forest property was treated under the new land law. There were no provisions to protect community rights over forest resources. Community cooperatives using forest resources could be established, but only wood carving cooperatives became numerous. Forests belonged to the State, whose enterprises could exploit forest resources for commercial purposes without paying taxes or drawing up management plans. The only benefits that local communities in forest areas received were employment

opportunities. Community investments in social services depended on central planning and budgeting, and not on the production level of the locality concerned.

During this period, the main focus of forestry was forest plantations, with an emphasis on fast-growing species to supply wood energy and poles for urban markets. The strategy included the establishment of woodlots managed by the State, community woodlots, and a wide variety of agroforestry systems, which provided rural communities with seedlings as an incentive. These agroforestry systems were managed by rural communities with no clear resource tenure, and it was never clear who owned the trees. Most of these plantations failed, mainly because of unclear resource tenure and inefficient management (Nhantumbo 2000).

The second post-independence period was marked by the introduction of economic structural adjustment in 1987, a new constitution in 1990, the end of civil war in 1992 and the first general multiparty elections in 1994. Areas that had been inaccessible during the war were opened up, exposing weak local administrations and communities to settlers from other areas and infrastructure damage. The post-war period was characterized by depleted forest resources resulting from illegal logging, poaching and the establishment of settlements, among other causes. Local authorities and Forest Service officers were unable to arrest these activities, and the apparent gains from regenerated resources were soon lost. This period was also marked by a shift from centralized planning to the market economy, which required the reform of land and natural resource legislation, most of which occurred in the late 1990s, particularly the Land Act of 1997 and the Forest and Wildlife Act of 1999.

The Land Act of 1997 maintains some aspects of the socialist Land Act of 1979 by defining land as State property. The State can therefore grant land-use rights to stakeholders, while retaining property rights itself. One important element of the new act is its recognition of customary rights over land, which it puts on the same level as land-use rights. Customary rights can be granted to individuals or communities, and provide land-use rights to individuals and groups with common interests. To reduce land conflicts between customary and registered users, community consultation is mandatory before any land-use right can be issued.

These aspects of land-use rights form the basis for community forestry and community participation under the Forest and Wildlife Act of 1999, which establishes the need for community consultation before a forest concession can be issued. Although disputed (e.g., Matakala, 2004), the first definition of community was made in the Land Act and adopted for the Forest and Wildlife Act as:

"… a group of households and individuals living within a limited geographical area such as a locality or sub-locality with common interests to protect their settlements, cultivated agricultural areas or fallow land, woodlands, cultural sites, rangelands, water fonts and expansion areas…"

In addition, the Forest and Wildlife Act establishes forest land-use categories: production forests (concessions and plantations), protected areas, and multiple-use areas. Production forests can be State-operated, community-owned and -managed, or privately owned. Protected areas include national parks, reserves, and cultural and historic sites. Communities can initiate the establishment of cultural and historic sites.

The Forest and Wildlife Act and its regulation facilitate community benefits from forest and wildlife resources: they maintain the "free" use of natural resources for subsistence in multiple-use areas, protected areas and forest concessions; they establish mechanisms for the co-management of forest and wildlife resources through participatory management committees; they allocate 20 percent of the revenues derived from forest and wildlife resource use to local communities; and they establish mechanisms for distributing 50 percent of the fines collected for misuse to the community members who participated in preventing or reporting the misuse.

This package of legislation is of particular benefit to local communities, and creates the basis for effective community participation. Matakala (2004) emphasizes that for stakeholders to obtain benefits from a partnership, their participation must be significant; a community's effective participation in forest resource management should therefore result in benefits for the community. Effective participation requires that communities have abilities and capacities, so community capacity building is one of the forest sector's priorities for operationalizing the existing rules.

STAKEHOLDERS AND INSTITUTIONAL ARRANGEMENTS FOR CBNRM[52]

CBNRM initiatives have been included in several land and forest property regimes. Most CBNRM applies to community land, which is managed by the community itself, facilitated by non-governmental organizations (NGOs) or the State. Pindanyanga, Mucombedzi and Goba are examples of these initiatives. Other CBNRM initiatives are within forest reserves and State-owned and managed areas, such as Derre, Mecuburi and Moribane forest reserves.

The main State agency involved in CBNRM is NDLF, under the Ministry of Agriculture. This institution is the result of a recent (2005) merger of the former NDFW with part of the land registry authority. The new NDLF links land registry to forest and wildlife resources, and is mandated to regulate land, commercial forestry and wildlife activities, community forestry, and the management of wildlife outside protected areas. The National Directorate of Protected Areas (NDPA) under the Ministry of Tourism is responsible for protected areas with tourism activities, such as national parks and hunting reserves.

Although there is no national CBNRM programme, NDLF's Community Forestry Management Unit has developed procedures for CBNRM and shares information among different actors. Most CBNRM initiatives are individually implemented by institutions, including State departments, NGOs and research institutions. International NGOs, particularly IUCN and the World Wide Fund for Nature (WWF) play an important role in promoting community participation in NRM, and have sourced funds for CBNRM projects in community areas (e.g., Chipanje Chetu and Madjadjane) and conservation areas (e.g., Bazaruto and Gorongosa national parks). Influential funding agencies such as the World Bank, the European Union and the Government of the Netherlands have also played an important role in promoting CBNRM.

Community participation in the management of natural forests is granted by the Forest and Wildlife Act and its regulation. The regulation defines the institutions that can be involved in co-management of forest resources, but does not specify the institutional arrangements that are to be followed. This omission is intentional and designed to open up opportunities for the on-site testing of different models, from which lessons can be learned. This is because no model can fit all situations, so specific arrangements need to be established by the stakeholders. The institutions involved may include local communities, the State, the private sector and NGOs. In a CBNRM initiative, local communities form partnerships with at least one of these stakeholders, and more than one agency from each category of stakeholder (see Table 4) may be involved.

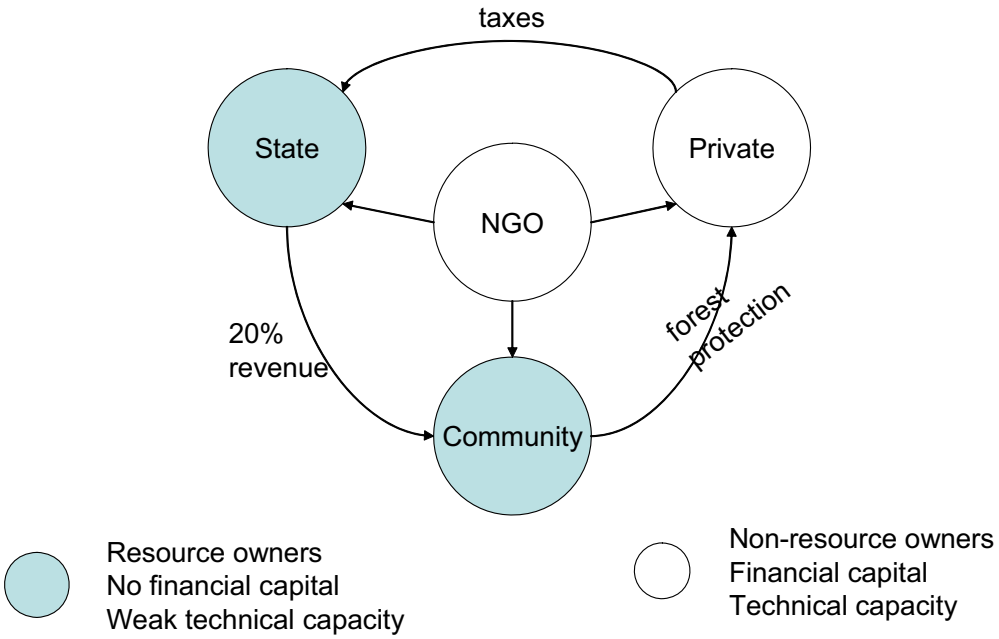
TABLE 4
Stakeholder representation in CBNRM

Stakeholder	Means of representation	Role
Community	CBOs: participatory NRM committees, interest groups, traditional leaders, local administration	Resource co-owner (based on customary rules), protection of natural resource for community benefit, negotiation with outsiders who want to exploit community resources
State	Government institutions (national, provincial, district and administration), research and teaching institutions	Resource owner, legislator, monitoring and law enforcement agent, facilitator, protection of community interests, promotion of development, engagement in district development plans
NGO	NGO representative	Facilitation, training, establishment and capacity building of CBOs, mediation between community and government and between community and the private sector
Private	Private company representative	Promotion of commercialization of forest resources and increased access to markets Promotion of community participation in NRM, facilitation of community resource access for subsistence, promotion/facilitation of local smallholder enterprises

[52] CBNRM includes community forestry, which is mainly based on forests and tree products, and community wildlife management, which consists of management of wildlife in forests and other land cover types, including grasslands.

Figure 1 presents the institutional arrangements in CBNRM, with examples of the roles and relationships among partners. The roles of the State in community forest management initiatives are diverse: the State is the "owner" of the land and the resources on it; it is the legislator; and it has to protect local communities and ensure benefits for poverty alleviation. This last role is expressed mainly through the granting of 20 percent of the revenues generated from the commercial use of forests and wildlife resources to local communities. The State is also responsible for monitoring the implementation of State regulations and enforcing the law. This multiple role of the State is regarded as patronizing towards communities, particularly by the private sector. The State has a social role to play, and is committed to providing extension services to support production systems, and creating local institutions that are capable of defending their rights as stakeholders.

FIGURE 1
Institutional arrangements in CBNRM



Private investors could play an important role in supporting CBNRM. At present, most CBNRM in Mozambique is supported by short-term projects implemented by the State or NGOs. The main objective of these projects is to create community interest in protecting natural resources – through such activities as fire control, prevention and patrolling – with a view to attracting private investment (Couto, 2004). Evaluations of ongoing and terminated CBRNM projects show only limited success in fulfilling their ultimate objective of generating benefits for local communities. Couto (2004) suggests that this failure is the result of unclear criteria for benefit distribution among community members, and high dependence of communities and the State on benefits generated by private investors. Macome (2004) suggests that the cost-to-benefit ratio of CBNRM projects is very high; returns on investments are not reached in the short or medium term, but only in the long term, which is unsatisfactory given the immediate need to alleviate rural poverty.

Although local communities are defined as groups with common interests, they tend to be very diverse and include people with very different interests and perspectives. Some authors (e.g., Macome, 2004) report that projects impose community-based organizations (CBOs) on their target communities. Some of the CBOs – NRM committees – that have been established conflict with local administration authorities, and local communities and committee members are sometimes treated as though they were project employees. This type of relationship between communities and CBNRM projects has resulted in negative consequences, discouraging private investors from becoming involved. The NRM committee's role within the community has not been clearly defined, resulting in the creation of elite groups. NRM committees should be made up of educated and active community members, but CBO members empowered to represent their communities may become

very influential and impose their own interests beyond their mandates, resulting in conflicts within the community. In addition, there are no rules to ensure that NRM committees provide equal representation for all community social strata. Some NRM committees become to large; in Goba, for example, each of the three villages was represented by ten committee members, resulting in an extremely large and unmanageable committee. In other regions, such as in Sofala province, NRM committees were formed according to the Land Act Regulation, which limits the number of committee members to ten.

NGOs are important stakeholders in the establishment of CBNRM initiatives, because they are neutral and can facilitate relations among communities, private investors and the State. NGOs are involved in community land demarcation, the establishment of CBOs and training in land and natural resources negotiation to ensure community benefits. Some NGOs assist rural communities in obtaining registered land-use rights as the first step towards resource ownership. Others contribute to the establishment and capacity building of CBOs. NGOs can provide a variety of services that complement the State's creation of local capacity.

MANAGEMENT AGREEMENTS AND PARTNERSHIPS

The first community forestry project in Mozambique was Tchuma-Tchato, which was established before the current Forest and Wildlife Act came into effect and is a response to conflict between a private safari operator and local communities. Community crops were being destroyed by wildlife, and tension between local residents and the safari operator was making it difficult for the two to coexist in the same area. During the conflict resolution process, mediation helped the two parties to interact. Through a ministerial decree, the State made communities stakeholders in wildlife management, and established the shares of benefits to be assigned to the parties.

Tchuma-Tchato is the prototype for community participation initiatives in Mozambique. Most projects are initiated in response to a problem (e.g., degraded forest land) or to conflict among stakeholders (e.g., limited access to land or forest resources), but there are also cases where community participation is initiated in a peaceful situation as a community capacity building programme. When there is a problem or conflict, a third party intervenes to protect community rights and promote collaboration among the stakeholders.

Most interventions follow the strategy of capacity building at the community level, which includes the establishment of CBOs and interest groups, and training in land and natural resource legal issues. CBOs are trained to represent the community's interests, understand its rights over the land and forest resources, and negotiate and establish dialogue with potential partners.

CBOs have been established and trained in multiple-use areas (e.g., Pindanyanga and Mucombedzi) and protected areas (e.g., Derre and Mecuburi forest reserves). Commercial forest plantations do not have formal arrangements with local communities, and the relationship between a forest plantation manager and a local community tends to be that of employer and employee. In the recently established commercial forest plantation in Niassa province, consultation between forest managers and communities within the plantation area has resulted in unwritten agreements on land zoning to define plantation, residential, agricultural and pasture areas. Forest managers have also agreed to give local people priority for employment.

Community forest plantations constitute a small proportion of CBNRM initiatives. They are generally small in size and involve agroforestry systems of scattered trees in agricultural fields and home gardens. They may be the result of partnerships with the State, NGOs or – rarely – private investors. The main objective of these initiatives is to empower local communities and help them produce their own forest products, particularly in areas with degraded land.

Arrangements between forest concessionaires and local communities are limited to employment provision, but the State empowers the communities living in or near forest concessions to engage in participatory forest management that improves their benefits from commercial logging.

Figure 1 shows the basic framework for establishing partnerships. Management agreements can range from the verbal to formal written statements. CBNRM promotes formal agreements as the legal tools for cooperation and to minimize conflicts among the partners. An example of this type of agreement is the community of Mahel's (Maputo) partnership with the provincial Forest Service and a private operator. Although CBNRM is not their main objective, some forest concessionaires (e.g.,

TCT Forest Concession in Sofala) have established partnerships – including formal mechanisms for communication and conflict resolution – with local communities. Minutes of regular meetings between the concessionaire and the communities are filed for public reference, and copied to the administration post.

BENEFIT SHARING

Article 102 of the Forest and Wildlife Regulation establishes that 20 percent of the revenue from forest and wildlife exploitation is returned to the local communities living in the area where the resources were extracted. Article 112 of the same regulation establishes that 50 percent of the fines collected from transgressors of the legislation is given to forest patrol agents and community members who participate in law enforcement activities or report infringements.

The aim of these two articles is to strengthen communities' participation in forest management and ensure benefits to communities, thus contributing to poverty alleviation. Some authors (e.g., Tanner, 2004) see this as a means of compensating communities that have land-use rights under the Land Act, but no use rights to the land's resources. Both articles are in line with SFM principles for providing social benefits to local communities and ensuring the monitoring of forest operations (e.g., ATO/ITTO, 2003).

The provisions of the Forest and Wildlife Regulation resolve the situation created in the post-independence centralized planning economy, where all forest revenues were sent to the central government with no guaranteed benefits to the communities involved in managing forests.

Some private operators have misunderstood the intention of these two articles and interpret the 20 percent as a surtax that increases their own operating costs, and the 50 percent as a sign that the State cannot pay salaries to its law enforcement agents. All forest operators are required to comply with the regulation and are fined for non-compliance. They are also required to pay royalties for the exploitation of forest and wildlife resources from natural woodlands, and it is the State's obligation to pass 20 percent of these royalties to local communities.

Evaluations show that payments to the communities located in commercial forestry and wildlife areas are beneficial for all stakeholders – the community, the operator and the State. Communities decide how to spend the money, which motivates them to participate in NRM and improves their relationships with forest and wildlife operators in the long term. At the same time, the State is seen to be keeping its promise to contribute to rural poverty alleviation, which encourages rural communities' collaboration (Seroa da Motta, 2004).

Based on logging statistics for 2003, Johnstone, Cau and Norfolk (2004) calculated that 20 percent of the revenues from annual logging licences and forest concessions totalled about US$400 000 at the national level, which is a significant contribution to rural development.

The procedure for returning the 20 percent to the communities is not very clear, however. The inter-ministerial decree that established the revenue share (NDFW, 2005) requires that: local communities are represented by a legal entity – a community NRM committee; and the committee must have a bank account. Although this seems a minor requirement, most rural communities need assistance from the State or an NGO in establishing a committee and training it in basic legal and management issues. In addition, few districts are served by financial institutions and very few rural residents have identity cards.

These factors make it difficult to obtain real benefits from participatory forest management, and the government is making efforts to overcome them. By October 2006, about six communities across the country had received more than US$50 000 as part of their 2005 benefit share (Foloma personal communication); the amount distributed and the number of communities involved were expected to increase by the end of the year. Although the amounts distributed are below expectations, it is still significant that local communities have started to receive direct tangible benefits from the commercial exploitation of forest and wildlife resources. The system has only been operating since 2006, so there are no reports on how communities use their monetary benefits. In Tchuma-Tchato, which has been receiving shares of the royalties generated by a private safari operator for several years, communities have invested in grain mills, water boreholes and other community benefits.

Article 112 aims to strengthen law enforcement activities and ensure compliance with the legislation in order to reduce illegal operations and increase the revenues collected by the State. The article seeks to fill the gap between the revenues collected and those that were expected from the volumes logged. In a study of illegal logging in African countries, including Mozambique (Thornton, 2005), the Environmental Investigation Agency reported illegal operations and illegal timber exports. World Bank/WWF Alliance (2002) also found differences between the log exports declared in customs data and the statistics of the Forest Service.

Article 112 benefits communities in two main ways: community members obtain direct financial benefits from the 50 percent share of fines for participating in law enforcement activities; and the State's revenues increase, thus increasing its contribution to local communities through implementation of Article 102.

Once again, effective implementation of this article requires that communities are informed and capable and State institutions are able to implement the regulation in the spirit in which it was intended. Benefit sharing mechanisms represent the best option for increasing the forest and wildlife sector's contribution to rural development.

THE PLANNING AND MONITORING SYSTEM

In open-access or multiple-use areas, forest land does not have to be under permanent forest cover and can be changed to other land-use types. Traditional authorities have the key role in planning land and resource use within this forest category. Subsistence use is not subject to planning or monitoring.

Resource exploitation for commercial purposes is subject to planning and monitoring, but poor capacity has limited the Forest Service to issuing licences for resource exploitation (e.g., logging, charcoal making and bamboo exploitation). There is no planning, as the private operators and community members who need annual licences for activities outside the forest concessions and protected areas initiate the process, and the Forest Service does not have an up-to-date list of areas on which to base the negotiation of licences. The process is demand-driven, and the role of the Forest Service is limited to checking the location and ensuring that no other operator has requested the same area for the same activity.

When an annual logging (resource exploitation) licence is issued, the operator is provided with transit tickets to be used during transportation of the forest products. Tickets are presented to the forest guards positioned at strategic points along main roads. A copy of each transit ticket is sent to the Forest Service for monitoring of the quantities exploited.

Because the subsistence use of forest products is not subject to planning and monitoring, it is possible to transport reasonable quantities of forest products for subsistence use without transit tickets. This situation has led to commercial operators' use of bicycle-riding transporters, who carry two to four bags of charcoal as though for subsistence, thereby avoiding payment of licence fees. The town of Beira, for example, has reported cyclists transporting as many as 400 bags of charcoal a day in total, clearly for commercial purposes. Some of these small-scale commercial transporters each make two trips a day of up to 30 km to collect bags of charcoal.

Management plans are the only legal instruments for ensuring adequate planning in forest concessions and protected areas, and it is not good practice to manage a concession system on the basis of private inventories alone. Management plans based on private inventories do not give the regulator the opportunity to check the information provided, which weakens monitoring. As a result, concession managers do not regard their forest management plans as serious working tools. Monitoring activities concentrate on the transportation system, so concession managers regard the use of transit tickets as the most important procedure.

Most forest reserves do not have management plans. The Forest Service is responsible for preparing and implementing plans for reserves, but this makes the mechanisms of monitoring unclear, because the institution that prepares the management plan is the same as the one monitoring it. Only Mecuburi, Derre and Matibane forest reserves have management plans, but these are not properly implemented, mainly because of a lack of funds.

As the concession regime expands and more active logging operators become involved, weaknesses in the monitoring system will become more severe. The establishment of an independent

monitoring/auditing body with the necessary expertise is essential, particularly for non-routine observations that are crucial for successful implementation of the forest regulation (Gray, 1999).

Analysis of the tenure system

FOREST MANAGEMENT

Forest concessions have been promoted as the most important forest management strategy in Mozambique. For a forest concession to be granted, it is necessary to have a forest management plan that includes details of allowed annual cut, land-use zoning, silviculture interventions and logging operation (Sitoe and Bila, in press). Ecological aspects, including forest cover type and growth characteristics, and social and economic information, such as the location of villages and the main activities of local households, are also included in the management plan.

An environmental impact assessment (EIA) is also required. To reduce the number of technical documents for forest concessions, Bila and Sitoe (in press) propose including elements of EIA within forest management plans. Applicants for forest concessions claim that the costs involved in preparing the forest inventory and management plan are prohibitive. The number of plans prepared has increased over the last five years, but of the 111 authorized forest concessions, only 60 have approved management plans (see Table 5). As a way of reducing the number of operators under annual logging licences, concessions without plans have been authorized, on condition that their management plans are approved as soon as possible. A number of provisionally authorized forest concessions have been cancelled, because the deadline that the Forest Service set for presenting their management plans has passed.

Implementation of the concession forest management plan is the responsibility of the concessionaire, but few operators are capable of doing so. Lack of technical capacity is one of the limiting factors, and management plans are viewed as being a solely bureaucratic prerequisite for obtaining forest concessions. The technicians responsible for managing three approved forest concessions in Sofala (visited in 2003) knew that forest management plans existed but did not use them to plan their annual activities. Other forest concessions take their plans seriously, however, and engage in silviculture activities, including the establishment of native species nurseries, planting and coppice management.

TABLE 5
Numbers and areas of forest concessions

Province	Total number of applications	Number of concessions		Area (ha)		Approved management plans
		Authorized	Pending	Authorized	Pending	
Zambézia	43	36	7	1 268 500	234 000	24
Sofala	27	27	0	917 831	0	16
Niassa	5	4	1	131 551	67 834	0
Nampula	17	15	2	791 946	144 959	1
Manica	9	4	5	170 000	262800	1
Cabo Delgado	24	23	1	1 241 735	48 125	16
Inhambane	1	1	0	36 058	0	0
Tete	9	2	7	40 000	125 000	2
Total	**135**	**111**	**24**	**4 547 062**	**933 277**	**60**

Source: NDLF database, September 2006.

Forest concessions are long-term forest resource use rights for commercial purposes granted by the State to private operators. In theory, local communities may also apply for forest concessions, but the requirements for obtaining these resource use rights include financial and technical capacities, such as a long-term forest management plan and the establishment of a processing unit (Tanner, 2004). These are beyond the capacity of most communities, so there are no community forest concessions in Mozambique. The 111 authorized forest concessions, covering 4.5 million ha,

and the 24 pending concessions, covering 1 million ha, are all held by private operators (NDLF files, October 2006).

The allowed annual cut for forest concessions is established in the forest management plan, based on the standing volume and the mean annual growth. Saket (1994) estimated a total allowed annual cut of 500 000 m^3 for all forest types in Mozambique. The logging capacity, according to annual timber production reports, is about 130 000 m^3, well below the allowed annual cut.

Forest areas granted for exploitation through annual logging licences do not require management plans. The Forest and Wildlife Regulation requires a simplified management plan, but this is limited to a declaration of the timber species, the timber volume and the location of the logging. Annual licences are also granted for charcoal making and other forest products such as bamboo, fuelwood and poles.

Protected areas (forest reserves) are managed by the Forest Service and require management plans. Of the 13 existing forest reserves, only three have management plans, which were designed for co-management by the State and local communities and so are participatory management plans to be implemented by the Forest Service with community participation. Local communities' access to resources from forest reserves for subsistence use is restricted to designated areas defined during the participatory zoning of the forest reserve.

The management of areas under community forestry initiatives depends on the community forest management plan. Generally, preparation of such a plan is technically and financially facilitated by the State or an NGO, with the participation of local community members. The community forest management plan is a simplified plan, prepared in a way that ensures local communities can implement it with little technical assistance. Examples of such plans are found in Mucombedzi and Pindanyanga community forest areas. The main objectives of these areas is charcoal making, bamboo and pole exploitation by community interest groups. Timber exploitation and marketing are complex, so when commercial timber is included in the management plan it may be licensed (through the annual logging licence scheme) to a private logger, or community interest groups may harvest the trees and use pitsaws to process the timber.

In community forestry initiatives involving tree plantation, the trees are managed at the household or community level. Trees planted in agricultural fields or home gardens are treated as household property and are managed by the household, without the need to obtain a licence for harvesting. Trees planted on community land are subject to various management systems. Some communities perceive the trees as belonging to the State or the organization that facilitated the plantation, while others perceive them as belonging to the community, and therefore subject to open access.

Forests in open-access areas are not subject to formal management regimes, but traditional rules may form the basis for management and conservation strategies that protect certain tree species with importance for food or medicine. Where these rules are weak, forest resources may be exposed to degradation, particularly in areas close to towns and main roads, where outsiders may exploit forest resources (particularly for charcoal, fuelwood and poles) beyond the capacity of the forest ecosystem, impoverishing the local communities and leaving them with no forest resources.

ACCESS TO FOREST RESOURCES, AND THE LEGAL FRAMEWORK

Access to forest resources is mainly governed by the Forest and Wildlife Act, the Land Act and their respective regulations, which give privileges to local communities. Of particular interest are land-use rights, which are collections of access rights to the land. These include the right to exploit the land for commercial purposes, the right to establish investment infrastructure on the land and the right to establish residence (Ministry of Agriculture and Rural Development, 2004). Unfortunately, land-use rights do not include the right to exploit plant and animal resources on the land, unless these were cultivated by the land-use rights holder. An additional licence is required to exploit plant and animal resources. Local communities can obtain unregistered land-use rights through the occupation and use of land for at least ten years. Such rights have no time limit and include the subsistence use of plant and animal resources on the land without licence. Although ill-defined (see previous chapter), local communities can represent the rural residents within a specific geographical region (a locality or smaller). Communities' interests are protected through mechanisms that facilitate community participation, of which the following are the most important:

Communities must be consulted before any land or resource can be granted to a concessionaire. Because local communities have customary rights to the land where they live and from which they obtain resources, they have exclusive – albeit unregistered – land-use rights, so third parties require authorization to enter community land and use it or its resources.

Communities receive 20 percent of the revenues collected from natural forest and wildlife exploitation. Most commercial exploitation of forest and wildlife resources is carried out by private companies, which pay royalties for forest or wildlife resources extracted from community land (with land-use rights established by customary rules). Communities are compensated for this resource extraction.

Communities are involved in the NRM process in areas under private or public management. Local communities are an integral part of natural forests, with villages situated within forest concessions, protected areas and other forms of land- or forest use category. The Forest and Wildlife Act and the Land Act do not specify the need to remove residents from forest concessions or protected areas, so these activities must cohabit with communities, which need to be integrated into the management process to ensure its success and reduce conflicts.

Community forestry, including community land- and resource use licences, is a way of empowering local communities formally. Communities may request that their customary rights be registered as land-use rights, which allows them to define and document their relation to the land. A community with registered land-use rights can engage in commercial activities, provided it has the necessary technical and financial capacity and can negotiate with investors the use of the forest and wildlife resources on its land.

Community protected areas (cultural and historic sites) are a category of natural resource protection that is based on local recognition of the importance of forests and forest products. A community may define an area as a cultural or historic site to secure that area's protection for local community benefit. The community itself defines how it will use the resources in a community protected area for its own benefit.

Communities have access to resources for subsistence within protected areas and publicly or privately managed forests. Depending on the management plan established by the managing authority, local communities' access to the forest resources in these areas may be limited, but management plans for forest in areas subject to community land-use rights must ensure access to subsistence products within that area.

Communities do not pay taxes or require licences for subsistence use. This is generally seen as recognition that communities own the forest resources, but it is criticized because of being limited to subsistence use only.

The State can delegate management responsibilities to local communities. The Forest Service recognizes its own limited capacity compared with local communities' abilities to manage forest resources, so allows devolution to the local level.

Local communities can make use of the resources within multiple-use and open-access areas that are not covered by any other land resource use rights, including converting the land to other land-use categories.

The Land Act states that the acquisition of land-use rights does not automatically imply the right to explore or exploit the resources on that land. Such rights are granted by the relevant institutions. Communities that wish to acquire forest concessions or other commercial use rights are therefore required to demarcate the land, prepare a forest management plan, own a sawmill and demonstrate their technical capacity. Some authors (e.g., de Wit, 2000) view this as limiting community development because it prevents local communities from initiating commercial forestry activities themselves unless they have the necessary technical capabilities and financial capital to do so. However, given that annual logging licences can be obtained without forest management plans or sawmills, a community can initiate a business via logging licences until it has acquired the necessary skills and capital to engage in a forest concession (see Box 1).

De Wit (2000) also explores the potential conflicts that may result when a logging operator is allocated forest resources that lie within the limits of a community's unregistered land-use rights area, because there is no requirement to consult communities for annual logging licences.

Box 1. The Derre Forest Reserve

The Derre Forest Reserve was established in 1950 on 160 000 ha (of which only 28 percent is currently under forest cover) to protect forest remnants for timber production, particularly *Pterocarpus angolensis* in Brachystegia/Julbernardia-dominated miombo woodland. Illegal logging in the post-war period (1992 to 2000) impoverished the forest resources. The area's 15 000 to 20 000 inhabitants practise slash-and-burn agriculture and subsistence hunting, resulting in many wildfires. Residents' access to land and resources is governed mainly by traditional rules. The traditional chief grants land-use rights for household production, which pass from generation to generation, according to customary rules. About 50 percent of the households are described as highly vulnerable, inhabiting reed and thatched houses, living off cassava and rat meat, and depending exclusively on medicinal plants and other products from the forest.

The Derre community is organized by the Community Association for Environmental Protection of Derre (ACODEMADE), which is a chapter of the provincial association and has nine sub-committees and 700 associates. The role of the subcommittees is to ensure the protection of forest resources and to diffuse the Land Act, the Forest and Wildlife Act and its regulation. ACODEMADE is a registered legal community institution representing the community within the district administration.

Although the Derre Forest Reserve has established an operational CBO that maintains good relations with local NGOs and the State, the only benefits the community obtains from the forest are subsistence goods. With technical assistance from the Forest Service, the community conducted a participatory forest inventory, which estimated that there are 126 500 m^3 of commercial timber species. The community's limited financial and technical capacity is hampering its ability to engage in commercial activities, so it is dependent on finding a private operator to exploit its forest resources. The timber density is too low to be of interest to commercial loggers, however, and most timber trees are difficult to harvest, having been left behind by illegal operations (Sedano, 2004). In addition, the community's poverty makes it difficult for it to create local markets for forest products or to add value to forest products and reach better markets.

Source: Adapted from Mantilla et al., 2005.

Tanner (2004), analysing forest and land resource tenure and accessibility, emphasizes the need for communities to acquire registered land-use rights that give both *de facto* and *de jure* ownership of the land. The advantages of registered over customary land-use rights are they are visible to both the community and outsiders; they require clear definition of the community land area and its limits; and they give exclusive rights, thereby empowering the community to control access to the land and the resources on it. It is essential that communities register their land-use rights and create CBOs that are capable of enforcing these rights and negotiating with operators interested in the commercial exploitation of forest resources. The critical issue is that local communities are unlikely to obtain registered land-use rights without facilitation from either a State department or an NGO.

TABLE 6
Policy and legal instruments for community involvement in forest management

Instrument	Enacted
Policy and Strategy for Development of Forestry and Wildlife	1997
Land Act	1997
Environmental Act	1997
Forestry and Wildlife National Programme (within the Investment Programme for the Agriculture Sector)	1998
Land Law Regulation	1998
Forestry and Wildlife Act	1999
Technical appendix to the Land Act	1999
Decree 15/2000 – Articulation of local government and traditional authorities	2000
Forestry and Wildlife Regulation	2002
Ministerial Decree 93/2005 – Sharing of 20% of the revenues with local communities	2005

Source: Adapted from Oystein *et al.,* 2006.

Over the last decade, legal instruments have been established to support community participation (see Table 6). In general, these promote the decentralization and deconcentration of authority, the generation of benefits for rural communities, increased access to and ownership of natural resources, and partnership and co-management schemes.

Forest tenure, sustainable forest management and poverty alleviation

MULTIPLE-USE AND OPEN-ACCESS

In Mozambique, wild resources are defined as including all wild plants and animals and their products, such as thatching grass, timber, honey and bushmeat. This definition is broader than those used elsewhere in the region, which focus on wildlife resources (Boyd and Anstey, 2001). Access to wild resources in Mozambique has a long history of weak administrative capacity to implement policy and legislation. In most rural areas, *de facto* rights to resources are therefore far more significant than *de jure* rights. These areas are characterized by extensive unclassified open-access land (see Table 3). Access to wild resources in these areas is governed by local, traditional rules (where they exist), rather than State law.

Although State laws require individuals and communities to obtain permits for commercial purposes, the State has limited capacity to enforce them and does not seem to consider doing so a priority. This apparent lack of interest in enforcing the laws that regard communities' engagement in commercial activities is seen as an intentional opening up of opportunities for the rural poor to enter business without the need for formal licensing, which involves costs and requires knowledge of procedures.

In 1997, the annual revenue from fuelwood and charcoal harvested in Mozambique was estimated at US$250 million; the bushmeat harvested around Maputo was estimated to be worth more than US$1 million in 1998 (Boyd and Anstey, 2001). Pereira *et al.* (2001) observe that only 1 percent of the 1.2 tonnes of charcoal consumed in Maputo and Matola is licensed. In this context, rural products benefit not only rural communities, in terms of income from marketing, but also the urban poor, whose only source of energy is fuelwood/charcoal and who rely on building materials harvested from woodlands, particularly bamboo and poles.

Box 2. Charcoal production in Licuáti forest: potential for income generation

Licuáti forest is a forest reserve, which was gazetted in 1943 with the objective of producing hardwood timber from pod mahogany (*Afzelia quanzensis*). It has been severely logged for 20 years, leaving only smaller trees. Despite its classification as a protected area, most of the forest is used as open-access land, with traditional rules governing access to the forest and land resources. Following the peace accords, however, access to the forest became easier, and nomadic non-local charcoal makers invaded the area to produce charcoal for the Maputo and Matola markets, which consume about 1.2 million tonnes a year for domestic and industrial purposes.

With a view to increasing local community ownership of and access to forest resources, in 1996, the Forest Service initiated a project to establish a NRM committee, train community law enforcement agents, improve charcoal kilns, and conduct a participatory forest inventory. The forest inventory was carried out on 67 000 ha and estimated a total of 870 000 tonnes of wood (ranging from 7 to 23 tonnes/ha), of which 50 percent were charcoal tree species, particularly Acacia, Albizia, Combretum and Terminalia.

Once the community was fully engaged in the charcoal business, charcoal contributed 65 percent of total household income. Other wild products, such as fish, palm wine, construction poles and timber, contributed an additional 30 percent. The charcoal business used intermediaries to provide transport to markets in Maputo and Matola (60 km away), to which the community had no access. Prices of a bag of charcoal ranged from US$1.0 from producers to US$2.6 to retailers in town, leaving a wide margin for intermediaries (45 percent of the total) to cover the costs of transportation.

Source: Adapted from Pereira *et al.,* 2001.

The contribution to poverty alleviation of the open land-use scheme without a management regime is difficult to assess because the scheme may damage the environment, given the lack of sustainability of open-access areas, and intermediaries have to be used to link production sites (in rural areas) to markets (in towns). Evaluation of the market chain for charcoal shows that intermediaries obtain 45 percent of the final price of charcoal (see Box 2). For example, in 2004, a 30 kg bag of charcoal cost US$2 in Beira but only US$0.50 at the production point, implying only a small share of the profits for the rural poor. In addition, most charcoal makers are nomadic outsiders, who are employed by intermediaries and deplete local communities' resources, leaving them even poorer.

Boyd and Anstey (2001) suggest that the new approaches to wild resource management with community participation may reduce access to wild resources for local communities and the poor in general because of enhanced capacity to implement legislation. However, as the example of charcoal production implies (see Box 2), this reduction in access would have little effect on local communities, and would instead benefit the environment and protect local communities' rights to their resources against outsiders. The apparent restrictions would therefore increase local people's ownership, while excluding invaders – particularly nomadic charcoal makers – and creating opportunities for local communities to negotiate with commercial operators.

COMMUNITY LAND UNDER CBNRM

The third national conference on Communities and Natural Resource Management (Nhantumbo, Foloma and Puná, 2004) evaluated the contribution to poverty alleviation of community participation in forest and wildlife resource management. Its findings suggest that experiences in Mozambique are still in an early stage and it will take a long time to achieve tangible benefits and sustainable community participation. The conference focused mainly on CBNRM initiatives in community areas where community integration is facilitated by either the State or NGOs. Participants were of the view that communities participate effectively only when there are tangible benefits and opportunities for cost-favourable forestry activities.

Nhantumbo and Foloma (2004) emphasize the need to demonstrate the feasibility of CBNRM, particularly because little reference has been made to the returns on investments of about US$20 million that have been made since the first CBNRM project in 1995. Studies show that tangible benefits have been scarce, and the mechanisms for distributing them are unclear. Although CBNRM initiatives have existed for more than ten years, they have not produced systematic information from which lessons on benefit sharing can be learned.

The main challenges to replicating existing experiences are the high cost of implementation, most of which is financed through external funds, and the dependency on private investors to boost businesses based on natural resources. This second challenge is particularly relevant to CBNRM initiatives, most of which take place in multiple-use areas with low forest productivity, so are not attractive to private investors (see Annex 6). This has provoked calls to consider the establishment of elite groups within communities, because the use of local business investors would eliminate the external dependency and employer–employee relations that result from external private investment. However, this depends on having feasible forestry activities and interest groups to establish successful local businesses .

Box 3. Senhôte and Niviria: converting interest groups to private investors

The villages of Senhote and Niviria are 12 km apart in the district of Monapo (Nampula), on the road to Nacala. Located in productive forest with low population (Senhote has 3 600 inhabitants and Niviria 300), the most important activity is agriculture, but several forestry-based activities are also carried out. The Forest Service's Community Forestry Unit, through a project funded by FAO and the Government of the Netherlands, established a pilot area in 1997 to test CBNRM methodologies (Mansur and Cuco, 2002). The area is rich in *Millettia stuhlmannii, Pterocarpus angolensis* and *Afzelia quanzensis,* three of the most important timber species in Mozambique. An international NGO – the Cooperative League of the United States of America (CLUSA) – facilitated the establishment of interest groups and created community capacity for participatory management and for activity and financial monitoring, using a notebook to register activities (Mansur and Cuco, 2002).

Six interest groups were created, including forestry-based (logging, carpentry, charcoal making and woodcarving) and non-forestry-based activities (pottery and agriculture). The project provided tools to the interest groups for logging (hand saws) and carpentry. The inclusion of non-forestry interest groups was a recognition of the role that these activities play in the community's economy. The project also facilitated the acquisition of registered community land-use rights, an annual logging licence and a charcoal making licence for the logging and charcoal-making interest groups. Logging and carpentry interest groups can now handle larger quantities of timber and have access to better markets in Monapo, Nacala and Nampula.

CBNRM cannot be seen as a panacea for all the problems related to rural development and poverty alleviation. Forestry's contribution to these varies from region to region, depending on the existing alternatives and the importance of forest products. Suggested innovations to improve community benefits include the utilization of residues from forestry industries, the identification of new products, and payment for environmental services schemes.

Mansur and Cuco (2002) indicate that community forestry should be viewed as part of a set of rural development strategies. When applied to district development plans (Ministry of Planning and Finance, 1998), this view ensures that community development does not depend solely on community forestry, but also on investments in other areas, such as agriculture, health, education and market development, increasing integration across different sectors.

In spite of the few benefits they generate and their high cost, CBNRM initiatives have several positive features. First, they helped to shape the current Land Act, Forest and Wildlife Act and regulations by providing experiences and cases for discussion, and were intensively used to guide debates and test methods. Second, they have contributed to the building of capacities at the community level; most CBNRM initiatives have established and trained CBOs and acquired registered community land-use rights, which are two of the basic requirements for empowering communities and increasing their access to forest resources to negotiate benefits. The next step should include the generation of tangible benefits, but there is still much to be learned in this regard, and success does not depend on the forestry sector alone, but also on local markets, which require significant changes before they can make a significant contribution (Mandondo and Kowero, 2004).

Community forest plantations are on a relatively small scale, mostly as scattered trees planted in various agroforestry arrangements. The management of these trees does not seem to be effective in ensuring sustainability, and few communities have succeeded in sustaining their plantations after facilitating projects have finished. An initial evaluation suggests that community forest plantation projects are too short for tree crops, leaving communities with incomplete skills for plantation management.

COMMERCIAL LOGGING IN NATURAL FORESTS

The Forest and Wildlife Regulation defines two commercial logging regimes: logging licences, valid for one year on up to 500 m^3; and forest concessions, valid for up to 50 years with unspecified annual logging limits. The different requirements for forest concessions and annual logging licences are presented in Table 7.

TABLE 7
Requirements for forest concessions and annual logging licences

	Annual logging licences	Forest concessions
Community consultation	No	Yes
Forest management plan	No	Yes
Community participation	No	Yes
Long-term	No	Yes
Environmental impact assessment	No	Yes

Annual logging licences

Annual logging licence operators may legally exploit forest resources on community land without consulting the community that holds the land-use rights. This undesirable situation results from the fact that the Land Act allows communities to acquire land-use rights, but does not entitle them to exploit the resources on the land for commercial purposes. At the same time, the Forest and Wildlife Regulation does not require annual logging licence operators to consult communities in the area to be logged. This apparent contradiction between the Land Act and the Forest and Wildlife Regulation is a threat to community participation in forest resource management.

Because of the short-term nature of annual logging licences, the benefits generated for a community under this logging option may also be short-lived, unless the community is able to prepare an integrated and sustainable management plan and has the technical capacity to implement and supervise it. This requires additional skills and the availability of forest resources of sufficient quantity and quality to support a sustainable management plan. In the best-case scenario, a community can acquire an annual logging licence within its own area, and maximize the profits (see).

Box 3. Senhôte and Niviria: converting interest groups to private investors

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Six interest groups were created, including forestry-based (logging, carpentry, charcoal making and woodcarving) and non-forestry-based activities (pottery and agriculture). The project provided tools to the interest groups for logging (hand saws) and carpentry. The inclusion of non-forestry interest groups was a recognition of the role that these activities play in the community's economy. The project also facilitated the acquisition of registered community land-use rights, an annual logging licence and a charcoal making licence for the logging and charcoal-making interest groups. Logging and carpentry interest groups can now handle larger quantities of timber and have access to better markets in Monapo, Nacala and Nampula.

Box 3. Senhôte and Niviria: converting interest groups to private investors

The villages of Senhote and Niviria are 12 km apart in the district of Monapo (Nampula), on the road to Nacala. Located in productive forest with low population (Senhote has 3 600 inhabitants and Niviria 300), the most important activity is agriculture, but several forestry-based activities are also carried out. The Forest Service's Community Forestry Unit, through a project funded by FAO and the Government of the Netherlands, established a pilot area in 1997 to test CBNRM methodologies (Mansur and Cuco, 2002). The area is rich in *Millettia stuhlmannii, Pterocarpus angolensis* and *Afzelia quanzensis*, three of the most important timber species in Mozambique. An international NGO – the Cooperative League of the United States of America (CLUSA) – facilitated the establishment of interest groups and created community capacity for participatory management and for activity and financial monitoring, using a notebook to register activities (Mansur and Cuco, 2002).

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Forest concessions

Community consultation is required before a forest concession is authorized. The consultation process gives local communities the opportunity to negotiate benefits. The Forest and Wildlife Regulation does not provide clear procedures for the consultation, and negotiation depends on the ability of the community concerned (Sitoe, Bila and Duncan, 2003). Some communities obtain very few benefits, because their traditional leaders are unaware that the Forest and Wildlife Regulation is giving away community resources in exchange for personal benefits. Other communities manage to negotiate such items as schools, heath centres and water wells for community use. Sometimes these items are beyond the capacity of the prospective concessionaire to provide, which has led to discussion of the appropriate obligations for forest concessionaires, the State and the local administration.

Community consultation is not specifically designed to allow communities to bargain services from concessionaires, but communities that are able to negotiate can ask for issues to be resolved before an authorization is signed. The consultation process is meant to ensure that communities understand the activities of the forest concession, particularly in terms of restrictions to their own access and use of forest resources (in comparison with unmanaged open-access and multiple-use areas). Consultation also aims to initiate relations between the concessionaire and the community, which must be good to ensure that both can coexist in the same area.

Box 4. Forest concessions to generate income for local communities

Forest concessions provide a long-term relationship between the community and the concessionaire. The Forest and Wildlife Regulation requires the concessionaire to establish a processing plant, but does not indicate whether this should be within the concession area or not. Evaluations conducted by Alberto (2004) suggest that locating a concession in the forest has multiple advantages for communities, not only in providing employment, but also because the facilities that accompany the processing plant create benefits for local communities. Alberto also found that the logging residuals, which amount to about 33 percent of the total, can be used to community benefit for woodcarving, building material, charcoal and fuelwood. In addition, the community can also use 55 to 75 percent of the processing residuals for activities such as carpentry, the manufacture of beehives, building and small community industries. When there is a good relationship between the community and the concessionaire, the concessionaire motivates local communities to engage in this sort of activities. In Sofala and Cabo Delgado, concessionaires provided raw material to artisans and carpenters, and facilities and training for the communities to engage in beekeeping and other non-forestry activities, such as agriculture and fisheries. In addition to providing facilities, the concessionaires improved access to markets for the products, to the communities' benefit.

Because communities in Mozambique can use forests for their own benefit, the allocation of a forest concession in a community area effectively duplicates resource ownership. Both the forest operator and the community have rights to resources, and can coexist only if they understand each other and can obtain mutual benefits. The long-term nature of forest concessions requires positive interactions between concessionaires and the communities in concession areas. In such situations, employment opportunities and new infrastructure, such as roads and water wells, are common benefits for local communities. Sometimes good relationships result in additional benefits for communities, including the exploitation of non-timber forest products, the use of logging and processing residues, and the concessionaire's support of non-forestry activities such as agriculture and fishing (see Box).

The guidelines for preparing forest management plans require that mechanisms for community participation be specified, including participatory zoning, assured forest resource use rights for community subsistence, employment opportunities, and conflict resolution mechanisms (Sitoe and Bila, in press).

TABLE 8
Comparison of CBNRM and forest concessions

Forest category	Community benefits	Cost/obligation for community	Examples	Remarks
Forest concession	20% of revenue Employment Community development projects Infrastructure Access to markets	Forest patrolling Limited hunting Participation in development projects and infrastructure building	TCT forest concession	Requires community organization Benefits all community members
CBNRM	Ownership – self-employment Access to forest resources for commercial purposes	Forest patrolling Forest inventory and management plan Marketing and market knowledge	Mucombedzi Senhote Niviria	Requires community organization Requires technical and financial capacity Depends on external support Benefits interest groups mainly

Comparison of forest concessions and CBNRM (see Table 8) suggests that under CBNRM initiatives, communities obtain resource ownership, but still depend on external financing and technical capacity building. Forest concessions create markets for communities' forest products, and the 20 percent revenue share for local communities is assured. Employment and infrastructure depend on the location of the forest concession processing plant, with greater benefits being obtained when processing plants are located in the forest.

PROTECTED AREAS

The early stages of community forestry in Mozambique focused on protected forests, particularly forest reserves, which are one of the national categories of protected areas (see Annex 3). Forest reserves were established in the 1950s and 1960s with a variety of objectives ranging from protecting timber reserves for the State (e.g., Licuáti Forest Reserve) to protecting water catchments and slopes (e.g., Ribaué-M'palue Forest Reserve). All protected areas were under the Forest Service (Ministry of Agriculture) until 1999, when those with tourism activities (national parks and hunting reserves) were moved to NDPA (Ministry of Tourism). Forest reserves are the only protected areas still under the Forest Service.

One of the peculiarities of protected areas in Mozambique is their heavy human presence. Ribaue-M'palue Forest Reserve, for instance, contains 1 300 households (Costa, 1998), and Derre Forest Reserve has 15 000 inhabitants (Mantilla *et al.,* 2005). Although the legislation defines protected areas, it does not specify whether or not human settlements can exist within their limits. The legislation is usually interpreted as allowing people to live in protected areas and use their natural resources for subsistence.

Nature conservation sometimes conflicts with the use of resources for subsistence, leading to conflict between protected area managers and local communities. A recent evaluation of Mozambique's protected areas system (Sitoe, 2006), using the rapid assessment participatory protected areas management methodology (Ervin, 2003), indicated that such human activities as land clearing for agriculture, uncontrolled fire, subsistence hunting and the exploitation of non-timber forest products were among the greatest threats to conservation objectives. Human–animal conflicts are particularly common in areas rich in wildlife, such as national parks and hunting reserves (Rungo and Taquidir, 2002).

Although resettlement outside protected areas is not common, integrating communities into the management of protected areas has been challenging. Sitoe and Enosse (2003) have prepared a strategy for participatory forest reserves management based on the Forest and Wildlife Regulation's options for the co-management and devolution of protected area management. Among the activities they suggest are participatory zoning, identification of alternative income sources that are compatible with nature conservation, and joint forest reserve management.

Box 5. Mecuburi Forest Reserve participatory zoning exercise

Mecuburi Forest Reserve in Nampula province, north Mozambique covers a gazetted area of 230 000 ha and is home to about 40 000 people. The reserve was established in the 1950s to create a State reserve of timber for the growing towns of Nampula and Nacala. Another objective was preserving the forest ecosystems of Mecuburi river. Since its creation, the reserve has not been adequately managed, and has been under pressure from agricultural development, especially for cotton production. The forested area has decreased in favour of agricultural activities and human settlements. Mushove and Awasse (2000) indicate that only about 80 000 ha of the reserve's 230 000 ha demonstrates only minor human intervention. The authors also found that reserve areas along the Mecuburi–Muite and Imala–Muite roads are densely populated with agricultural lands and human settlements. There is an expansion zone (the agricultural frontier) in the southern part of the reserve. The core area is the least disturbed and now contains forest stands and most of the reserve's wild animals. Conservation has been laid aside in favour of agriculture, undermining the purposes of the reserve.

Mushove and Awasse (2000) divided the reserve into four blocks – Marravi, Massawa, Nipuco and Napawa – and prioritized activities to promote recovery in the least disturbed area (Napawa) and to control agricultural expansion in the expansion zone (Marravi). Inhabitants of Marravi agreed to delineate the boundary between their village and the reserve as the agricultural expansion line. Inhabitants of Napawa agreed to move their settlement to an area outside the reserve. This demonstrates the communities' willingness to stop agricultural expansion into the reserve and to protect resources. It also demonstrates government institutions' commitment to helping those who are willing to collaborate with resource management and conservation.

Source: Adapted from Mushove *et al.,* 2001.

Joint forest reserve management is the basis for effective management, as demonstrated by the community forestry initiatives in Derre, Moribane, Mecuburi and Matibane forest reserves. These initiatives prepared local communities to engage in co-management activities. They established NRM committees, trained these in techniques for participatory NRM and resource monitoring (Mansur and Cuco, 2002), trained local agents in law enforcement, established linkages with district forest officials, conducted forest inventories and participatory zoning, prepared NRM plans, and established and trained interest groups .

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Source: Adapted from Mushove *et al.,* 2001.

Effective utilization of the conditions created during the early phases of community forestry in protected areas depends on private sector participation or external investment. Sitoe (2006) observes that forest reserves depending exclusively on the State budget generate very few benefits, unless they are hunting reserves or national parks, which are more likely to attract tourism activities. In any case, the intervention of private operators is essential, leading Couto (2004) to see the private sector as the driving force for benefit generation. In most forest reserves, even when conditions are conducive to effective community participation in NRM, the benefits remain small until a private investor becomes interested in the resources. This is similar to the situation in other land and forest resource ownership schemes, where the basic conditions can be created through CBO establishment and training, but financial and technical limitations prevent the adoption of activities that generate income for rural communities.

In national parks and hunting areas, which are better placed to attract private investment because of their animal components, communities have been participating in co-management schemes with protected area managers, and deriving direct benefits from employment opportunities and cultural tourism activities.

Proposals for the way forward

Increasing the forest sector's contribution to community development is the social objective of the Forest and Wildlife Sector Development Strategy (NDFW, 1997). The Forest and Wildlife Regulation established the basic operational mechanisms for attaining this objective, and Mozambique's policy framework has evolved since this strategy was defined. Following establishment of the first community management project in 1995, there are now more than 60 community NRM initiatives. These areas are under a wide range of land and forest management regimes and institutional arrangements. The strategy of learning by doing was adopted to promote community participation and provide field experience of different approaches for different projects. The following are recommendations for improving community participation and the role of forests in poverty alleviation.

ADAPTING POLICIES AND LEGISLATION

Few studies have evaluated the impact of community participation initiatives, but there is no doubt that they have provided valuable lessons because they were used to test and shape the legislation package. Discussion is ongoing regarding CBOs and their relations with existing administrative and traditional authorities, the costs and benefits of community forestry initiatives, stakeholders' roles, and benefit sharing. These aspects must be evaluated carefully in order to improve the understanding of each experience and provide a basis for replicating good experiences.

There is still much to be done to integrate communities into forest resources management, and the learning-by-doing strategy adopted by the government provides a laboratory for experimentation. After long discussions to establish the Forest and Wildlife Sector Development Strategy, the Land Act, the Forest and Wildlife Act, their respective regulations, and the annexes and ministerial decrees that operationalize the laws, rural communities are finally obtaining direct and tangible benefits from the management of forests and wildlife. At present, community participation is unstable, because implementation of the legislation results in new situations, some of which are unexpected or undesirable. Monitoring of the impacts of implementing forest and land legislation is therefore crucial.

In addition to natural resource legislation, the Ministry of State Administration, the Ministry of Finance and the Ministry for Planning and Development have been implementing several legal instruments (see

Table 6) that establish the district as the planning and development unit, thus ensuring decentralization, devolution, deconcentration and the empowerment of local communities. For instance, the District Development Planning Mechanism (Ministry of Planning and Finance, 1998) envisages the establishment of community planning committees (below the level of administration

post), which will define the local priorities for development and channel these through their representatives to the administration post council and on to the district council, which makes decisions regarding district development. To make these structures operational, in 2006 the ministries established mechanisms for channelling funds to cover the implementation costs of district development plans. These mechanisms are compatible with the principles of community management and the benefit sharing mechanism established under the Forest and Wildlife Regulation. The forest sector is beginning to make a real contribution to development, but questions are still pending in regard to those communities whose wild resources do not attract private initiatives, and communities' role in benefit sharing remains to be clarified.

It should be noted that not all pending questions can be resolved by legislation; research, innovation and new technologies are also required. Innovation should include not only the use of new approaches to add value to local products, and the identification of markets, but also the use of local people with technical skills, who could help their colleagues. The key question is how to make natural resources a driver of community development.

Analysis of the situation described in this case study makes it clear that private investors have an essential role, but local communities' role should also be increased to empower them and increase their forest resource ownership. Matakala (2004) emphasizes the need for balanced power sharing among the stakeholders in a partnership if the partnership is to survive. At present, local communities appear to be the weakest partners and need to be protected and facilitated by the government or NGOs. This facilitation role is costly and cannot be maintained without external funds, and this jeopardizes the role of rural communities in participatory NRM schemes. Sustainable and cost-effective initiatives must be found to improve the strength of communities as partners in forest resource management.

ADAPTING PLANNING AND MONITORING SYSTEMS

It is the responsibility of the Forest Service to monitor implementation of forest management plans in forest reserves, forest concessions and annual logging licence areas. Checkpoints have been established on the main roads to monitor the transportation of forest products (FAO, 2005b), but little is done at the forest management unit level. This is a consequence of the Forest Service's limited institutional capacity to provide technical assistance to forest management units. Monitoring should be carried out periodically within concessions, forest reserves, community forests and commercial forest plantations to ensure that forest management plans are followed.

Some local communities violate the Forest and Wildlife Regulation (particularly through wildfire), but the monetary penalties set are not suitable for local communities, making it impossible to enforce the regulation. Penalties and sanctions should be applicable at the community level and for unlawful community members. The potential for sanctions such as community work and the payment of fines in kind should be evaluated.

The management of forest concessions, community forests and protected areas is in line with SFM principles, which increases the possibility for contributing to poverty alleviation. These experiences are new and much has still to be learned; it is important to ensure that forests in open-access areas are demarcated to benefit local communities and – as much as possible – converted to management regimes that ensure their protection. Communities with registered land-use rights are in a better position to negotiate benefits from the forests on their land.

REFERENCES

Adam, Y., Mate, J. & Simão, O. 1998. Gestão comunitária dos recursos florestais em Moçambique. *In* M.L.P Dias, E. Filimão and E. Mansur, eds. *Comunidades e maneio dos recursos naturais. Memórias da primeira Conferência Nacional sobre Maneio Comunitário dos Recursos Naturais,* November 1998, pp. 51–52. Maputo.

Alberto, M.M.M. 2004. A Participação das Comunidades no Uso integral dos Recursos Madereiros como uma forma de reduzir os conflitos entre as comunidades e os concessionarios. *In* I. Nhantumbo, M. Foloma and N. Puná, eds. *Memórias da III Conferência Nacional sobre o maneio Comunitário dos Recursos Naturais,* 21–23 June 2004, pp. 158–166. Maputo.

Argola, J.F.G. 2004. *Causas de Mudança de Cobertura Florestal no Corredor da Beira.* Departamento de Engenharia Florestal, UEM. Maputo. (university thesis)

ATO/ITTO. 2003. *ATO/ITTO principles, criteria, and indicators for sustainable management of African natural tropical forests.* ITTO Policy Development Series No. 14. Japan, ITTO. 26 pp.

Botolo, B. 2003. The value of forestry and forest products in the national income of the developing countries. *In* T. Oksanen, B. Pajari and T. Tuomasjukka, eds. Forests in poverty reduction strategies: capturing the potential. *European Forest Institute Proceedings,* 47: 187–188.

Boyd, C., Pereira, J. & Zaremba, J. 2000. *Sustainable livelihoods in Southern Africa: institutions, governance and policy processes, Mozambique.* SLSA Working Paper No. 2. Brighton, UK, Institute of Development Studies, University of Sussex. 36 pp.

Boyd, C., Anstey, S., Shackleton, S. & Fabricius, C. 2001. *Sustainable livelihoods in Southern Africa: wild resource theme paper.* SLSA Paper No. 5. pp. 24–33. Brighton, UK, Institute of Development Studies, University of Sussex.

Costa, F. 1998. *Reservas Florestais de Nampula. Situação Actual e Perspectivas, Documento de trabalho n 3.* DNFFB/UMC Project FAO/GCP/MOZ/056/NET. Rome, FAO.

Couto, P. 2004. Community-based natural resource management: some challenges, in the pursuit of the objective of poverty reduction through the promotion of social and economic development. *In* I. Nhantumbo, M. Foloma and N. Puná, eds. *Memórias da III Conferência Nacional sobre o maneio Comunitário dos Recursos Naturais,* 21–23 June 2004, pp. 40–46. Maputo.

Cuco, A., Songane, F. & Matusse, C. 2003. Building linkages between poverty reduction strategy and national forest programme: the case of Mozambique. *In* T. Oksanen, B. Pajari and T. Tuomasjukka, eds. Forests in poverty reduction strategies: capturing the potential. *European Forest Institute Proceedings,* 47: 159–172.

De Wit, P.V. 2000. Land conflict management in Mozambique: a case study of Zambezia province. *Land Reform,* 2: 53–69.

Ervin, J. 2003. *WWF – Metodologia para Avaliação Rápida e a Priorização do Manejo de Unidades de Conservação RAPPAM (Tradução Portuguesa).* Gland, Switzerland, WWF. 70 pp.

FAO. 2005a. *Best practices for improving law compliance in the forest sector.* FAO Forestry Paper No. 145. Rome. 112 pp.

FAO. 2005b. *Global forest resource assessment 2005. Mozambique country report.* FRA 2005 Country Report No. 191. Rome. 38 pp.

Filimão, E.J. 1999. *O significado do carvão nas estratégias de sobrevivência e de rendimento: O caso de Goba.* Maputo, NDFW.

Filimão, E.J. & Saide, N. 1999. *O que a gente aprende nas Areas Piloto de Maneio Comunitario dos Recursos Naturais: O caso de Sanhôte e Niviria no Distrito de Monapo (Nampula).* Maputo, NDFW.

Foloma, M. 1999. *Tchuma Tchato: Experiências e prespectivas.* Tete, Mozambique, SPFFB.

Foloma, M. 2005. *Directorio das iniciativas de maneio comunitário de florestas e fauna bravia.* Maputo. 81 pp.

Gomes e Sousa. 1968. *Reservas florestais de Moçambique.* Comunicações No. 10. Maputo, IIAM. 33 pp. plus annexes.

Gray, J. 1999. *Regime de propriedade florestal e valoração de florestas públicas no Brasil.* Working Document No. 2. Brasilia, Ministério do Meio Ambiente, Programa Nacional de Florestas. 121 pp.

Johnstone, R., Cau. B. & Norfolk, S. 2004. Legislação Florestal em Moçambique: Cumprimento e Impacto em Comunidades Residentes na Floresta. *In* I. Nhantumbo, M. Foloma and N. Puná, eds. *Memórias da III Conferência Nacional sobre o maneio Comunitário dos Recursos Naturais,* 21–23 June 2004, pp. 94–130. Maputo.

Macome, E. 2004. Organização, Funcionamento e Sustentebilidade das Organizações Comunitárias de Base. *In* I. Nhantumbo, M. Foloma and N. Puná, eds. *Memórias da III Conferência Nacional sobre o maneio Comunitário dos Recursos Naturais,* 21–23 June 2004, pp. 65–76. Maputo.

Mandondo, A. & Kowero, E.G. 2004. Maneio Florestal comunitario e Colaborativo: Algumas experiências do Zimbabwe, Tanzania, Uganda e Kenya. *In* I. Nhantumbo, M. Foloma and N. Puná, eds. *Memórias da III Conferência Nacional sobre o maneio Comunitário dos Recursos Naturais,* 21–23 June 2004, pp. 186–199. Maputo.

Mansur, E. & Cuco, A. 2002. Building a community forestry framework in Mozambique: local communities in sustainable forest management. *In* A. Sherwood, ed. *Second International Workshop on Participatory Forestry in Africa: Defining the Way Forward: Sustainable Livelihoods and Sustainable Forest Management through Participatory Forestry,* 18–22 February 2002, Arusha, United Republic of Tanzania, pp. 105–120. Rome, FAO.

Mantilla, J., Ntela, P., Manjate, J. & Hamlaien, J. 2005. *Proposta de Zoneamento da Reserva de Derre.* Maputo, Ministry of Agriculture. 74 pp.

Matakala, P.W. 2004. Gestão Participativa dos Recursos Naturais-Modelos de Parceria Em Maneio Comunitario dos Recursos Naturais. *In* I. Nhantumbo, M. Foloma and N. Puná, eds. *Memórias da III Conferência Nacional sobre o maneio Comunitário dos Recursos Naturais,* 21–23 June 2004, pp. 77–88. Maputo.

Ministry of Agriculture and Rural Development. 2004. *Legislação do sector agrário – Lei de terras,* pp. 1–10. Maputo.

Ministry of Planning and Finance. 1998. *Plano distrital de desenvolvimento: orientações para elaboração e implementação.* Maputo.

Moyo, S., O'Keefe, P. & Sill, M. 1993. *The Southern African environment: profiles of the SADC countries*. London, Earthscan Publications. 354 pp.

Muller, T., Sitoe, A.A. & Mabunda, R.S. 2005. *Assessment of the forest reserve network in Mozambique.* WWF-MCO Report. Maputo. 56 pp.

Mushove, P. & Awasse, A. 2000. *Um modelo de gestão de uma Reserva Florestal.* Maputo, FAO. 6 pp.

Mushove, P., Desanker, P., Sitoe, A. & Ferrão, M. 2001. Land use at the community level in Mecuburi Reserve, northern Mozambique. Poster presented at the Open Science Conference, Amsterdam, the Netherlands, 10–13 July 2001.

NDFW. 1997. *Política e estratégia de desenvolvimento do sector de florestas e fauna bravia. Resolução No. 8/97 de 1 de Abril.* Maputo, Ministry of Agricolture and Fisheries. 19 pp.

NDFW. 1999. *Lei No. 10/99 de 7 de Julho: Lei de florestas e Fauna Bravia, Boletim da República I Série, Número 27, 4 Suplemento.* Maputo.

NDFW. 2005. *Mecanismos de canalização dos 20% às comunidades locais – Nota Interpretativa.* Maputo. 55 pp.

Nhantumbo, I. 2000. *The new resource tenure framework in Mozambique.* Maputo, UEM, FAEF. 17 pp.

Nhantumbo. I. & Foloma, M. 2004. Beneficios Economicos do MCRN. *In* I. Nhantumbo, M. Foloma and N. Puná, eds. *Memórias da III Conferência Nacional sobre o maneio Comunitário dos Recursos Naturais,* 21–23 June 2004, pp. 91–93. Maputo.

Nhantumbo, I., Foloma, M. & Puná. N., eds. 2004. *Memórias da III Conferência Nacional sobre o maneio Comunitário dos Recursos Naturais,* 21–23 June 2004. Maputo. 227 pp.

Oystein, J.N., Bandiera, R., Helles, F., Kamelarczyk, K., Macucule, A., Mlay, G., Olsen, C.S., Sitoe, A.A. & Taquidir, M. 2006. *Forests and livelihoods in Mozambique: a literature review and annotated bibliography.* Maputo and Copenhagen, Eduardo Mondlane University and Danish Centre for Forest, Landscape and Planning, KVL. 233 pp.

Pereira, C., Brouwer, R., Monjane, M. & Falcão, M. 2001. *CHAPOSA Charcoal Potential in Southern Africa.* Maputo, UEM, FAEF.

PRB. 2005. *Review of the Economic and Social Plan of 2004.* Maputo.

Rungo, C. & Taquidir, M. 2002. *Estudo de conflito entre homem e elefantes e a comunidade na Reserva Florestal de Moribane. Relatório de estudos feitos através da carta de acordo com o projecto GCP/MOZ/056/NET.* Manica, Mozambique, CEF-Sussundenga.

Saket, M. 1994. *Report on the updating of exploratory national forest inventory.* Maputo, National Directorate of Forests and Wildlife. 77 pp.

Sedano, F. 2004. *Inventário Florestal da Reserva de Derre.* Maputo, NDFW, UIF.

Seroa da Motta. 2004. *An economic evaluation of the forest regulation in Mozambique (draft).* Prepared for the World Bank. 31 pp. (mimeograph)

Sitoe, A.A. 2004. *Miombo woodlands and HIV/AIDS interaction: Mozambique country report.* FAO Occasional Paper. Rome, FAO.

Sitoe, A. 2006. *Avaliação rápida e priorização das áreas de conservação em Moçambique.* Maputo, Ministério para a Coordenação da Acção Ambiental, Ministério do Turismo, and Ministério da Agricultura. 59 pp.

Sitoe, A.A. & Bila, A. in press. *Manual para a elaboração e implementação do plano de maneio da concessão florestal,* Maputo, Ministry of Agricolture, NDLF.

Sitoe, A.A., Bila, A. & Duncan, M. 2003. *Operacionalização das concessões florestais em Moçambique.* Maputo, NDFW. 64 pp.

Sitoe, A.A. & Enosse, C. 2003. *Estratégia para gestão participativa de reservas florestais em Moçambique. Projecto FAO/GCP/ MOZ/ 056 / NET.* Maputo, NDFW, Ministry of Agriculture and Development. 64 pp.

Tanner, C. 2004. A Relação entre a Posse de Terra e os Recursos Naturais. *Memórias da III Conferência Nacional sobre o maneio Comunitário dos Recursos Naturais,* 21–23 June 2004, pp. 48–61. Maputo.

Taquidir, M. 2002. *Towards forest certification in Mozambique.* Maputo, Faculty of Agronomy and Forestry, Eduardo Mondlane University. 81 pp.

Thornton, A. 2005. *Chinese involvement in African illegal logging and timber trade.* Environmental Investigation Agency, Report presented to the United States House of Representatives, Committee on International Relations, Subcommittee on Africa, Global Human Rights and International Operations. 8 pp.

World Bank. 2005. *Mozambique country economic memorandum sustaining growth and reducing poverty.* Washington, DC.

World Bank/WWF Alliance. 2002. *Forest law assessment in selected African countries.* Final draft. Natural Resource Monitoring Services, Sustainable Forestry Program. Geneva, Switzerland. 147p.

ANNEX 1. ARTICLES RELATING TO COMMUNITY BENEFITS

Article 7	Allows community declaration of historical and culturally significant forest sites
Article 15	Guarantees community access rights for subsistence use of forest and wildlife resources
Article 18.1 (i)	Simple licence application requirements – employment and other local community benefits
Article 26.2 (e)	Concession approval on favourable outcome of consultation regarding exploitation
Articles35 & 36	Procedures for community consultation process
Articles 62-64	Guarantees community hunting rights and tax exemption for subsistence or ceremonial hunting practices
Article 68	Procedures on the right to kill wildlife in self-defence (animal–human conflict areas)
Articles 95-99	Establishes community participation in co-management structures
Article 102	Allocates 20% of taxes collected from the exploitation of forestry resources to local communities
Article 112	Allocates up to 50% of the fines paid on transgression of legislation to agents and community members participating in enforcement activities or reporting

Source: Johnstone, Cau and Norfolk, 2004.

ANNEX 2. ARTICLES RELATING TO COMMUNITIES

Forest and Wildlife Law **(September 1999)**	**Forest and Wildlife Regulation**	**Diplomas and technical annexes**
Chapter II. Protection of Forest and Fauna Resources *Article 13.* Areas of use and with cultural and historic importance 1. Areas of use and with cultural and historic importance are areas meant for the protection of forests of religious interest and other sites of historical importance and cultural use, in conformity with customary norms and practices of the respective local communities. 2. Forest and fauna resources existing in the areas referred to in the previous paragraph may be used according to customary norms and practices of the respective communities.	**Section II.** Zones with historical cultural use or value *Article 7.* Declaration 1. The following are considered zones of historical cultural use or value: forests situated in rural cemeteries, cult worship areas, forestry comprising vegetation used by the local community for the extraction of traditional medicine, forests that are home to species of wildlife used in cults, assuming that the exploitation of such species is not prohibited by law. 2. It is within the competence of the provincial governor to declare, by dispatch, such zones in terms of the law related to the present article. The provincial governor may declare such zones when they are very well known as such, or by transferring into writing a verbal declaration signed by the representatives laid out in line a) of No. 3 of this article. 3. The request for the declaration of a zone as laid out in this article may be made by the local community and should contain: a) a letter of request signed by no fewer than 10 members of the respective community, suitably identified; b) the basis of the request, with an indication of the cultural value, historical and social facts, and other elements that justify the declaration in terms of the law; and c) geographical limits of the area. 4. The absence of a declaration does not prejudice the rights defined in the law relative to the use of the area and the forestry and wildlife resources by the local communities for economic, social, cultural and historic ends in accordance with their customary norms and practices.	
Chapter VI. Management of Forest and Fauna Resources *Article 31.* Participatory Management 1. Local resource management councils, constituted by representatives of the local communities, the private sector, associations and local State authorities, with the aim of protecting, conserving and promoting sustainable use of forest and fauna resources are hereby created. 2. The attributions and competencies of the local councils set forth in the previous paragraph are defined by a decree of the Council of Ministers. 3. Management shall ensure the participation of local communities in the exploitation of forest and fauna	**Section III.** Participatory Management *Article 95.* Local Councils 1. With a view to guaranteeing compliance with Article 31 of Law 10/99 of 7 July, local councils for the management of forestry and wildlife resources will be established, comprising equal numbers of members from the following sectors: a) local community representatives; b) single or collective people with activities linked to forestry and wildlife resources; c) associations, organizations or NGOs linked to forestry and wildlife resources or local community development; and d) the State. 2. The local management councils for forestry and wildlife, known by the abbreviation COGEP, are governed by the legislation applicable to associations and association-related activities. *Article 96.* Personality (legal) 1. COGEPs are collective people in the eyes of the law with private rights, and their own legal personality, independent of their members. 2. In the exercise of their activities, COGEPs are independent and obey the law, and may not allow any	Ministerial Decree 93/2005 on benefit sharing of 20% of the revenues resulting from exploitation Joint ministerial diploma on the mechanisms for channelling and using the 20% earmarked to benefit local communities in the area of forestry and fauna resource exploitation Ministry of Tourism and Ministry of Planning and Finance draft

resources and in the benefits resulting from such use. *Article 33.* Delegation of power The State may delegate the power of forest and fauna resources management, including the objectives of restocking fauna and forest species, to the local communities, associations or the private sector, without prejudice to the respective inspection by competent entities. *Article 35.* Fees 5. A specific diploma establishes the percentages of the values resulting from the fauna and forest exploration fees for the benefit of the resident local communities in the respective exploration areas. *Article 39.* General norms 4. The values resulting from fines for offences to the forest and fauna law meant to benefit the various stakeholders involved in the inspection and control of the forest and fauna resources are established by a specific diploma.	violation of the law by their associates or by third parties. *Article 97.* Attributes of COGEPs 1. In the carrying out of its activities, objectives and general procedures, the COGEP in its geographic or administrative area must be involved in the following: a) the procedure for requests to exploit forestry and wildlife resources; b) the development of activities leading to the sustainable use of forestry and wildlife resources, and the way in which these can contribute to raising the lifestyles of members of local communities; c) the mechanisms for resolving conflicts that involve different parties in the sector; d) collaboration with State bodies responsible for the inspection and control of forestry and wildlife resources; e) the improvement of policy and legislation related to the sector; f) the promulgation of activities designed to control fires; and g) the direction of the management plans for resources situated in its geographical area. 2. The COGEPs may take part in consultative activities together with the Ministry of Agriculture and the Ministry of Tourism, or together with the provincial governments and other State bodies. 3. The COGEPs may propose to whoever has the right to do so, the cancellation or revocation of a specific project when they verify that the same is not in keeping with the realities of rural development and sustainable use of forestry and wildlife resources. *Article 98.* Representation The COGEPs, whenever asked to do so, represent the interests of their members, namely the local communities, the private sector, associations and organizations, in dialogue with the State, with a view to defending the interests of these in the management, conservation, exploitation, use and obtaining of any resultant benefits. *Article 99.* Delegation of powers 1. The ministries of agriculture and of tourism will define by joint ministerial diploma, by means of a technical annex, the terms and conditions for the delegation of management powers to the local communities, the private sector or organizations and associations, or those in partnership with the State, with a view to involving these in the exploitation, use and conservation of forestry and wildlife resources. 2. The delegation of management powers referred to in the previous number may be effected when the respective material deals with: a) protected areas; b) buffer zones; c) official hunting areas; d) productive forests; e) multiple-use forests; and f) multiple-use zones. *Article 102.* Benefits for the local communities 1. 20% of any tax levied for forestry or wildlife exploitation is destined to benefit the local communities in the area where the resources have been extracted, in accordance with the terms of No. 5 of Article 35 of Law 10/99 of 7 July. 2. A joint ministerial diploma from the ministries of agriculture, tourism and finance will define the mechanisms for channelling and using the value referred to in the previous number by the communities. Regulation of the distribution of the value of fines among the various parties involved in the process of fiscalization and control of the forestry and wildlife resources.	

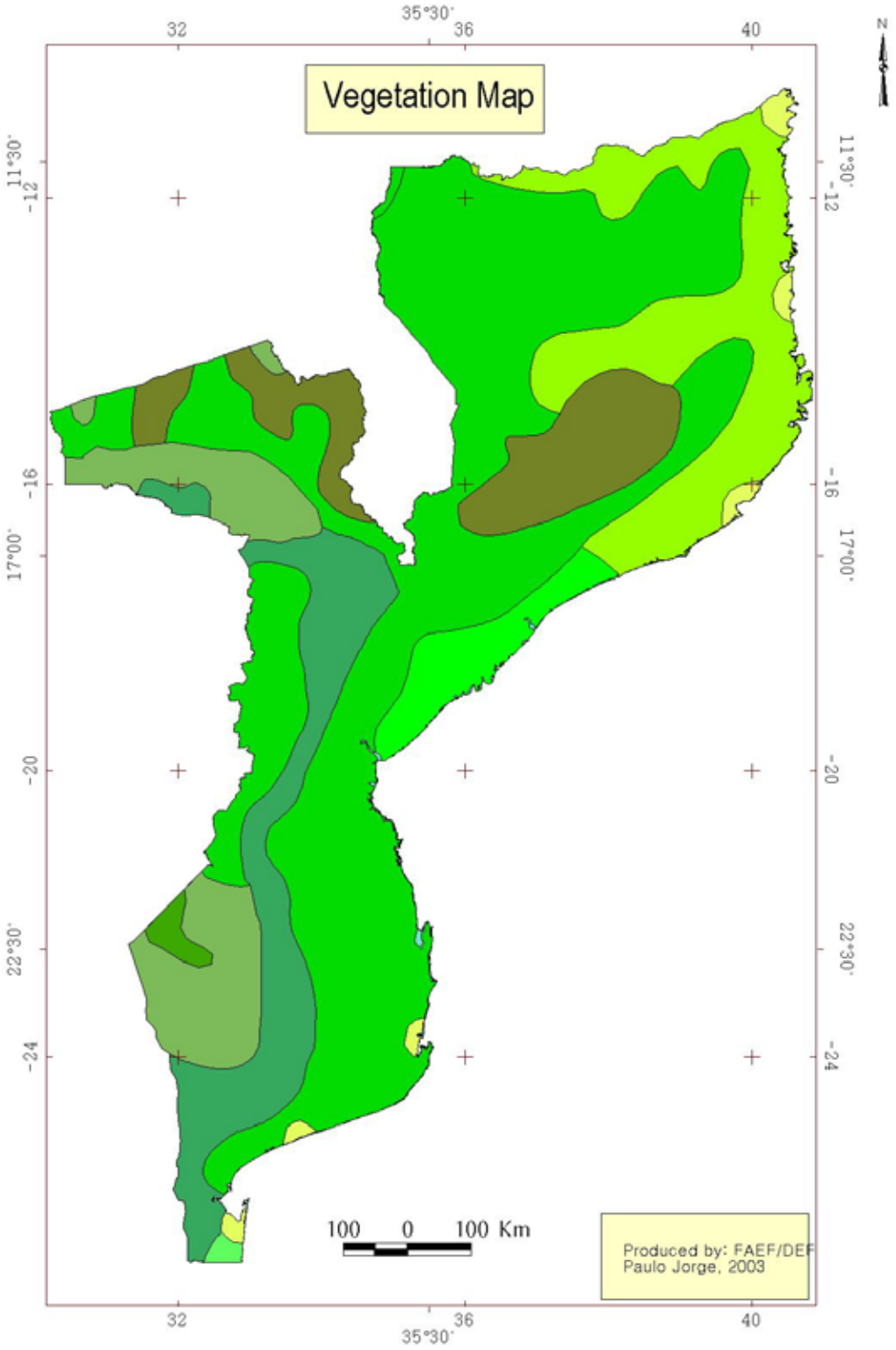
Source: Johnstone, Cau and Norfolk, 2004.

ANNEX 3. PROTECTED AREAS OF MOZAMBIQUE

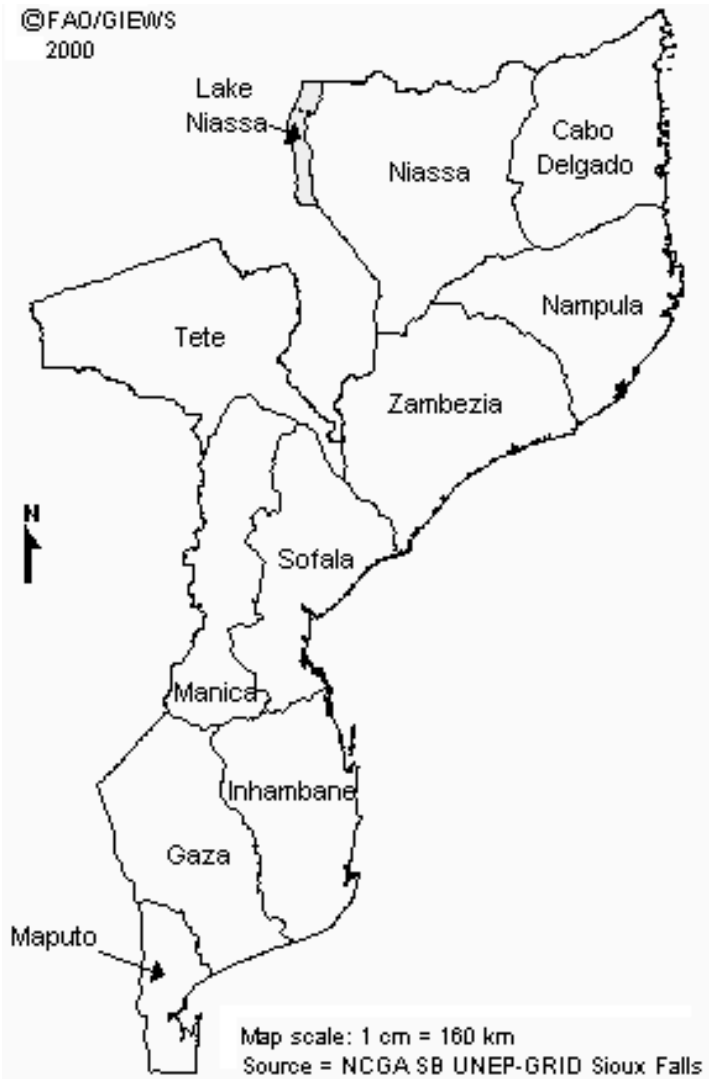
Protected areas	Area (km²)
a) National parks	
Quirimbas	7 506
Gorongosa	5 370
Zinave	6 000
Arquipélago do Bazaruto	16 000
Banhine	7 000
Limpopo	10 000
Total national parks	**51 876**
b) Game reserves	
Reserva de Niassa	42 200
Reserva de Chimanimani	1 000
Reserva de Gilé	2 100
Reserva de Marromeu	1 500
Reserva de Maputo	700
Total game reserves	**47 500**
c) Hunting areas	
Programa comunitário de Tchuma Tchato	2 500
Fazenda do Bravio Paulo Ubisse	300
Coutada 04	12 300
Coutada 05	6 869
Coutada 06	4 568
Coutada 07	5 408
Coutada 08	310
Coutada 09	4 333
Coutada 10	2 008
Coutada 11	1 928
Coutada 12	2 963
Coutada 13	5 683
Coutada 14	1 353
Coutada 15	2 000
Total hunting areas	**52 523**
d) Forest reserves	
Baixo Pinda	196
Derre	1 600
Inhamitanga	16
Licuáti	190
M'palue	51
Maronga	83
Matibane	512
Mecuburi	2 300

Moribane	53
Mucheve	91
Nhampacue	170
Ribáuè	52
Zomba	29
Total forest reserves	**5 342**
Total protected areas	**157 241**

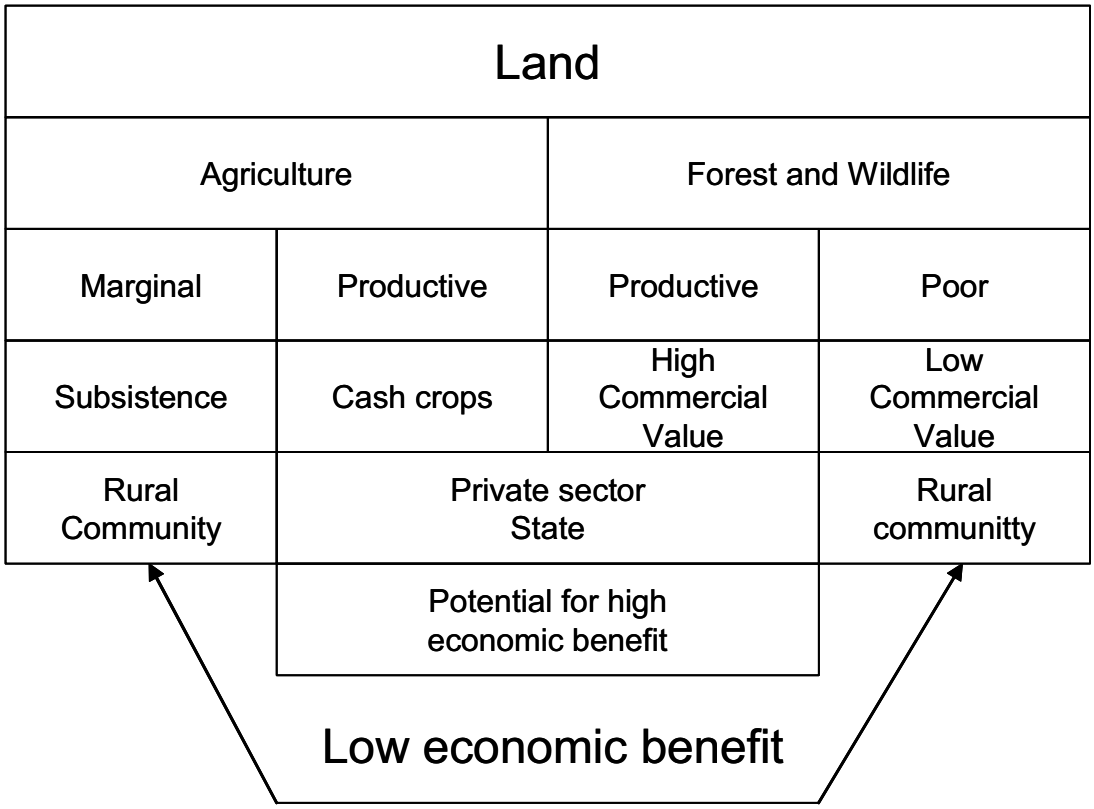
ANNEX 4. VEGETATION TYPES OF MOZAMBIQUE



ANNEX 5. ADMINISTRATIVE MAP OF MOZAMBIQUE



ANNEX 6. CONCEPTUAL MODEL FOR LAND ACCESS FOR RURAL COMMUNITIES IN MOZAMBIQUE



Source: Nhantumbo, 2000.

Trends in forest ownership, forest resources tenure and institutional arrangements: Are they contributing to better forest management and poverty reduction?

Case study from South Africa

By
Jeanette Clarke

Summary

This South African case study forms part of an Africa-wide comparative review of the relationship between forest tenure and forests' contribution to local livelihoods and poverty alleviation. The aim of the review is to derive lessons about how best to ensure sustainable use and management of forest resources in ways that support the livelihoods of poor people.

In 1994, the first democratic government of South Africa inherited a State deeply divided by the effects of 300 years of colonialism and apartheid. The black majority, forming 80 percent of the population, was effectively excluded from landownership, governance and full participation in the economy. This marginalization had serious consequences on access to and control of forest resources, and posed a threat to the sustainability of forests.

Existing forest ownership and management categories strongly reflect and reinforce patterns of power, wealth and access established during the colonial and apartheid eras. Forest ownership can be grouped into three broad categories: (1) public – State forests and nature reserves/parks; (2) private – forests on land owned by individuals and companies; and (3) communal – forests on trust land, which is owned by the State and held in trust for tribes and other groups. The rural poor were effectively excluded from access to and control over forest resources in any of these categories. Legislation prohibited access to public and privately owned forests, and allowed only limited use of forest produce for subsistence purposes. Access to forest resources on communal lands was reduced by overcrowding and the breakdown of institutions for resource management, and by occupants' limited rights to land and resources in these areas.

The new government embarked on an ambitious programme to redress the wrongs of the past, draw black people into the mainstream economy, and build a functioning democracy. This review focuses on five key national programmes, all with the potential to bring about far-reaching changes to the prevailing patterns of tenure, management and access to land and forest resources.

Land transfer

Two primary mechanisms have been put in place for land transfer: the *restitution* of land lost through race-based laws and practices; and the *redistribution* of privately owned and public land. The government has pledged to transfer a total of 30 percent of white-owned land to black owners by 2015. An estimated 40 percent of privately owned plantations and 70 percent of State-owned plantations are subject to land claims.

Land transfers have the potential to change patterns of forest resource ownership and management significantly, as well as delivering much-needed income-earning opportunities to the poor. Of particular interest are strategic partnership arrangements that give claimants opportunities to become shareholders in forestry enterprises, while ensuring that forests are retained on the land post-transfer. The land restitution and redistribution programmes both face considerable implementation difficulties, however; the transfer of land is considerably behind target, and land that has been transferred has largely failed to provide adequate livelihoods for beneficiaries.

Tenure and governance reform in communal lands

The tenure reform programme aims to provide security of tenure to those occupying communal lands that are currently owned by the State and administered by State-appointed traditional authorities. The programme to establish structures and systems for democratic local governance is allied to tenure reform. Traditional leadership structures have vigorously campaigned against the government's reform policies, however, resulting in much confusion, failure to implement and back-tracking on the part of government. To date, both programmes have become controversial, and problems of tenure insecurity and undemocratic governance remain.

Devolution of public forest resources

Commitment to the devolution of State and other publicly owned forests in South Africa is limited to the transfer of management responsibilities, which can be revoked if management standards are not upheld. The targets of these transfers are public agencies and commercial forestry, and not communities – devolution of forest ownership to local communities is not envisaged in policy or provided for in law.

Privatization of State forests

In line with recent trends worldwide, South Africa has embarked on a programme to privatize State-owned plantation assets. Four of the five high-potential commercial forestry packages have already been transferred to private sector bidders, under terms that favour equity stakes for local communities and investment in the development of local, black-owned forestry enterprises. Although the process is very new, there are indications that privatization delivers greater benefits to local communities and results in better forest management than occurred under State ownership and management. The State has a very important role in brokering these deals.

Broad-Based Black Economic Empowerment

The national Broad-Based Black Economic Empowerment (BB-BEE) Programme is an innovative and groundbreaking approach to addressing the economic marginalization of previously discriminated against groups. The Forest Sector Transformation Charter, produced to accompany the BB-BEE Act, commits the industry to attaining 30 percent black ownership and to increasing substantially the number of black people, including women, exercising management control by 2015. Targets have been set for business entities' contributions to skills development, preferential procurement, enterprise development and socio-economic development. If met, these targets will have a significant impact on current patterns of forest and forest resource ownership, management and access. The progamme is about to be launched, so it will be a while before its effects can be felt and measured.

Recommendations

A number of recommendations arise from this case study:

- Securing individual and group rights to land and resources, and ensuring effective and democratic local governance remain top priorities for communal land.
- The government needs to increase its commitment to devolving the ownership and management of publicly owned forests in communal lands to local communities, within the framework of a national policy review and taking into account the experiences of other countries in Africa and Asia.
- The transfer of forest land to communities through restitution and redistribution needs to be expedited.
- Providing post-settlement support, including for viable forest-based livelihood strategies and the development of resource management institutions, is of critical importance.
- There is need to develop further and promote models for strategic partnership arrangements that give beneficiaries access to profits from the commercial use of forests on their land. Benefit flows from commercial enterprises can contribute to livelihood security and provide incentives for retaining forests on land that might otherwise be cleared for other land uses.
- The privatization of State plantations should be comprehensively evaluated, and recommendations made on how to address key problems and enhance benefit flows to local communities.
- Government and industry undertakings related to the Forest Sector Transformation Charter apply to a number of the challenges identified in this review. There is need to provide resources for the monitoring and support of the charter's implementation, as well as for analysis and documentation of lessons relevant to other sectors and countries.

Introduction

This study forms part of an Africa-wide comparative review of the relationship between forest tenure and forests' contribution to local livelihoods and poverty alleviation. Country case studies examine recent trends in democratization and decentralization in relation to poor people's access to and control over forest resources. The aim of the review is to derive lessons about how best to ensure sustainable use and management of forest resources in ways that support the livelihoods of the poor.

The case studies start from a series of matrices developed as part of the same FAO programme in each of the countries. These matrices present a summary of the areas of forests under a range of tenure and management categories. Case study authors were requested to describe the information contained in the matrices, and analyse the extent to which different ownership and management regimes contribute to improved forest management and poverty reduction, drawing out conclusions for policy and practice. The South African matrices subdivided forests into three categories, in accordance with the National Forests Act: natural forests, woodlands, and plantations. All three categories are considered in this case study.

The South African case study begins with a description of forest ownership, access and management in South Africa and links this to the legacy of colonial and apartheid government policies and laws. The tenure and governance context inherited by the 1994 democratic government is described, setting the scene for a description of forest ownership and management categories, and how these tend to follow and reinforce patterns of power, wealth and access established during the colonial and apartheid eras.

The second part of the study examines five national government-led programmes to transform the race-based legacies of colonialism and apartheid, which have an impact on patterns of forest ownership, management and access to benefits. The progress made and the problems and difficulties facing these national programmes are explored.

The paper concludes with an overview of key lessons that have emerged from each of the five programmes reviewed, the challenges that remain, and recommendations for the way forward.

The tenure system

HISTORIC CONTEXT

The situation inherited by the first democratic Government of South Africa in 1994 called for reforms aimed at ensuring more equal access to resources, and establishing democratic systems of local governance. To a large degree, however, pre-democracy patterns still pertain, so this overview provides a fairly accurate description of the current situation.

The tenure and governance framework inherited by the 1994 government is typical of post-colonial States in Africa, described by Mamdani (quoted in Ntsebeza, 2002) as the "bifurcated State". In South Africa, the bifurcated State divided the population as follows:

Citizens – predominantly whites of European descent – owned private property and voted for representatives. White people comprised 10 percent of the population, and owned 65 percent of the land in South Africa in 1994.

Subjects – predominantly black South Africans – had no formal ownership rights to land, but were allocated land to use, and were under the control of traditional leaders who were not elected. Black people comprised nearly 80 percent of the population and occupied 13 percent of the land in 1994.

Land tenure categories and demography also follow the pattern of the bifurcated State. There are three broad categories of land tenure: private property, State or public property, and communal land, which is held in trust for communities by the State and administered by traditional authorities.

TABLE 1
Tenure and race in South Africa

	% land area	Ownership and occupancy profile
Public property	20%	Protected areas, defence force (SANDF), public works and other land
Private property	65%	Predominantly owned by white farmers and corporations. Home to 3 million black farm workers and tenants with insecure tenure rights
Communal lands	13%	State-owned land officially granted for exclusive use by tribes and other groups. Home to 3.3 million black South Africans

PUBLIC OWNERSHIP

All public land is registered in the name of the South African government, or a proxy of the State. Officially, therefore, all public land is owned by the national State, and not by provinces or local governments. According to national and provincial legislation, protected areas can be set aside as nature reserves/national parks, world heritage sites, marine protected areas, specially protected forest areas and mountain catchment areas. Nature reserves/national parks and specially protected forests are the categories most relevant to this review.

The Protected Areas Act 57 of 2003 governs the setting aside, management and monitoring of nature reserves and national parks, while the National Forests Act 84 of 1998 does the same for specially protected forest areas. These acts make provisions for the protection of forests and the setting aside of protected areas, and give the State jurisdiction over other tenure categories. In this review, public ownership of forests refers to State land that has been set aside for protected areas. Protected area management is assigned by the responsible minister – the Minster of Environmental Affairs and Tourism for nature reserves and national parks, and the Minister of Water Affairs and Forestry for forestry – to "a suitable person, organization or organ of State" (Protected Areas Act).

There is therefore a distinction between ownership, which is always at the national level, and management responsibility, which can be at the national, provincial or local government level.

State-managed forests

Natural forests and woodlands within national parks: Access to and use of forest resources in national parks is managed through a zoning system and is strictly controlled through licensing. Use is restricted to access zones within the parks, and allows the harvesting of resources only for household use and crafts to sell to tourists. Policy and legislation make no provision for devolution or co-management of parks. Not all parks are well protected and managed by the authorities concerned, and illegal harvesting takes place to various extents.

State forests under the Department of Water Affairs and Forestry (DWAF): These include areas of natural forest, woodland and plantation. Access to and use of State forests can be authorized through provisions in the National Forests Act 84 of 1998. These include section 24 exemption, which grants local communities access to products for subsistence use without the need for a licence, and other provisions for licences, leases, concessions and community forestry agreements (CFAs). Provision is made for devolving forests through a CFA between the minister and a community, but no CFAs have yet been concluded. Some State forests, especially smaller and geographically dispersed ones, are not effectively managed or protected, and can be subject to high levels of illegal harvesting, or even forms of repossession by local communities.

Forests occur on other forms of State land, including that of the South African National Defence Force (SANDF), which are not set aside as protected areas and are not included in this review.

Forests managed by provincial government

These fall into the following categories:

- *provincial parks* set aside under provincial statutes, in which – as in national parks – there is some access to a limited range of forest products for surrounding communities, but no provision for co-management;
- *protected areas* set aside under national legislation and assigned or delegated to provincial management, such as State forests assigned to provinces;
- *unassigned State forests*, of which a large number are managed by provincial conservation bodies without formal assignment; DWAF is currently engaged in assigning these to appropriate management authorities; as State forests, they fall under the National Forests Act and its provisions regarding access and co-management.

Forests managed by municipalities

These include municipal nature reserves containing woodlands and natural forests, and municipal plantations.

Other public land

Forests, mainly woodlands, also occur on other forms of public land, such as that controlled by SANDF and by public works. No information is available about the extent, status and use of these forests.

PRIVATE OWNERSHIP

Most land in South Africa – 65 percent – is privately held under a well-developed system of freehold tenure. This land was set aside for exclusive ownership by white people during the apartheid and colonial administrations. Since the abolition of discriminatory landholding laws, there has been a gradual shift in the racial profile of landholders, but land remains predominantly in the hands of white individuals/families and large corporations. The current government has pledged to transfer 30 percent of land to black ownership by 2015. Most private land management is exclusive and excluding in nature. Other than through leasing, access rights to forests are not generally allocated to

third parties. Law and practice treat non-owners as trespassers or poachers, and even those who live on the land (such as farm workers and tenants) have very limited – or even no – rights of access to forest resources.

Data on plantation areas are disaggregated according to whether the areas are held by corporations or individual landowners, but those on natural forests and woodlands are not disaggregated in this way. The legal framework conferring rights and responsibilities is the same for both categories.

Plantations

There are 182 830 ha of privately owned plantations outside the corporate sector, and 813 993 ha within it. This includes privatized State-owned plantations.

Woodlands

An estimated 20 million ha of woodland occurs on privately owned land – both individual-/family-owned and that owned by companies/corporations. (This figure includes categories of woodland that are not included in the FAO definition of forests.) Woodlands are categorized according to whether they are on farms, on private nature reserves and conservancies, or on private land managed by the State under agreements.

Natural forests

There is an estimated 115 292 ha of natural forest on privately owned land – both individual-/family-owned and that owned by companies/corporations. Forest categories include those on farms, those on private nature reserves and conservancies, and those on private land managed by the State under agreements.

COMMUNITY-/GROUP-MANAGED FORESTS

The majority of rural black South Africans occupy land under forms of indigenous tenure, based largely on informal landholding rights and customary use practices. Although most of this land is publicly owned, it is officially granted for the exclusive use of tribes and other groups. In KwaZulu Natal province, Zulu people occupy 2.8 million ha, which is owned by the Ingonyama Trust. A board has been set up to administer this land for the material benefit and well-being of individuals in the communities occupying it. Some 13 percent of South Africa's total land area is under a form of trust land, where residents have various rights to occupy and utilize the land and its resources, but not full ownership rights. Such land is referred to as communal land in this case study.

Plantations

In communal lands, extensive areas of plantations have been established by national, provincial and local government agencies and non-governmental organizations (NGOs). In this review, these plantations are considered as publicly owned, even though a proportion of them are on land leased by the State from local chiefs. In some parts of the country, especially KwaZulu Natal and Mpumalanga, individuals and families have established their own plantations with support from extension agencies or under company-supported out-grower schemes. The individual or family concerned owns the plantation, but does not have title to the land.

Contracts oblige out-growers to sell the timber they produce to the company, which deducts any advance it has made to the grower from the purchase price of the timber. However, many out-growers sell to other buyers, to avoid repaying their loans (Clarke and Isaacs, 2005), which suggests that the contracts signed with timber companies do not encumber the growers' ownership of the timber. Many out-growers that honour the terms of their contracts go on to produce second rotation crops, which also suggests that their ownership is secure, despite the contracts. Recently, group schemes to establish medium- to large-scale commercial plantations have been supported in parts of the country that are not suited to household production. In these cases, the group establishes a formal institution – a company or a trust – that owns and operates the forest enterprise. All group members are shareholders of the trust/company and elect a committee to manage day-to-day activities (Howard *et al.,* 2005).

These examples suggest that commercial timber production enables individuals and groups to secure ownership rights to forests in communal lands, despite the lack of formal land rights.

Natural forests

Excluding forests that have been set aside as protected areas by national or provincial legislation (which are considered to be under public ownership), the natural forests occurring on communal lands generally fall under the control of traditional leaders – local chiefs and headmen. The nature of this control varies from area to area, depending on the underlying cultural traditions and their influences over these traditional institutions.

Although not proclaimed as State forests, the State exerts some control over natural forests through the National Forest Act 84 of 1998, which prohibits the cutting or damage of any tree in a natural forest without a licence. This provision undermines the authority of local leaders and weakens local communities' rights of access, and the State can barely manage its own State forests, let alone enforcing the law within unreserved forests. Although the National Forests Act makes provision for the State to enter into forest management agreements with local communities, no such agreements are yet in place.

Woodlands

There is approximately 1.5 million ha of woodland on community land (only a proportion of which falls under the FAO definition of forests). Much of this is on village common land and is managed under common property systems, which have broken down in many areas.

Summary

Unlike commercial plantation owners, individuals and groups have not secured ownership rights to unreserved natural forests and woodland resources on communal land. Underlying land rights rest with the State (or, in KwaZulu Natal, the Ingonyama Trust). Although management authority rests with traditional leaders, the provisions of the National Forest Act and other statutes governing the use of natural resources dilute this authority.

Changes, trends and impacts

OVERVIEW

The 1994 government inherited a country strongly divided along racial lines, a long history of land alienation and dispossession, and an economy that effectively excluded black people other than as labourers. The new government embarked on an ambitious programme to redress the wrongs of the past, draw black people into the mainstream economy and build a functioning democracy. This review focuses on five key national programmes, all of which have the potential to bring far-reaching change to the prevailing patterns of tenure, management and access to land and forest resources.

Land transfer

The 1994 government pledged to transfer 30 percent of white-owned land to black owners within five years; this target date has since been shifted to 2015. Two primary mechanisms for the transfer have been put in place: *restitution* of land lost through race-based laws and practices; and *redistribution* of privately owned and public land.

Tenure and governance reform in communal lands

The tenure reform programme aims to provide security of tenure to those occupying communal lands that are currently owned by the State and administered through State-appointed traditional authorities. Tenure reform also aims to secure the rights of those living on other categories of land under different ownership, particularly farm workers on commercial farms and residents of informal settlements in urban and peri-urban areas. Allied to tenure reform is a programme to establish structures and systems for democratic local governance.

Devolution of forest resources

The devolution of forest resources is not a priority on the national agenda, but it is of direct relevance to this review. Some elements of policy and law imply a commitment to the principles of subsidiarity, but there has been little focus on this, other than a programme to transfer natural State forests to other agencies, for management on behalf of the national forest authority.

Privatization of State forests

In line with recent trends worldwide, South Africa has embarked on a programme to privatize its State-owned plantation assets. Four of the five high-potential commercial forestry packages have already been transferred to private sector bidders, under terms that favour equity stakes for local communities and investment in the development of local, black-owned forestry enterprises.

Broad-Based Black Economic Empowerment

The government has put in place a far-reaching programme to redress inequality and boost economic growth through transforming the business ownership profile in the country. The Forest Sector Transformation Charter, produced alongside the Broad-Based Black Economic Empowerment (BB-BEE) Act, is a master plan for transformation of the forest sector, produced during a 24-month consultation process involving all sector stakeholders. The charter provides a framework, targets and undertakings for transforming the forest sector, including a commitment to attaining 30 percent black ownership and to increasing substantially the number of black people – including women – exercising management control by 2015 (DWAF, 2006).

The following sections overview each of these programmes, assess the impacts each has had and may have on patterns of forest resource management and ownership, and summarize the constraints faced. Case studies illustrate lessons learned and key challenges facing the government and society in transforming patterns of forest resource ownership, access and management.

LAND TRANSFER

Restitution

Overview: Restitution was introduced in 1994 with the intention of redressing past injustices created by race-based legislation and practices. It is one of three programmes within the overall land reform programme, which also includes redistribution of land and tenure reform.

According to the Restitution of Land Rights Act 22 of 1994, victims of forced removals were given the opportunity to lodge restitution claims from 2 December 1994. The original cut-off date for lodging claims was 1 May 1998, but Parliament extended this to 31 December 1998. An estimated 79 696 claims were lodged, of which 68 730 have been settled. The target date for settling all claims is March 2008.

Most of the claims settled to date are urban claims, which have been settled with cash compensation rather than the restoration of land. Only 6 percent of settled claims have involved the transfer of rural land. The bulk of outstanding claims are rural claims, in which claimants are more likely to demand the right to return to their dispossessed land. This is likely to be a complex, costly and lengthy process. It is not yet known how much land – and where – is involved, so the changes in land use that may be brought about are also unknown. The Commission on Restitution of Land Rights (CRLR) estimates that 70 percent of Mpumalanga and Limpopo provinces are subject to claims, including large areas of commercial farmland, mainly under export horticulture, and public forest.

Restitution and forest land: An estimated 40 percent of privately owned plantations are subject to land claims, and 70 percent of State-owned plantations are either under claim or have well-established agreements in place that recognize access or ownership rights for local communities. As far as can be ascertained, only one claim to a State forest has been settled.

More progress has been made with settling claims to indigenous forests and woodlands. A number of high-profile restitution cases involving protected areas have been settled, including the Makuleke land claim, which involves a portion of the heavily wooded Kruger National Park, and the Dwesa–Cwebe and Mkambati land claims, which involve large areas of protected coastal indigenous forests.

Strategic partnerships: Joint ventures and strategic partnerships are increasingly being adopted and promoted in land claim settlements. The Makuleke land claim was the first and is the best known example, whereby claimants regained rights over the land on condition that it remains under conservation management (Robins, Steenkamp and van der Waal, 2006). In exchange, they are paid compensation for foregoing their rights of occupancy, and receive a once-off lease fee payment. They can leverage additional financial resources through partnership agreements with private sector tourism operators. For example, the Makuleke community has entered into a joint venture with South African National Parks and a private tourism company to establish and run high-end tourist lodges in the Kruger National Park. This is seen as a "win–win" solution, with the community benefiting financially from its shareholding in the tourism venture, and the park retaining control of the conservation area now owned by the Makulekes.

In Dwesa-Cwebe, two local communities lodged a joint claim to 5 278 ha of an extensive marine and forest nature reserve along the Eastern Cape coast (Palmer *et al.,* 2006). The reserve contains an 80-bed guesthouse, which was included in the claim. The claim was settled on the basis of an agreement with the Provincial Department of Economic Affairs, Environment and Tourism, under which the land will remain a nature reserve in perpetuity, the community trust may not alienate the land, and access to and use of the reserve must be in keeping with conservation goals. Lessons and issues emerging from these cases are discussed in the subsection on the Impact of land transfer on forest management and livelihoods of the poor.

Redistribution

Overview: Based on the principle of "willing buyer–willing seller", the redistribution programme does not face the same pressures as the restitution programme regarding the need to acquire specific land areas. It does have its own challenges and difficulties, however, mainly related to the lack of post-settlement support and the need to ensure that new owners have the means and capacity to run

farms productively. National surveys to evaluate the progress of redistribution projects make depressing reading. Typically, these projects have involved the acquisition of large commercial farming units, which rather than being subdivided have been transferred to groups that hold them jointly under a legal entity, such as a communal property association or trust. The vast majority of projects have collapsed, leaving beneficiaries worse off than before (Andrew, Ainsley and Shackleton, 2003). The government is now making concerted efforts to put in place structures and systems for post-settlement support, including the strategic partnership models described in the previous section.

Redistribution and forests: No information is available regarding the extent of forest land within the total area of land transferred under redistribution – which is approximately 3.4 million ha. The most extensive forests in South Africa are woodlands, which occur naturally across much of the northern and western half of the country, and it can be assumed that a significant proportion of the redistributed area has woodland resources on it. No information is available on the area of plantations transferred to black owners through the redistribution programme.

Impact of land transfer on forest management and livelihoods of the poor

Land transfers through restitution and redistribution have the potential to change patterns of forest resources ownership and management significantly, and to deliver much-needed income-earning opportunities to the poor. Of particular interest are the many strategic partnerships that have come into being, which give claimants opportunities to become shareholders in forestry enterprises. In practice, however, considerable difficulties have been encountered during the implementation of both restitution and redistribution. These difficulties influence the extent to which the programmes can deliver benefits to target households, while ensuring sustainable use of the land and resources. The following paragraphs provide a summary of the principle constraints and concerns raised in the literature.

Significant delays in transfer: Both programmes have lagged behind their targets, especially regarding rural land. Delays relate to implementing agencies' lack of capacity, poor planning and lack of cohesion among claimants, lack of funds for purchasing land, and the failure of government and current owners to reach agreement on fair property prices (Hall, 2007).

Lack of post-settlement support for beneficiary communities: The lack of adequate and ongoing support for new landowners is one of the main causes of project failure. Beneficiary communities are drawn from the least educated and least economically active sectors of society, and they lack experience and skills in technical aspects of production, as well as in business management. In many cases, there are no institutions governing community/group relations, and these need to be set up. Lack of support for building and maintaining effective local institutions is a major factor affecting the groups' ability to manage natural resources, including forests, on their newly acquired land (Andrew, Ainsley and Shackleton, 2003).

Unequal balance of power and lack of capacity in strategic partnership arrangements: Where communities have entered into partnership agreements with government departments and/or the private sector, power imbalances are common. Such imbalances can work against community interests, especially where partners lack the skills and/or commitment necessary to manage complex transactions.

Lack of interdepartmental cooperation and leadership: Restitution agreements on conservation land involve a number of different national and provincial government departments, including the Department of Land Affairs and its Commission on Restitution of Land Rights, the National Department of Agriculture, the nine provincial departments of agriculture, DWAF, and district and local municipalities. Several different regulatory and policy environments sometimes need to be negotiated and interpreted by each department, leading to a situation in which "everyone and no-one is responsible", so nothing is accomplished, or things happen in a fragmented way. There have been calls to set up interdepartmental task teams to fast-track the settlement of claims on forest and other conservation land. This is a key problem in the Dwesa-Cwebe land claim, which has not yet been transferred to claimants seven years after it was gazetted (Palmer *et al.,* 2006).

Intra-group conflicts and power struggles: Land transfers and strategic partnerships bring access to new resources, both land-based and financial. In group schemes, this becomes the basis for resource contestation, with local elite groups attempting – often with success – to take control of resources at

the expense of less powerful groups. In Makuleke, there is an ongoing power struggle between the elected leadership and the local chief, who has resorted to the courts in an attempt to exert his right to control decision-making structures and natural resources (Robins, Steenkamp and van der Waal, 2006).

Differing priorities and needs among claimants: Some restitution claims involve very large groups of people, who have a common heritage but now find themselves in widely differing personal circumstances. Some may be successful business people living in cities, while others are subsistence farmers or have become unemployed and landless. A share in an ecotourism or commercial farming enterprise may suit a city-based business person, whereas the priority for a landless and unemployed person may be to return to the land. At present, the emphasis of government has shifted in favour of strategic partnerships. Although these may be financially attractive (and even this is not always certain), claimants are under substantial pressure from the government, particularly CRLR, to forgo the right to return to the land (Derman, Lahiff and Sjaastad, 2006).

TENURE AND GOVERNANCE REFORM

Progress and problems

Two separate but interlinked programmes aim to reform tenure and governance in the former "homelands", where land is held in trust for its occupants by the State. The Department of Land Affairs is implementing a *tenure reform* programme alongside its land restitution and redistribution programmes. The aim of the tenure reform programme is to strengthen the rights of black families, groups and communities occupying land under informal systems of land tenure that have no legal status, or whose legal status is unclear/of an inferior nature.

The government is also implementing a programme to establish structures and systems for *democratic local government* throughout the country. Local government is one of the three spheres of government – national, provincial and local – provided for in the constitution, and South Africa has been divided into district municipalities, each of which is run by an elected district council. Below each district municipality are a number of local municipalities, run by elected local councils. The aim is to create structures for democratic governance at the local level, and to decentralize responsibility for administrative functions and service provision. District and local municipalities are mandated to plan and coordinate development through integrated development planning.

The democratization of local government and the securing of tenure rights are fundamental to ensuring that the poor in rural areas have secure access to forest resources and are able to manage them effectively. From the period leading up to the 1994 elections until 1997, African National Congress (ANC – the ruling party) policies for local government and tenure reform did not envisage a major role for traditional leaders. The Municipal Structures Bill proposed that only 10 percent of council seats be reserved for traditional leaders, and the rest for elected representatives. The Land Rights Bill proposed that land rights be allocated to individuals, groups and communities, and that right holders elect a structure to administer land (Ntsebeza, 2002; 2004). These developments provoked a storm of protest from traditional authorities, who saw that reformed local governance and land administration would strip them of most of their powers and privileges. Traditional authorities remain very powerful in South Africa; their traditional status was considerably augmented by the patronage system developed under colonialism and apartheid. They are also well organized, and have direct links to the highest levels of national government. Vigorous lobbying and opposition from traditional authorities over the past eight years has led to substantial changes in government policy on land and local governance reform, as well as much confusion and delayed implementation (Lahiff, 2006).

Local government policy now provides for the formation of traditional councils, made up mostly of traditional leaders, which will play the role of being "closest to the people" in local development. The Communal Land Rights Act of 2004, aimed at reform and greater security of tenure on trust land, gives these traditional councils the authority to administer and allocate land in communal areas (Ntsebeza, 2004).

Impact of tenure and governance reform on forest management and livelihoods of the poor

The current situation is one of considerable chaos regarding systems for managing and allocating land rights and of conflict between new local government structures and traditional authorities (Lahiff, 2006). New laws and policies are contested by both traditional authorities and progressive land rights movements. The latter have taken the government to court over the constitutional violations inherent in the Communal Land Rights Act of 2004, i.e., its alleged failure to protect citizens' rights to democratic governance and gender equality. Implementation of the act has been delayed and is now not expected to start before late 2007 or 2008. In the meantime, the problems of overlapping and insecure land rights created under apartheid, and which tenure reform was intended to address, remain. Effective local institutions for land and resource management cannot be established in the present climate of conflict and uncertainty over local government structures.

DEVOLUTION OF FOREST RESOURCES

Devolution of forests is taking place through such mechanisms as land restitution and redistribution, privatization and BB-BEE. This section focuses on the devolution policies and practices of the authorities responsible for managing protected areas, including national and provincial nature reserves and State-owned natural forests.

Government policy and law

State forests: National government retains the authority and responsibility for managing State forests, but can decentralize this authority through the legal instruments of assignment or delegation. DWAF is committed to a programme for transferring the management of State forests to provincial government departments and other "suitable agencies". Central government will however maintain an oversight and monitoring role, and transfers can be reversed if standards of management are not upheld. A large area of State forests is *de facto* managed by provincial authorities, but has never been legally assigned. A programme is under way to rectify this.

The National Forests Act of 1998 also makes provision for devolving management authority over State forests to user communities, and policy suggests that this option will be considered. To date, however, no such agreements have been proposed or entered into, and it seems unlikely that the will for this exists at present in South Africa. DWAF has a participatory forest management policy, which – in theory – gives local communities a say in the management of State forests. In practice, however, this programme amounts to little more than the setting up of community forestry fora in some forests, and a few forest-based income-generating projects.

A number of State forests are *de facto* under community control, even though they have not been legally assigned. In these areas, DWAF or the responsible department has little or no presence in the area and/or is unable to exert its control, so the forests have effectively become the property of local communities. Limited anecdotal information suggests that these forests are under threat from unsustainable harvesting and clearing for agricultural purposes, which is not surprising given the lack of formal transference of ownership, and the lack of support for sustainable use and management of the forests. Very little information about the current use and management of these forests is available, however, and some may be being managed effectively by the local communities, especially where local authority structures still exist and have local support.

National and provincial parks and nature reserves: Policy recognizes the need to grant local communities controlled access to parks and their resources. Concepts of co-management or devolution are not explicitly included in policy, other than in the context of agreements reached with land claimants.

Impact of devolution on forest management and livelihoods of the poor

Unlike many other countries in Africa and Asia, in South Africa, there is little commitment in policy and law to the principle of devolving forest ownership to local communities. Consequently, there is no experience of devolution and its impacts.

PRIVATIZATION OF STATE FOREST PLANTATIONS

The 1996 forest policy calls on the government to withdraw from ownership and management of State plantations, in order to free State resources for more important needs and improve the overall productivity and efficiency of operations. The government aims to ensure that privatization benefits the previously disadvantaged black population, through increasing its ownership and control of plantations, providing employment opportunities and securing access to forest goods and services for livelihood security.

The government has transferred a total of nearly 250 000 ha of State-owned plantations to the private sector since 2001. This represents nearly 60 percent of the high-potential State plantation area. The remaining 40 percent comprises the most extensive and valuable of the five packages put on the market – the Komatiland forests (KLF) package. A transaction that would have privatized this package was terminated in early 2006 because of concerns about industry structure. The government is currently reviewing privatization policy and plans in the light of emerging trends and concerns, especially those related to the structure of the industry, which is dominated by a small number of very large players. Assets have been transferred through lease agreements, which cede ownership of the plantations to new owners, while the government retains the underlying land rights. This gives the government stronger control over how these forests are used and managed than would be the case if they were sold outright.

Another critical reason for leasing rather than selling outright is the existence of land claims to these State plantation areas. According to the constitution, the government cannot sell State land on which land claims have been lodged. Although there is no accurate information on the extent of State plantations that are subject to land claims, estimates suggest a figure of about 70 percent of the total. The Department of Public Enterprises and DWAF have got around this issue by entering into agreements with leasing companies. If the claims are successful, the land will be returned to the claimants, who will become the official owners of the underlying land rights. Their rights to occupy the land will, however, be encumbered by the 70-year leases the government has signed with the companies leasing the forests. The government is paying all the lease money it receives into trust funds, to be paid out to claimants after settlement of claims. Thereafter, lease fees will be paid directly to community trust funds set up for this purpose.

Impacts of privatization on forest management and livelihoods of the poor

The State manages the privatization process in ways that favour companies whose bids include a significant black shareholding, such as stakes for neighbouring black communities and/or workers, and commitments to supporting black-owned contracting businesses through outsourcing and training. According to the lease agreements, the new owners are obliged to respect the existing rights and claims of local communities.

Case study: Singisi Forest Products

The first forestry privatization deal to be concluded in South Africa was for the Eastern cape north package. The bidder selected was Singisi Forest Products, a consortium led by the forestry company, Hans Merensky. The case is interesting because Singisi met and exceeded government targets in terms of black equity stakes, and also invested heavily in social and economic development in the area. The following is a summary of the actual and potential sources of benefits for local communities.

Lease fees
Singisi pays an annual lease fee of R6 million (US$850) to the government, which holds this money in trust for the communities that have lodged claims to portions of the plantation. When the claims have been settled, accumulated and future rents will be paid to a community trust. The company is supporting claimants' settling of claims, which is a demanding and lengthy process for which communities often lack the necessary resources.

Equity stakes for the local community
A local community trust, Singilanga Directorate Trust, has a 10 percent stake in the consortium, which could be increased to 25 percent by adding the 6 percent retained by the State-owned company that previously owned and managed a portion of the plantations, and the 9 percent owned by the National Empowerment Foundation. The money accruing from this stake is paid into a

community trust and used for community development initiatives. Stakeholders are the immediate community adjacent to the forests.

Employment
A major concern regarding privatization was that it would result in jobs being lost. Unions played an important role in the four-year negotiations leading to the first transfer, and were key in securing a government undertaking to protect jobs and maintain existing employment conditions. Despite its initial fears, the local union now welcomes the changes brought by privatization. No jobs have been lost, and employment in the local sawmill has become more secure. (Sawmills belong to Hans Merensky, the main shareholder in Singisi Forest Products.) Through employment, benefits are extended to a wider community outside those with a direct stake in the company.

Forestry-based enterprise development
Support for the development of forestry-based enterprises was part of the Singisi bid, and is included in the lease agreement with the government. Singisi has an active programme to support black-owned forestry enterprises, procurement policies that favour black-owned contractors and service providers, and a preferential procurement target of 25 percent.

Access to non-wood forest products (NWFPs) and other forest benefits
The leases include requirements to respect the existing use and access rights of resident and surrounding communities, especially the right to collect for domestic consumption. Singisi has a support programme for small enterprises using NWFPs, such as for mushroom collecting and selling.

Summary
Community benefits: Experience to date suggests that privatization can increase benefit flows to local communities through:

- shareholding by community trusts in the consortia that take over the forests;
- rental income paid into community trusts (although this benefit will not be realized until land claims have been settled and institutions for receiving and managing the funds identified);
- improved opportunities for contracting, as a result of commitments made by the bidders;
- investment in local enterprises and social services.

Improved forest management: Prior to privatization, the management of State-owned DWAF plantations cost the government R350 million a year. The plantations that have been privatized no longer cost the government anything, and have instead become productive assets for the leaseholders. The condition of these forests has improved considerably as a result of intensive rehabilitation and improved management. Many have already been certified by the Forestry Stewardship Council (FSC), and the rest are in the process of being certified. Agreements with the government give leaseholders several years to certify the forests.
These positive conclusions should be accompanied by a word of caution, however. The Singisi case is unique. Other packages went to companies that were far less committed to empowering local communities, as evidenced in their bids or by their subsequent actions. In addition, the information on Singisi presented here is based on a qualitative assessment conducted shortly after the deal was struck. There is need for a more detailed and up-to-date investigation of the actual benefits accruing to communities, and an appraisal of the shortcomings and pitfalls. As found in the Makuleke and Dwesa-Cwebe case studies, implementation brings unforeseen difficulties and obstacles, which have to be addressed if the intended benefits are to be achieved.

Source: Ashley and Ntshona, 2002.

BROAD-BASED BLACK ECOMOMIC EMPOWERMENT

Overview

The government's BB-BEE Programme aims to increase black people's participation in the economy. Whereas the earlier definition of BEE focused on ownership and management of businesses by black people, BB-BEE aims to extend economic opportunities to a much wider range of black people, through encouraging changes in:

ownership and management: increasing the number of black people who manage, own and control businesses, and providing opportunities for communities, workers and other collective enterprises to own and manage businesses;
skills development: supporting investment in skills development among employed and unemployed workers;
employment equity: ensuring equitable representation for all categories and all levels of the workforce;
preferential procurement: promoting the purchase of goods and services from companies that have a strong BB-BEE profile;
enterprise development: encouraging investment in black-owned and -managed enterprises;
socio-economic development: social development, and provision of services and amenities to the rural poor.

BEE is implemented through market forces, primarily procurement. Legislation does not force companies to implement BEE, but those that do not do so are likely to lose business. The government spends large amounts on service providers, and will buy from companies with good BEE ratings. Such companies, in turn, must also buy from companies or providers with good BEE ratings. This creates a cascading effect that reaches even those companies that do not supply government directly. A company's BEE rating is calculated using the BEE scorecard, which allocates points against targets for each of the elements outlined above.

BB-BEE and forests

Section 12 of the BB-BEE Act makes provision for sectors to develop transformation charters. The Forest Sector Transformation Charter is due to be published for public comment in 2007, and is the product of a 24-month multi-stakeholder process focused on setting sector-specific scorecard targets, identifying challenges and obstacles to achieving these, and drawing up a sector-wide agreement for addressing challenges. In the draft charter, the industry commits itself to achieving ambitious targets under each of the BEE scorecard elements, a number of which have a bearing on current patterns of forest and forest resource ownership, management and access. The ownership targets commit the industry to transferring 30 percent of forestry businesses to black people, with a weighting that favours black women, workers and rural communities. A number of worker share-equity programmes are already in place, paying out annual dividends to forest workers. The management element of the scorecard ensures that share ownership implies the power to influence the management of the company, and thereby the forest. Enterprise development and preferential procurement aim to accelerate the growth of black-owned forestry enterprises.

In addition to these targets, the charter commits government, organized labour and the industry to undertakings that address the constraints to meeting sector transformation targets. These undertakings have a bearing on some of the other national programmes reviewed here. For example, industry undertakes to work with the Land Claims Commission in establishing Memoranda of Understanding (MOUs) for the settlement of land claims on private forest land. The MOUs will also provide post-settlement support to restitution beneficiaries. The government has undertaken to conclude similar agreements with the Land Claims Commission regarding the settlement of land claims on State forest land. Government and industry have undertaken to put in place framework agreements to provide finance for the purchase of land and for the capitalization of forestry enterprises on the land.

Conclusions

In 1994, the new government and society at large faced two key challenges: bringing about democratic decentralization; and shifting the racially skewed patterns of ownership of land and capital in South Africa. Unless these issues were resolved, poor black communities – the majority of the population – would continue to be excluded from access to and control of forests and other key resources, as well as from full participation in the economy. The history and persistence of marginalization of the poor in South Africa pose a threat to the sustainability of forests.

This case study reviews five government programmes to address these challenges. The programmes are sophisticated in their vision, design and ambitions, but far less developed in practice. Very little qualitative or quantitative information is available on the impacts they have had, and in many cases it is still too early to assess progress, let alone measure impacts. The value of these programmes lies in the documentation of processes and outcomes, which can guide discussion of implementation strategies, pitfalls and how to avoid them. Some general observations regarding trends in forest ownership and the impacts on forest management and benefits for the poor can be made from the evidence already available.

The legacy of overcrowded homelands with insecure tenure rights and undemocratic, corrupt and inefficient institutions has proved hard to shift. Programmes aimed at reforming land and governance rights have so far floundered, and in some cases problems have even been exacerbated. As a consequence, the rural poor remain trapped in poverty and unable to capture the benefits that forests offer. Lack of effective protection and management results in growing shortages of forest resources.

Land redistribution and restitution offer means for transferring ownership of private and public land, and thereby forest resources, to the rural and urban poor. This is significant given the almost total lack of access that these communities had to forest resources on State- and privately owned land in the past, and the extreme overcrowding and lack of access to resources in the former homelands. The land restitution and redistribution programmes have, however, lagged considerably behind their targets for land transfer. In most of the transfers that have taken place, the beneficiaries have been unable to establish viable enterprises or even to support themselves on the land. The lack of post-transfer support has been identified as one of the main reasons for the failure of land reform projects. The need to support the development and building of local institutions is also particularly important for the sustainable use of forest resources on the transferred land.

Strategic partnership models in which land claimants join forces with the private sector and/or government to run a forestry, conservation and tourism or agricultural enterprise on their restored land have potential to deliver significant benefits to local communities. Through such partnerships, claimants are able to leverage much-needed financial and technical support. Experience with these models has been mixed, however, and there are still more problems than successes. The model also brings certain costs to communities, and it is too early to say whether the benefits will outweigh these costs and can be sustained. Notwithstanding implementation problems, the restitution and redistribution of land remain among the most powerful tools for devolving forest resources to the poor, as they result in the transfer of ownership of land and forests.

In South Africa, commitment to the devolution of State and other publicly owned forests is limited to the transfer of management responsibilities, which can be revoked if management standards are not upheld. Public agencies are the target beneficiaries of these transfers, however, and not communities. The devolution of forest ownership to local communities is not envisaged in policy or provided for in law.

Shifts in the ownership of State-owned plantations have taken place through privatization, and although the process is still very new there are indications that privatization increases the benefits to local communities, resulting in improved forest management. The State has an important role in brokering these deals.

The Forest Sector Transformation Charter provides a framework, targets and undertakings for transforming the forest sector, and is a powerful tool for bringing much-needed changes in forest ownership, management control and flow of benefits in favour of black people in general, and the rural poor in particular. A number of the undertakings relate directly to the challenges highlighted in this paper. The charter will not come into effect until it is gazetted in 2007, so it will be a while before its effects can be felt and measured, and the nature and extent of its implementation challenges become apparent.

Proposals for the way forward

Securing individual and group rights to land and resources and ensuring effective and democratic local governance remain top priorities regarding communal land. The government's lack of commitment to devolving ownership and management of State forests and other publicly owned forest land to local communities needs to be examined within the framework of a national policy review, taking into account the experiences of other countries in Africa and Asia. There is need for additional resources to develop participatory forest management models and approaches that work in the South African context.

The transfer of forest land to communities through restitution and redistribution needs to be expedited. Undertakings made by the government and industry under the Forest Sector Charter will contribute to addressing this challenge.

Experience to date has shown that ownership alone is not sufficient to ensure sustainable use and management of forest and other land-based resources. Providing post-settlement support, including for viable forest-based livelihood support strategies and the development of resource management institutions, is of critical importance. Charter undertakings made by the private sector and government to establish financing framework agreements are critical in this regard.

One of the more interesting models emerging from the land reform programme in South Africa is that of strategic partnerships involving beneficiaries, the State and/or the private sector. Although complex to set up and manage, such partnerships offer the potential of significant benefit flows to local communities from the commercial use of resources. The benefit flows from commercial enterprises can also provide incentives for retaining forests on land that might otherwise be cleared for other land uses. There is need to further these models, especially as they relate to land transfers and restitution on forest land. Industry has made undertakings to this effect under the Forest Sector Charter.

Early indications suggested that the privatization of State-owned forests would result in significant flows of benefits to local communities, but the actual outcomes and challenges of privatization have not been sufficiently monitored and documented. This study recommends that a comprehensive, formative evaluation of State plantation privatization be carried out. An important aim of the evaluation would be to recommend how to address key problems and enhance benefit flows to local communities.

The national BB-BEE Programme is an innovative and groundbreaking approach to addressing the economic marginalization of previously discriminated against groups. The Forest Sector Transformation Charter is a comprehensive undertaking by government and the private sector to transform forest ownership and the flow of benefits from forests, including measures to address a number of the challenges highlighted in this paper. Resources should be provided for effective monitoring and support of implementation of the charter, as well as for analysis and documentation of lessons relevant to other sectors and countries.

REFERENCES

Andrew, M., Ainsley, A. & Shackleton, C. 2003. *Evaluating land and agrarian reform in South Africa.* Occasional Paper Series: Land Use and Livelihoods No. 8. Cape Town, Programme for Land and Agrarian Studies, University of the Western Cape. Available at: www.uwc.ac.za/plaas.

Ashley, C. & Ntshona, Z. 2003. *Transforming roles but not reality? Private sector and community involvement in tourism and forestry development on the wild coast, South Africa.* Research Paper No. 6. Brighton, UK, Sustainable Livelihoods in Southern Africa Programme, Institute of Development Studies, University of Sussex.

Clarke, J. & Isaacs, M. 2005. *Forestry contractors in South Africa: what role in reducing poverty?* Cape Town, Programme for Land and Agrarian Studies, University of the Western Cape and London, International Institute for Environment and Development.

Derman, B., Lahiff, E. & Sjaastad, E. 2006. Strategic questions for strategic partners: challenges and pitfalls in South Africa's new model of land restitution. Presented at the Conference on Land, Memory, Reconstruction and Justice: Perspectives on Land Restitution in South Africa. 13–15 September 2006, Houw Hoek Inn, South Africa. (proceedings in preparation)

DWAF. no date. *Draft Policy and Strategy for the Management Devolution of State Natural Forests to other Agents.* Pretoria.

DWAF. 2006. *Draft Forest Sector Transformation Charter.* Pretoria.

Hall, R. 2007. The unfinished business of land reform. *The Mail and Guardian,* 23 February–1 March 2007. Available at: www.mg.co.za.

Howard, M., Matikinca, P., Mitchell, D., Brown, F., Lewis, F., Mahlangu, I., Msimang, A., Nixon, P. & Radebe, T. 2005. *Small-scale timber production in South Africa: What role in reducing poverty?* Pretoria, Fractal Forest Africa, Fakisandla Consulting, Institute of Natural Resources, Rural Forest Management, and London, International Institute for Environment and Development.

Lahiff, E. 2006. Land tenure data in agriculture and rural development: a critical review of dualism in South Africa. *In* FAO. *Land reform: land settlement and cooperatives.* Rome, FAO.

Ntsebeza, L. 2002. *Decentralisation and natural resource management in South Africa: Problems and prospects.* Occasional Paper Series: Land Reform and Agrarian Change in Southern Africa No. 22. Cape Town, Programme for Land and Agrarian Studies, University of the Western Cape.

Ntsebeza, L. 2004. Rural governance and citizenship in post 1994 South Africa: democracy compromised? *The State of the Nation,* HSRC press.

Palmer, R., Kinwell, R., Coleman, M. & Hamer, N. 2006. The Dwesa-Cebe restitution claim: a case study as preparation for field based learning. Unpublished report prepared for the Department of Land Affairs.

Robins, S., Steenkamp, C. & van der Waal, K. 2006. Land, identity and conservation: tracking the Makuleke land claim. Presented at the Conference on Land, Memory, Reconstruction and Justice: Perspectives on Land Restitution in South Africa. 13–15 September 2006, Houw Hoek Inn, South Africa. (proceedings in preparation)

Web sites

Department of Land Reform: http://land.pwv.gov.za.

Statistics on land reform transfers: www.sagoodnews.co.za/search/agriculture/868105.htm.

ANNEX. GLOSSARY

Communal land: Not an official term in South Africa, but used in this study to refer to various forms of publicly owned land officially granted for the exclusive use of tribes or other groups.

Forest: Includes natural forests, woodlands and plantations The following definitions are derived from the National Forests Act No. 84 of 1998:

> *natural forest:* a group of indigenous trees whose crowns are large and contiguous;
> *woodland:* a group of indigenous trees that are not a natural forest, but have more than 5 percent canopy cover;
> *plantation:* a group of trees cultivated for the exploitation of their wood, bark, leaves or essential oil. In South Africa, almost all plantations are exotic species, mainly from the genera *Eucalypus, Pinus* and *Acacia.*

Forest Sector Transformation Charter: A comprehensive master plan for the transformation of the forest sector, produced alongside the BB-BEE Act.

Trends in forest ownership, forest resources tenure and institutional arrangements: Are they contributing to better forest management and poverty reduction?

Case Study from the United Republic of Tanzania

By
Amina Akida
and
Rosina Blomley

Summary

Since approval of the revised National Forest Policy in 1998, the legal and policy environment for forestry in the United Republic of Tanzania has undergone a fundamental shift and now recognizes the need for partnerships with a range of stakeholders, while seeing rural communities as a critical partner in forest management. This change in forest practice and enforcement is partly a result of Tanzania's experiments with socialism and "villagization" (*ujamaa*) in the 1970s, which emphasized the role of the village in local administration and governance. The introduction of centralized administration during the colonial era had weakened the traditional land tenure arrangements and practices that defined common property rights.

Before colonialism, most land was common property, and was owned and utilized by members of well-defined groups, such as a tribe, the inhabitants of one village, a family or a clan. Management of these resources was governed by traditional or customary law. The Land Ordinance of 1923 defined and regulated land tenure in Tanganyika, declaring all land – occupied and unoccupied – as public land. The control and adjudication of such land was vested in the Colonial Governor. The Forest Ordinance of 1957 reinforced central government's exclusive control of all forest resources, and did not recognize traditional rights to use forest resource for villagers living around the forest reserves. Village assemblies were not designated as local authorities and were not consulted during the granting of licences to harvest these resources. Consequently, forests and forest resources were regarded as alien and belonging to the government, so local communities had little interest in conserving or managing them.

Perspectives on the role of forest in society have changed and broadened as a consequence of social, economic, environmental, cultural and political changes. Land laws (particularly the Village Land Act) have strengthened and formalized the role of the village council in administering matters relating to land and the management of natural resources at the local level.

The Forest Act, which was gazetted in 2002, allows two different approaches to partnerships and the devolution of rights in forest management. First, it recognizes a range of forest managers, all with full responsibility for forest protection, utilization and conservation. These managers include national, local and village government, groups and private individuals. Second, the law allows partnerships for the co-management of forest resources. Where forest management is shared between the State and local communities, the relationship is formalized through the signing of a joint management agreement (JMA). Where forest management on State-owned forest land is shared with a commercial forest company through a public–private partnership, this agreement is termed a concession. The Forest Act recognizes different kinds of forest tenure categories:

- *national forest reserves (NFRs):* gazetted forests owned and managed by the central government through the Forestry and Beekeeping Division (FBD) of the Ministry of Natural Resources and Tourism (MNRT);
- *local authority forest reserves (LAFRs):* gazetted forests managed at the district council level under the local government;

- *village land forest reserves (VLFRs):* forests owned by villages and managed by committees established under the village councils. This is a new category of forest, which was legalized following approval of the Forest Act.

Because the legal basis for forest law is relatively recent, many experiences regarding participatory forestry or partnerships with the private sector are still emerging, and it is difficult to draw conclusions regarding the viability of these or their contribution to either poverty reduction or forest management. This paper attempts to address these questions with the limited knowledge base that exists at present.

The two main types of participatory forest management that have been practised over the last decade are community-based forest management (CBFM) and joint forest management (JFM). Experience to date suggests that where communities have full title to the land and forests and decision-making power regarding use and management, participatory forest management (PFM) appears to be reaching its twin objectives of improved forest management and improved livelihoods. The law recognizes communities, through their village councils, as the sole managers of VLFRs. Evidence from communities that reserved their own forests in the mid-1990s clearly shows that forests are being restored, unregulated activity is being reduced and encroachment is declining. Forests also continue to provide local subsistence benefits and opportunities for regulated commercial harvesting (where the resource base is sufficient in size and composition).

JFM is proving much more complex, however, as forest management rights and responsibilities are shared between two forest managers. JFM has been heavily promoted by government in forest reserves with high biodiversity, which provide important services to the country in terms of water catchment functions. For local residents, the high conservation status of these reserves means that the legal benefits from them are limited. This has resulted in a number of observers criticizing the approach, as management costs placed on the communities far outweigh any tangible local benefits realized. Where utilization is permitted – such as in productive forests, including plantations, some natural and mangrove forests – the approach has been complicated further by failure to agree on national guidelines/regulations regarding how and what quantities of forest benefits (such as forest royalties) can be shared with local communities.

The act allows private individuals to own forests – usually small plantations, woodlots or forest patches, which are generally managed to provide domestic and commercial produce, such as poles or timber. Forest management and potential income generation are high for individuals who are sole owners and managers. A second form of private forestry is where large-scale investors or forest companies establish forests on village or general land (outside forest reserves). Although not widespread in Tanzania, a few well-known cases exist, such as Kilombero Valley Teak Company (KVTC) and Tanganyika Wattle Company (TANWAT). Although not required by law, most of these companies enter into partnerships with local residents to maintain good relations, and thereby reduce the risk of fires or encroachment. Such partnerships range from providing local employment to more elaborate schemes such as that practised by KVTC, which has established a community fund for supporting local development initiatives.

Forest monitoring for management purposes in national forest reserves is generally rather weak in Tanzania. Most often it is difficult to determine the extent of forest cover under different management regimes. Forests provide revenue from forest royalties, and other important services such as water and biodiversity, but they lack proper management plans. Forest plantations do at least have management plans and minimal monitoring. The lack of proper management plans and monitoring in most State-owned forests is due to the vast areas of forest resources and their limited quantities. As a result, many management actions are not implemented. Local governments also manage forest reserves, but their forest planning, management and monitoring are often non-existent. In many cases, no financial resources are directed towards the management of forest reserves, which are largely viewed as revenue sources for local governments, and lack of proper management has led to encroachment and illegal harvesting. Villages are required to undertake routine patrolling and monitoring of their own forests, and in most cases this has proved an effective way of controlling unregulated forest harvesting. Management plans, also required by law, are enforced through the use of local by-laws. In many cases, the running costs of VLFRs are covered by a portion of the revenue received at the village level. Private forests, particularly those managed by large-scale companies, tend to be very well planned, managed and monitored.

Through the National Forest Programme (NFP), efforts are under way to develop a comprehensive forest sector monitoring system – the National Forestry and Beekeeping Database (NAFOBEDA). This system is expected to provide detailed assessments of forest cover, quality and status, as well as other data regarding forests' contributions to local livelihoods.

The review of forest tenure in Tanzania concludes that when forest management responsibilities are devolved to the community, group or individual levels, the potential for achieving the goals of poverty reduction and sustainable forest management is maximized. Even under JFM arrangements where cost and

benefit sharing is clearly stated, the objectives of forest management are met. This study proposes the following ways forward:

- Elimination of major stumbling blocks for advancing JFM through developing a clear, transparent and nationally agreed framework for sharing the costs and benefits of managing government-owned forest reserves.
- The rapid scale up of support to rural communities that are interested in reserving their own forests on village land, to assist them in establishing VLFRs in ways that comply with the Forest Act.
- Harmonization of laws and regulations that govern community management of forestry and wildlife resources for local benefits.
- Strengthened protection of traditional forests through providing forest managers with legal instruments available under the law.
- Improvement of the quality of forest-level planning and monitoring in all forest reserves under central or local government.

Introduction

Much of Africa's forest estate is under the jurisdiction of either national or local governments. Excessive deforestation and forest degradation, resulting from population growth, agricultural expansion, escalating demand for wood products, illegal logging, industrial development and rapid economic growth, have triggered a debate on the effectiveness of public sector forest management and the need for changes in forest resource tenure and institutional arrangements. As a result, there is a shift towards decentralizing decision-making to lower levels of government, including districts and villages, and to increasing private sector involvement in forest management. To institutionalize the involvement of other stakeholders in forest management, changes in forest tenure and institutional arrangements for management are inevitable.

Between June and October 2006, FAO commissioned a study based on country-specific case studies from 23 countries in Africa, including the United Republic of Tanzania.[53] The objective of the study is "to achieve a better understanding of the relationship between forest resource tenure and forest management, and in particular of the implications for poverty alleviation". Tanzania was selected because of the advanced degree of community involvement in forest resource management in East African countries. The study is expected to help policy and law development in the respective countries, and will also raise awareness of the linkages between forest ownership, forest management and institutional arrangements and sustainable forest management and poverty alleviation.

The information in this report was collected from a range of literature and data sources, mostly available within the Forestry and Beekeeping Division (FBD) of the Ministry of Natural Resources and Tourism (MNRT), supported by personal interviews and some field visits. Much of the quantitative data regarding forest area and tenure arrangements are based on one-off studies, some of which were carried out a decade ago. At present, there is no apparent system for the regular updating of figures, as monitoring systems are still being developed.

[53] The other countries were Algeria, Angola, Cameroon, the Central African Republic, Côte d'Ivoire, the Democratic Republic of the Congo, Ethiopia, Gabon, the Gambia, Ghana, Kenya, Madagascar, Mali, Morocco, Mozambique, Namibia, the Niger, Senegal, South Africa, Uganda, Zambia and Zimbabwe.

The formal and legal context

LAND TENURE SYSTEMS IN TANZANIA

In order fully to understand the forest tenure system in the United Republic of Tanzania, it is important to understand the basic land tenure system. The legal basis for land tenure in Tanzania is derived from two basic laws that were passed in 1999. The Land Act and the Village Land Act state that all land in Tanzania is public land, which the president holds in trust for all citizens. The president delegates the power to designate, adjudicate and modify land tenure status to the Commissioner for Lands. District and village councils play an important role in managing land at the local level. These two laws have the overall objective of formalizing and legalizing traditional and customary land tenure arrangements.

Tanzania recognizes three categories of land:

- *Reserved land:* This is land set aside by central government for purposes such as nature conservation under wildlife or forestry laws. It includes forest reserves, wildlife reserves and national parks. Management of these areas is defined by the parent law (e.g., forest reserves are managed according to the Forest Act).
- *Village land:* This includes all land within the boundaries of registered villages, of which there are more than 10 500. Village councils and assemblies are given power to manage this land. The Village Land Act of 1999 allows village government to enter into agreements and enterprises that provide well-being for villagers. Village councils are required to divide village land into three categories: communal land, which is shared by a large number of individuals within the village and may include grazing, pastures, forests or other areas with natural resources; occupied land, which is used for housing, cultivation, businesses, etc. and managed by individuals or single families; and future land, which is set aside for future use by individuals of the community.
- *General land:* This is land that is neither reserved nor village land. It is managed by the commissioner of lands, on behalf of the central government.

FOREST TENURE SYSTEMS IN TANZANIA

The total area of land covered by forests in Tanzania is estimated at 34.6 million ha, of which 14.3 million ha is gazetted as forest reserves. The remaining 20.2 million ha of unreserved forest is under heavy pressure from conversion to other land-use systems such as agriculture, wildlife protection, grazing, land settlement, recreation and industrial activities. Table 1 provides an overview of the areas of forest under different ownership or management categories.

TABLE 1
Forest distribution by ownership and management regime

Ownership	Productive		Protective		Total	
	No.	Area (ha)	No.	Area (ha)	No.	Area (ha)
Declared or gazetted forest reserves						
Local authority forest reserves	95	1 356 204	74	231 470	169	1 587 674
National forest reserves	223	9 292 845	225	2 986 862	448	12 279 707
Private forest reserves (company)	3	47 834	1	13 097	4	60 931
Village land forest reserves	81	136 919	187	319 478	268	456 397
Subtotal reserved forests	*402*	*10 833 802*	*487*	*3 550 907*	*889*	*14 384 709*
Unreserved forests						
Proposed local authority forest reserves	20	64 019	43	102 559	63	166 578
Proposed national forest reserves	15	352 557	50	443 367	65	795 924
Proposed village land forest reserves	442	850 417	392	754 144	834	1 604 561
Subtotal	*477*	*1 266 993*	*485*	*1 300 070*	*962*	*2 567 063*
Forests on general land	n/a	17 704 269				17 704 269
Subtotal unreserved forests						*20 271 332*
Total						**34 656 041**

Sources: MNRT, 2000, 2002, 2006a; FBD records and information from Kilombero Valley Teak Company (KVTC).

The Forest Act (2002) recognizes the following categories of forest.

National forest reserves (NFRs): These are gazetted forests owned and managed by central government through FBD. They cover about 12.3 million ha, and constitute approximately 35 percent of the total area under forests. NFRs are either protection forest reserves (managed for conservation purposes such as biodiversity or water catchment) or production forests (including natural and plantation forests, which are harvested for timber, fuelwood and other purposes).

Local authority forest reserves (LAFRs): These are gazetted forests managed at the district council level as production and protection forests. There are 169 gazetted forest reserves under local government control, with a total area of 1.6 million ha and including both productive and protective forest reserves. LAFRs are regarded as a major source of district revenue from charcoal and timber extraction.

Village land forest reserves (VLFRs). These are a new category of forests, which became legalized following approval of Forest Act No. 14 of 2002. VLFRs, as suggested by the name, occur on village land and are owned and managed by the village council, on behalf of the village residents. There are approximately 1 100 VLFRs, either planned or already in existence, covering a total area of slightly more than 2 million ha, which represents approximately 11.5 percent of all unreserved forest land. They are managed for both production and protection purposes, depending on their location, size and composition. Following the legal transfer of rights and responsibilities to village government, through a process known as "declaration" villagers gain the right to harvest timber and forest products, collect and retain forest royalties and undertake patrols (including arresting and fining offenders). They are also exempt from regulations regarding the harvesting of reserved tree species, and are not obliged to share their royalties with either central or local government. One of the underlying goals of the forest policy is progressively to bring large areas of unprotected woodlands and forests under village management and protection. The Forest Act (2002) describes the legal process that enables village governments to reserve and manage their own forests.

Community forest reserves (CFRs): These are found on village land and are similar in all respects to VLFRs, except that the village council delegates their management to a group of people within the community (such as a women's group or a group of charcoal producers, timber operators or beekeepers). In such cases, the owner/manager is not the whole village but a subgroup or a subvillage.

Private forests: These are of two main kinds. The first is small-scale production of trees on private land, usually as part of an agricultural system. These forests may be the result of agroforestry or – more commonly – the establishment of small woodlots from 0.25 to 3 ha in size. Efforts to establish woodlots by individuals are significant, especially in Iringa region, where shortages of wood have encouraged farmers to plant woodlots and establish nurseries. These woodlots consist mainly of pines or eucalyptus, which are sold locally for timber and poles. In Tanga region, Muheza district, small plots of teak (*Tectona grandis*) are a common feature. Unfortunately, there is no information on either the legal state of ownership or the total forest area under individual ownership. The total contributions of individual woodlots, including agroforestry systems, to household income and poverty alleviation are not known.

The second type of private forestry involves large-scale private forestry enterprises obtaining leases on either village or general land for the purpose of planting trees. Within this category, there are three known private forests covering a total of 60 931 ha. Trees are produced for a range of purposes, but mainly for timber, poles or wattle bark. Annex 2 provides details on these three private forests.

Forests on general land: General land, formerly known as public forest land, is non-gazetted or non-reserved land, and is managed by the Commissioner of Lands on behalf of the president. Forests on general land (or general land forests) are, however, under the authority and jurisdiction of the Director of Forestry and Beekeeping. These areas constitute 51 percent of all Tanzania's forest land, and cover a total of 17.7 million ha. They have open-access use rights, and are characterized by insecure land tenure, shifting cultivation, and harvesting for fuelwood, poles and timber. They are under heavy pressure from conversion to other competing land uses, such as agriculture, livestock grazing, settlements and industrial development, as well as from wildfires. The rate of deforestation in Tanzania is estimated at 90 000 ha/year, and most of its impact is on public forests (United Republic of Tanzania, 1998).

Sacred and traditional forests: Although this forest category is not recognized by law, there are a wide variety of traditional, customary, clan or sacred forests that are managed at the community level for various reasons. Sacred forests are totally protected for burial sites, worship, sacred or religious purposes, while traditional forests are used for local consumption, for example, to provide dry-season grazing areas for pastoralists or local supplies of forest produce. Both these types of forest are usually well protected. Rather than using formal institutions such as village councils, sacred and traditional forests are often governed by clan or village elders, and protected by local beliefs or superstition, as well as more formal law enforcement. They are often very small in size and highly fragmented. A study in the North Pare mountains in northern Tanzania identified 290 clan (sacred) forests, locally called "*mshitu*" or "*mpungi*", covering a total area of 370 ha.

FOREST MANAGEMENT SYSTEMS INVOLVING MULTIPLE STAKEHOLDERS

The Forest Act provides two main mechanisms that result in stakeholder partnerships for the management of forest reserves: joint forest management (JFM) and forest concessions.

Joint forest management

JFM is a collaborative management approach that divides the responsibility and returns of forest management between the forest owner (usually central or local government, but sometimes the private sector) and the forest manager (usually forest-adjacent communities). JFM takes place on land reserved for forest management, such as NFRs (e.g., for catchment, mangrove or production purposes), LAFRs or private forest reserves. It is formalized through the signing of a joint management agreement (JMA) by village representatives and government (either the district council or MNRT). The legal basis for establishing JMAs can be found in Section 16 of the Forest Act (2002). FBD is currently revising the first version of its JFM guidelines, which were published in 2001. A survey by FBD in June 2006 established that JFM is operating or being established on 1.6 million ha of forest, representing approximately 13 percent of all forest reserved by national or local government and involving 719 villages (MNRT, 2006a).

Forest concessions

Section 20 of the Forest Act (2002) describes the process for establishing forest concession arrangements for the management of trees in forest reserves or general land. The law does not define a forest concession clearly, so there is potential for confusion between this section and the one describing JMAs (Section 16). The Forest Policy provides some clarification by describing a concession as:

"a long-term agreement between the government and a forest industry enterprise, the latter to manage a forest reserve, industrial plantation or part thereof mainly for timber production. The company is responsible for all harvesting and silvicultural activities including road construction and maintenance. The government collects the agreed royalty and concession fees" (United Republic of Tanzania, 1998)

The general consensus that seems to be emerging is that Section 20 of the law applies to large-scale industrial private forestry enterprises only, while Section 16 refers to any other form of co-management of forest resources. Concession agreements are for extended periods (e.g., 50 years) and are bound by the principles of a management plan agreed between the government and the private company. The process for developing a concession agreement is described in a recent MNRT publication (2006b).

FOREST MONITORING

Through the National Forest Programme (NFP) efforts are being made to develop a monitoring system for the forest sector: the National Forestry and Beekeeping Database (NAFOBEDA). An existing system already tracks all forest reserves and their different characteristics and details, including management regimes, ownership and utilization levels. This system has been piloted in six districts of Tanzania and at the national level within FBD. It will be introduced to other districts, resulting in national coverage within two or three years.

Changes and trends

As in many African countries, the advent of colonization in the United Republic of Tanzania fundamentally changed land tenure from a traditional and customary system to a centralized formal one. The introduction of centralized administration during this period weakened the traditional land tenure arrangements and practices that defined common property rights. Throughout history, different cultures have used common property to manage resources sustainably; in Tanzania common property was owned and utilized by members of well-defined groups, such as the inhabitants of a village, or the members of a family or clan. Management of common resources was guided by resource use rules under traditional or customary law.

Under the Land Ordinance of 1923 (Cap. 113), all land in Tanganyika, whether occupied or not, was defined as public land. Rights over the land were placed with the State, to be held, used or disposed of as "rights to occupancy" for the benefit of the people. Under the Land Ordinance, the titles to occupy land issued under customary law were recognized as rights of occupancy.

During the village mobilization of 1973 to 1976 (known as "villagization" or by its Kiswahili name *Ujamaa*), village structures assumed an increasingly important role in land tenure. During this period, hundreds of thousands of families were forcibly moved from their ancestral land to sites that were suitable for cultivation in locations where the government could provide much-needed social amenities. The role of the village and the legal basis for the concept of village land were enshrined in law through the approval of the Land and Village Land Acts in 1999.

Village councils were first elected by rural communities in 1975, but not recognized as empowered local government structures until 1981, through the approval of Local Government Act No. 7 of 1982. Villages were formed from combinations of existing hamlets, and in some areas completely new villages were created. Since then, the role of local institutions and traditional values in managing natural resources has declined, and management is increasingly the responsibility of village government structures such as the village council or the village natural resource committee (VNRC). Village government has replaced chiefs and clan elders in land allocation. Local beliefs about the value of protecting forests and traditional property rights, which influenced the use of common resources, have gradually eroded (Monela *et al.,* 2000).

Forest law and policy over the past 100 years have mirrored these shifting trends in rural land tenure. The Forest Ordinance of 1957 (Cap. 389), which governed the conservation and management of forests and forest products, was highly centralized. Part II Sections 5 and 9 of the ordinance provided for the declaration of central government forest reserves and restrictions on the use and/or occupation of such areas. This created conflict when villagers were denied their traditional rights to use resources, resulting in alienation of forest reserves and a subsequent lack of interest in conserving them for future use. Village assemblies were not consulted about the granting of licences to harvest forest resources near or in village lands. This was because these bodies were not designated local authorities and had no legal mandate to assume management responsibilities. The harvesting of forest products on land outside central government forest reserves was vested in central government.

In the early 1990s, with financing from the Swedish International Development Agency (SIDA), pilot forestry activities were established in Arusha region of northern Tanzania in dryland miombo forests that had been subject to encroachment and overharvesting. Activities were implemented through the Land Management Programme (LAMP), which facilitated communities' protection and management of three forest areas: Duru-Haitemba, Mgori and Suledo. Originally, central government had identified these forests as potential areas for gazettement as forest reserves, under provisions of the forest ordinance. Local opposition to the creation of national forest reserves was high, however, owing to concerns about exclusion from an area that was viewed as traditional village land. In addition, local forest officers were viewed with much suspicion and were widely regarded as corrupt, making local people doubt the potential for success of a reserve managed by government staff. Following consultations with FBD in 1994, it was decided that the villagers in these areas should be allowed to manage the forests themselves, using their own resources and for their own

benefit. Using by-laws that were legislated under the Local Government Act of 1982, villagers were encouraged to take an active role in local forest management through the establishment of village forest committees and patrol teams. Previously, forests had been open-access resources for use by both local and distant forest users, who generated income and short-term benefits from them, but in an unsustainable manner. Following the decision to empower village councils, these forest areas began a remarkable recovery that still continues.

These pilot areas were profiled at the national and international levels. LAMP initiated discussions with FBD in the late 1990s regarding how the forest areas could be formalized within the existing legislation. At the same time, a number of other area-based projects were facilitating the establishment of so-called village forest reserves in areas of forest set-aside, or areas reserved by village councils. A major milestone was reached in 1998 with approval of the revised national forest policy, which completely reframed the centralized and protectionist nature of forest policy in Tanzania. For the first time, forest policy clearly acknowledged forests' contribution to poverty reduction and rural livelihoods. Perhaps most important, however, the revised forest policy recognized the role of communities in the management of forest resources, as demonstrated by the two excerpts in Box 1.

Box 1. Excerpts from the Forest Policy of 1998

Policy Statement 5 (p. 19): To enable sustainable management of forests on public lands, clear ownership for all forests and trees on those lands will be defined. The allocation of forests and their management responsibility to villages, private individuals or to the government will be promoted. Central, local and village governments may demarcate and establish new forest reserves.

Policy Statement 6 (p. 21): Village forest reserves will be managed by the village governments or other entities designated by village governments for this purpose. They will be managed for production and/or protection based on sustainable management objectives defined for each forest reserve. The management will be based on forest management plans.

This policy shift paved the way for approval of the Forest Act (2002), which became operational following publication of the Forest Regulations. This act provides for a diversity of management options and expands the range of potential forest managers to include individuals, groups, villages, local and national governments. It also makes possible a range of management options in which roles are shared between forest owners and users. The concept of participatory forest management (PFM), a central strategy of Tanzania's Forest Policy (1998), Forest Act (2002) and NFP (2001), was conceived as a mechanism for transferring forest ownership and management from the central to village government, as illustrated in Box 2.

Box 2. Major milestones in the policy and legal framework

1982: Local Government Act No. 7 spells out the roles of district and village governments, and provides new levels of autonomy and devolution to local councils.

1998: National Forest Policy recognizes the roles of a diverse range of stakeholders and partnerships with non-governmental organizations (NGOs), the private sector and local communities for sustainable forest management.

1999: Village Land Act No. 5 confers responsibility for village land management and adjudication in lands to elected village councils.

2001: NFP (2001 to 2010) provides a strategic framework for implementation of forest sector policy, and stresses the roles of stakeholders from the public, private and voluntary sectors.

2001: Community-Based Forest Management Guidelines issued by MNRT.

2002: Forest Act No. 14 passed by parliament.

2004: Forest Regulations that operationalize the Forest Act issued by MNRT.

The following are the three broad policy objectives of PFM:

Rehabilitation and maintenance of forest quality: The primary goal of PFM is to restore and/or maintain forest quality and environment and the ecological services that forests offer to local and national stakeholders. It assumes that delegating management responsibilities to the lowest possible level leads to improvement of the forest resources in question.
Improved livelihoods for forest-dependent communities: Through access and user rights to forest resources, rural livelihoods at the village, community and household levels are expected to become more secure and sustainable. Communities will benefit from:

– financial returns, from the sale or lease of forest resource and the collection of fines;

– reduced vulnerability, through a sustainable supply of forest-based goods and services for domestic consumption (water, building materials and energy).

Improved local governance through more effective local natural resource management institutions: Locally elected village institutions provide the institutional basis for forest governance at the community level. PFM aims to strengthen these institutions to manage local resources in more effective, transparent and cost-efficient ways – thereby contributing to improved local governance.

The concept of forest concessions and mutually beneficial relationships between the public and private sectors for the long-term management of forest resources is relatively new in Tanzania, and was included in the Forest Policy of 1998. The Forest Act (2002) provides the legal basis for forest concessions, and MNRT has recently approved guidelines and formats for agreements. Various models of concession arrangements will be piloted.

Analysis of forest management systems

FORESTS OWNED BY CENTRAL AND LOCAL GOVERNMENT

In the United Republic of Tanzania, State-owned forest reserves (including national and local authority forest reserves) constitute about 40 percent of the total forest estate and cover about 13.8 million ha. In most cases, the central government has jurisdiction over the administration and protection of State-owned forest reserves, which are classified as NFRs. Central government employees involved in protecting NFRs include district catchment forest officers, zonal mangrove officers and forest managers. A small proportion – approximately 11 percent – of State-owned forest reserves is under the jurisdiction of local governments and supervised by district forest officers. These forests are classified as LAFRs. LAFRs and NFRs can be either production forests with commercial aspects or protection forests managed primarily as catchment areas where no consumptive utilization is permitted.

Owing to the scarce capacity and resources of both central and local government, the management of many government-owned forest reserves is limited. A recent study assessed the available staff and capacity to manage the Eastern Arc mountain forests, and found that the government was providing approximately one-quarter of the resources required to manage these forests adequately. Assuming that 1 km^2 of forest requires about US$364 per year to manage, there was a shortfall of more than US$1 million per year, even when donor funding was included (Burgess and Kilahama, 2005). Plantation forests tend to receive more government support because of their high economic value and potential for generating income. Key catchment forests that play vital roles in water conservation or biodiversity conservation, such as the forests in the Eastern Arc mountains, receive special attention and are often well supported by projects or external funding.

LAFRs tend to be poorly managed and many are viewed simply as sources of revenue for local governments, which have limited resources and few opportunities for generating local revenues. Typically, the only resources that local authorities invest in the management of LAFRs are the staff salaries of divisional or ward-level forest staff under the district council.

Where no formal arrangement for PFM exists, local communities have very few legal rights to use forests. Unregulated consumption often takes place, however, particularly in areas close to urban centres where the demand for charcoal, timber or fuelwood is high, such as in Pugu South Forest Reserve, an NFR within an hour's drive from Dar es Salaam. Despite the extremely limited management inputs from government, encroachment into government-owned forest reserves is surprisingly low.

A recent study tracked forest cover changes in the Eastern Arc mountain forests and calculated that approximately 70 percent of the original forest cover has been lost and the remainder is retreating towards the boundaries of NFRs (Mbilinyi and Kashaigili, 2005). The period of greatest forest loss was between the 1970s and the early 1990s; the rate has slowed markedly because there are now very few pockets of forest outside reserve boundaries. The study demonstrated that local communities appeared to know and respect forest reserve boundaries, in spite of central government's negligible efforts to enforce them.

Regular monitoring of government-owned forest is very rare. In 1994/1995, FBD's Forest Resources Management Project, supported by the World Bank, undertook a national forest and land resources assessment to provide an updated picture of the state of forests in Tanzania, but no other national study has been undertaken since then. Specific studies of particular geographical priority areas or themes (biodiversity, stock assessment) have been undertaken, but their limited scope makes long-term monitoring impossible. Current plans under the NFP to develop a forest-based national monitoring facility may lead to organized assessments of forest resources.

FORESTS OWNED BY VILLAGE GOVERNMENTS

A village council may reserve common land within the village land as a VLFR for purposes of forest management. The village council owns and manages the trees through a VNRC, a group or an individual, and most of the costs and benefits of managing and utilizing forest resources are carried by the owner. Central government has a minimal role in the management of VLFRs, and district councils are responsible for their planning and establishment, as well as for undertaking occasional monitoring. To declare a VLFR, the village prepares a management plan, which must be approved by the village assembly. Villages can make by-laws to support the management plan and provide the legal basis for enforcing forest management rules. Annex 3 provides a sample format for a VLFR management plan, and Box 3 provides a case study of management.

The following are some of the incentives that the Forest Act (2002) provides to encourage local communities to reserve forest resources on general land (see Table 1):

- *Waiving State royalties on forest produce:* This means that the village is not bound by inflexible (and low) royalty rates, and can sell its produce at prevailing market rates.
- *Exemption from local government taxes ("cess") on forest produce from village forest management*: This means that produce harvested from VLFRs is not liable for local government taxes during transportation.
- *Exemption from the reserved tree species list:* This mechanism under the Forest Act (2002) protects commercially important or endangered tree species on unreserved land, and entrusts their management (and commercial use) to the district forest officer. When under village management, decisions about harvesting are transferred to the village administration.
- *Confiscation and sale of forest produce and equipment harvested illegally*: Any forest produce or equipment used to harvest illegally in a VLFR may be confiscated and sold by the village council, and the proceeds used to benefit the village.

As a result of these incentives, communities' interest in establishing community-based forest management (CBFM) is increasing. Evidence is mounting that forest condition is significantly improved when it is managed locally by mandated village institutions under CBFM arrangements. A study in Shinyanga region demonstrated that local communities' restoration of forest patches (known locally as *ngitili*) had resulted in the reintroduction of 152 tree species and 145 bird species, many of which were thought to have disappeared before the forests were restored (MNRT and IUCN, 2005). Mgori forest in Singida district is another example. Covering 44 000 ha divided among five villages, the forest area has been heavily recolonized by game and a range of wildlife such as elephants, monkeys, baboons and leopards.

Despite the positive incentives provided under the law, villagers who have embarked on CBFM have not yet capitalized on the significant economic values within their forest reserves. The following are possible reasons for this:

- *Poor state of forest resources:* Much early CBFM was carried out on degraded forest land that had little merchantable timber left. This meant that utilization opportunities for forest managers were limited and long periods were required before the forests became commercially viable. For example, Duru-Haitemba Forest in Babati district is only now being considered for low-level commercial harvesting after 11 years of community management.
- *Reluctance to use harvesting as a management option*: The initial stages of CBFM are often concerned with reserving, securing, protecting and restoring forests on village land, because CBFM is frequently a response to uncontrolled utilization and severe degradation. Some communities resist harvesting for fear that utilization may lead to uncontrolled use and result in forest destruction. This fear is reinforced by district foresters' heavy emphasis on conservation, in-line with their mandate to conserve and protect forest resources. A further problem is communities' lack of knowledge about the availability of profitable timber markets, both locally and internationally.
- *Crop damage from wildlife:* As with JFM, increases in game numbers appear to have a negative effect on local social and economic conditions. In July 2004, an elephant from Mgori VLFR killed two people in Ngimu village and destroyed large amounts of crops –

the first incidence of this type for many years in that village. Increased numbers of monkeys and baboons also pose a problem for farmers with fields close to the forest boundary. Unfortunately, wildlife management and use is regulated by a separate set of legal instruments, such as the Wildlife Management Act and the Wildlife Management Area Regulations (2002). Reserving forests on village land does not grant village governments automatic rights to wildlife. To obtain such rights, villages must follow different steps, leading to the eventual establishment of Wildlife Management Areas (WMAs).

Box 3. VLFR, case study of Kipangege village, Kibaha district

Kipangege village is located in Kibaha district, Coast region, and borders the NFR of Ruvu South. An adjacent area of land covering 232 ha was originally occupied by Mkubagile village, but this village was removed following the national villagization programme of the mid-1970s. The forced removal of the resident population resulted in rapid recovery of the forest through natural regeneration over 40 years, producing a mature coastal forest. However, proximity to Kipangege village meant that the demand for forest products was high, as was the frequency of forest fires, so degradation of the forest was an increased risk.

In 2001, the *Misitu Yetu* (Our Forest) Project, implemented by a local NGO – the Tanzania Forest Conservation Project – in collaboration with FBD staff based at Kongowe, supported the villagers' reservation of this forest area as the Kipangege VLFR. The forest is totally protected, and the village has set aside an additional area of village land from which villagers can continue to obtain forest products. This area and an area inside Ruvu South NFR are used as burial places. The project facilitated a JMA for the management of the Ruvu South NFR, based on a management plan for a single village forest management area (VFMA).

The Kipangege village forest patrol team conducts patrols once a week. It has 12 members, who are elected every two years on a rotational basis so that every villager has an opportunity to understand the forest through patrolling. When practical work is required for the VLFR, the communal work system is utilized. In this way, the boundary has been cleared and planted with tree seedlings. The households and farmers adjacent to the forest report illegal forest activities. A similar patrol team operates within the Ruvu South NFR, but its activities are complicated by the fact that patrolling is undertaken jointly with FBD forest rangers, who frequently fail to show up for joint patrols. The process for disposing of goods confiscated during joint patrols is also unclear and has created resentment within the village.

Achievements to date include the stabilization and recovery of Kipangege VLFR through community efforts, and the recovery of village water sources within the forest, which were threatened by forest degradation. Local residents are very satisfied with the fruits of their work and have been able to collect limited amounts of non-wood forest products. Conflicts between FBD and the village regarding the shared management of the Ruvu South NFR, however, have resulted in a questionable future for the JMA. Villagers complain that they do not get enough cooperation from FBD and that all management costs have been devolved to the community, while benefits remain with government.

VLFRs can be declared or gazetted. Declaration takes place when the village government formally agrees to set aside or reserve an area of forest within the village land. Once the respective district council endorses this declaration, the villagers are fully empowered to manage the forest using provisions set out in the management plan and by-laws. After three years, villagers may request FBD to gazette the VLFR formally. The differences in terms of legal powers are very unclear, however, and the process is voluntary, so very few village governments have gone through the rather complex steps required to achieve national gazettement. Currently, of 329 declared VLFRs, only 53 are gazetted.

The monitoring process for PFM is being integrated into the wider NFP monitoring system. Monitoring is largely done at the village level, with communities being provided with the skills to conduct participatory forest resources assessment (PFRA) and standardized tools for recording and monitoring financial expenditures, issuing permits, levying fines and undertaking patrols. Six-monthly status reports provide regular monitoring data on PFM.

PRIVATE FORESTS

Private forests are of two main types: large-scale investors or private companies establish private forests on land leased from villages, or from the government on general land; and, more frequently, individuals or households establish small woodlots or forest patches, either by planting trees or through natural regeneration.

The Commonwealth Development Corporation has financed two plantations in Tanzania: Kilombero Valley Teak Company (KVTC) in Kilombero and Ulanga districts, which has been operating since 1992; and Tanganyika Wattle Company (TANWAT), which plants wattle and has pines and eucalyptus in Njombe district. A third private forest – Farm Forest Company Limited – is financed by Norwegian investors and plants pines and eucalyptus for timber and poles in Mufindi and Kilombero districts. Escarpment Forest Company Limited is about to start generating revenue from trading carbon, having received certification for carbon sequestration in late 2000.

Box 4. Company private forest, case study of KVTC

In 1993, the Commonwealth Development Corporation established KVTC with a 99-year lease from the Government of the United Republic of Tanzania. The company's mandate is to develop plantation forestry as a means of promoting sustainable economic, social and environmental development in the Kilombero Valley.

KVTC aims to produce 230 000 m^3 of timber per year on a sustainable basis. It has leased 28 131 ha of land in miombo woodland, and proposes to plant teak over 25 percent of this area. The remaining 75 percent has land-use plans for natural areas, with the aim of sustainably managing approximately 8 000 ha of miombo and protecting the remainder of the leased land.

Environmental impacts

The importance of evergreen forests as areas of exceptional biodiversity and endemism is understood. The conservation of important ecosystems and areas of high biodiversity is part of KVTC's environmental policy, which is strictly adhered to when natural areas are converted to teak plantations. The formal procedure for converting natural areas to teak plantations provides for the conservation of important ecosystems and areas of high biodiversity.

In early 2004, KVTC carried out remote sensing using satellite images from Spot 4 with a resolution of 10 m. This forest cover mask can be used to compare forest cover changes within and outside the KVTC concession areas and to assess the impacts of KVTC activities on surrounding areas, at the district, regional and country levels. Forest cover changes from May 2002 to July 2004 were compared. An area of 69 488 ha was assessed, comprising 16 388 ha of KVTC-leased area and 53 100 ha of village land. The results showed a forest cover loss of 0.73 percent of the total area within the KVTC concession, compared with a 4.4 percent loss outside the KVTC leased land. The areas that experienced decline and the causes of forest loss are being monitored yearly.

Social and economic impacts

KVTC is committed to the socio-economic empowerment of the people, and has embarked on a local economic empowerment programme.

- The company has shifted its employment base to use outsourced employment.
- KVTC contributed US$800 000 to the local economy in 2005, mainly via its outsourcing programme.
- The local villages received US$30 000 of village contracts during 2005. The company works with villagers and has established village contracts that educate and heighten the environmental awareness of villagers by financially rewarding them for the reduction of wildfires and poaching in the KVTC area.
- KVTC pays social funds directly into villages' bank accounts, of which the company is a co-signatory. Funds are managed to achieve goals set by the villages.
- KVTC and its contractors employ about 500 labourers a day.
- KVTC has started an outgrowers scheme in which local residents are provided with subsidized seedlings, technical advice and inputs and are guaranteed markets for timber from mature trees of an acceptable size and quality.

Private forests that are established or reserved on private land by households include woodlots, areas of land left to regenerate and recover, and small plantations for commercial production of forest products.

Box 5. Household private forests, case study of Mzee Mabula in Maswa district

Mzee Mabula moved to his current home in Wigekelo, Maswa district in 1978. At that time, the land was in very poor condition and had been cleared and heavily overgrazed. Almost all the vegetation had been removed by extensive browsing of goats and cattle from neighbouring villages. Mzee Mabula set about restoring the area, initially by planting sisal around the edge of the farm to keep livestock off his land. He then contacted the *Hifadhi Ardi Shinyanga* (Shinyanga Land Conservation Project – HASHI), which was supporting local communities' restoration of forest lands through the traditional system of *ngitili* – a land management practice developed by the Sukuma pastoralists to provide dry-season grazing for livestock. Mzee Mabula was advised to allow a portion of his farm to regenerate naturally and to start digging a series of water harvesting contours on the most degraded areas, which covered about 20 acres (8 ha). A small pond was dug at the bottom of his farm, which filled up during the heavy rains of 1998 and now provides water for most of the year for domestic and livestock use.

Since he started restoring his land in the mid-1990s, Mzee Mabula has seen a number of significant changes in his local environment. Trees have re-established themselves and many are now old and large enough to be harvested for fuelwood and building poles, while bees – which used not to be found – recolonized the area after Mzee Mabula placed traditional hives in flowering acacia trees. Grass has re-established itself under the regenerating trees and now provides important fodder resources for his cattle and goats. What was previously an eroding piece of land is now a local water catchment area.

The following are some of the benefits that Mzee Mabula has enjoyed since reforesting his farm:

- Sufficient pasture for his 50 cows, goats and sheep, even during the dry season when other areas are exhausted.
- Sufficient fuelwood for domestic use, with some surplus to sell to neighbours.
- Available water for drinking and watering stock. His wife and daughter no longer have to collect drinking-water from wells distant from the farm.
- Sales of pasture and thatching grass to neighbours, at Tsh 500 per bundle (about US$0.4).
- Sales of poles to neighbours, providing enough cash to buy iron sheet roofing for his new house.
- Increased milk production and honey from beekeeping will soon add extra income.

Source: Adapted from Mlenge, 2004.

TRADITIONAL FORESTS

Many ethnic groups in Tanzania have collectively or individually conserved forest areas for a range of social, cultural, religious and other traditional purposes. Traditional forests can be thought of as either communal or private forest reserves that have not undergone any official establishment process. Perhaps the most well documented examples of this type of forest are the *ngitili* forests of Shinyanga and Mwanza regions. As a strategy to cope with shortages of fodder during the dry season, the Wasukuma pastoralists developed an indigenous fodder conservation system, called *ngitili*, which protects natural rangelands through controlled and deferred grazing. The final few weeks of the dry season are a critical and vulnerable time for livestock keepers, as all sources of grazing and browse are usually exhausted. *Ngitili* forests provide a reserve of fodder during this critical period. By enclosing a designated area as bush fallow and allowing livestock to use it only during this critical time, traditionally reserved forests are protected, resulting in rapid regeneration and re-establishment of trees. The browse trees play an important role in the nutrition of livestock, particularly as supplements to grasses and crop residues.

JOINT FOREST MANAGEMENT

JFM is a formalized management arrangement in which two parties have primary interests – the forest manager and the forest owner. The signing of a JMA transfers user and management rights, but maintains ownership. The Forest Act (2002), Section 16 states that a JMA can be made between:

- FBD and "any person or organization in the public or private sector providing for the management within the vicinity of that national forest reserve", as well as community groups or other groups living adjacent to and "deriving the whole or a part of their livelihood from that national forest reserve";
- a district council and a village council, a community group or any person or organization in the public or private sector providing management for that village council or community group;
- a village council and a community group providing management of a VLFR;
- the manager of a private forest and community groups or other groups of people living adjacent to and deriving the whole or a part of their livelihoods from or adjacent to the private forest.

The most common JFMs are agreements between central government and village councils, under which the village defines an area within the forest that it will jointly manage with the government. Such areas are called village forest management areas (VFMAs). Authority to manage the VFMA is delegated to an elected sub-committee of the village council, which is called the village environment committee, the village natural resource committee or the village forest committee. Box 6 provides a case study of a village working with JFM. To date, 719 villages have or are working towards acquiring approved management plans and JMAs for managing a total of 1.6 million ha (see Table 1). Management plans are developed by the villagers in consultation with district authorities and must include:

- name and description of the forest;
- objectives of the agreement;
- parties to the agreement;
- management activities to be undertaken;
- rules, and penalties for breaking them;
- how funds from forest management (fines, fees) will be managed and spent;
- procedures for resolving disputes that may arise among the parties to the agreement;
- duration of the agreement;
- how the agreement will be revised.

Experience over the last few years confirms the general assumption that JFM, when well facilitated, can lead to recovery and/or maintenance of forest quality. Although empirical evidence is scanty and only limited long-term ecological monitoring has been carried out, many villages responsible for forest management under JFM arrangements are reporting important indicators such as:

- improved water discharge and quality from forest areas managed jointly;
- increasing signs of natural regeneration in formerly degraded areas;
- reduced incidences and spread of fire;
- reduced illegal activities;
- reduced encroachment of agricultural land into forest areas;
- increased game and wildlife numbers and diversity.

It therefore appears that JFM contributes to sustainable forest management, but further research and documentation are required to confirm this.

Evidence of improved livelihoods is less clear, particularly regarding more tangible, economic returns from forest management. A recent assessment of JFM in Iringa district (Topp-Jørgensen *et*

al., 2005) found average annual village incomes of only US$189 from JFM areas inside NFRs. The following are some of the wide range of reasons for this poor performance:

- National and international interest regarding the protection of critical forest ecosystems has led many early donors to direct funding for PFM towards high biodiversity and protection forests, such as catchment forests. Given the national and global values of these forests, local use options – and corresponding management responsibilities – tend to be minimal.
- Although a significant portion of the forest reserves under central government are productive forests and highly suited for JFM arrangements, progress in this direction has been limited. Two possible causes of this are the lack of a legal basis for sharing the significant revenues obtained from productive forests (planted or natural), which makes binding agreements difficult, and the reluctance from some quarters to share central government revenues with local communities.
- Fines collected by local patrols for illegal activities within the forest represent an important income source for village forest managers, particularly where the forest status precludes economically productive activities such as timber harvesting. As forest areas are brought under effective village control, the incentives for open-access harvesting decline, so illegal activities drop and income from fines tends to decrease. This has often reduced the revenues of village forest management committees to such low levels that even very basic village forest management costs become difficult to meet.
- As forests are managed in more sustainable ways, wildlife populations tend to increase and recolonize from surrounding areas. The ability of villages to cash-in on this new-found resource is limited by the restrictive, bureaucratic rules and regulations regarding community wildlife management in Tanzania. Consequently, increased wildlife numbers in JFM areas often represent an unwanted and growing cost owing to crop raiding and damage to property. This is a particular issue regarding larger mammals, such as elephants and buffaloes, which threaten life and property. Although villages may be granted wildlife management rights and hunting concessions through the establishment of WMAs, this requires complicated institutional arrangements and it is not yet clear whether a single area can be managed simultaneously as a WMA and a VLFR.

Box 6. JFM, case study of Nyamisati village, Rufiji district

Nyamisati is a small village located on the northern fringes of the Rufiji delta on Tanzania's coastline. The village is remote, isolated and characterized by low levels of literacy and very limited development. In 1998, with support from the Norwegian government, FBD initiated activities in this and another 18 coastal villages in the delta area to develop JFM agreements for the management of important mangrove forests, which were under severe threat from harvesting and other forms of development. The village signed a JMA with the government following extensive negotiation of village by-laws and management plans. The mangrove was divided into productive (utilization) and protective (conservation) zones.

Environmental and social impacts

- 140 ha of mangrove forests have been rehabilitated.
- Effective joint patrols and control of the harvesting of mangroves have resulted in the natural regeneration of degraded areas.
- Rice farmers, who had cleared 20 ha in 2004, have moved out of the mangrove following negotiations with the VNRC, indicating a high level of awareness about the importance of the ecosystem.
- Conservation zones have been improved and recovered. Communities have contributed to this by providing labour for replanting and patrolling and by following selective harvesting regulations and by-laws.
- Communities and district staff have been trained in beekeeping, seaweed farming and fish and shrimp farming techniques.

Among the remaining challenges are the following:

- *Tenure conflicts:* During the villagization era of 1969 to 1973, villagers were allocated land for farming, some of which was mangrove that they subsequently occupied for rice cultivation. The displacement of many of these farmers to make way for the regeneration of mangrove has created conflicts and deprived the farmers of livelihoods. A second cause of conflict arose over failure to demarcate the boundaries of each village's land and of each VFMA, leading to uncertain roles and overlapping mandates in disputed areas.
- *Cost and benefit sharing:* Failure to agree on equitable cost and benefit sharing continues to undermine JFM arrangements in this and other coastal villages. According to villagers interviewed for the case study, revenue from the utilization zone amounts to just over Tsh 6 million/month (about US$4 600). Before regulated harvesting was introduced under the JMA, forest products were collected free, and mangrove poles were an important revenue source to villagers (one villager said that he used to earn about Tsh 90 000 a month). The JMA may therefore have resulted in reduced incomes and subsistence benefits, leading many villagers to question the rationale for the project. Together with the delayed finalization of regulations and guidelines for benefit sharing, this will undermine local communities' continued commitment to JFM.

CONCESSION ARRANGEMENTS IN GOVERNMENT FORESTS

As already discussed, concessions are provided for in both law and policy, and guidelines are currently being formulated for the negotiation of concessions and the preparation of template formats. To date, no concession or lease of government forest land has been negotiated, and the future of concession arrangements is currently unclear.

Conclusions and the way forward

Forest policy, law and practice have evolved rapidly over the last decade, largely as a result of changes occurring outside the natural resources sector. Since the 1970s, the United Republic of Tanzania has been promoting decentralization through locally elected district and village governments. This has increased, and a range of services and government budgets have been devolved to local government levels over the last ten years. This trend has been accompanied by a focus on participation in the formulation and implementation of policy – local communities are expected to participate directly in planning and achieving their own development. Within macroeconomic policy, the increasing emphasis that Tanzania and its development partners put on poverty reduction has led all government departments to demonstrate a clearer link between their activities and broader poverty reduction goals. The introduction of the land laws in the late 1990s sought to formalize customary land tenure in village areas, devolving land allocation and adjudication matters to village governments.

These trends were sufficient to ensure that when the Forest Act was passed in 2002 it transformed decades of centrally controlled forest management by embracing a range of partnerships among players in the public, private and civil society sectors. The degrees to which these new opportunities have been put to advantage have varied considerably. Progress has been made regarding the implementation of PFM, and currently more than 1 800 villages are involved in some form of PFM on more than 3.6 million ha of forest land. Arrangements for leasing part or all of government forest reserves (termed forest concessions in law) have met with less success.

Annex 4 provides an overview and typology of the different forest tenure types known to exist in mainland Tanzania, and draws general conclusions regarding the degree to which these different tenure arrangements have contributed to poverty reduction, sustainable livelihoods and restoration or maintenance of forest condition. The most State-controlled forms of forest management appear at the top of the table, and the most privatized forms at the bottom. Community-based and communal forms appear in the middle.

Although not perfectly correlated, this analysis suggests that the chances of achieving sustainable forest management and poverty reduction are highest where forest management rights and responsibilities are fully devolved to the community, group or household level. NFRs have been effective in maintaining forest cover, but only where significant investments of funds and staff have been made. The creation of forest reserves without management arrangements results in degradation and loss of forest cover, as shown in the case of LAFRs.

For local governments faced with limited financial resources and pressing development demands, investment in forest management is often limited, and LAFRs are often perceived as more of a source of income than an asset that requires long-term investment and management. Limited transport, access to forest areas and capacity result in inappropriate management practices. For village communities that own, manage and use the forest they live next to, the incentives to invest labour, time and resources in management are greater.

Where government has entered into partnerships with local communities (in JFM), forests seem to be being restored and the management undertaken by communities through local patrols appears to be having a positive impact. In terms of positive and tangible benefits to communities, however, the picture is less clear. The strict protection management regime practised in protection forests, such as catchment forests that are reserved primarily to conserve water and biodiversity, restricts harvestable resources to only low-impact, non-timber forest products, such as medicinal plants, honey, dead fuelwood and, in some cases, limited livestock grazing. The absence of agreed guidelines or regulations regarding the level and mechanisms for sharing forest management benefits (royalties or produce) in production forests has prevented JMAs in such forests from being endorsed, even though they may have passed through long negotiation and discussions at the community level. These two factors have meant that the livelihood benefits of JMAs in government forest reserves have been somewhat limited.

Forest and wildlife resources are governed by parallel sets of legal instruments, which have evolved separately and place quite different requirements on communities with regard to local management. This sectoralization of laws and policies places additional burdens on communities wishing to benefit from the revenues from both commercial wildlife hunting and the sustainable utilization of timber from forests on village lands; currently it is not clear whether a WMA can be established in an area declared as a VLFR (or vice versa).

In general, the monitoring of government-owned forests for management purposes is weak in Tanzania, particularly in LAFRs. At the forest sector level, improvement is currently under way as development partners and government move towards a more harmonized sector-wide approach (SWAP) within the framework of NFP. FBD is establishing and operationalizing a sector-wide monitoring framework that will draw on lower-level monitoring systems operating in villages and districts to provide regular status reports regarding the achievement of sector-level indicators.

Recommendations regarding forest policy, law, forest management and planning issues related to improved livelihoods include the following:

- A clear, transparent and nationally agreed framework for sharing the costs and benefits of managing government-owned forest reserves through JMA needs to be developed. This has been identified as a major stumbling block for advancing JFM in both productive and protective forests. The framework should include simple tools for assessing, negotiating and agreeing forest management costs and benefits with local communities, as well as a mechanism for sharing forest royalties. Regarding protective forest reserves, more imaginative approaches are required, such as developing payments for environmental services – water, power, biodiversity and carbon.
- Laws and regulations governing the community management of forestry and wildlife resources for commercial hunting and forest resource use need to be harmonized to embrace a more broad-based conceptualization of community-based natural resources management and to avoid the potential for conflicts at the local level.
- There is need to scale up the support to rural communities interested in reserving their own forests on village land, to assist their establishment of VLFRs in ways that comply with the Forest Act. Some villages have large areas of unmanaged miombo woodlands, and others have traditional forests that have been managed under customary rules and tenure; both need to be formalized to ensure adequate protection under the law.
- Tanzania has a large number of traditional, sacred and cultural forests that are owned individually or communally and used for a range of purposes, including religious, cultural or social uses, as well as more utilitarian purposes such as dry-season grazing, collection of medicinal herbs or beekeeping. Almost all of these forests have been protected by traditional institutions and sanctions, but this protection now needs to be strengthened by providing forest managers with legal instruments.
- Different models of concession arrangements for managing forest plantations with the private sector need to be piloted and implemented. Agreements must contain clear provisions for working with and supporting community-level social and economic development. This is planned with support from the Tanzania Forest Conservation and Management Project, financed through the World Bank.
- There is a need to improve the quality of forest-level planning and monitoring in all forest reserves under both national and local government. Creative mechanisms will need to be developed at the local government level to ensure that a portion of the revenues received by local governments from forest royalties go towards forest management at this level. This could be through some form of retention mechanism, whereby shares of revenues are retained and earmarked for forest management.

References

Blomley, T. & Ramadhani, H. 2006. Going to scale with participatory forest management. Early lessons from Tanzania. *International Forestry Review,* 8(1): 93–100.

Burgess, N. & Kilahama, F. 2005. How much of the Eastern Arc Mountains is protected and what needs to be done to complete the protected area network? *The Arc Journal,* No. 19. TFCG.

Iddi, S. 2002. Community participation in forest management in the United Republic of Tanzania. FBD, MNRT. *In* FAO. *Proceedings of Second International Workshop on Participatory Forestry in Africa.* Rome. 455 pp.

Kaoneka, A., Monela, G., Kajembe, G. & Turuka, F.M. 2000. *A review of the National Forest Policy of Tanzania.* FBD, MNRT.

Mbilinyi, B. & Kashaigili, J. 2005. How much forest is there in the Eastern Arc Mountains? *The Arc Journal,* No. 15. TFCG.

Mlenge, W. 2004. Ngitili. *An indigenous natural resources management system in Shinyanga.* ALIN, East Africa. Ford Foundation. 56 pp.

MNRT. 2000. *The status of central and local government forest reserves, private sector, or others in Tanzania.* NFP, FBD.

MNRT. 2001a. *Forestland tenure systems in Tanzania.* Task Force on Forest Land Management, National Forest Programme Formulation in Tanzania.

MNRT. 2001b. *National Forest Programme 2001–2010.* Dar es Salaam, Tanzania, FBD.

MNRT. 2002. *Forestry in figures.* FBD.

MNRT. 2006a. *Participatory forest management in Tanzania. Facts and figures*. FBD.

MNRT. 2006b. *Framework and guidelines for evaluating and awarding forest concession arrangements in Tanzania.* FBD.

MNRT & IUCN. 2005. *A study on the social, economic and environmental impacts of forest restoration in Shinyanga region, Tanzania.* 223 pp.

Monela, G., Kajembe, G., Kaoneka, A. & Kowero, G. 2000. Household livelihood strategies in the miombo woodlands of Tanzania: emerging trends. *Tanzania Journal of Forestry and Nature Conservation,* 73: 17–33.

Sjoholm, H. & Louno, S. 2002. Traditional pastoral communities securing green pastures through participatory forest management. The case of Kiteto district, United Republic of Tanzania. *In* FAO. *Proceedings of Second International Workshop on Participatory Forestry in Africa.* Rome. 455 pp .

Topp-Jørgensen, E., Poulsen, M., Lund, J. & Massao, J. 2005. Community-based monitoring of natural resource use and forest quality in montane forests and miombo woodlands in Iringa district, Tanzania. *Biodiversity and Conservation,* 14: 2653–2677.

United Republic of Tanzania. 1998. National Forest Policy. Dar es Salaam, Tanzania. 59 pp.

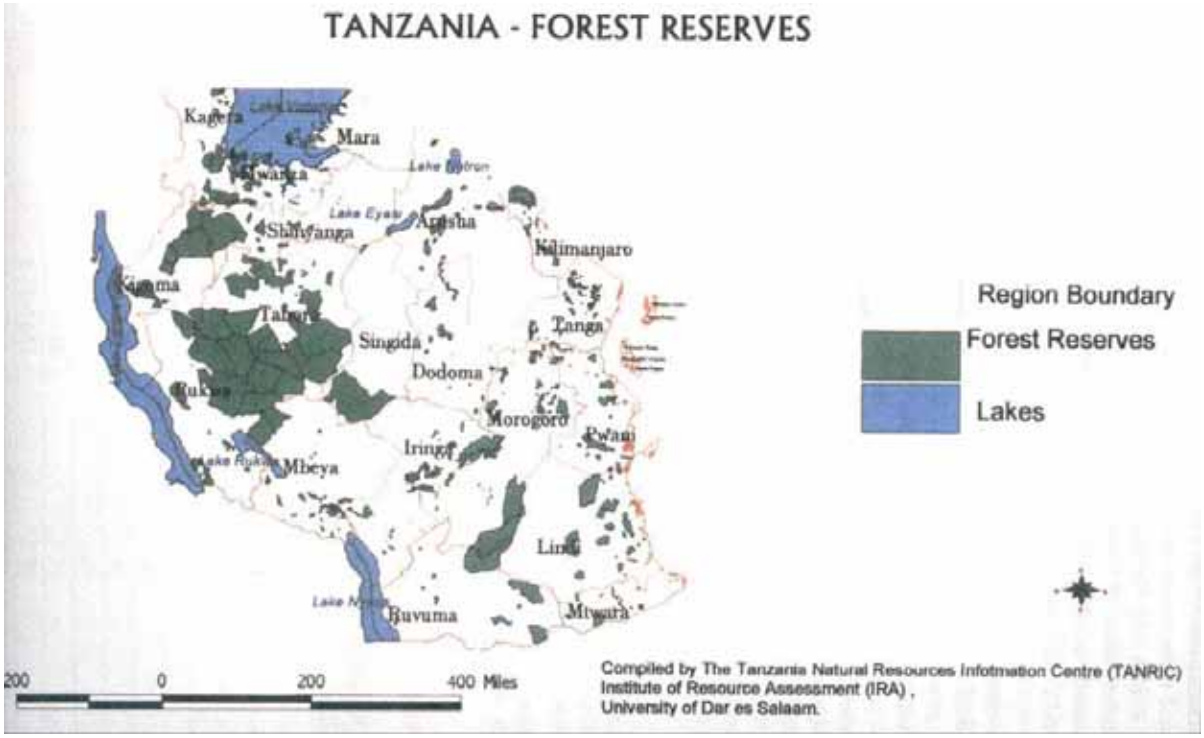
United Republic of Tanzania. 1999. Village Land Act (and Regulations) No. 5 of 1999. Dar es Salaam, Tanzania, Ministry of Lands and Human Settlements.

United Republic of Tanzania. 2002. The Forest Act No. 14 of 2002. Dar es Salaam, Tanzania, MNRT, Government Printer.

Wildlife Working Group. 2004. *Land and natural resources law and policy syllabus. A plain language guide to United Republic of Tanzania's land, forest and wildlife laws and policies.* Arusha, Tanzania.

Wily, L.A. 2003. *Community-based land tenure management. Questions and answers about Tanzania's new Village Land Act, 1999.* London, IIED Drylands Programme.

ANNEX 1. TANZANIA'S FOREST RESERVES: NATIONAL AND LOCAL AUTHORITY



ANNEX 2. PRIVATE (COMPANY) FOREST PLANTATIONS IN TANZANIA

Region	District	Name of manager	Area (ha)	Main products
Iringa	Njombe	Tanganyika Wattle Company	17 800*	Wattle bark, fuelwood, charcoal and logs for the factory, power station and sawmill
Iringa	Mufindi and Kilombero	Escarpment Forest Cooperation	15 000**	Timber and poles; carbon trading
Morogoro	Kilombero and Ulanga	Kilombero Valley Teak Company	28 131***	Teak and miombo woodland products
Total			**60 931**	

* 2 862 ha planted to date.

** 1 446 ha planted to date.

*** 6 800 ha planted to date.

ANNEX 3. FORMAT FOR A VILLAGE LAND FOREST RESERVE MANAGEMENT PLAN

Part I Background

Section 1 General

This sets out:

who wrote the plan and on behalf of whom;
how the decision to put the forest under planned management came about;
what forest the plan refers to;
the status of the plan – for example, to be adopted, tested and altered as necessary over the coming year, and to be reviewed every year after that.

Section 2 Description

A. The forest: This describes the proposed VLFR, CFR or VFMA within a government reserve:

location;
size (estimate);
vegetation/forest types;
boundary, marked or unmarked;
forest management units (internal boundaries based on management and objective);
condition of forest;
problem areas;
brief history of forest ownership and management.

B. Forest use:

Outline of how the forest was used in the past and how it is used today.
Short assessment of which uses are causing most damage.
Short assessment of the importance of the forest to the local community: from water catchment to fuelwood.
Identification of main user groups (legal and illegal), distinguishing between villagers and outsiders.

C. The community: Brief description of the village that will manage the forest:

name, ward, division, district;
population and households;
year registered, history prior to that;
names of other villages with which it shares boundaries;
whether the village area boundary is known, marked, titled;
sources of livelihood for the community, with average farm area, average number of livestock per household, sources of employment outside the village, etc.;
all sub-villages that directly border the forest.

Section 3 Objectives

This lists the purposes of putting the whole forest under community-based management, for example:

to bring the woodland under a system of accountable management;
to demarcate the woodland as protected, to prevent further expansion of farming into that area;
to establish that the forest is owned by all of us as a common resource and will not be available for settlement and allocation but will serve us forever as a source of wood resources;
to close off the forest from random use to enable it to be restored;
to protect our water catchment area;
to regulate the use of the forest so it stays at indefinitely sustainable levels;

to enable us to make better use of the wasteland areas in the forest.

The forest is divided into forest management units (FMUs). For each FMU, a specific objective should be listed.

Each FMU is listed here and the specific management objectives are listed. Where harvesting is permitted, for each FMU the volumes and species should be stated.

Part II The plan of action

Section 4 The manager

This identifies who will act as manager – usually a VNRC, but may be a Joint Forest Management Committee (JFMC) where the plan is for the community to manage equally with the government forester. This section:

lists the responsibilities and powers of the committee;
states how the committee will be appointed – usually through election by the village assembly, with endorsement by the village council;
states the committee's term of office;
states its composition – for example, at least one representative from each sub-village, at least three women, a representative from the village council, appointed by the village council;
states its exact relationship with the village council – usually the committee is approved by the village council and given powers in respect of the management of the forest;
states specific duties of the committee's chair, secretary and treasurer;
lists the duties of the patrol supervisor, boundary supervisor, etc., if these are to be appointed;
states how the committee will operate – for example, meet at least once a month, keep minutes of each meeting, quorum of 50 percent of all members, etc.

If the forest is to be managed by sub-villages, this needs to be set out here. If only some functions, such as protection, are to be handled by sub-villages, this needs to be set out here, and how each sub-village will report to the main committee.

Section 5 Reporting

How the committee will inform the village council of its progress and problems.
How the committee will report to the village assembly.
If the forest is a VFMA in a government reserve, how the committee will report to the forester.
If it has been agreed that this VFMA will be just one of several covering a reserve, whether and how the different managers will communicate or meet on matters of mutual interest – for example, through a coordinating committee meeting three times a year.

Section 6 Record-keeping

This lists all the records that will be kept relating to the forest's management, who will keep these records and how they will be held responsible for them being properly and honestly kept. Likely records include the following.

A. Minute book: To record meetings and decisions of the committee. The conduct and results of any forest inspection made by the committee will usually also be recorded here.

B. Offences and fines book: To record all offences against the rules, offenders charged, fines levied, date paid (receipt number) and where the fine money has been deposited, the items it has been spent on, etc.

C. Receipt book: This will normally be obtainable from a district treasurer who will record the numbers of the books issued to the committee.

D. Permit book: To record each permit issued by the committee, for what purpose, to whom, amount of the fee, number of receipt issued, date of expiry, who will supervise or inspect the use, etc. Permits and licences may be handwritten chits signed by the secretary and stamped with the VNRC stamp.

E. Patrol book: In which the patrol supervisor records exactly who patrolled where, when, what damage to the forest was seen, etc. If the return of wildlife is an indicator of successful protection, then sightings by patrollers may also be recorded here.

F. Account book: Where there is or will be considerable funds from fines and/or fees, the VNRC will create a forest management account, with a minimum of two signatories and one other non-committee member for withdrawals.

G. Income and expenditure book: This records all incoming money from fines and fees and all outgoings, with full details and signatures as appropriate – for example, signatures of the patrollers who receive rewards confirming that they have indeed received the reward.

Section 7 Money management

To avoid CBFM faltering because money is poorly managed, it is critical for the plan of action to set out clearly how it expects any funds relating to forest management to be handled. This is so even when very little money is expected.

A. Responsible people: Who will receive, receipt and hold money from fines and fees. Where that money will be kept safely. Usually this is the function of the treasurer.

B. Accountability: How often and to whom funds received are reported, and who has access to records relating to payment of fines, expenditure, etc. – for example, the village assembly should receive regular reports, and any village member should be able to see the record books on request. How will the treasurer be punished if she/he is found to be misusing funds?

C. Permitted expenditure: This lists the items on which money from forest management may be spent. Usually it is best to restrict this to items directly needed for forest management, and prioritized.

Section 8 Boundaries

A. Perimeter boundary: This describes the existing or proposed perimeter boundary of the VLFR, CFR or VFMA. It notes the other villages or VFMAs the boundary is shared with. The plan of action for agreeing and/or marking the boundary is set out clearly here.

B. FMUs and boundaries: This describes the subdivisions inside the forest – the FMUs.

C. Special sites: Sometimes a forest contains special sites that need special management – for example, springs. Set out how the site will be marked, managed and maintained, and any other actions that need to be taken.

Section 9 Protection

This is usually the main task of CBFM, and this section sets out how protection will be carried out.

A. Patrollers: How they will be elected, for how long, and reporting to whom.

B. Operations: The basis on which protection will be organized, area by area, the size of patrols, how often, where to, how they will apprehend offenders, report damage, who they will report to at the end of each patrol.

C. Accountability: Who is responsible for organizing patrols, checking on their performance, how patrollers who abuse their role will be dealt with.

D. Rewards: How patrollers will be rewarded if they apprehend offenders or succeed in protecting an area from damage for an agreed period (often one year).

Section 10 Rules

A. Access rules: These usually define who may use the forest. It is usual for non-members of the forest managing community to have limited use or be banned entirely from entering the forest if it is degraded or under threat, with minor uses reserved for the members of the main village.

Where the forest is being managed on the basis of sub-villages, it may be planned that each sub-village may use only its own designated part of the forest, unless the committee gives special permission.

B. Uses: This sets out exactly how the forest may and may not be used. For example*:*

uses that are forbidden now and in the future;
uses that are permitted only on issue of licences with payment of fees;
uses that are permitted on issue of domestic user permits;
uses that are freely permitted to village members.

Each use must be covered, no matter how small, as well as details about the method of extraction permitted – for example, if the community decides to allow a certain quantity of poles to be cut annually, the plan will need to specify the species, the zone, the tools for cutting the poles, the months, whether stems or only branches may be cut for poles, and so on.

C. Other rules: For example:

To reduce the risk of fire in the forest, no burning may take place on fields that border the forest.
All villagers are bound to report illegal users; any person failing to do so will be fined.
No charcoal may be produced on farms until further notice.

Section 11 Punishments

This sets out what punishments will be placed on those found to be destroying the forest or damaging community-based management in any way. The main punishment is usually fines, but where a person has no funds, alternative punishments may be ordered.

A. Procedures for handling offences: For example, patrollers may not fine offenders or levy fines.

B. Fine rates for each offence: For example, these could be doubled for second offences.

C. Responsibility fines: These are instituted when the community wants to ensure leaders or when members of the committee want to make themselves more accountable than ordinary villagers by charging a second fine when the offender is a member of the village council or any of its committees. Where a patroller or VNRC member is found to have committed an offence, the plan will normally state that the village assembly may remove him/her from that position.

D. Other punishments: For example, the offender could be required to fill gullies with stones, repair a road, or help burn bricks for the school, if he/she is unable to pay a fine by the scheduled date.

E. Failure to acknowledge an offence or pay a fine: For example, if a person refuses to acknowledge that she/he broke a rule, the plan should set out how to deal with this. This will normally involve a hearing by the village council, and if the matter is still not resolved, the committee may determine to send the case to the ward tribunal, primary court or district court for action.

Section 12 Improvement

This lists any actions planned to rehabilitate the forest or develop its potential. Describe how, who and when each will be undertaken.

A. Rehabilitation: For example, to plant seedlings around a degraded spring to encourage the return of water; to fill gullies with stones and cut and plant suckers in an area that has been so severely burned that no regeneration of useful species is occurring.

B. Development: For example, to permit villagers to use a bare area for private plantations on payment of a fee; to discourage certain species by permitting free thinning of that species, or to encourage growth of a specific tree by permitting it to be pruned in a certain month; to permit harvesting of a certain species or area on a strict rotational basis; and to plan entering into agreement with a commercial harvesting operation to use a specified area/species.

Section 13 Utilization

This section describes how, if at all, the forest will be harvested and utilized. This may not be needed if, for example, the forest is protecting a water catchment or sacred site. However, based on the participatory forest resources appraisal, some FMUs may be suitable for harvesting and utilization. This section describes the types of harvesting allowed, where they will take place, which species, and levels of offtake.

The section will also describe how harvesting will be controlled, monitored and regulated.

Section 14 Monitoring

This sets out the practical ways in which the community and forester will be able to check whether their management of the forest is working or not.

A. Indicators: These list practical measures of success, for example:

declining number of fires;
increasing occupancy of beehives;
undergrowth appearing in previously bare areas;

increased new tree seedlings;
decreased cases of illegal felling;
forest dwellers have left the forest;
perimeter boundary visible and known.

B. Monitors: This lists who will be responsible for collecting the information, making the assessment and making the results known to the village assembly, village council, forester, etc.

C. Timing: This sets dates for the first monitoring, when the results will be discussed and action agreed, and when and how this plan will be amended on the basis of findings.

Section 15 Timetable

This brings together a list of the main tasks and sets target dates for action.

A. Immediate actions: For example, VNRC and patrol team to be elected at x meeting of village assembly, to have held first meeting by x date, to have procured record books, met with district treasurer to register the receipt book, etc.

Annex 4. Forest tenure arrangements in Tanzania and their contributions to poverty alleviation

Forest type/tenure category	Estimated area (ha)*	Contribution to local livelihoods	Contribution to improved forest condition	Management and monitoring capacity
National Forest Reserves (with no JFM)	10 810 716	Very limited other than illegal use and subsistence-level collection of non-timber forest products	Moderate levels of protection in strategically valuable forest reserves maintain forest quality, but many areas declining	Limited capacity to manage other than high-value forests (catchment, mangrove and plantations)
Local Authority Forest Reserves (with no JFM)	1 444 419	Very limited legal use, but heavy local use (illegal)	Generally in poor condition. Heavy harvesting and low management inputs. High levels of illegal use and often encroached	Almost no investment at all. Very poor management capacity
JFM in protective forest reserves (both LAFRs and NFRs)	1 284 314	Very limited allowable use owing to protection status of forests	Evidence from montane and mangrove forests that recovery and stabilization are taking place	Heavy emphasis on planning of JFM agreements at the village level, but limited follow-up
JFM in productive forest reserves (either LAFRs or NFRs)	333 662	Great potential, but absence of benefit sharing modalities prevents local impact	Generally good, especially where levels of illegal harvesting are not prohibitively high (e.g., close to urban centres)	Heavy emphasis on planning of JFM agreements at the village level, but limited follow-up
Concession arrangements in government forest reserves	Not existing as yet	No experience, but if well managed have potential to contribute locally	Unknown, but have potential to re-establish trees on vacant land in forest plantation reserves	Unknown, but could be included in terms of concession agreements to ensure solid management
General land forests	17 704 269	Important safety net function for the poor, but harvesting levels are unsustainable	Heavy and uncontrolled use and lack of management lead to rapid deforestation, particularly close to urban centres	Almost no management or investment. Seen largely as a resource for extraction only
Village Land Forest Reserves (CBFM)	2 047 000	High potential, increasingly being realized. All revenues remain at the village level	Strong evidence from many sites that forest condition improves rapidly	High levels of management. Regular patrols, strong planning and routine monitoring
Community Forest Reserves (including traditional or clan forests)	31 800	High potential. All revenues remain with group, although not usually harvested commercially	Strong evidence from many sites that forest condition improves	High levels of management. Regular patrols, strong planning and routine monitoring
Small-scale private forest reserves (household)	Unknown	High potential. All revenues and benefits retained by owner	Good. Private tenure encourages investment and long-term perspective	High
Private forest reserves (company)	60 931	Depends on company. If well managed, good potential	High. Profit motive leads to strong forest establishment and management	High, as revenue streams depend on it

* *Sources*: MNRT and FBD records.

Trends in forest ownership, forest resources tenure and institutional arrangements: are they contributing to better forest management and poverty reduction?

Case study from Uganda

By
Frederick William Kigenyi

Summary

Uganda's forest cover is estimated to be 4.9 million ha, plus on-farm forest resources. This area is being rapidly degraded and deforested, however, mainly through conversion to agriculture to meet the growing demand for food for an expanding population, which is reported to be increasing at 3.6 percent per year.

Forests are held under different tenure systems and encompass a wide variety of vegetation types and several ecological communities. The country is recognized as one of the most species-rich in the world, with about 315 species of mammals and more than 1 000 birds in an area the size of the United Kingdom.

There have been a number of changes in forest ownership and related forest management agreements in Uganda. These changes have been critically examined and can be traced from the pre-colonial era to the post-independence period. The main changes have been directed towards recovering tenure ownership and rights to resources for individuals and communities who had been alienated from forest resources even after independence, when the government continued its exclusion policy of command and control. Forest management and policies have oscillated between decentralization and central control. Recent changes in policy, law and institutional arrangements have improved sustainable forest management (SFM), involving all stakeholders and promoting benefit sharing.

Legal, policy and institutional arrangements have established privatization, decentralization and devolution. It is hoped that these initiatives will lead to SFM and poverty alleviation as more people manage and obtain access to forest resources and benefits. Components of forest tenure systems have been analysed, covering factors that include livelihoods, capacities, policy and legislation, security of tenure rights, and access. This study recognizes government institutions and the private sector as being the two main actors in forest management.

The contributions of different tenure and forest ownership systems to SFM and poverty alleviation vary according to ownership category and management skills. Although favourable national policies exist, support systems for SFM have not yet been developed and put in place; SFM is a long-term undertaking requiring much investment and the protection of forest resources. This requires legal tenure and user rights arrangements that have functional management institutions, protection and law enforcement, conform to existing policies and legislation, and have management and work plans with budgetary provisions for management activities that contribute to communities' livelihoods.

Given the changing trends in forest resource management in Uganda over the last two decades, and based on comparative analysis of forest management under different tenure and institutional arrangements by different owner groups, the way forward should include greater involvement of local people in forest resource management. A number of recommendations to promote and strengthen SFM for the various tenure systems are made in this case study.

Introduction

This case study is one of a series of reviews commissioned by FAO to produce a comprehensive profile of tenure systems for forest management in 20 African countries. It addresses the function of tenure rights in sustainable forest management (SFM) and their contributions to poverty alleviation.

The study aims to expand and strengthen understanding of the types of forest tenure and their impacts on resource ownership and access, management and institutional arrangements in Uganda. The objective of the study is to achieve a better understanding of the relationships between forest resource tenure and forest management, and the implications on poverty alleviation and SFM.

The study is based on in-depth analysis, personal contacts, secondary information, and a review of management policies, legislation and relevant documents.

Forest resources and tenure

FOREST ESTATE AND DISTRIBUTION

Forests and woodlands cover about 4.9 million ha of Uganda and include exotic species plantations, which are significant in some parts of the country. This represents approximately 24 percent of the total land area (see Figure 1). The vast majority of this forest area – 81 percent – is woodland, 19 percent is tropical high forest (THF) and less than 1 percent is forest plantation, excluding new plantations.

Figure 1.and cover in Uganda

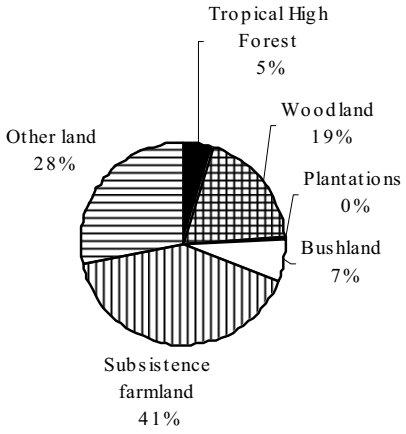
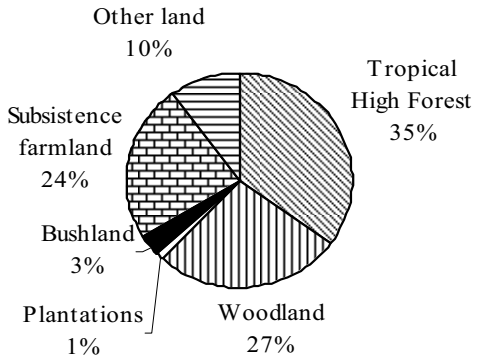


Figure 2. Biomass in Uganda



Source: MWLE, 2002a.

In addition to the 4.9 million ha of forest, there are also substantial on-farm forest resources. More than 40 percent of Uganda's land area is under subsistence agriculture, and contains 24 percent of national biomass in the form of scattered trees, forest patches and agroforestry crops included within farming systems (see Figure 2). These supply diverse needs of the population but, despite their importance, very little information is available on the extent of these resources.

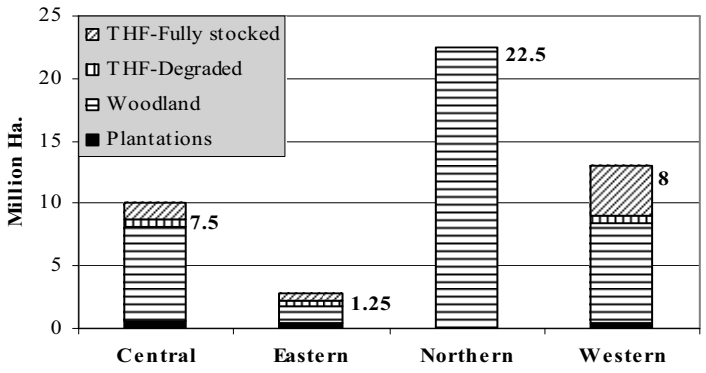
TABLE 1
Areas of forest land, by ownership and management category

Land cover	Government land		Private land	Total
	Forest reserves (NFA and local government)	National parks (UWA)	Private and customary land	
THF	306 000	267 000	351 000	924 000
Woodlands	411 000	462 000	3 102 000	3 975 000
Plantations	20 000	2 000	11 000	33 000
Total forest	**737 000**	**731 000**	**3 464 000**	**4 932 000**
Other cover types	414 000	1 167 000	13 901 000	15 482 000
Total land	**1 151 000**	**1 898 000**	**17 365 000**	**20 414 000**

Source: MWLE, 1999.

An important feature of Uganda's forests and woodlands is their uneven distribution, which varies greatly by region. Most THF is found in the west of the country, around the shores and islands of Lake Victoria, and in the east, around Mount Elgon. Woodlands occupy drier areas, mainly in central and northern regions. The regional distribution of forests and woodlands is shown in Figure 3.

FIGURE 3
Distribution of forest area, by region



Source: MWLE, 1999.

FOREST CONDITION

A key issue for forests and forestry in Uganda is the rapid decline in forest cover and the degradation of what remains. Uganda forest loss has been estimated at about 50 000 ha/year (FAO, 2001) based on the areas of bush- and woodland cleared from 1990 to 1995. Other official estimates of the rate of forest clearance range from 70 000 to 200 000 ha/year (MWLE, 2000). These figures imply annual deforestation rates of between 0.10 and 3.15 percent, the highest among the three East African countries. Most deforestation is the result of an inability to take steps to prevent forest encroachments. Laws to protect forests are in place but are not effectively implemented. Several studies of the causes and consequences of deforestation in Uganda have identified population increase and agricultural expansion as the most significant causes (Hamilton, 1984; Howard, 1991).

Between 1948 and 2004, Uganda's population grew from 5 to 24.4 million people, most of whom depend on agriculture (Government of Uganda, 2005). Continued dependence on agriculture with limited improved technology has led to the horizontal expansion of farming to meet growing food demand (Naur and Tieguleng, 2004). Other factors contributing to forest degradation include logging, local grazing and fires. Since 1990, the area of all categories of forests has declined by an estimated 2 percent per year, with a total loss of 374 161 ha between 1990 and 2005 (MWLE, 2005). Forest resources are disappearing, but Uganda has no accurate data on the loss (Kigenyi, 2001). Quality and quantity have also declined in the remaining estate, with the loss of valuable flora and fauna recorded by Howard (1995), Pomeroy (1993) and Plumptre (2002).

FOREST TYPES

The forest estate encompasses a wide variety of types and ecological communities, including several closed THF types, mountain communities of bamboo, heaths and moorlands, swamps, wetlands, and vegetation that ranges from moist woodlands to dry bushland and thickets (Langdale-Brown, Osmaston and Wilson, 1964). Communities exist from altitudes of less than 600 m, at the bottom of the Rift Valley, to more than 5 000 m, at the top of the Rwenzori mountains. Rainfall ranges from more than 2 000 mm in Ssese islands, to less than 600 mm in parts of northeastern Uganda. Uganda's forest estate encompasses a broad spectrum of the country's biodiversity, at least at the community level (MWLE, 2002a). The country is recognized as one of the most species-rich in the world, with about 315 species of mammals, more than 1 000 birds and 1 200 butterflies in an area of 240 000 km^2. A high proportion of these species are included in the forest estate (MWLE, 2002a).

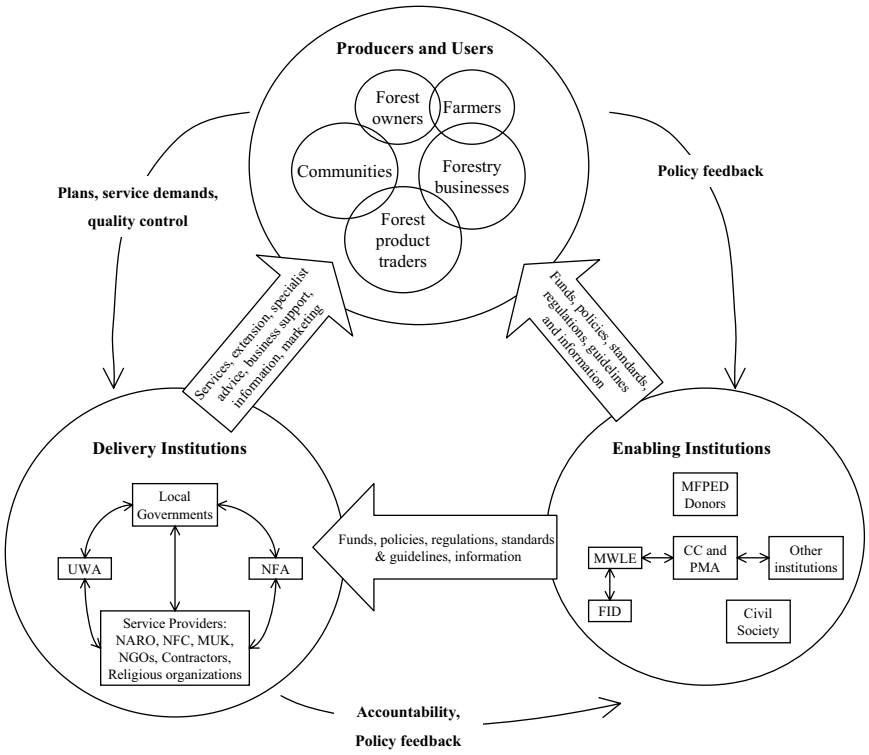
FOREST RESOURCE STAKEHOLDERS

The following are stakeholders in the forestry sector:

- *Delivery institutions:* Local governments, the Uganda Wildlife Authority (UWA), the National Forest Authority (NFA), and service providers such as the National Agricultural Research Organisation of Uganda (NARO), non-governmental organizations (NGOs), contractors and religious organizations.
- *Enabling institutions:* donors, the Ministry of Water, Lands and Environment (MWLE) and its Forest Inspection Division (FID), and civil society.
- *Producers and users:* Forest owners, communities, farmers, forest product dealers and forestry businesses.

Figure 4 shows the institutional arrangements for these stakeholders.

FIGURE 4
Institutional arrangements for stakeholders in the forestry sector



Source: MWLE, 2002b.

OWNERSHIP OF FORESTS

According to the Land Act of 1998, ownership of land is legally guaranteed under government, private, customary, freehold, mailo and leasehold systems. Ownership of forests is based on two broad systems of tenure: (1) government forests, which are either forest reserves managed by NFA and local governments or national parks and wildlife reserves managed by UWA, and which are held as permanent forest estate (PFE) in trust for the citizens of Uganda; and (2) private forests, which are managed by the owners of land held as private registered or customary property. PFE is also referred to as the protected area system. Tenure categories and corresponding responsibilities are detailed in Table 2.

TABLE 2
Land tenure categories and responsibilities

Category	Type	Owner	Owner rights/responsibilities
Private	Customary	Individual – Ankole, Bugisu, Kigezi, Busoga, etc. Clans, families – Teso, Acholi, Lango, etc.	Vested in individuals or communities (clans, families) who own trees and regulate tree resource use. Use subject to local and national policy and legal framework
	Mailo	Landowner – in Buganda, parts of Bunyoro and Alurland	Property of landowner, who has absolute rights to tree and forest resources. Tenants on land lack security of tenure over tree and forest resources, subject to local and national policy and legal framework
	Freehold	Private landowner – individual or institution	Individual or institution has absolute rights to tree and forest resources, with regulation from government, subject to local and national policy and legal framework
	Leasehold	Lessee owns land through a contractual agreement with leaser	Agreement vests rights to tree and forest resources in the lessee, for the duration of the contract, subject to local and national policy and legal framework
State	CFRs LFRs National parks and wildlife reserves	NFA Local government UWA	Property is held in trust for the people of Uganda. Planning and management by the responsible body, subject to local and national policy and legal framework

CFR = central forest reserve.

LFR = local forest reserve.

MANAGEMENT OF GOVERNMENT FOREST

The government established PFE for two main objectives (Makumbi, 2004):

- to safeguard supplies of timber and other forest products;
- to protect fragile mountain catchment areas and the environment services they provide.

Over the years, these objectives have been expanded to include nature conservation, recreation, ecotourism, education and poverty eradication, as reflected in the 1988 and 2001 forestry policies.

The management of protected areas is guided by management plans that clearly state the purpose, objectives and methods of forest management over a specified period. Planned management in Uganda dates back to 1934, when the first working plan was prepared for Budongo CFR. By the early 1970s, Uganda had developed an excellent record in the field of THF management (Webster and Osmaston, 2004). For a long time, the management of protected areas was top-down, bureaucratic and centrally controlled, but recent changes are including consultation with all relevant stakeholders. This is demonstrated by the public consultations that NFA and UWA are carrying out as part of the process of developing management plans for forests, national parks and wildlife reserves. As a result, there is increased participation in the management of protected areas, and the management plans being developed are both holistic and people-centred. The responsible body also prepares and implements operational and annual works plans, monitors the forest estate, enforces laws, conducts research, recruits staff and manages income and expenditure.

PRIVATE FOREST TENURE, OWNERSHIP AND MANAGEMENT

Private forests include natural or plantation forests and areas dedicated to forestry, for which ownership rights are registered with the District Land Board and licences are granted in accordance with Sections 21 and 22 of the National Forestry and Tree Planting Act (NFTPA). Although ownership rights should be legally registered, most owners have not yet fulfilled this requirement because they lack information on practice and law. According to the act, all produce from registered forests belongs to the owner of the forest and may be used in any manner that the owner determines,

as long as it is harvested in accordance with the management plan and NFTPA regulations. Forest owners are also free to enter into any contractual or other arrangement for the right to harvest, purchase or sell produce from their private forests. Forest may be privately owned by individuals or institutions (e.g., businesses, churches and traditional institutions). Landowners may be present or absent; when they are absent there may be tenants or squatters on the land. Ownership may be informal (based on traditional systems of demarcation) or surveyed and legally registered in accordance with the Land Act of 1998. It is the responsibility of forest owners to register their rights, prepare management plans and pay for technical services.

In registered and licensed forestry on private land, both land and forest/tree tenure are privately owned, giving the owner rights of access and security of tenure. Government imposes a few regulations to protect the public interest; for example, owners have access to the reserved trees on their land only with FID's permission. Some of the regulations that limit owners' access to the resources on their land restrict the adoption of sustainable forest management (SFM). Forests on private land are disappearing rapidly as a result of poor management practices, encroachment by landless people and conversion to agriculture.

The Forest Policy (2001) is concerned with the good use and management of private and customary forests. It recognizes that these are best achieved through the provision of incentives and the development of an institutional framework that enables private and customary forest owners to respond. Few private forest owners or customary forest users have management plans or the knowledge and skills necessary to manage their forests productively and sustainably. Management plans require skills, time and money to prepare and use, and are only enforced when private owners seek funding from the Sawlog Production Grant Scheme (SPGS) to establish plantations on their own land or on land rented from NFA. No technical support is provided for preparing management plans, and advisory and extension services for tree farmers and forest owners are very limited.

Forests can also be under customary ownership, where members of the community have traditionally managed and protected the forests communally, according to principles and rules agreed either among themselves or in accordance with tradition. Traditional management and regulation systems, however simple, have generally broken down as a result of population increase and migration, when user rights become increasingly unclear. The situation of communally owned forests is worsened by a lack of district registrars of titles as per the 1998 Land Act. Such registrars are supposed to incorporate and register communal land associations (CLAs) as legal institutions that own land and forests. The situation is complicated by the lack of guidelines on how the minister declares a community forest.

Legal frameworks have had little impact in fostering SFM, so other more positive approaches have been identified and are already being implemented. The National Forest Plan (MWLE, 2002b) outlines the strategies being followed for the sustainable management of private forests. Private owners often lack information on markets for timber and non-timber products, so market information needs to be provided. Incentives to encourage forest owners to maintain forests as part of land use should also be developed. Assistance with making simple, user-friendly management plans, and advice on their implementation are needed. Guidelines should be put in place to define clearly the roles and responsibilities in private forest management. The promotion of SFM in private forests requires awareness raising on rights to and ownership of land and trees, targeting private owners, customary users, local leaders, local government and civil society organizations through mass communication.

PLANNING AND MONITORING SYSTEMS

Planning and monitoring systems are better applied in government gazetted public forests managed by NFA, UWA and local governments. Forest management plans are mandatory, and the management institutions are responsible for planning the management of gazetted public forests. NFA is in charge of planning and monitoring for CFRs, and UWA for all forests protected as national parks and wildlife reserves. The district forest services are responsible for LFRs and the provision of advisory services for private and customary forest owners. The planning system in State-owned forests is largely top-down. It is guided by a management plan, which is led by the input of government technical officers, and recently the government has started to involve local people in the planning process through consultative workshops. Very few forest reserves, national parks and wildlife reserves have operational management plans, as most expired during the 1970s.

NFA and UWA have recently started to draw up management plans. Most reserves have no guidelines for addressing threats to PFE and promoting SFM; the ministry has not yet developed regulations and guidelines. Inventory information on the condition of forest resources is very scarce, and there is uncertainty about existing forest cover, volumes and growth rates of timber and other products in natural forests. There is little integration of forestry into district development plans, and limited budgetary allocation and regulatory measures where such integration exists.

The monitoring system is out-of-date in that it relies predominantly on field reports from technical officers, who do not include the omissions and failures of their own management style. The scarcity of financial resources allocated to the forestry subsector by government planners, who attach low importance to the environment and forestry's contribution to gross domestic product, limit the effectiveness of field inspections by supervisors from ministry headquarters. The planning and monitoring of forest management is far from what the regulatory framework requires. Usually, only a fraction of the requirements are actually carried out, and private forests are excluded from monitoring. This failure is the result of budgetary constraints and poor prioritization within government budgeting functions.

Forest monitoring is the responsibility of FID under MWLE. FID is supposed to monitor and evaluate all forest activities and changes in both government and private forests, and present annual reports to the Cabinet. Although FID faces challenges of low staff, poor facilities and limited finances, it has set planning and monitoring responsibilities for each type of ownership (see Annex 3).

Changes and trends

Changes in forest tenure, ownership and management in Uganda have occurred in two distinct phases: before and after independence. This study found that the changes before independence had major effects on tenure, ownership and management. This period witnessed a policy of alienating land and forest resources from communities through agreements signed by the colonial government and the local leadership (see Annex 4). Alienation continued until just before independence. The policy was for forest reservation, creating PFE under government management and focusing on protection and production under sustainable yield management systems. Resource exploitation creamed forests of prime timber for export to European markets. This caused forest degradation through bad logging methods. Legislation restricted communities' access to resources for all but domestic use. Other uses required permits. This legislation's main effect on communities was to deprive them of access to the resources on which their livelihoods were based.

EARLY DECENTRALIZATION

The Forest Act of 1932 devolved some authority to local governments, which were made responsible for managing forest reserves as native local reserves to meet community requirements. The act allowed local government to use local forests to establish adequate forest estate for each district, but the creation of local forests alienated more communal land and resources from communities. The positive aspect of this was the incentive it provided to districts for creating LFRs – 50 percent of the revenues from CFRs within districts were returned to them for management and development programmes.

Changes after independence

There were no major changes in policy after independence, but the study found a trend for moving from exploitation to protection and afforestation. The period just before independence witnessed massive exploitation of natural forest, but also the establishment of trial plots and fast-growing softwood plantations.

The major change in policy to affect the management of State forests occurred in 1967, with the Republican Constitution. For forestry, among the most important of the changes was the transfer of forests under district councils and their integration with central government, making them all CFRs. These changes did not affect private land and forest ownership, access and management, and the trend for protection and reforestation continued. The effect on resources was degradation, however, as central government could not manage small local forests effectively, leading to the loss of these forests. Attention to local forestry issues declined in the districts, resulting in open access to forests.

INTERNAL ADMINISTRATIVE ARRANGEMENTS

There were no major legislative or policy changes between 1970 and 1995. Administrative directives were issued by the Forest Department and the government, and these were taken as legal pronouncements. This had a negative impact on the resources, because most administrative directives were not implemented. Resources suffered massive degradation through encroachment and illegal timber exploitation. The boundaries of forest reserves were violated and lost, as some community members became the *de facto* owners of government forest land. Illegal activities spread to community land, resulting in lost livelihood assets for some people.

Some legislative changes arose from the Constitution (1995) and the Local Government Act of 1997, which provided for the ownership and management of land and resources by communities and local governments. This resulted in the unofficial decentralization of some forests that had formerly been local, with disastrous consequences because local government focused on monetary gains, leasing and tendering forests for timber exploitation and charcoal burning. An unrecorded area of forest was lost. Ownership of land and resources was strengthened by these acts, but it took time for the forestry sector to embrace these changes as the Forest Act remained unaltered. Massive

degradation was registered during this period. Observing the damage that forests were suffering, the administrative pronouncement decentralizing forests was revoked in 1998, when an official act providing a legal framework was put in place.

DECENTRALIZATION

A major change occurred with the Declaration Order of 1998, which legally decentralized former local forest resources. Management of LFRs was devolved to district governments.

The decentralization policy was good, but transferred responsibilities to local government without providing the necessary financial or human resources. The forests transferred were tiny, less than 100 ha each and totalling about 5 000 ha. They tended to be degraded and devoid of marketable resources, except for in a few districts of central and western Uganda, such as Mpigi, Mukono, Bushenyi, Kyenjojo, Kabalore, Hoima and Masindi.

The positive side of the policy is that it allows districts to integrate forestry plans into district development plans, to the benefit of local communities. Where resources are available, decentralization can improve forests, by reducing the degradation and open-access syndrome that affect local and private forests. Decentralization can promote SFM and raise stakeholders' awareness of the opportunities in forestry.

The trend towards decentralization is in line with the government's policy of bringing services closer to the people, which applies to most public bodies. Donors and NGOs also promote decentralization as a way of ensuring local people's involvement in the management of their resources.

ENLARGING STAKEHOLDER INVOLVEMENT

The major change came with the new forestry policy of 2001 and NFTPA (2003), which promoted the recognition of private forest tenure and customary ownership, devolution and decentralization. This change broadens stakeholder participation in management by promoting participatory arrangements for policy, legislation and planning as the basis for SFM.

Recent policy and legislation are important innovations for forest management because they specify tenure, forest ownership, institutions and management responsibilities. To varying degrees, the reforms have all loosened the conventional command-and-control strategies of the last century. Older models of forest management in which government decision-making was dominated by the State are no longer acceptable. It is now widely recognized that broadening stakeholder involvement promotes SFM and poverty alleviation.

Analysis of tenure systems

MANAGEMENT OF GOVERNMENT FOREST RESERVES

Context

On behalf of the people of Uganda, the government manages forests on government land protected as PFE, which has been set aside for forestry activities in perpetuity. Historically, forest management in Uganda has concentrated on reserving forest resources for central government purposes, often limiting the access and benefits of local people neighbouring the forest. This has resulted in weak skills, governance structures and programmes to alleviate poverty through sustainable forestry development.

Generally, different types of forest have not had specific management arrangements. Areas are set aside permanently for the conservation of biodiversity, the protection of environmental services and the sustainable production of domestic and commercial forest produce. The new Forestry Policy (2001) is committed to maintaining these forested areas for social, economic and environmental reasons. PFE is currently managed by different institutions, and influenced by a wide range of stakeholders. Traditional and cultural institutions are also interested in managing PFE (Bunyoro Kingdom, 1993). Regardless of this, however, the Constitution (1995) and the Land Act (1998) hold that central and local governments hold forest reserves in trust for the people. Government can grant concessions, licences and permits to any person or body investing in forest reserves for forestry purposes, in accordance with the management plans for the forest reserve concerned.

Cross-border natural resource management

Opportunities for regional cooperation in natural resources management have been pursued through the East African Community and other structures for conserving biodiversity in cross-border initiatives. Recently, the East African Cross-Border Biodiversity Conservation and other regional programmes, such as the Albertine Rift initiatives, have enhanced institutional collaboration. The provisions of cross-border natural resource management agreements include coordinating policies, developing and adopting common protocols, regulations, standards and incentives, adopting common collaborative forest management (CFM) guidelines, and harmonizing forest management plans for cross-border ecosystems.

Situation analysis

Laws, regulations and management plans guide forest management by State agencies, but the system is not working effectively because of constraints – budgetary limitations, workforce shortages, poor incentives for staff, political interference, poor planning, and low prioritization when funds are scarce. Three core problems challenge the implementation of SFM and threaten the permanence of the forest estate: loss of forest cover, degradation of the forest resource base, and underlying institutional factors. These are causing decreases in biodiversity, forest estate productivity and environmental services. At the same time, PFE's contribution to the national economy is decreasing, which increases poverty among the communities that depend most on the resource for their livelihoods. The main challenge is the forest sector's failure to convince policy-makers about the economic contribution and value of forests in the national economy. The forest sector is not considered a priority in national planning and resource allocation.

Underlying institutional factors

Low institutional capacity is a major cause of decline, and results from weak institutional structures, underfunding and inadequate human resources. Forestry activities are poorly controlled and monitored because of lacking capacity to control illegal activities and implement the law, insufficient labour force and inadequate supervision. Institutions (UWA, NFA and local governments) face serious financial constraints and generally depend heavily on outside donor support for managing

PFE. Institutions have limited capacity to operate efficiently or generate funds that cover both the operational and the development costs of maintaining PFE.

Strategies for government forest reserves

To enhance the efficiency, transparency, accountability and professionalism of PFE management, leading forest sector institutions have been undergoing reforms to strengthen and redefine their roles and responsibilities. These reforms started in 1996, with the establishment of UWA for the management of national parks, wildlife reserves and sanctuaries. The following section on the reforms of PFE management therefore focuses on the management of forest reserves, which has required changed responsibilities for MWLE, the establishment of NFA, and greater roles for local governments, communities and the private sector. Strategies have been instituted for the sustainable management of government forests (see Annex 5).

MANAGEMENT OF FORESTS ON PRIVATE LAND

Context

Private forests include both natural forests and plantations on private and customary land. They cover a total of approximately 3 464 000 ha, equivalent to 70 percent of all the land in Uganda. Private and customary forests are managed for commercial purposes, particularly charcoal, timber, fuelwood and pole production, and provide various quantities of non-wood forest products (NWFPs). Natural forests are also of vital subsistence and commercial value to local communities, and are very important in maintaining environmental services and providing employment. For most households, woodlands are a main source of energy and habitat for wildlife grazing, and contribute greatly to poverty alleviation through the informal sector.

By law, private forest management rights have to be registered with the district land board, and licences are granted in accordance with the Land Act. Forest produce must be harvested in accordance with a management plan and the act's regulations. In addition, the district forest officer (DFO) must issue directions to the owners of private forests, whether registered or not, requiring them to manage their forests professionally and sustainably. However, private forest owners have not registered for tenure certificates, lack forest management plans, do not follow harvesting regulations, and are generally not managing their forests as stipulated. Little planning and monitoring are carried out in private forests. Very few private forest owners draw up management plans to guide their forestry activities, because many do not know how to make such plans, which are expensive and complicated to implement. As a result, most private owners manage their forests intuitively. The main causes of this situation are ignorance, weak advisory services, and inadequate resources. The exceptions are the few forests managed by industries that have the capacity to produce management plans, have reasonable budgetary provisions and can protect their forests against illegal activities; currently such forests cover only about 41 000 ha of the 3 464 000 ha total.

Four prime factors have been identified as affecting SFM on private and customary forests: open-access use, low value, owners' limited capacity, and conflicting government plans and policies. Some government agricultural development programmes conflict with forestry plans, such as the clearing of forests in Kalangala district for oil-palm. The double production campaign of the 1970s led to indiscriminate forest clearance, with clearing machinery provided free of charge by the agricultural department. Industrialization and infrastructure development may require forest clearance – for example, more than 4 000 ha of forest in Wabisi Wajala forest reserve, and 1 000 ha in Namanve forest reserve were allocated to industry in 1998.

To enhance the management of private forests, new strategies have been put in place addressing the factors that undermine the sustainable management of these forests. Unfortunately, neither government institutions nor civil society have generated lessons that can be used to support the management of forests on private and communal land. There is a need to initiate and support such interventions.

Traditional forests

A number of communities, especially in central and eastern Uganda (Buganda and Busoga), have collectively or individually conserved forest areas for a range of social, religious and traditional

purposes. These forests are referred to as sacred groves. As development progresses and population increases, most of these forests have disappeared, and the only survivors are a few single trees and small groups of trees in Buganda. There is no literature about surviving sacred forests in Uganda.

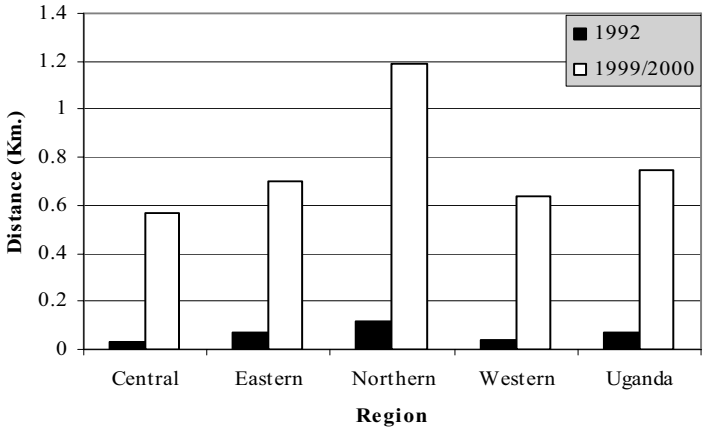
Livelihoods

Forests on both private and government land are a key component of many rural livelihoods, for both subsistence and commerce. Forests are crucial to the lives of millions of Ugandans, especially the poorest sections of society. However, poor people's dependence on forest resources, and their ability to improve their livelihoods through forestry have only recently been recognized in Uganda. Forests provide wood, NWFPs and services to the people who produce and consume forest products, and local people play a major role in the management of forest resources. Access to forests therefore has a critical effect on people's survival and well-being, and plays an important part in livelihood strategies.

Many people depend on forestry for all or part of their livelihoods. It is often the poor who depend most critically on forest resources for their well-being and survival in the absence of other livelihood assets and opportunities. In 2001, a survey by the International Food Policy Research Institute (IFPRI) found that 76 percent of villages throughout Uganda were involved in selling tree products in 1999. Products included mainly poles, timber, fuelwood and charcoal, and were marketed on-farm rather than in town markets. Forestry contributes to livelihoods mainly through the informal economy, which is not recorded in official statistics. The direct benefits that people derive from the forests and trees on private and government land are energy, food, employment, income, quality of life and reduced vulnerability to shocks and stresses (see Annex 6). Communities would benefit more if they were aware of market opportunities. They need market information and training to produce for markets. NGOs and community-based organizations (CBOs) are well-placed to provide this training, which would enable communities to increase their production, improve their incomes and escape poverty.

With increasing deforestation, forest benefits are rapidly being lost, which reduces the opportunities for alleviating poverty. The burden forest degradation imposes on people's livelihoods, especially women and children, is exemplified by a sharp increase in the distance people have to travel to collect fuelwood. According to the Uganda Bureau of Statistics (UBOS, 2001), the average distance travelled to collect household fuelwood increased dramatically from 0.06 km in 1992 to 0.73 km in 2000 (see Figure 5). The distance travelled for fuelwood is inversely related to the time that household members can dedicate to other productive activities, and thus has a major impact on poverty.

FIGURE 5
Average distances travelled to collect household fuelwood



Source: UBOS, 2001.

The environmental services and agricultural support provided by forests and trees on government and private land are sometimes taken for granted or poorly understood. A diverse

environment provides a range of services, from soil and water conservation to pollination and pest control. Major services provided include a regular supply of clean water and soil fertilization, which are especially important to the poor, who cannot afford alternatives such as piped water and fertilizers. Because these services are "free", they are undervalued, lack investment and protection, and are disappearing as forest land is converted to agriculture and grazing. Annex 7 lists some of the many environmental values that the people of Uganda – especially poorer people – derive from forests. Elite groups, who are aware and have financial capacity, have greater access to the more tangible benefits, however. For example, they obtain licences and permits, which are too expensive for poor people, who may not even be aware of how to obtain them. Given poor people's multiple dependence on forest resources, it is clear that forest development has much opportunity for poverty alleviation, and public investment in forestry would promote this.

The National Environment Management Authority's (NEMA) Environment Act stipulates that people who commercially exploit environmental resources should pay an environment tax, but this has not yet been implemented. In the meantime, the rich are degrading forests without paying taxes to repair their damage of the environment on which most poor people depend.

Capacities

Human and financial capacity for the management of State forests is reasonable but not optimal. Human capacity is better developed than financial capacity, which is dominated by donor funding. Forestry is a long-term industry that cannot be managed in a purely business fashion without innovations. Most forest owners (more than 95 percent), especially local communities, lack sufficient capacities to manage their forests in accordance with the rules of the tenure system. The less than 5 percent of forest owners who do have the requisite technical capacity and experience are mainly large investors with reasonable capital, technical skills and capacity to employ skilled labour to manage their forests properly. A major bottleneck is that the legal instruments and service providers that support and manage private sector investments in forest-based enterprises are inadequate and poorly organized.

Licensed tree farmers operating on forest reserve land (CFRs) have received some financial support from the European Union's (EU) SPGS (see Annex 8), which meets part of the cost to farmers of establishing sawlog plantations of approved species and encourages them to develop and use management plans. Participants in SPGS are trained in good management practices and standards, which they must follow through management plans. People planting small areas, especially small farmers, do not qualify for this support, however, so most forest owners lack management skills. Nyabyeya Forestry College, the Faculty of Forestry and Nature Conservation at Makerere University and NFA have facilities to train forest owners and their agents, for a fee and on prior arrangement.

Capacity building is probably the most important factor that will enable various tenure systems to produce benefits. Tenure holders' capacity to exercise their rights and manage their forests sustainably must be enhanced. The assuming of responsibilities requires the capacity to fulfil those responsibilities, and the granting of tenure rights should be accompanied by capacity building in exercising the rights and responsibilities acquired. Capacity building needs include:

- stakeholders' awareness about the rights that they can exercise and retain; some local communities are dominated by their richer and more educated members;
- management capacities, including financial, technical and organizational systems;
- strengthened capacity in central and local government administrations;
- provision of funds for the development and implementation of management plans, especially in State-controlled forests, and simplified management planning requirements for private stakeholders.

Under any institutional arrangement, tenure without management capacity is likely to lead to unsustainable management of forests. Management capacity can be built through extension, coupled with assistance from investment funds, probably through micro-finance institutions.

EXTENSION

It is widely recognized that forestry extension in Uganda has had limited impacts on poor people's lives, the sustainable management of existing forest resources and the establishment of new plantations and on-farm trees. The extension service has been underfunded and understaffed, with a top-down approach to extension rather than a holistic farmer-driven one. Experience has shown that on-farm tree growing works only when it is relevant to local farming systems and livelihoods, there is a market for products, and land and tree tenure are secure. NFA is not responsible for delivering free forest extension, and charges very high fees, which most farmers cannot afford to pay.

A new approach to the delivery of extension and advisory services has been developed in the Plan for Modernization of Agriculture and the National Agricultural Advisory Services (NAADS). This has changed government staff's involvement in extension work, and puts rural people – especially poor and marginalized groups – at the centre of decision-making about the kinds of services and support they require for development. The Forestry Policy (2001) supports an innovative, decentralized and privatized service delivery approach.

FORESTRY POLICY AND LEGISLATION

The basic instrument of authority over forests is the Forest Act. Forest acts have existed since 1947, providing for the declaration and revocation of reserves, and supplying the legal foundations for their control by the State. As in all sectors, forest acts alone do not regulate the existence and management of forests. Although the Constitution rarely addresses forests directly, it lays the foundation for declaring forests the property of the State.

Forestry policy

Forestry policy in Uganda has a long history. Policies are established to keep management in line with the State's long-term objectives. According to Kamugisha (1993), a policy is a general statement of aims or desirable goals in relation to given circumstances. It is drawn up and approved by the government to guide the activities of the relevant government institutions. Forestry is a long-term activity, so has a particularly great need for policy. Government objectives change over time, however, necessitating periodic revisions of policy to bring management in line with new objectives. There have been four revisions to Uganda's original forestry policy of 1929.

The different policies reflect changes in the role of forestry as Uganda develops. These changes have important implications on the forestry sector. The forestry policy was revised in 1948, 1971 and 1988, and has alternated between strict conservation and more liberal economic use of forest resources. However, the policy has provided little guidance on principles and strategies for managing forests outside the gazetted reserves, and on setting the balance between production and conservation. It also contains nothing on the roles of government, the private sector and rural communities in forestry, and on linkages with other sectors and land uses.

The new Forestry Policy (2001) addresses the issues of poverty eradication, prosperity, harmony and beauty, in-line with Uganda's Vision 2025 for Prosperous People, Harmonious Nation and Beautiful Country. It provides for a wide range of types of tenure, ownership, access to and management of forest resources. In response to concerns about the importance of forestry, the policy provides new directions for the sustainable development of the forest sector. Major interest groups and their needs are addressed, and a clear definition of the forest sector is provided – making it an all-inclusive and sector-wide policy. Other sectoral policy changes that are relevant to and reinforce the current Forestry Policy include the National Environment Management Policy (1994), the National Policy for the Conservation and Management of Wetland Resources (1995), the Gender Policy (1997), the Wildlife Policy (1999) and the National Water Policy (1999). These policies have a strong bearing on the forest sector, both directly and indirectly.

Strategic reforms are being formulated in new national policies, old practices are being rapidly refined and entrenched in the law, and law-making has become more democratic, with greater public consultation and a bottom-up participation process. Laws pertaining to forest and land focus on tenure issues for tree and forest management, and link to local government and community development.

Old laws did not consider communities as partners in management and paid little attention to forests on private land, other than to collect revenues from extraction licences and royalties on trees. Communities were only allowed to take "reasonable quantities of tree products" for domestic use, which led to the large-scale degradation of forests adjacent to settled areas. Laws also ignored the integration between communities and natural resources, such as for the protection of water catchments and wildlife habitats.

People's perceptions of the law

Many stakeholders do not fully understand the application and aims of legal instruments. The underlying causes of this include language barriers and poor publicity of the instruments. There is little awareness of related policies, laws and regulations, as demonstrated by the following:

Private forest owners have limited information on the market prices of their forest products and tend to sell their timber and other forest products cheaply.
Most forest owners do not recognize forests as having any value other than providing monetary returns and resources for domestic use.
Lack of information deprives the communities and individuals adjacent to forests of opportunities to participate in informed decision-making and contribute to policy and other processes.
Limited or lacking access to forestry policy information restricts people's awareness of their legal rights, and leads to the denial of forest access rights.

Awareness can be raised through the press, workshops, radio, TV and consultative planning meetings. There is no established, formal channel for informing stakeholders about policy and legal changes, so information tends to trickle down informally. This state of affairs needs to be redressed as it curtails forestry sector development, because most stakeholders remain ignorant about their rights and responsibilities.

Decentralization, devolution and CFM

Among the most important structural changes introduced by the new law is institutional decentralization and devolution. Central government has decentralized the management of local and private forests, forest services, management decision-making and advisory services to local government (Forestry Policy 2001, NFTPA 2003, Land Act 1998 and Declaration of LFR Statutory Instrument 1998). Decentralization has the potential to promote SFM by devolving the various responsibilities from the centre. However, the following are some of the factors that make it difficult to implement the new responsibilities:

- The forests transferred to local governments are small and degraded.
- Financial and human capacity is lacking.
- Revenues from private and degraded local forest reserves are not secure, as most operations in these areas are illegal and local government has no capacity for policing.
- The tree fund that was promised five years ago has not been put in place, and there have been insufficient funds through NAADS and NEMA.
- Small, degraded forests are devoid of biodiversity, so do not attract international donor funding, which is instead directed to areas rich in biodiversity.
- Political interference makes implementation difficult.

These points show that decentralized forest management is failing, and forests are being turned into open-access resources.

Management is also being devolved to communities and private sector stakeholders, with permits being granted to individuals and private companies for managing forest – especially plantations – for one or more rotations of the species concerned. The trees belong to the permit holder, but not the land. Management of natural forests has not been devolved, probably because individuals and the private sector cannot satisfy the long and complicated technical requirements.

CFM provides for the negotiation of access to resources in return for local stakeholders' acceptance of responsibilities in forest management. The benefits that communities can derive from these arrangements include:

- access agreements, negotiated in exchange for maintaining boundaries, deterring illegal activities, monitoring beneficiaries' access to resources, controlling forest fires, ensuring proper methods for collecting resources, and reporting illegal activities;
- awareness of and sensitivity to forestry policy;
- permits for access to various forest resources;
- resource user groups linked to other stakeholders;
- other rural development options, such as alternative income-earning activities;
- shared revenues with NFA and UWA;
- community team building, which improves social cohesiveness;
- transparent negotiations, which build trust among the parties through mutually agreed rights and responsibilities;
- human and financial capacity building and poverty alleviation.

When properly implemented, this approach can turn local communities into responsible forest managers with a role in forest management and benefits from that role (Forest Department, 1996). CFM is expected to contribute to SFM and poverty alleviation. NFA and UWA report on numerous examples from Budongo CFR, Bwindi, Mount Elgon and Kibaale national parks, but although both civil society and government see CFM as the breakthrough management option, its impact on SFM has yet to be demonstrated and documented. This forest management approach is new – barely ten years old – and only seven CFM agreements have been signed so far between NFA and local communities. The rate of CFM adoption in Uganda is slow.

The following are some of the key challenges facing CFM:

- CFM agreements are designed to favour NFA and UWA, and place many responsibilities on the communities while giving them few or no tangible returns.
- There are uncertainties about the benefits and benefit sharing of CFM arrangements.
- The procedures for signing CFM agreements are long and difficult.
- Forest communities have little awareness of the Forestry Policy (2001) and NFTPA (2003).
- NFA's failure to recognize forest-based enterprises in CFM management plans has a negative effect on the morale of poor communities.

In CFM, the law recognizes rights to use forests only, and does not indicate that a community has ownership rights to the forest it has been allocated.

Tenure rights, security and access

Property and tenure rights are bundles of entitlements defining their holders' rights and duties in using particular resources. They operate alongside property and tenure rules. Property rules regulate how property rights and duties are exercised. Property rights in forest management apply to different forms of ownership, rules of use and methods of control. Two categories of property rights apply to SFM: ownership rights, particularly on land for planting trees; and the rights provided to individuals and investors through, for example, licences, concessions and permits. For example, permits allowing tree planting in government-owned forests provide rights through licences.

For stakeholders to benefit from forest resources, they need to have rights and access to those resources. Stakeholders with such rights and access can earn income from the resources, improve their livelihoods and alleviate poverty. Rights and access to forest resources are useful to stakeholders with sufficient productive resources, particularly capital, labour and knowledge, but stakeholders with limited capacity receive only limited benefits. To receive sustained benefit from forest resources, stakeholders must have the legal right of access to those resources. Benefits from resources that are obtained illegally are not sustainable, because the illegal actions used will be prevented by the resource owners, be they government or private. Legal rights assure continued benefits, thereby encouraging rural people to invest in the forest for long-term benefit.

The reformed laws and policies confer legal rights to forest owners, while informal rights are recognized locally. Under both private and communal property regimes, local forest owners' tenure rights are more secure when they are legally realized and allow owners to benefit from their forests

according to traditional rights. The study found that the livelihoods of local forest owners are improved when there is adequate legal back-up for owners to realize their new rights, and those rights are secure. Box 1 describes an example from Budongo, where community members invested their labour and resources in protecting the forest, through boundary opening and prevention of illegal activities, when they were assured of their rights and benefits. A civil society organization and NFA helped the community to realize its rights as provided by law. The extent to which State regulation conforms to local forest management institutions influences the security of rights in State property.

Box 1. Initiating community-based natural resource management

Budongo Forest Conservation and Development Organization (BUCODO) is an association of 41 CBOs and business associations located around the southern part of Budongo Forest Reserve in Masindi. Its member organizations have diverse interests, ranging from the purely commercial, such as the Budongo Pitsawyers' Association, to socially oriented CBOs working on community health and education. BUCODO is owned by its member organizations, from which its board and executive are elected. The organization has become so large that it has been subdivided into seven sectors, based on specific interests such as beekeeping, pitsawing, medicinal plant production and essential oil extraction, crafts, and advisory services to farmers, communities and private forest owners.

Among the results that BUCODO has achieved for its members are:

- mobilizing resources from donor and government funds;
- raising key issues related to forest administration for presentation to government by the BUCODO executive;
- capacity building in a wide range of skills;
- networking among different sectors of the organization;
- creating a strong sense of ownership among community members;
- introducing new income-generating activities, such as medicinal plant cultivation and extraction of essential oils, and supporting members of the Budongo Pitsawyers' Association in acquiring licences.

Increasingly, the role of former pitsawyers' associations is being integrated into CFM associations such as BUCODO, with the objective of helping local community members to obtain licences for harvesting timber and other forest products as part of a broader negotiated agreement on community-supported forest management. NFA has shown some willingness to give local community members preferential treatment in obtaining such licences, rather than adhering to the competitive bidding process it applies for other more commercial timber harvesters.

Despite the legal provisions, however, the study found that forests on private land – especially communal land – are not managed to the required standards. The main reason for this is that communities do not know their legal rights; the intervention of NFA (State) and civil society is therefore needed to help communities to understand their rights and how to use them to obtain benefits from their resources. This will encourage communities to manage resources sustainably. Tenure rights and access to forest are provided in various ways, as detailed in the following subsection.

Access to forest resources

Access and rights to forest resources are vested in private owners (private forests), communities (community /customary forests), NFA (CFRs), local governments (LFRs) and UWA (national parks and game reserves). They are obtained through licences, permits and agreements, which specify the conditions and duration of use, the area and the product(s) to be extracted. Laws and regulations

govern access to forest resources on private and communal land, but these resources have been illegally obtained and exploited for a long time because the State has limited capacity to enforce the laws and regulations. As a result, people – especially the rural poor – carry out forestry businesses on private and communal land without licences and permits. Although poverty has been reduced in some areas, lack of control and regulation of access is a serious threat to the sustainability of forest resources.

Access to protected areas is controlled by NFA, local governments and UWA, which issue licences and permits for activities ranging from timber harvesting and charcoal burning to research and ecotourism. UWA does not issue licences for exploitation in national parks and game reserves. Licences for timber harvesting in CFRs are issued after an open bidding process and licence holders are expected to adhere to certain standards, such as minimizing waste and damage to the forest ecosystem. In 2005 to 2006, eight licences and permits were issued for 153 ha in CFRs, three permits for 40 ha in LFRs, and only 230 licenses for 3 837 447 ha on private land.

CFM initiatives are considered a panacea for reversing forest degradation in protected areas because they encourage local communities to participate in forestry management, through providing benefits for such participation. CFM agreements empower local communities to manage forestry resources sustainably, obtaining such benefits as timber and fuelwood in return. In 2005 to 2006, seven agreements covering 5 800 ha in CFRs were signed for periods of five to 20 years, with 5 412 people participating. Other agreements cover 120 ha of LFRs for periods of five years, with 20 people involved.

Permits for tree planting in CFRs and LFRs by private contractors are issued by NFA and local governments. The price of these ranges from 6 000 shillings (U Sh) to U Sh 25 000, depending on the distance from the capital. So far, 101 176 ha has been allocated for 20 to 50 years, with 2 580 individuals and companies participating. Because of the high charges and stringent conditions, powerful and rich people have secured most of these permits. The rural poor benefit only through employment with private contractors. Annex 1 lists the different types of access, permit, licence and agreement. It is worth noting that contractors must produce a forest management plan and carry out an environmental impact assessment before they plant trees in a protected area. These are expensive undertakings, which poor local communities can ill afford to carry out.

Forest tenure, sustainable forest management and poverty alleviation

INTRODUCTION

The contribution of different tenure and forest ownership categories to SFM and poverty alleviation varies. Although favourable national policies exist, support systems for achieving SFM have not been developed and put in place. In Uganda, tenure follows two main systems: State and private. Private tenure includes four categories, with different contributions to SFM and poverty alleviation. Clear differences are observable among these categories: leasehold and freehold tenure includes registered ownership and is secure, while customary ownership is unregistered and does not provide secure tenure.

SFM is a long-term undertaking, requiring much investment and protection of forest resources. This means that it is most likely to be undertaken in areas where there are long-term legal tenure and use rights. Land tenure and rights are defined by various ownership documents – concession agreements, cutting permits and proof of customary rights. Several factors ensure SFM that contributes to poverty alleviation. These factors were considered for each of the tenure types whose contributions to SFM and poverty alleviation were assessed. They include presence of a functional management institution, protection and law enforcement, conformity with policies and legislation, presence of management and work plans, budgetary provision for management activities, and contribution to communities' livelihoods.

GOVERNMENT TENURE

There is a management structure in place for forests under State tenure. Government officials manage the forest and are accountable and responsible for ensuring the effectiveness and efficiency of forest management. At the national level, forest tenure types are clearly defined in the forest and land acts and the Constitution. National forestry policies covering several State forests are more stable than those affecting other tenure types. Areas established for strict biodiversity conservation, such as NFA's nature reserves (Howard, Davenport and Kigenyi, 1991) and UWA's national parks, are efficiently protected and contribute to SFM. They also contribute to poverty alleviation in a few communities, through employment and a share in the benefits accruing. For example, until recently, earnings from protected areas were shared with communities according to agreed ratios of 40 percent to the district for development activities and 25 percent to neighbouring villages for such activities as school and clinic construction and micro-finance initiatives. However, the projects supported did not contribute directly to SFM.

UWA has a policy of sharing its revenues with districts in the hope that the money goes to the communities around national parks to improve their well-being. It is assumed that when a community shares the benefits, it will contribute to SFM activities, reduce illegal activities, regard the forest as its own and protect it, as occurred in Bwindi National Park. The major problem is that district authorities do not usually consider local community needs, nor do they pass money on to villages. Government tenure is established through creating PFE by law, managing it through management plans and – to some extent – monitoring it. The establishment of PFE through the law has ensured the permanence of resources, but some areas are affected by several different rights and ownership claims. Most forest reserves are managed for multiple uses, with limited access for communities. The contribution to poverty alleviation varies, depending on the degree of access to resources. In some areas, crop cultivation, light grazing and licences for timber cutting are permitted, which helps to improve people's livelihoods and reduces poverty. Some products are used for food, shelter or to generate money through marketing, and also provide employment. When properly supervised, PFE contributes to SFM (because the forest is maintained), livelihoods and poverty alleviation.

Under State tenure, some degraded areas have been restored, ensuring a healthy, productive and biologically rich forest estate for the long term. This supports SFM and guarantees that resources will be available to communities to help poverty alleviation and improve livelihoods. Innovative activities, such as ecotourism, have been introduced to ensure SFM, and these provide significant benefits to local people and the nation. Ecotourism has proved very successful in the forests of Budongo, Mabira, Bwindi, Kibaale and Mpanga, among others. By involving local communities, ecotourism creates employment and guarantees income to communities with very few alternative livelihood opportunities. This provides an incentive to protect forest and wildlife without extracting resources.

The State is now allocating forest areas and transferring natural resource assets to marginalized groups, to promote social justice and poverty alleviation, but this aim has yet to be achieved. CFM addresses equity issues (Fisher, 1995), and was conceived to benefit communities through the management of production forests and forest land, and the protection and management of protected areas and multiple-use forests. The government seeks to promote SFM, democratic access to forest resources, and improved social economic conditions in the communities neighbouring forests. It also seeks to decentralize and devolve forest management, conserve biodiversity and maintain environmental services.

It is hoped that this will promote SFM and poverty alleviation through creating employment and ensuring a continuous flow of the goods on which local people depend. However, early experiences of CFM in pilot areas reveal that the transfer of assets to communities has been more of a "paper transfer". Transfer can be effective only if it is accompanied by the provision of financial and other support from government, civil society and the private sector. Without support to improve their social infrastructure, develop their capabilities to manage forests, and use land for productive household enterprises, it is unlikely that communities will be able to achieve the objectives of SFM. At present, the extent and nature of forest land under community responsibility exceeds communities' forest management capacity.

There is a need for NFA to develop consensus regarding the provision of forest resource rights to communities. Government should not expect communities to protect forests without benefiting from them, otherwise CFM will become a government tool for carrying out protection work, condemning poor communities to further poverty. Although State regulation of access to forest resources promotes SFM, it can also increase poverty and vulnerability among those whose livelihoods depend on the resources. Conversely, unlimited access results in degradation, so NFA must find a balance that enables communities to attain full control and management over the areas allocated to them through resource management agreements, rather than the resource access agreements that are currently applied.

Having been alienated from their resources, local people are now claiming those resources back, and population increases around protected areas have exacerbated this problem. For example, some villages neighbouring Mount Elgon National Park have population densities ranging from 500 to 1 000 people/km^2, resulting in felling of the forest up to 4 km from the forest boundary. The US$3 million invested by the Forests Absorbing Carbon-dioxide Emissions (FACE) Project and the ten years of investment from the World Conservation Union's (IUCN) Integrated Development through Conservation Project have been wasted. The boundary markers and indigenous trees planted by FACE and covering 300 ha have all been cut, mainly by communities looking for additional land. Management agencies have found it difficult to resolve conflicts. The policies of some government agencies have restricted people's access to livelihood resources; for example, the change of management regime from forestry to national park has deprived Batwa people in Semliki and Bwindi of access to the forest, because national park law prohibits all access to park resources. This has affected the livelihoods of Batwa people, who are threatened with extinction or have to adopt alien practices.

In focusing on forestry to reduce poverty, the government has changed the law so that NFA and local governments can issue licences to private tree planters for growing trees and managing forest land. These changes in the law have triggered massive investments in tree planting. Secure land tenure for the period of rotation, and rights to the trees planted have contributed to employment creation and the adoption of SFM. NFA's imposition of conditions on large-scale tree planters, such as the use of good seed and the development of management and work plans, has helped increase the forest area under sustainable management.

Promotion of SFM has suffered because government requires a huge budget to implement its work plan. The decline of available financial support has reduced the resources for forest management, and the cost of managing the forest estate sustainably is too great for current budgets. A number of species in protected areas are therefore threatened by the inability to control illegal activities such as logging and agricultural encroachment. In other cases, the strategy to alleviate poverty and broaden communities' livelihood opportunities has been rendered ineffective by excessive restrictions and regulation. There are now signs that the State is moving away from its "protect and punish" approach to a "protect, participate and benefit" system (Larsen 2000), as shown in the development of CFM.

The shift in management to achieve SFM objectives of biodiversity conservation, environmental services, poverty alleviation and decentralization started in the mid-1980s, but has not been fully embraced by institutions and stakeholders. Some government agencies are currently making efforts to direct their budgets, institutional structures and capacities to improving the elements that promote SFM and poverty reduction.

Local governments

Local governments have been made responsible for establishing district forest services, which are charged with issuing permits and licences, collecting fees and taxes for forest produce, and developing and enforcing laws. They are also responsible for managing LFRs, in partnership with communities, the private sector and forest land administration bodies, approving community forests, producing management plans, and monitoring implementation of the Forestry Policy (2001). If these activities were carried out properly, they would contribute greatly to both SFM and poverty reduction, but because of their limited human and financial capacity, districts have failed to collect revenues, partner local communities and the private sector, and produce management and work plans. This management failure has led to LFRs becoming open-access resources, and most have been encroached on. The Biomass Study Report (MWLE, 2005) estimates the area of LFR forest cover at 1 214 ha, but this case study found far less cover of only about 780 ha. Annual district forestry plans are not properly integrated into lower-level work plans and budgets, so local agencies receive very few finances with which to provide forestry services and contribute to poverty alleviation.

The problems facing SFM implementation include the poverty, degradation and small size of the forest patches allocated to districts. Suspension of the sharing of revenue from the CFRs within districts' boundaries, limited financial resources and lack of staff have worsened the situation. Local politicians often encourage local people to commit illegal activities and to encroach on LFRs and CFRs, such as in south Busoga (Mayuge district) and Namatale (Mbale district). The study also noted, however, that in districts with reasonable areas of LFR – such as Mpigi, Mukono, Masindi, Hoima, Kibaale and Kyenjojo – where revenue is earned, efforts are made to implement SFM and poverty alleviation activities. Stakeholders in Mpigi district raised and planted more than 5 million seedlings in 2004 to 2005. Districts are also running awareness campaigns, providing training in forest management practices and recruiting.

Only a few district governments have started to collaborate with local communities and the private sector to manage forests. In other districts, this opportunity for improving local people's livelihoods through employment and healthier forest resources has been lost. Healthy forest resources would guarantee revenue now and in the future, but the study found that local leaders tend to promote political agendas only to earn votes. The gestation period of trees is long, so politicians see little benefit in forestry investment because their periods in political office usually end before forestry efforts have borne fruit and can earn votes. Political motives have caused the loss of about 6 000 ha of natural forest in south Busoga, and 8 000 ha in Kalangala.

This study found evidence of LFRs being managed sustainably and contributing to poverty alleviation in only six out of 39 districts.

FREEHOLD AND LEASEHOLD TENURE

These tenure types require money to obtain ownership titles. Freeholders and leaseholders hold large areas of land and are usually in the private sector, including industries and institutions. They have secure tenure and ownership rights to property over long periods. The study found that secure

tenure encourages the private sector to invest in forest management, which is usually efficient and effective, especially in the tea estates of Igara, Rwenzori, Kabarole and Kyenjojo. Some free- and leaseholders have invested in SFM by putting in place management structures, budgets and qualified staff to prepare work plans, enforce regulations and control illegal activities, as well as by providing employment to local communities. Such tenure holders ensure compliance with legal requirements, and most estates do not have encroachment or illegal resource access. Some have contributed to poverty alleviation and improved community livelihoods by allowing crop cultivation in areas opened for tree planting, thereby helping communities to obtain food. Large forest estates are associated with tea, tobacco, sugar cane, cement and lime factories.

Some institutions, mainly churches, allow underprivileged groups, especially women, to establish and manage woodlots from which to earn income. The most significant contributions to SFM and poverty alleviation occur when private landowners increase the area of healthy forest estate, thereby ensuring resources for the long term. This improves livelihoods, alleviates poverty – mainly through providing employment and tradable forest resources – and protects the environment.

CUSTOMARY TENURE

Since time immemorial, communities have used traditional and customary practices to manage community resources for the good of the community. In areas under customary tenure, the access to and use of many resources are not properly controlled, however, resulting in misuse and abuse. Increasing population and the breakdown of communal control have led to high rates of degradation, deforestation and conflict over resource use and ownership. The law provides for ownership rights and security of tenure, but very few communities are aware of these rights, and traditional rules and regulations persist. Although these protect some trees and forests, communal grazing and the use of fire discourage tree planting and forest management. Customary inheritance laws also lead to land fragmentation, which is not conducive to SFM and normally discriminates against women. These attributes of community tenure do not support SFM.

The Land Act (1998) makes provisions that enable communities to own land legally by forming CLAs, which own the land in their own right. This is expected to promote the responsible management of natural assets on the land, reduce degradation, promote SFM and help communities to alleviate poverty. Unfortunately, no applications have been made to obtain registered landownership certificates, and the study found bottlenecks in the implementation of registration, partly owing to discouragement from politicians and partly to an absence of proper guidelines. Under section 19 of NFTPA (2003), any revenue derived from the management of community forest belongs to the responsible body and is to be used for sustainable management of the community. One aspect of CLAs that ensures sustainable resource use is their closing of access to resources for non-members, ensuring that only the communal owners benefit.

Nomination of the responsible agency by the minister and registration of the CLA are designed to enable the community to own, control access to, manage sustainably and conserve its forests for its own good and that of future generations. Community forests exist – especially in sparsely populated districts of Kyenjojo, Hoima, Masindi, Mubende and Mityana – but although associations have been formed, they have not yet been registered, and certificates of title signifying landownership have not been acquired. Customary areas are prone to open access and there is no practice of SFM. Poverty is being alleviated because people have access to resources without hindrance, but this situation is not sustainable.

Indigenous and tribal people, such as the Batwa, have no recognized land rights. They have been marginalized and have lost the use and control of their traditional resources, especially in places where protected areas have been created. The study found that the changes in forest law and policy that ensure secure landownership in private tenure have not yet contributed convincingly to SFM. Instead, forests are rapidly being converted to other land uses that bring quick benefits. The area for tree planting has increased, especially in small woodlots, but less than the area converted to other economic activities, such as agriculture. Monocultures, especially of Eucalyptus, seem to predominate.

Conclusions and the way forward

CONCLUSIONS

There is evidence that SFM in Uganda has been tried on the 30 percent of total forests that are under State ownership, but the remaining 70 percent, which are in private ownership, need to be brought under sustainable management to ensure a secure forest estate. The State recognizes its own lack of ability to manage its estate, and is starting to forge partnerships with individuals, communities and the private sector. The government is now giving long leases and entering into collaborative agreements for managing parts of its estate, which has helped the private sector, communities, NGOs and individuals to establish plantations and to reforest. There are opportunities for promoting SFM in all forest ownership categories, and NFA has stated to implement strategies for this.

The new forestry and land policies provide a great opportunity for recognizing various types of land tenure, especially private and communal ownership, but despite good experiences – from Uganda and elsewhere – of the impact of tenure and user rights on SFM and poverty alleviation, much still has to be done. State management remains the best option in some circumstances, especially for national parks and the protection of forest reserves. State-owned forests are probably the best-managed of the various tenure systems, when budget and staff are available. Areas under CFM, where the State and communities control activities and share benefits, provide a successful example of SFM, especially when management is devolved and funds and capacities are available.

The study found that changes in all types of forest under different tenure systems are not tracked, and the few records that are kept are not properly stored. There are no data on the forest cover under different tenure types, and although data on forest land under State ownership are available, they do not reflect the real extent of forest cover. Further research is needed to establish the extent of forest change – positive or negative – in each tenure system. The private sector is showing increased interest in forest management, especially of plantations, but the management of private forests leaves much to be desired, and the ownership of these forests needs to be registered with the district land boards so that they are included in PFE and can benefit from government programmes. It has been noted that the emergence of new legal mechanisms to support greater forest tenure rights has not always resulted in robust rights; political, socio-economic and ecological conditions sometimes fail to motivate and sustain local management, and even the establishment of a responsive legal framework might not make any difference (FAO, 2005)

Given the changing trends in forest management in Uganda over the last two decades, and based on comparative analysis of forest management under different tenure and institutional arrangements involving different owner groups, the way forward for forest management should include greater involvement of local people in managing forest resources.

To facilitate the changing trends in forest management and improve forest management's contribution to poverty alleviation, recommendations have been made and are outlined in the following sections. These recommendations recognize constraints as well as opportunities.

RECOMMENDATIONS FOR MONITORING AND PLANNING

The sector investment plan should be linked to district development planning to facilitate the allocation of resources to local governments for the management of natural resources – including forestry-based ones – that target poor rural communities.

There is a need to build the institutional capacity to develop and implement, in a participatory manner, forest plans that are coordinated with other sectors and integrated into district development plans.

Monitoring guidelines should be developed for use at the central and local forest levels, and the sector's performance should be monitored in terms of:

- percentage of land under forest cover;
- increase of land under forest cover;
- distances travelled by local people to collect resources, especially fuelwood.

NFA should be monitored regularly. It is now four years since NFA was approved, but its implementation has not been monitored or evaluated. The sector must improve data collection, storage and reporting.

Performance indicators should be put in place to assess improvements or declines in the biodiversity resources of protected areas. Key performance indicators for determining baselines against which to measure periodic improvements – including changes in forest cover – should be identified. Local government officials should be supported and facilitated in carrying out regular forest inspections and producing inspection reports that highlight areas where improvement is needed. Routine reports on the condition of forest resources, forest products and conservation issues should also be produced at regular intervals.

Private forest owners should be supported in surveying and mapping their forests and obtaining standard forestry information, such as maps, resource volumes, management plans and other inventory data. Efforts should be made to survey the 70 percent of forests in private estates.

RECOMMENDATIONS FOR LAW AND POLICY

Forest rules and regulations should be instituted with a view to favouring long-term interest and investments in the forest sector and to promoting SFM.

Forest law and policy should provide well-specified incentives and disincentives to deal with existing excesses in the forest sector, especially the ownership of reserved tree species on private land. Incentives could include grants and tax subsidies for people who protect and manage forests on their land, sharing of the revenue from reserved species, compensation for carbon storage via forest conservation, and simplification of the land registration process.

Legal documents are too complex. Many of the policies made at the national level are incomprehensible to the local officials implementing them, not to mention local people. Even the district staff who implement forest policy are not clear about the rights of land users. The language used in policy documents contributes to their complexity.

Because the poor are often unable to use the opportunities the law gives them to achieve the economic benefits of devolution, strengthening poor people's capacity to benefit from forest devolution and decentralization will help them to emerge from poverty.

REFERENCES

Bunyoro Kingdom. 1993. *In the matter of the return of properties to the traditional ruler (restitution of assets and properties).*

FAO. 2005. *Best practices for improving law compliance in the forest sector.* FAO Forestry Paper No. 145. Rome, ITTO and FAO.

FAO. 2001. *Forest Resources Assessment 2000.* FAO Forestry Paper No. 140. Rome

FAO. 2006. *Global Forest Resources Assessment 2005.* FAO Forestry Paper No. 147. Rome.

Fisher, R.J. 1995. *Collaborative management of forests for conservation and development.* Gland, IUCN/WWF.

Forest Department. 1996. *An assessment of opportunities and constraints for collaborative management in operation of the Forest Department in Uganda.* Kampala.

Government of Uganda. 1964. *The Forest Act.* Kampala.

Government of Uganda. 1995. *Constitution of the Republic of Uganda.* Kampala.

Government of Uganda. 1997. *The Local Government Act.* Kampala.

Government of Uganda. 1998. *The Forest Reserves (Declaration) Order. S. 1 No. 63 of 1998.* Supplement No. 23. Kampala.

Government of Uganda. 2005. *The Population and Housing Census (2002).* Kampala.

Hamilton, A.C. 1984. *Deforestation in Uganda.* EAWLS.

Howard, P.C. 1991. *Nature conservation in Uganda's tropical forest reserves.* Gland, IUCN.

Howard, P.C. 1995. *Biodiversity Reports Series, A33 Volume.* Kampala, Forest Department.

Howard, P.C., Davenport, T. & Kigenyi, F.W. 1991. Planning conservation areas in Uganda's natural forests. *Oryx,* 31(4).

IFPRI. 2001. *The commercialization of forestry in Uganda: survey of village-level data.* Washington, DC. Environmental Production.

Jacovelli, P. & Carvalho, J. 1999. *The private forestry sector in Uganda – opportunities for greater involvement. A study carried out as part of the Forestry Sector Review.* Kampala, UFSCS/MWLE.

Kamugisha, J.R. 1993. *Management of natural resources and environment in Uganda: policy and legislation landmarks, 1890–1990.* Regional Soil Conservation Unit,Swedish International Development Authority, Nairobi, Kenya.

Kigenyi, F.W. 2001. The conservation of natural ecosystems in Uganda with particular reference to endemic species. Paper presented at UFA workshop at Makerere University.

Kigenyi, F.W., Gondo, P. & Mugabe, J. 2001. *Community involvement in forest management in Eastern and Southern Africa: analysis of policies and institutions.* Nairobi, IUCN.

Langdale-Brown, I., Osmaston, H.A. & Wilson, J.G. 1964. *The vegetation of Uganda and its bearing on land-use.* Entebbe, Uganda Government Printer.

Larsen, T.S. 2000. *Thematic evaluation of the World Bank's biodiversity-related activities. Some preliminary observations from CPPAP.* Quezan City, Philippines, World Bank.

Lendell-Mills, N. & Ford, J. 1999. *Privatizing sustainable forestry. A global review of trends and challenges.* London, IIED.

Makumbi, I. 2004. Challenges to forestry management and low PFE can be maintained and expended. In *Maintaining and expanding the PFE in East Africa. Workshop 23 June 2005*, pp. 28–29, Mombassa, Kenya.

Ministry of Natural Resources. 1996. *Final report (1988–95) of the EC-financed Natural Forest Management and Conservation Project.* Project 6100.37.42.05.

MWLE. 1999. *National Biomass Report.* Kampala.

MWLE. 2000. *Forestry Nature Conservation Master Plan.* Kampala.

MWLE. 2001a. *Uganda Forestry Sector Review.* Kampala.

MWLE. 2001b. *Uganda Forestry Policy (2001).* Kampala.

MWLE. 2002a. *National Biomass Report.* Kampala.

MWLE. 2002b. *National Forest Plan.* Kampala.

MWLE. 2003. *National Forestry and Tree Planting Act.* Kampala.

MWLE. 2005. *National Biomass Report.* Kampala.

Naur, C.T.S. & Tieguleng, J. 2004. *African forests and forestry. An overview.* Rome, FAO and CIFOR.

Nsiita, S. 2004. Overview of management, law and policy in Uganda. In *Expanding the Permanent Forest Estate in East Africa.* EAWLS Workshop.

Plumptre, A. 2002. *Extent and status of forests of Uganda.* Albertine Rift Report to GEF, PDF, Albertine Rift Forest.

Pomeroy, D. 1993. Centres of high biodiversity in Africa. *Conservation Biology,* 7: 901–907.

UBOS. 2000. *Highlights of the 1992/2000 National Household Survey.* Kampala.

UNDP/UNEP/World Bank/WRI. 2005. *The wealth of the poor. Managing ecosystems to fight poverty.* Washington, DC, World Resources Institute.

Webster, G. & Osmaston, H.A. 2004. *A history of the Uganda Forest Department 1951–1965.* London, Commonwealth Secretariat. 169 pp.

World Bank. 2002. *A revised forest strategy of the World Bank Group.* Washington, DC.

ANNEX 1. LICENCES, PERMITS AND AGREEMENTS ISSUED BY NFA

Performance contract: This is signed between NFA and the Ministry of Forestry on behalf of the Governent of Uganda. Because NFA is a government parastatal, it is 100 percent owned by the government. The performance contract ensures the government that the parastatal acts entirely on the government's behalf. The greatest responsibility is managing CFRs, which are held in trust by the government for the citizens of Uganda. NFA should be working to make profit and should become self-sustaining in the long term. The government has a significant stake in this profit, and NFA has to spend it in agreement with the Ministry of Forestry.

Harvesting licences: These vary but are mainly for roundwood, which is auctioned as standing volumes in plantations and logs in natural forests. Licences can also be for poles – construction, fuelwood and transmission – and for harvesting NWFPs, which may include plants, sand and stones, but not animals; licences for animals are issued by UWA.

Research licences: NFA issues these on receipt of payment, or through acceptance permits when issued to sister organizations such as NARO, universities or people carrying out studies.

Land licences: NFA issues these to people acquiring land on CFRs for small- or large-scale tree growing. Licences are granted for five to 50 years.

Telecommunication masts: Many hilly areas fall in CFRs and have been attracting investors from TV, radio and telecommunications businesses. Agreements are signed with NFA for using small areas for masts.

Other government ministries and parastatals: NFA assigns areas for such uses as landing sites, UFA checkpoints and local government roads on the basis of Memoranda of Understanding, with compensation being paid for the damage caused by tree felling.

Old encroachments with permanent structures: These require the payment of ground rent.

Grazing permits: NFA issues these for grasslands that have been earmarked for future planting but are not yet ready to be planted.

Ecotourism sites: These include picnic sites and more significant interventions involving the construction of ecotourism accommodation and other facilities on NFA land, such as in Kalangala and Mabira.

CFM agreements: These are signed for the management of CFRs by NFA and neighbouring communities, for mutual benefits.

Sugar cane and farming permits: These are not common, but some CFR land acquired through high-level government intervention is licensed for non-tree crops – for example, in Butamira. NGOs, CBOs, stakeholders and individuals are strongly opposing a proposed new licensing system for change of land use.

ANNEX 2. STRATEGIES FOR THE SUSTAINABLE MANAGEMENT OF PRIVATE FORESTS

Deepening understanding of the complexities of private and customary forest management.
Developing guidelines for the management of private and customary forests.
Creating awareness of ownership rights, opportunities and obligations for the owners and users of private- and customary-managed forest.
Developing incentives to encourage private and customary forest owners and users to set aside natural forest as permanent forest land.
Securing tenure for private and customary forests.
Developing the capacity of forest owners and users to manage their forests effectively.
Developing the capacity of government institutions and service providers to supply extension support and advice.
Monitoring the ownership and management of private and customary forests.

Source: MWLE, 2002b.

ANNEX 3. PLANNING AND MONITORING RESPONSIBILITIES IN EACH TYPE OF OWNERSHIP

Land tenure type	Features	Ownership of trees	Control and regulation	Planning and monitoring system
1. Customary land tenure	Individual settled holdings Communal areas with no permanent individual holdings	Trees owned by individuals – e.g., west and southwestern Uganda, Busoga and Bugisu Trees owned by clans and families, especially in Teso, northern Uganda.	Individuals own trees Regulation by government, but proceeds to owner Trees owned by community Regulation by government for harvesting and transport	Guided by NFTPA 2003 DFO and land board control where trees are communally owned Individuals guided in management and harvesting FID monitors in field
2. Mailo land tenure	Land registered as private property, mainly in Buganda and Bunyoro Land owned by Kabaka and former chiefs Land with legally settled tenants	Valuable trees belong to landowner, not tenant Tree planting by tenants discouraged Trees usually private property of landowner Many absentee landowners know little about their own forests	Landowner has much say in use of trees Absentee landowners lose control of management; trees stolen and land degraded Regulation by government and DFO for harvesting and movement	DFO guides planning and management DFO supervises harvesting licences and transportation Government compensates absentee landlords in Kibaale, Bunyoro FID monitors in field
3. Freehold land tenure	Land is private property Mainly missionaries and big planters	Owner of title owns trees Some subleasing and trees owned by lessee Most secure tenure type in Uganda	FID for guidelines DFO for regulation, licences for harvesting and transport	Within general FID planning structure DFO monitors performance and harvesting Individual management plans approved by DFO/FID NEMA regulations
4. Leasehold land tenure	Contractual arrangement between leaser and lessee Condition of lease given Tree planting allowed for period of lease Can be on mailo, freehold or land controlled by Uganda Land Commission or district land board	Trees on unleased land are under customary tenure Trees belong to mailo or freehold owner, unless leased Trees paid for before leasing on mailo and freehold Trees owned under lease agreement	FID for guidelines Leaser insists on lease agreement DFO for licences, harvesting and transport. May discourage planting of trees that grow beyond time of lease	Planning and monitoring according to NEMA regulations Owners have interest in monitoring throughout period of lease Leaser may follow up what is grown to promote conservation NEMA regulations
5 State and government land, usually Uganda Land Commission and district/city land boards				
a) LFRs	Reserved for forestry, but fall under districts Held in trust for people of Uganda by government	Trees owned by respective local government, especially district	Under DFO, with management plans approved by district and Ministry of Forestry Regulated by NFTPA, and other regulations through FID	Fall in both ministry and district plans District and DFO monitor performance Central government may intervene when management by the district is poor NEMA regulations
b) CFR	Reserved for forestry under NFA management Held in trust for people of Uganda by	Trees owned by government for people of Uganda Managed by NFA as a government parastatal. Used by NFA under	NFA management plan approved by ministry Overall control by government NFA board	Performance contracts between NFA and government Oversight by minister and NFA board

	government	performance contract	Change of use approved by Parliament	NFA controls fieldwork and licence holders NFA staff use NFTPA 2003 NEMA regulations
c) Forests in wildlife protection areas	Forests in national parks and game reserves	Trees owned by government for people of Uganda Managed by UWA as a government parastatal Generally protected from harvesting	UWA uses overall plan for flora and fauna Control by UWA board Change of use approved by Parliament	Performance contracts between UWA and government Oversight by board/minister UWA for all fieldwork Wildlife Act guidelines NEMA regulations
d) Forests in wetlands (excluding forest and wildlife reserves)	Forests in wetlands formerly not gazetted but soon to be gazetted	Trees owned by government for people of Uganda Managed by wetland section of MWLE, in collaboration with district governments Limited regulated harvesting	Controlled by National Environment Statute with powers to responsible ministry, NEMA and districts	Oversight by ministry, NEMA and districts Wetland for all fieldwork planning and oversight Environment Statute guidelines NEMA regulations
e) Urban forest and trees	NFA and districts manage CFRs and LFRs Urban acts guide planting of other trees	Trees owned by institutions and individual compounds, but regulated Trees in streets and parks owned by urban council	Town planning regulations and guidelines Health regulations Road reserve regulations NFTPA 2003 rules	Mainly urban planning rules NFTPA 2003 guidelines Town council rules Health regulations NEMA regulations
f)Trees on other government land (excluding protected areas)	In government institutions, schools, hospitals Road reserves Prison lands, military bases, farms, ranches Other State land vested in Uganda Land Commission, district/city land boards, and earmarked for future use	Uganda Land Commission District/city land boards Central and local government Delegated autonomous institutions	NFTPA 2003 FID, DFO, management boards of institutions with regulations	Government, district governments, DFO FID, delegated management boards Civil society pressure groups NEMA regulations

ANNEX 4. HISTORIC AGREEMENTS BETWEEN PROTECTORATE GOVERNMENT AND NATIVE AUTHORITIES

Annex 4a. Native Agreements (Buganda): The Uganda Agreement (1900)

The Land of the Kingdom of Buganda shall be dealt with in the following manner.

Assuming the area of the Kingdom of Uganda, as comprised within the limits cited in this agreement, to amount to 19 600 square miles, it shall be divided in the following proportions:

Forests to be brought under control of the Uganda administration.

Waste and uncultivated land to be vested in Her Majesty's Government, and to be controlled by the Uganda Administration, 1 500 square miles.

The aforesaid 9 000 square miles of waste or cultivated, or uncultivated, land or land occupied without prior gift of the Kabaka or chiefs by bakopi or strangers, are hereby vested in Her Majesty the Queen of Great Britain and Ireland, empress of India, and Protectorate of Uganda, on the understanding that the revenue derived from such lands shall form part of the general revenue of the Uganda Protectorate, 9 000 square miles.

The forests, which will be reserved for government control, will be, as a rule, those forests over which no private claim can be raised justifiably, and will be forests of some continuity, which should be maintained as woodland in the general interests of the country.

Until Her Majesty's Government has seen fit to devise and promulgate forestry regulations, it is not possible in this agreement to define such forest rights as may be given to the natives of Uganda; but it is agreed, on behalf of Her Majesty's Government, that in arranging these forestry regulations, the claims of the Baganda people to obtain timber for building purposes, firewood, and other products of the forests or uncultivated lands, shall be taken into account, and arrangements made by which under due safeguards against abuse these rights may be exercised gratis.

H.H. Johnston, Her Majesty's Special Commissioner, Commander-in-Chief and Consul-General, on behalf of Her Majesty the Queen of Great Britain and Ireland, Empress of India.

Apollo Kaggwa (Prime Minister), on behalf of the King of Buganda and Baganda County Chiefs

1. The demarcations of estates provisionally made as recited shall not be altered by anyone except the government surveyor on survey.

2. Isolated pieces of forest land which do not exceed half a square mile in area may be included in native estates. Pieces of forest land, not being strips of forest land as hereinafter described, which exceed half a square mile in area may not be included in native estates, but are absolutely vested in the government as government forest land. Provided that the Baganda people may obtain from government forests timber for building purposes, firewood and other products of the forests for their individual domestic use only, or timber for the erection of the buildings to be used by the Baganda for religious or educational purposes, such buildings and purposes to be approved by the Commissioner. Subject always to such regulations, restrictions or reservations as the government may think fit from time to time to make or impose either generally or in respect to any particular forest. For the purpose of this agreement an isolated piece of forest land shall be taken to include:

A piece of forest land not exceeding the area of half a square mile which is completely isolated.
A piece of forest land not exceeding in area half a square mile which is connected with a piece or pieces of forest land, either less than or exceeding half a square mile, by a strip or strips of forest land not exceeding 300 yards in width.

3. Strips of forest land not exceeding 300 yards in width may be included in native estates, provided that such strips do not join two pieces of forest each exceeding half a square mile in area.

For the purpose of this agreement a strip of forest land shall be taken to mean forest land not exceeding 300 yards in width, and any forest land exceeding 300 yards in width shall not be deemed to be a strip of forest land, save as is provided in clause 5 hereof.

4. In the case where forest land is intersected by streams or swamps.

Where such stream or swamp is less than 200 yards in width, such forest land shall be deemed to be joined together and form one piece of forest land for the purposes of the measurements aforesaid, in the same way as if such stream or swamp did not exist, and in reckoning such measurements as aforesaid, the width of the stream or swamp shall be excluded. Provided always that instead of the width of a strip of forest land being 300 yards the width of such strip shall be 400 yards.

5. As regards forest land on some of the islands, it may be essential, owing to the geological formation, that a certain proportion of forest shall be reserved to the claimant of cultivated land to allow for part of such land to lie fallow; such claimant may, on proof being given to the satisfaction of the Commissioner of the necessity as aforesaid, include forest land in his private estate not exceeding one-half of the actual area under cultivation at the date of this agreement.

6. All forest land shall be subject to such regulations and rules as may be instituted by the government for the regulation, safety, and good and wise use of forests in the protectorate generally, and the regents and chiefs undertake properly to enforce those regulations and rules.

7. Certain forests have already been declared by the Lukiiko to be government forests. The names of such forests so declared government forests up to date are for the purpose of record stated in the schedule hereto and are government forests.

8 This Memorandum of Agreement is made subject to the approval of His Majesty's Secretary of State for the Colonies.

9. This Memorandum of Agreement may be cited as "The Uganda Memorandum of Agreement (Forest), 1907". It has been done in English and Luganda, and in the construction thereof the English version shall prevail.

Annex 4b. Native Agreements (Toro): The Toro Agreement, 1900

Between Sir Henry Hamilton Johnston, KCB, Her Majesty's Special Commissioner and Commander-in-Chief for the Uganda Protectorate and the adjoining territories representing the Government of Her Britannic Majesty the Queen of Great Britain and Ireland and Empress of India on the one part, and the Kabaka and chiefs of the district of Toro on the other part.

All the waste and uncultivated land which is waste and uncultivated at the date of this agreement; all forests, mines, minerals, and salt deposits in the Toro district shall be considered to be the property of Her Majesty's Government, the revenue derived there from being included within the general revenue of the Uganda Protectorate; but the natives of the Toro district shall have the same privileges with regard to the forests as have been laid down and formulated in the aforesaid regulations in force in the Uganda Protectorate as are applicable to the natives of each province or other administrative division of the protectorate within such province or administrative division. Her Majesty's Government shall have the right of enforcing on the natives of the Toro district, as elsewhere in the Uganda Protectorate, the protection of game; and in this particular it is hereby agreed that within the Toro district the elephant shall be strictly protected, and that the killing or the capture of elephants on the part of the natives of the Toro district shall be regulated by the principal European official placed in civil charge of this district.

Signed by the within-named Sir Henry Hamilton Johnston and the Kabaka and chiefs of Toro at Fort Portal on the 26 June 1900.

Annex 4c. The Bunyoro Agreement, 1933

An agreement made this twenty-third day of October 1933, between His Excellency Sir Bernard Henry Bourdillon, Knight Commander of the Most Excellent Order of the British Empire, Companion of the Most Distinguished Order of Saint Michael and Saint George, Governor and Commander-in-Chief of the Uganda Protectorate (hereinafter called the Governor) for and on

behalf of the Government of the said Protectorate of the one part and Tito Gafabusa Winyi II, Mukama of Bunyoro (hereinafter called the Mukama) by and with the advice and consent of the Rukurato for himself and his successors in office for and on behalf of the native inhabitants (hereinafter called the people) of the district of Bunyoro in the Uganda Protectorate of the other part.

Whereas it is expedient to define the rights and privileges of the Mukama and relations which shall exist between the Governor and the Mukama and the people, during the currency of this agreement.

Now, therefore, it is agreed as follows:

1. The control of all existing forests and all areas hereinafter declared to be forests shall vest in the Governor subject to the right of the natives to take forest produce in accordance with the procedure laid down from time to time by protectorate laws. If, however, the native government desire to exploit any forest, which is not being developed or exploited by direction of the Governor, and the exploitation or development of which does not form part of any general plan approved of by the Governor, then their wishes will receive the sympathetic consideration of the Governor.

2. The property in all minerals and all mining rights in the Obukama bwa Bunyoro-Kitara are vested in the Governor on behalf of His Majesty's Government. The Governor may grant to the Mukama or to the people the right to work the salt deposits at Kibiro and the graphite deposits at Kigorobya and any other mineral deposits which are required to meet the normal domestic or agricultural needs of the people, on such terms and conditions as may be agreed upon.

3. In the event of any considerable mineral development taking place the Governor will consider what share, if any, of the royalties collected shall be paid to the native government.

4. All natives shall have the right of fishing in all public waters subject to the provisions of the sleeping sickness rules and all other protectorate legislation from time to time in force.

5. No game reserve shall be proclaimed in the Obukama bwa Bunyoro-Kitara, nor shall any alteration be made in the boundaries of the existing game reserve unless the Governor shall first have consulted the Mukama and given full consideration to his wishes. In deciding upon the policy to be adopted in regard to the preservation of game, the Governor shall give full consideration to the agricultural needs of the people. So long as in the opinion of the Governor elephants are not unduly depleted the Mukama shall be granted annually a free licence for two elephants.

6. This agreement may be cited as the Bunyoro Agreement 1933. It has been done in English and Lunyoro and in the construction thereof the English version shall prevail.

Annex 4d. Native Agreements (Ankole): Volume VI: The Ankole Agreement, 1901

Agreement between Frederick J. Jackson, Esq., CB, His Majesty's Acting Commissioner and Consul-General for the Uganda Protectorate and the Adjoining Territories, representing the Government of His Britannic Majesty the King of Great Britain and Ireland, and Emperor of India, on the one part, and the Kabaka and chiefs of the district of Ankole, on the other part.

All the waste and uncultivated land which is waste and uncultivated at the date of this agreement, all forests, mines, minerals, and salt deposits in the Ankole district shall be considered to be the property of His Majesty's Government, the revenue derived there from being included within the general revenue of the Uganda Protectorate; but the natives of the Ankole district shall have the same privileges with regard to the forests as have been laid down and formulated in the regulations in force in the Uganda Protectorate as are applicable to the natives of each province or other administrative division of the protectorate within such province or administrative division.

His Majesty's Government shall have the right of enforcing on the natives of the Ankole district, as elsewhere in the Uganda Protectorate, the protection of game and in this particular it is hereby agreed that within the Ankole district the elephant shall be strictly protected, and that the killing or capture of elephants on the part of the natives of the Ankole district shall be regulated by the Sub-Commissioner of the Western Province.

ANNEX 5. STRATEGIES FOR SFM ON GOVERNMENT LAND

Urban CFRs: Inevitably, urban areas occupied by CFRs may be needed for town expansion and many fall in urban planning areas. The policy is for urban authorities to apply to the government for land to be taken from CFRs; land of a similar area is then provided by the urban authority in exchange. The agreement is concretized after Parliament has approved the proposal, the new land has been gazetted, and the former CFR area has been degazetted.
Strengthening MWLE structures, capacity and processes.
Establishing NFA for the improved management of CFRs.
Managing LFRs in partnership with local communities and the private sector.
Improving institutional collaboration in the management of PFE.
Improving protection of boundaries, forest resources and watersheds in PFE.
Improving management planning for PFE.
Developing collaborative forest management partnerships with local communities.
Promoting private sector enterprises that deal in forest products and services from PFE.
Conserving forest biodiversity.

Source: MWLE, 2002b.

ANNEX 6. EXAMPLES OF DIRECT BENEFITS FROM FORESTS AND TREES

Forests provide income through employment or the sale of forest products. It is estimated that forestry creates about 850 000 jobs in Uganda. The majority of these are informal, related to the collection of domestic fuelwood, but as many as 100 000 people are employed full-time and earning wages in more formal sectors, such as charcoal production, plantation management, forest industries and institutions. Incomes derived from the sale of NWFPs, such as bushmeat, medicines, rattan and bamboo, craft materials and food, are estimated to be about U Sh 66 billion/year. Some studies show that poor households in forested areas earn up to U Sh 130 000/year from the sale of such products at times when there are gaps in alternative income sources, such as wage labour or the sale of farm products.
Fuelwood is the main source of energy for domestic cooking, heating and lighting. More than 90 percent of Ugandans use fuelwood as their main or only source of energy, consuming 16 million tonnes each year as domestic fuelwood, and 4 million tonnes as charcoal. Fuelwood shortages are increasing in many districts, and women and children are especially affected, as they must walk further and further to collect fuelwood.
Forest products are among the most important free goods produced in nature, and are critical to poor subsistence households. Shelter and food security are overriding priorities for poor people, and products such as materials for housing and farm implements, animal and vegetable forest foods that enhance nutritional status, and herbal medicines for a variety of illnesses are harvested free from natural forests. More than 75 percent of the world's population depends on traditional medicines, many of which are harvested from the wild. Women, children and the elderly are particularly dependent on these wild resources.
Forests provide safety nets against shortages of food, fuel and income and against ill health. These are especially important at times of natural or economic shocks, which perpetuate vulnerability and poverty. The natural diversity found in forests helps to protect rural families from drought, floods, drastic market fluctuations that affect the prices of the commodities they grow and sell, and insecurity resulting from war and displacement.
Cultural and spiritual values of forests enhance social capital and the sense of well-being. Forests and natural diversity hold special significance for many communities, providing the basis for religious beliefs and traditional knowledge. Through ecotourism, which can provide sources of income and development for poor people, outsiders are increasingly recognizing these values.

Source: MWLE, 2002b.

ANNEX 7. EXAMPLES OF ENVIRONMENTAL AND AGRICULTURAL BENEFITS OF FORESTS AND TREES

Forests protect watersheds. Uganda has many major watersheds where forests are crucial for maintaining constant water supply and supporting productive agriculture and fisheries. The Rwenzori mountains and Mount Elgon represent the primary water source for 3.2 million people, but forest destruction over the last decade has led to decreased water flows in main streams from the mountains.
Forests and trees protect and improve soils and substantially increase crop yields. Forests and trees in and around agricultural systems reduce topsoil erosion and water runoff, increase water infiltration, and improve soil fertility and crop yields. For example, in hilly areas of Kigezi, seven out of ten farms with contour hedgerows have an average of 14 cm more topsoil than those without hedgerows after three to six years of growth. This represents 79 tonnes of soil conserved for every 100 m of hedgerow, or US$700 000 worth of available nutrients (at market prices) for every 1 million trees and shrubs planted. Crop and tree fallow rotations can add 100 to 150 kg/ha of nitrogen, and enough fuelwood for seven families for a year. In contrast, farms with poor tree and soil management are losing soil nutrients at a rate that is seven times that of fertilizer imports into Africa. These recent findings from the International Center for Research in Agroforestry (ICRAF) demonstrate the substantial impact of tree management in farming systems.
Forests improve local, regional and global climates. They influence micro-climates and, possibly, local rainfall patterns, and thus support agriculture. Forests absorb carbon, and there is growing interest in the role that Uganda's forests can play in helping the carbon balance of the atmosphere.
Forests contain rich biodiversity of national and international importance. Because of its wide range of ecosystems, Uganda contains internationally significant biodiversity. It is one of the most species-rich countries in the world for its size, with about 315 species of mammals, more than 1 000 species of birds and 1 200 species of butterflies. In only 0.02 percent of the world's land area, Uganda contains 11 percent of its bird species and 7 percent of its mammals. As well as the tourism potential of this biodiversity, there is considerable economic value from plant and animal genetic resources that provide medicines and agricultural crops.

Source: MWLE, 2002b.

ANNEX 8. AN INITIATIVE TO ESTABLISH SAWLOG PLANTATIONS: SPGS

Because of the long-term engagement required, coupled with the high investment costs, timber growing remains an unattractive investment area for the private sector, hence the establishment of this special fund. The fund is managed by NFA to encourage the private sector to establish commercial timber plantation in Uganda.

The purpose of the fund is to subsidize tree growers establishing good-quality timber. Plantation establishment requires high financial investments, especially in the initial years, and revenue starts to be generated only after many years. Money from the fund is available over a three-year period as non-refundable grants to individuals and corporate entities investing in tree plantations of at least 25 ha for timber and large poles. NFA has strict standards that have to be complied with before the money is disbursed. The full payment is U Sh 600 000/ha, which is 50 percent of the average establishment costs. Funds are disbursed in two or three instalments, depending on the species; the first instalment is paid during the first six months, and the second and third instalments in the second and third years, respectively.

Trends in forest ownership, institutional arrangements and the impact on forest management and poverty reduction

Case study from Zimbabwe

By

Frank Matose

Summary

Zimbabwe is a tropical, land-locked country in southern Africa. Of its total land area, 53 percent is classified as forest and woodland, 13 percent is bushland, and 0.4 percent – 156 000 ha – is forest plantation. Of the forests and woodlands, 26 percent are in protected areas, comprising State forests, national parks, wildlife safari areas, sanctuaries and botanic reserves and constituting 15 percent of the country's total land area; 43 percent are in communal areas, mostly in agriculturally marginal zones in the west, south and north of the country (the Zambezi River valley); and the remaining 31 percent are in what remains of the former commercial farms and resettlement areas. Woodlands and forests in communal and resettlement areas are heavily fragmented and degraded owing to clearance for agriculture and the harvesting of various wood and non-wood products. Those in the commercial and recently resettled areas are being depleted rapidly following reorganization of the agriculture sector under the Fast-Track Land Reform Programme (FTLRP), which started in 2000.

FTLRP is the largest driver of changes regarding forest tenure, sustainable management and forest-based livelihoods. The overall political economy also has an impact on forest tenure and livelihoods in general, by increasing the dependence on forest-based livelihoods in the absence of alternatives in a shrinking economy. FTLRP has shifted more than 31 percent of the country's woodlands from private tenure to State control, with usufruct rights for communities and individuals, following the A1 and A2 models of resettlement, respectively. A second major driver of new forest management arrangements and associated tenure shifts is the commercialization of forest products resulting from national economic hardship. This has led to the privatization of commonly held forest resources in many communal areas. Commercialization and the associated access to world markets have galvanized private commercial forest plantation owners to develop sustainable forest management (SFM) systems that incorporate self-monitoring mechanisms and standards appropriate to the tenure category. The political climate makes it difficult for forest authorities to plan and monitor woodland use, especially in the new resettlement areas where many woodland resources are being removed and sold.

Given the highly insecure tenure associated with resettlement since it started in 2000, FTLRP should be brought to closure so that beneficiaries can manage forest resources more sustainably and derive greater benefits from them. There is urgent need to secure tenure in the new resettlements, and a more entrenched need – which has been debated for many years – for country-wide tenure reform to secure the rights of communal area residents to the tree resources in their villages and adjacent to State protected areas, such as forests and national parks. Another very important need is for increased access to more lucrative markets for forest products, in order to provide incentives, especially for communally owned woodlands.

Introduction

The overall objective of this study is to establish an understanding of the relationships among property rights, forest management and livelihoods/poverty alleviation in forestry in Zimbabwe. Emphasis is placed on exploring the links among forest tenure, institutional arrangements and impacts on the poverty/livelihoods nexus, and investigating the potential for sustainable forest management (SFM) in different tenure categories. Forests and woodlands are directly and indirectly linked to rural livelihood and production systems in Zimbabwe. Rural poor people are highly dependent on forests and forest products and services for subsistence. Forest-based micro-enterprises using both wood and non-wood forest products (NWFPs) are very important in diversifying the income sources and increasing the disposable incomes of many rural poor people. There is strong evidence that value addition and commercialization of NWFPs significantly increase incomes for rural communities and have the potential to bring the people involved out of poverty. These benefits could be increased substantially for communities living around protected forests and national parks if they were granted increased access to NWFPs for use within the framework of parks' conservation objectives.

The potential for increasing the plantation sector's contribution to poverty alleviation is limited by the lack of areas suitable for plantation. The contribution of natural hardwoods could be significantly improved in the long term through improved resources management to increase the supply in areas that are heavily logged. Decentralization of management and use control to local communities could significantly increase the incomes of the rural communities concerned.

This case study focuses on the changes and trends that have taken place since colonization at the beginning of the twentieth century, the factors that drive tenure changes, and the impacts of those changes. The last section assesses the effectiveness of the different tenure systems in relation to SFM and contributing to livelihoods, and proposes ways of securing tenure to improve management and the livelihoods of poor people.

METHODOLOGY

The materials in this case study were gathered from secondary sources not yet in the public domain, document review, field verification and interviews with stakeholders across different levels and tenure categories. The author's own studies in the western State forests were also helpful.

For field verification, a sample of each tenure category or sub-category was made to reflect the diversity of ownership types, management systems and impacts on poverty reduction. A preliminary draft of the report was presented and discussed at a workshop, attended by a representative sample of stakeholders on 7 September 2006 at the Forest Research Centre in Harare.

The tenure system

The following overview of tenure systems in Zimbabwe aims to put into context the relationships between forest tenure and institutional arrangements, on the one hand, and forest management and poverty alleviation and livelihoods, on the other. Three main types of forest tenure are important in Zimbabwe – State, private and communal ownership, in diminishing order according to the areas affected (see Table 1).

TABLE 1
Forest tenure categories

	State	**Communal**	**Private**
Forest owner	State: the Forestry Commission, Ministry of Lands, Agriculture and Resettlement, Zimbabwe Parks and Wildlife Authority	Community groups in communal and resettlement areas	Private individuals, corporate bodies
Area of forest (ha)	8 937 487.0	2 025 901.7	6 566 583.6
Ownership arrangements	Constitution Amendment No. 17, Wildlife Act, Forest Act	Communal Lands Act, Constitutional Amendment No. 17	Private land titles

Source: Derived from matrix compiled by Musokonyi, 2006.

STATE FORESTS

Direct State ownership of forests and woodlands is exercised through protected forests and national parks managed by statutory bodies such as the Forestry Commission and the Zimbabwe Parks and Wildlife Management Authority. The use of resources on such lands is regulated by the State or the bodies that manage the forests/woodlands under provisions of the relevant legislation – the Forest Act (Chapter 19: 05) or the Parks and Wildlife Act (Chapter 20: 14). State-owned forest resources are managed under various arrangements, including forms of privatization in which State bodies have full use, and co-management arrangements in which local communities have rights and responsibilities in conjunction with the State. State-owned resources around selected protected areas are under co-management arrangements; for example, the 82 000-ha Mafungautsi forest in Gokwe district has been co-managed since 1994 (Matose, 2002). The wildlife resources of most national parks are also co-managed under agreements with neighbouring communities.

The State also owns forest plantations in the eastern highlands that are managed by the Forest Company of Zimbabwe, which leases the land from the Forestry Commission. Compared with privately owned plantations, State-owned plantations are more subject to encroachment by neighbouring communities whose claims to the land date back to colonial occupation. The State also exercises indirect ownership of forests and woodlands in resettlement areas, where there are leasehold systems for the occupiers of former commercial farmlands under the older resettlement schemes (1980 to 1999) and the more recent A1 model (from 2000). Resettlement areas are *de facto* communal areas, where the management of woodlands and forests by village structures is less effective than that by local residents.

Other State-owned woodlands and forests are controlled by local authorities, such as rural district councils (RDCs) and urban municipalities. Examples include Nyatana woodland in Mudzi district of northeastern Zimbabwe, blocks of protected forests in Matebeleland, such as Pumula block in Tsholotsho, and undeveloped land on the periphery of urban centres, which provides sources of wood for urban residents. The degree of management by local authorities on behalf of the State varies according to the perceived value and utility of the forest or woodland to the local authority concerned. Where the forest has commercial value, such as commercial hardwood timber in Matebeleland North province, RDCs exercise greater control and keep local communities out or

seek collaborative arrangements. The latter is typified by the Nyatana Woodland Scheme in Mudzi (Mukwekwerere, 1996), where Mudzi RDC provides safari hunting concessions under a collaborative scheme that gives local communities access to forest products.

PRIVATE FORESTS

Privately owned forests and woodlands include company-owned plantations and remnants of indigenous forests on company-owned property, individually owned forests on commercial farmland, or trees and woodland on residential and agricultural land in communal and resettlement areas to which individuals have privatized use rights. Privately owned forests can be:

- plantations of exotic trees;
- large-scale commercial farm-type woodlands, where official land titles are largely replaced by A2 model agreements with insecure rights to land but the right to dispose of forests in accordance with legal provisions; A2 resettled farmers have rights to forest resources, but insecure land tenure encourages them to concentrate on short-term woodland management;
- small-scale commercial farms with secure tenure over forest resources;
- individual trees on farms and around homesteads in communal and resettlement areas.

Privately owned plantation estates are the forestry sector's main source of employment, and provide the bulk of Zimbabwe's industrial wood and timber needs. Until the Fast-Track Land Reform Programme (FTLRP) started in 2000, the ownership of forest plantations was fairly secure, except for a few disputes over portions of forest land where communities had been dispossessed during the colonial period before 1980. Most forest plantations are owned by private corporations and operated commercially. Management systems follow business models, and provide grazing rights to neighbouring communities when trees are at certain stages of development. In these rudimentary forms of co-management, access rights are not assured because they depend on the phase of the plantation management cycle. Plantation owners have formed a Timber Producers' Federation (TPF) to monitor members' performance of SFM. Standards of SFM have improved since most timber plantation owners have sought certification under the Forest Stewardship Council (FSC) as a way of obtaining access to more lucrative European markets. TPF members regularly monitor each other's sustainable management performances against environmental, social and productivity parameters.

Prior to 2000, large-scale commercial farm owners had private and secure tenure over their land and woodland resources, with limited guidance from the State under the intensive conservation area (ICA) system. Under this system, owners had to apply to the State before felling trees on their properties, which was allowed only for the purposes of expanding or opening up agricultural land. This helped to stop the felling of trees for fuelwood sales, and other practices incommensurate with conservation. The ICA system ceased functioning in 2000, with the collapse of State extension services caused by severe strains on the economy. About 4 000 new owners with insecure tenure now face such poor prospects for farming that most of them have resorted to felling trees and selling fuelwood. The extent of woodland clearance is not known, but is mentioned in several studies focusing on the impact of FTLRP (Marongwe, Chatiza and Manjengwa, 2005; Mudekwe, 2005; Mukamuri, 2003).

Small-scale farms have had secure and uninterrupted tenure since they were created in the 1960s for elite local farmers. Although these farms legally belong to the State until they have been paid for in full, in practice they have always been private leasehold farms. Where such farms contain commercial hardwoods, as in Gokwe district, farmers enter into exploitation arrangements with concessionaires, under the Forestry Commission's guidance. This category of farm includes large tracts of woodland that are secure and managed sustainably as private family holdings.

Individual tenure is more complex than the other private tenure types because woodlands or trees owned and managed by individuals occur in what are otherwise communal tenure systems, but that are managed for different reasons from, and more intensively than, those under communal tenure.

COMMUNAL FORESTS

Communally owned woodlands and forests are *de jure* State-owned, but *de facto* community-owned and managed under traditional or local authority structures. Many studies countrywide have explored which institutional arrangements are most effective for local resource management (Mukamuri, Campbell and Kowero, 2003; Campbell *et al.*, 2001). This tenure category also includes woodlands in resettlements, which can be either old-type resettlements dating from before 2000, or fast-track resettlement woodlands, where uncertainty about the future is leading to degradation as a result of such unsustainable management practices as clearance for arable agriculture and sales of woodland products to compensate for low returns from agriculture (Chaumba, 2006; Manganga, 2006; Mapedza, 2006).

In some old-type resettlements, management is similar to that of communal woodlands, with individually managed patches around homesteads and arable fields. In other resettlements, large areas of woodlands are communally managed through village authority structures. Communal areas have a long history of communal management, and the institutional arrangements have existed for many generations; in resettlement areas such mechanisms are less effective, because the State oversees these areas. The State's ownership of the land in resettlement areas is more recent than in communal areas, but also more direct, which results in less security for the inhabitants of resettlement areas managing forest resources. In communal areas, woodland resources are managed through a variety of mechanisms, including customary practices such as sacred forests and controls, village control systems under the authority of either traditional leaders or elected officials, and individual household control over arable patches and around homesteads. These communal management practices have been examined by several researchers (see, for example, Mandondo, 2000).

Some patches of woodlands are owned by bodies other than the State and its various institutions, including patches owned by church bodies or mining companies. The management arrangements for these have not been fully documented, however, and this study lacked the resources necessary to examine how they operate.

Changes and trends

Ownership patterns for forests and woodlands have been developing since the onset of colonial forestry in the 1920s (McGregor, 1991; Matose, 2002), which resulted in the State's expropriation of communally owned forests and the conversion of communal forests to private land under the Land Apportionment of 1929. This legacy of privatized and State-controlled forests, with a residue of 31 percent remaining under communal control, largely continued until the massive land reorganization that started in 2000. Table 2 describes the major changes that have taken place in Zimbabwe since early colonization.

TABLE 2
Changes and trends in tenure systems

Year	Change	Impact
1929	Land Apportionment Act	Creation of "native reserves", formal dispossession of local people to provide land to private owners. Landownership switched from communal to private and State control. First State forests proclaimed.
1951	Land Husbandry Act	Further dispossessions of land and separation of communal grazing from arable fields and settlement lines. Resulted in clearance of large swathes of communal woodlands.
1969	Land Tenure Act	Privatization of white-owned commercial farmlands led to removal of black tenants to already congested communal areas. More than 50 percent of tree resources under private tenure; about 35 percent under communal tenure.
2000	LAFTRP	The 31 percent of woodlands and forests remaining in private ownership converted to State property. Usufruct rights – albeit insecure – granted to the people resettled on these lands.
2005	Constitutional Amendment No. 17	Formal proclamation that all land belongs to the State; all formerly privately owned forest resources turned into State property. From October 2006, State grants long-term leases to the occupiers of formerly private lands, starting the process to secure their tenure over resources on land they were issued or have occupied since 2000.

DURING COLONIZATION

As shown in Table 2, the great impact that colonization had on forest ownership started to be reversed in 2000. The early colonial period, from the 1920s to 1969, witnessed the formalization of various means of dispossessing local populations of their forest resources, which were passed on to the State and private owners. In 1970, more than 53 percent of Zimbabwe's woodland resources were owned by private commercial farmers. Protected forests were also established during this period, and these – together with national parks ceded from forests – constitute about 15 percent of the country's total land area. More than 90 percent of this protected land is covered by different types of forest. The total protected area of national parks and State forests has hardly changed since the late 1960s, apart from a few additions in the 1970s and the ceding of small forest areas to local communities to reduce squatting, such as around the Mafungautsi and Martin forests (Bradley and McNamara, 1993). The early colonial period also witnessed the establishment and growth of exotic forest plantations to supply the country's construction timber needs. Plantations were established in the eastern highlands, where climatic conditions are suitable for exotic conifers. This sector reached its maximum potential in the mid-1980s and early 1990s, and is unlikely to grow further in the near future owing to competition with specialized agriculture.

POST-INDEPENDENCE

Since independence in 1980, the State has made concerted efforts to transfer the land held by private commercial farmers back to the former communal area dwellers, as private or communally owned resources. Between 1980 and the mid-1990s, the State provided 99-year leases to newly resettled farmers. There has been a more dramatic shift of ownership since 2000, when the State took over the remaining 30 to 35 percent of land remaining in private tenure through occupation and other forms of dispossession under FTLRP. Tenure over forest resources has not been secure since then, and the future is uncertain for the occupiers of former private woodlands. Forest resources have been adversely affected by this insecurity, which has resulted in forest clearance for agriculture and the sale of wood to supplement incomes (Chaumba, 2006; Mapedza, 2006; Manganga, 2006). The new forms of resettlement that have emerged since 2000 are likely to remain insecure until Zimbabwe's political climate changes dramatically; every day the media reports further occupations of land that has been dispossessed from its previous owners (ICG, 2004). A few beneficiaries of FTLRP have been issued with long-term leases on their land, giving them greater security of tenure over the forest resources on that land (*Daily Mirror*, October 2006). The matrices in Annex 2 show how 31 percent of formerly private land became State land under FTLRP.

Analysis of the tenure system

Since 2000, FTLRP has dramatically altered landownership patterns in Zimbabwe. Tenure insecurity and uncertainty about property relations have developed as a result of ever-changing government policy statements. In addition, the Economic Structural Adjustment Programme (ESAP) of the mid-1990s affected management and institutional arrangements through the commercialization of forest products. Industrial plantations and indigenous forests with commercial hardwood have also been affected by the need for greater monitoring in order to obtain access to markets for certified products.

In 1984, a Prime Ministerial directive altered the institutional arrangements in communal areas by transferring power from the traditional chiefs and heads to local elected representatives. Some studies view this as democratizing resource governance (Mukamuri, 1998; Nhira, 1998), while others argue that traditional leaders' loss of authority has resulted in the degradation of communal woodlands through the overlapping of jurisdictions (Matose; 1992; Sithole, 1999). In some areas, overlapping of the jurisdictions of elected officials and traditional authorities has caused conflicts over the management of communal woodlands; in others, vacuums in resource control have led to the deterioration of communally managed woodlands.

Another set of changes were introduced with the onset of the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) in the late 1980s, which marked a shift towards devolving the management of woodland resources through collaborative arrangements. During the 1990s, the management of State-owned forests and woodlands around protected areas was democratized, with communal neighbours gaining the rights they had previously been denied. Implementation of ESAP and the consequent loss of employment for young adults caused a marked rise in the commercialization of forest products, especially in communal areas. Such commercialization led to changes in the institutional arrangements governing communal resources by eroding the control mechanisms of both RDCs and the Forestry Commission. Colonial forest statutes that are still in place were increasingly challenged by the livelihood needs of communal residents who were becoming more dependent on forest resources, especially following the severe drought of 1991 to 1992. CAMPFIRE and agricultural production thus became a viable livelihood option for marginal communal areas with rich wildlife in woodland habitats (Campbell, Constanza and van den Belt, 2000). Alternative income sources based on forest resources – including woodcrafts, baskets and mats – also increased in importance (Gondo, 2004; Sola, 2004). Forest legislation prohibiting the marketing of products was not enforced for reasons of political expediency (Katerere, personal communication, 2005). In 1998, the government made an about turn and promulgated the Traditional Leaders' Act, returning power at the local level to traditional authorities. The reinstalled traditional leaders proved to be more active and effective forest resource managers than the elected leaders had been.

The final major change was set in motion by FTLRP in 2000. This has had a profound impact on not only land tenure but also forest management and livelihoods. Recent studies (Chaumba, 2006; Manganga, 2006; Mapedza, 2006) indicate that the high level of insecurity felt by FTLRP beneficiaries is leading them to sell fuelwood and game meat, as the following quotes from A1 resettlement beneficiaries indicate:

"*When we came here we were given offer letters which do not have an expiry date, and this was one of the factors contributing to the destruction of the forests, because people were not quite sure about whether they will stay here permanently or not. Again, since we are in a peri-urban area there were rumours that the area we had occupied was meant for urban development projects, and hence we would be removed. This fear made things worse, but now there is talk that we will be issued with 25-year lease agreements.*"
"*Now they are saying they want to give us 25-year lease agreements. This will be fine with us, but why are they not offering us 99-year lease agreements as they are doing to A2 farmers?*"
"*It is very difficulty here to control someone because you don't know who has sent him. He might be someone sent by a big chief and you might end up in trouble.*"

Box 1. Fuelwood movement in a resettlement area near Harare

Tenure in resettlement areas is based on weaker common property rules than it is in communal areas, and this has had implications on woodcutters. Weaker common property rules are mainly the result of bringing together people from different social and cultural backgrounds. During the 1980s, resettlement leaseholds in the form of permits were offered to the people resettling areas that had largely been in the hands of white commercial farmers. These government permits can be extended or cancelled, so tenure is less secure than it was under commercial farming, where farmers had title deeds for their land.

Resettlement areas have looser social controls governing the use of natural resources such as forestry than long-settled communal areas have, and their traditional institutions – where they exist – tend to be weaker. In Dunstan, for example, under FTLRP, farmers occupied land on the basis of offer letters from the government, and even some people without offer letters occupied land. The forced eviction of white commercial farmers was led by self-styled "war veterans", who allocated the land to themselves. A board that had been set up to review FTLRP was disbanded and a new land audit introduced. Media reports also indicated that land in Zimbabwe had been nationalized. The resulting lack of security regarding land tenure contributed to increased fuelwood extraction in resettlement areas by rent-seeking farmers. Instances of resettled people being moved to make way for senior politicians worsened tenure insecurity in areas resettled under FTLRP.

Although tree felling for the marketing of fuelwood was prohibited, communities and senior war veterans were left to do as they wished. One senior war veteran, who insisted that fuelwood was not being marketed, turned out to be a key fuelwood trader, supplying the Ruwa residential area of Harare with wood from the Dunstan area. When asked about the source of his fuelwood, he claimed that it was the confiscated illegal fuelwood from Dunstan or came from farmers opening up their fields for cultivation. He had no permit and used a tractor to ferry the fuelwood he had forcibly acquired from a white commercial farmer in the area.

Source: Mapedza, 2006: 8.

Box 2. FTLRP's impact on forest tenure in Mwenezi and elsewhere

Some A2 farmers seem more concerned than others about preserving the natural environment. They are keen to conserve the wildlife on their farms for future financial benefit. On the other hand, some A1 farmers seem more concerned about meeting their own immediate needs than those of future generations. Wild animals are an important source of livelihoods. Some illegal wildlife hunters sell wild meat at Rutenga Business Centre to raise money for school fees and other household requirements. The illegal killing and consumption of wildlife continues to pose the most serious threat to the future sustainability of Zimbabwe's wildlife reserves and game farming activities.

There are reports of government officials encouraging poaching on land that was formerly privately owned, as "spoils of war". In one instance, an A2 farmer at Mangondi reported that he often killed wild animals illegally for food and sale as a crop protection measure. He claimed that the wild animals threatened his crops. It is clear that both A1 and A2 farmers are engaged in poaching, which is negatively affecting wildlife. In Mwenezi, settlers have occupied commercial farms, parks and conservancies, all of which have been subject to poaching. In 2002, the Chair of the Wildlife Producer's Association noted that: "It is estimated conservatively that we have lost about 50 percent of our wildlife, 65 percent of our tourism and up to 90 percent of Safari hunting on commercial farms, and a huge reduction in captive and translocations of wildlife on conservancies".

It is therefore clear that farm occupations and land reform have had disruptive impacts on wildlife and tourism.

Source: Manganga, 2006: 97, 98 and 100.

Box 3. Timber plantations in the eastern highlands

Records report a marginal, but not insignificant, decline in timber production. Planting programmes have been disrupted for the past four or five years, however, and forestry management regimes are being weakened, as witnessed by unmaintained firebreaks, livestock grazing on planted land, etc. The effects of this will not be seen for another four to eight years, when the timber that has not been planted would have been ready for processing and marketing.

Major threats to forestry include gold panning on Forestry Commission land in Chimanimani, widespread illegal settlements throughout the sector, and declining material, technical and political capacities of State institutions. "Stop–start" and incomplete policy formulation aimed at maintaining a robust sector has created uncertainty and increasing problems.

Based on its findings, the study urges the authorities to:

- finalize the development and dissemination of an enabling policy framework based on the proposed Forest-Based Land Reform Policy;
- address land-use changes from timber to subsistence and/or commercial crop production, noting that Manicaland is the only province where topographical and climatic conditions are suited to certain valuable tree species, the raising of which should therefore be a priority in Manicaland;
- revise beneficiary selection criteria to ensure that people with skills, experience, interest and resources are allocated viable land units for timber production;
- develop and deploy a robust forestry extension regime that recognizes the short-, medium- and long-term needs of new foresters with mixed skills and resource bases; in the short to medium term, resuscitation of the industry will be the focus, including investment in its strategic needs; partnerships with the private and voluntary sectors should be encouraged for the design and implementation of innovations such as out-grower schemes – developed within a clear policy framework;
- address tenure security issues;
- deal with the gold panning and illegal settlements that are disrupting timber operations;
- strengthen and reorient resources and governance institutions towards implementation of the new policy.

The intention to broaden participation in the forestry sector is to be supported, but will require radical regularization according to national interests in order to undo the damage caused by FTLRP.

Sales of fuelwood and bushmeat allow rural people to benefit from the abundant resources of new resettlement areas, and also offset losses from crop failure by diversifying livelihood sources. One unforeseen impact of FTLRP on the political climate has been the recentralization of resource management back into the hands of the State (Mapedza, 2005; Sithole, 2006). RDCs that had embraced the decentralized management of wildlife and other natural resources under the CAMPFIRE initiative have retained control over resource management and the revenues derived from wildlife sales (Mapedza, 2005). Another impact of FTLRP and the resultant insecure tenure has been small-scale millers' harvesting of nine-year-old plantations to forestall the timber's destruction by resettlement beneficiaries, even though offer letters give beneficiaries rights to tree resources, including forest plantations.

The tenure system has also been affected by the commercialization of forest products, which increased under ESAP from 1990 onwards (Campbell, Constanza and van den Belt, 2000). As more and more of the people who depended on cash income from employment were retrenched, they turned to forest products for their livelihoods, and the 1990s witnessed increased commercialization of forest products such as craft materials, fruits, fruit beverages and indigenous medicines. This had two main impacts: (1) institutional arrangements that had been designed to cope with subsistence resource use were often unable to cope with the added demand for forest products that resulted from commercialization and rising economic hardship – as illustrated by the case of the woodcraft industry (Matose, Mushove and Mudharo, 1997; Matose *et al.*, 2006; Standa-Gunda and Braedt, 2005); and (2) commercialization has sometimes led to the privatization of communal resources for which there is a demand, such as baobab fibre for making mats in the eastern highlands (Mukamuri

and Kozanayi, 2000), marula *(Sclerocarya birrea*) around Zvishavane and *Ziziphyus mauritiana* in the Zambezi valley (Ngorima, 2006; Sola, 2004).

The following are key factors affecting tenure systems in Zimbabwe:

- Land reform since independence has been the greatest source of change.
- In the 1990s, decentralization occurred under CAMPFIRE in the wildlife sector and co-management schemes in the forestry sector.
- Another major cause of change is the insecurity of tenure resulting from the transition to State-owned land since 2000. Media reports indicate that the government may issue longer-term leases to farmers, however.
- A Land (Consequential Provisions) Bill seeking to make it an offence to occupy or continue occupying gazetted land without lawful authority has already passed two readings at the House of Assembly and Senate stages (see: www.zimmirror.co.zw/sundaymirror/view_news.cfm?storyid=19238&categoryid=1&issuedate=2006-10-08%2012:10:00.0&issueid=661&issue_type=current).

Forest tenure, sustainable forest management and poverty alleviation

Forest management systems that had been effective up to 2000 have been very severely affected by insecurity over landownership since FTLRP was initiated, precipitating the country's economic collapse. Some management systems have proved resilient, but the overall context is not supportive. This section discusses practices that support effective tenure systems and those that instead constrain SFM.

Tenure systems in communal woodlands have stood the test of time under changing political contexts since before colonization. Among the most resilient of these systems are the institutional arrangements governing sacred forests (Matose, 1992; Bruce, Formann and Nhira, 1993; Mukamuri, 1995), whose success depends in part on the power and effectiveness of traditional authorities.

The commercialization of forest products and access to international markets for certified and/or natural products has enhanced local livelihoods and increased sustainable management across different tenure categories. Examples of this are private commercial forest plantations and the Pumula block in Tsholotsho district, which is owned by the RDC and jointly managed with local communities.

Commercial forest plantations are subject to TPF's SFM guidelines, which is a voluntary system of monitoring that includes local livelihoods. Standards of SFM and the impacts on poverty reduction around commercial plantations are monitored. In the late 1990s, all the major producers of construction timber agreed to obtain FSC certification in order to gain access to lucrative markets in Western Europe, and have set up self-monitoring mechanisms to ensure compliance with both FSC and local standards. These standards include the need to ensure that neighbouring communities benefit from the plantation industry, through employment and access to plantation estates for grazing, at appropriate times of the management cycle.

When these standards were developed, the owners of forestry plantations had security of tenure, but since then all private landownership has been threatened by changing government policies. Although the plantation owners still have private leasehold titles to their land and forests, the introduction of Section 17 of the Constitution in 2005 leaves such private titles uncertain as all land is now supposed to be owned by the State. So far, however, privatized ownership has continued under leasehold arrangements.

Certification of the Pumula Block brought several positive developments for the resource base, human well-being and forest administration. There is greater awareness and consideration of forests' environmental functions, especially among loggers, communities and the RDC that was created at the certification. This has resulted in activities that limit environmental damage and that should now be extended into broader environmental management. Communities around the block now have access to timber revenues, which they can use for community development projects to improve their welfare (Matose and Mushove, 2003: 25).

Box 4 shows how the commercialization of forest products under communal tenure has facilitated the development and growth of forest-based enterprises. Such enterprises have also been encouraged by the economic hardships and decline associated with FTLRP since 2000.

Box 4. The potential for commercial forest enterprises

Forest products and resources provide rural communities with supplementary cash income from sales of timber and NWFPs. The most common of these are seasonal wild fruits, especially baobab, Uapaca kirkiana, Ziziphus mauritiana, Azanza garckeana and Strychnos cocculoides, which are marketed without processing. All households are involved in this trade, but rural elite groups tend to trade the largest shares. Other NWFPs being traded include caterpillars (macimbi), plant medicines, thatch grass and mushrooms.

In many areas, forest-based micro-enterprises – especially furniture making, woodcraft production and basketry – provide income and employment to significant numbers of people. One survey reports that forest based micro-enterprises employ up to 12 percent of local people. In Chibuwe, the income from basketry ranked second after that for agriculture, and contributed up to 40 percent of total household incomes.

In recent years, organizations such as the Southern Alliance for Indigenous Resources (SAFIRE) and the Forestry Commission have started to invest in product and market development of NWFPs in a bid to improve the value of the forests and the benefits that accrue to local communities. A number of new products have been developed and are now marketed in both domestic and export markets. These include baobab seed oil, marula oil, baobab pulp, asau and marula, mazhanje jam, masau candy, makoni herbal tea and *Kigelia africana* (sausage tree) fruit extract, which fetch good prices and have the potential to transform the status of the poor through significant increases in household income.

A community enterprise in Rushinga district, for example, produced more than 3 000 litres of baobab oil in six months, with an export value of US$30 000. During the same period, the enterprise purchased raw materials worth about US$5 000 from 200 primary producers in the area, and employed seven people. Proceeds from the enterprise have been used to improve the physical assets of business owners and employees, and have also diversified the income sources of primary producers. Two of the employees each bought a cow, and all reported that they were able to pay school fees for their children (Gondo, 2004). With proper business management support and secure markets, these enterprises have the potential to reduce poverty among their participants.

There are now several thriving community-based micro-enterprises producing individually or in partnership with the private sector. Detailed information about how much these enterprises contribute to individual households' income is lacking, but there are indications that they have become the entrepreneurs' main source of income. For the producers supplying raw materials to the enterprises, such activities contribute between 25 and 50 percent of total household income.

Source: Gondo, 2004.

The development of commercial enterprises has also had a negative impact, however, by encouraging the annexation of communal resources into private household ownership. Although in the short term this might aid the households who manage and benefit from the annexed resources, in the long term it can cause problems over equity and the privatization of communal resources.

Other initiatives aimed at enhancing SFM at the local level include CAMPFIRE and the local environment action plans (LEAPs) of the Ministry of Environment and Tourism's Environmental Management Agency. Municipalities, RDCs and communities are using four districts as experimental sites for LEAPs, which are participatory processes in which environmental management plans are developed from the ground up, legitimized and supported by the RDC or urban municipality. The recent Environmental Management Policy aims to facilitate the commercial use of forest products by clarifying the overlapping jurisdictions that arose from the Communal Lands Act, the Communal Lands Forest Produce Act and the Forest Act. This policy and its strategies emphasize the role of the environment, particularly forests, in poverty reduction and the livelihoods of rural communities.

Practices that constrain and hinder effective management include the current tenure reforms in the land sector. These are creating a high degree of insecurity among the beneficiaries of both the A1 (communal tenure) and the A2 (private tenure) categories, leading to the degradation of woodland and forest resources under resettlement schemes. These categories accounted for more than 53 percent of Zimbabwe's woodlands prior to FTLRP, but no surveys have been carried out since then to determine how much forest cover has been lost as a result of tenure insecurity. Recent studies

report adverse impacts on forest resources (Marongwe, Chatiza and Manjengwa, 2005; Chaumba, 2006; Manganga, 2006; Mapedza, 2006), including increased fire in woodlands and forest plantations, illegal wildlife hunting on former commercial farms, and increased illegal harvesting of trees for sale as fuelwood.

The overall political and economic context has created a general state of uncertainty over rights in all tenure categories except communal woodlands. The period since 2000 has also been marked by increased infringements of rights, leading to insecurity for resettled farmers and the private landowners of both commercial farms with woodlands and private forest plantations. The reduction of political space for local communities (Raftopoulos, 2004) has led to the recentralization of formerly devolved rights, as in the cases of Mahenye (Rihoy and Maguranyanga, 2006) and Nenyunga (Mapedza, 2005), where RDCs (local governments) are reversing the gains made in the 1990s from decentralized management and the CAMPFIRE programme by retaining the revenue raised from wildlife management to make up for the lack of fiscal support from central government.

CONCLUSIONS

It is very clear from the evidence provided in this report that the most important factors influencing tenure security in Zimbabwe are the land reform programme and the overall political economic context under which that reform is taking place. Forests are being depleted at rates that are, although undocumented, are certainly high owing to clearance for cultivation in the resettlement areas. The uncertainty and insecurity attached to both A1 and A2 resettlement schemes under the ongoing land reform programme, are leading the beneficiaries occupying former commercial farms to resort to unsustainable harvesting practices. These range from selling fuelwood to wildlife poaching to supplement inadequate incomes from farming and to benefit from the perceived abundance of forest resources.

Proposals for the way forward

The following proposals are not in any order of importance.

FTLRP beneficiaries – both A1 and A2 farmers – need secure leases on the land that they occupy (and for which they have offer letters) to encourage them to use forest resources more sustainably than is currently the case. Uncertainty about property rights is the result of conflicting pronouncements from the various State agencies responsible for land and forest resources. This leads the occupants of former commercial private land to take a short-term perspective on forest resource use and to adopt destructive and unsustainable practices. FTLRP must be closed because it is creating instability.

Incentives are needed for the management of resources in communal areas. Rural communities should be able to benefit from effective forest resource management, as they do from the sale of forest products such as fruits and oils. Markets where sustainably managed forest products reach higher prices than they do locally need to be found. Initiatives such as Pumula Block and SAFIRE's development of commercial enterprises should be encouraged, because they give communal area residents a sense of ownership and allow them to derive income from appropriate resources management.

There is a need to invest in product development for value addition and access to world markets for forest products. This would improve livelihoods and increase investment in SFM at the local level to ensure a continued supply of products.

Secure collective tenure at the village level – through the local-level forest areas model under provisions of the Traditional Leaders' Act, RDC by-laws and the Environmental Management Agency – depends on giving villages group rights over their own resources. The Rukuni Commission recommends that the securing of group rights under communal tenure would lead to improved management of the forests in communal areas.

Voluntary self-regulation and industry codes of conduct, such as that of TPF, with links to existing legislation should be encouraged and supported. The Forestry Commission should lead the development of standards for SFM and monitoring systems that are simple and appropriate to each forest category, including timber concessions around protected forests and the forests managed by RDCs. The rapid increase of commercial enterprises in communal areas also calls for the development of appropriate standards and monitoring systems for resource exploitation.

Urban areas are the largest consumers of illegally harvested wood from new resettlement areas. This, coupled with the lack of alternative energy sources in Zimbabwe, implies a need to find more sustainable energy sources that do not deplete woodlands. Urban councils need to explore alternative energy sources, such as waste (biogas); create urban plantations for fuelwood and charcoal production; and establish charcoal supply systems from plantations to urban areas, including pricing systems that factor in the distances involved in moving wood from the eastern highlands.

REFERENCES

Bradley, P. & McNamara, K. eds. 1993. *Living with trees: Policies for forestry management in Zimbabwe*. World Bank Technical Paper No. 210. Washington, DC, World Bank.

Bruce, J. Fortmann, L. & Nhira, C. 1993. Tenures in transition, tenures in conflict: Examples from the Zimbabwe social forest. *Rural Sociology*, 58: 626–642.

Campbell, B.M., Constanza, R. & van den Belt, M. 2000. Land use options in dry tropical woodland ecosystems in Zimbabwe: Introduction, overview and synthesis. *Ecological Economics*, 33: 341–351.

Campbell, B., Byron, N., Hobane, P., Madzudzo, E., Matose, F. & Wily, L. 1999. Moving to local control of woodland resources – can CAMPFIRE go beyond the mega-fauna? *Society and Natural Resources,* 12: 501–509.

Campbell, B.M., De Jong, W., Luckert, M., Mandondo, A., Matose, F., Nemarundwe, N. & Sithole, B. 2001. Challenges to proponents of common property resource systems: Despairing voices from the social forests of Zimbabwe. *World Development,* 29: 589–600.

Chaumba, J. 2006. Opportunities for and constraints on crop production within Zimbabwe's Fast-Track Resettlement Programme. Cape Town, University of the Western Cape. (Ph.D. thesis)

Gondo, P.C. 2004. *The role of forestry in poverty alleviation: An overview of the forest–poverty link in Zimbabwe.* Prepared for SwedeFarm. 34 pp.

ICG. 2004. *Blood and soil: Land, politics and conflict prevention in Zimbabwe and South Africa*. Africa Report No. 85. 17 September 2004. International Crisis Group (ICG).

Kwesha, D. & Dreiser, D. 1997. *Vegetation mapping in Zimbabwe*. VEGRIS.

Mandondo, A. 2000. *Forging (un)democratic resource governance systems from the relic of Zimbabwe's colonial past.* Institute of Environmental Studies Paper. Harare, University of Zimbabwe.

Manganga, K. 2006. An agrarian history of the Mwenezi district, Zimbabwe, 1980–2004: Towards a sustainable land reform process and development. Cape Town, School of Government, University of the Western Cape. (M.Phil. thesis)

Manjengwa, J. 2006. *Natural resource management and land reform in southern Africa.* Commons Southern Africa Occasional Paper Series No. 15. Cape Town, PLAAS, University of the Western Cape.

Mapedza, E. 2005. The shifting CAMPFIRE incentive structure and its implications on resource management: Reflections from Nenyunga ward in Zimbabwe. Presented at the CASS/PLAAS workshop, Harare, March 2005.

Mapedza, E. 2006. *Winners and losers: Commodity chain analysis of wood fuel markets in Harare, Zimbabwe.* Prepared for WRI's Commodity Chain Analysis Project.

Marongwe, N., Chatiza, K. & Manjengwa, J. 2005. *Timber plantations in the aftermath of Fast Track Resettlement: Case studies from Manicaland province.* Report for Centre for Applied Social Sciences, IDRC. 86 pp. (typescript)

Matose, F. 1992. Villagers as woodland managers. *In* G.D. Pierce and P. Shaw, eds. *Forestry research in Zimbabwe: Proceedings of the anniversary seminar Forestry Research Advances in Zimbabwe,* pp. 173–178. Zimbabwe College of Forestry, Mutare, 27–31 September 1990. Harare, Forestry Commission.

Matose, F. 2002. Local people and reserved forests in Zimbabwe: What prospects for co-management? Brighton, UK, University of Sussex. 218 pp. (Ph.D. thesis)

Matose, F., Mukwekwerere, M. & Mudhara, M. 2006. Access mapping and commodity chains: The woodcraft curio market around Victoria Falls, Zimbabwe. Paper prepared for the WRI project: Policy and Distributional Equity in Natural Resource Commodity Markets: Commodity-Chain Analysis as a Policy Tool.

Matose, F. & Mushove, P. 2003. *An assessment of forest certification as a sustainable management tool: The case of the Pumula block in Tsholotsho district, Zimbabwe.* Report to IUCN-ROSA.

Matose, F., Mushove, P. & Mudhara, M. 1997. *The woodcraft industry of the Bulawayo-Victoria Falls Road.* IES Working Paper No. 2. Harare, University of Zimbabwe.

McGregor, J. 1991. *Woodland resources: Ecology, policy, and ideology – a historical case study of woodland use in Shurugwi Communal Area, Zimbabwe.* Loughborough, UK, Loughborough University of Technology. (Ph.D. thesis)

Millington, A. & Towsend, J., eds. 1989. *Biomass assessment. Woody biomass in the SADC region*. London, Earthscan Publications.

Ministry of Environment and Tourism. 2003. *National Environmental Policy.* Second Draft. Harare, Government of Zimbabwe.

Mohammed-Katerere, J. & Matose, F. 2002. *Governance and administration in the forestry sector in Southern Africa.* Harare, International Union for the Conservation of Nature (IUCN-ROSA). Consultancy Report. 25 pp.

Mudekwe, J. 2005. *Global Forest Resource Assessment – Zimbabwe.* FRA 2005 – Country Report No. 037. Rome, FAO.

Mukamuri, B.B. 1995. Local environmental conservation strategies: Karanga religion, politics and environmental control. *Environment and History,* 1(3): 297–312.

Mukamuri, B.B. 1998. *The impact of macro-economic policies on institutions and households in Zimbabwe.* IES Special Report No. 11. Harare, Institute of Environmental Studies (IES), University of Zimbabwe.

Mukamuri, B.B. 2003. Land reform and its impacts on forest plantations and natural woodlands in Zimbabwe's former large-scale commercial farms. Paper prepared for African Institute for Agrarian Studies (AIAS). Harare. Zimbabwe.

Mukamuri, B.B., Campbell, B.M. & Kowero, G. 2003. Local organisations and natural resource management in the face of economic hardships: A case study from Zimbabwe. *In* G. Kowero, B.M. Campbell and R.U. Sumaila, eds. *Policies and governance structures in woodlands of Southern Africa*, pp. 28–44. Bogor, CIFOR.

Mukamuri, B.B. & Kozanayi, W. 2000. *Institutions surrounding the use of marketed bark products: The case of* Berchemia discolor, Walburgia salutaris *and* Adansonia digitatta. Institute of Environmental Studies Working Paper. Harare, University of Zimbabwe.

Mukwekwerere, M. 1996. *Woodland resource use under CAMPFIRE: The case of Nyatana Woodland, North-Eastern Zimbabwe.* Research report. Harare, Forest Research Centre. 12 pp. (typescript)

Mukwekwerere, M.C. 2002. *Agriculture production economics in the context of a smallholder sector in Zimbabwe.* Harare, ERMAL Natural Resources Consultancy.

Musokonyi, C. 2006. *Forest ownership, resource tenure and sustainable forest management: Zimbabwe case study matrix.* Consultancy report. Harare, FAO.

Ngorima, G. 2006. Phytotrade Africa: Towards sustainable use of Marula *(Sclerocarrya birrea)* in the Savannah woodlands of Zvishavane District, Zimbabwe. Paper presented at the CASS/PLAAS Regional Workshop on Perspectives and Future Directions in CBNRM or People-Centred Policy, Practice and Research. Cape Town, University of the Western Cape, PLAAS.

Nhira, C. 1998. *Land use planning and woodland management: a case study of local control and regulatory capacity on household and communal woodland resources in Zimbabwe.* IES Working Paper Series No. 8. Harare, Institute of Environmental Studies (IES), University of Zimbabwe.

Raftopoulos, B. 2004. Current politics in Zimbabwe: Confronting the crisis. *In* D. Harold-Berry, ed. *Zimbabwe: the past is the future*. Harare, Weaver Press.

Rihoy, L. & Maguranyanga, B. 2006. *Devolution and democratization of natural resource management in Southern Africa: a comparative analysis of CBNRM policy processes in Botswana and Zimbabwe.* Commons Southern Africa Series. Cape Town, University of the Western Cape, PLAAS.

Sikume, C. 2004. Zimbabwe Land Reform Programme: Lessons for Southern Africa. Discussion paper. In *Commons Southern Africa II.* Volume 1. Cape Town, PLAAS, University of the Western Cape.

Sithole, B. 1999. Use and access to Dambos in communal lands in Zimbabwe: Institutional considerations. Harare, University of Zimbabwe. (Ph.D. thesis)

Sithole, P. 2006. Partnerships of arrogance and resistance: Whispering contestations and talking claims in privatizing the "indigenous" commons – a case study of the Mahenye Ward Wildlife Management Initiative, Zimbabwe. Presented at the 11th Biennial Conference of IASC, Bali, June 2006.

Sola, P. 2004. Palm utilisation for basketry in Xini ward, Sengwe communal area, Zimbabwe. *In* T. Sunderland and O. Ndoye, eds. *Forest products, livelihoods and conservation: Case studies of non-timber forest product systems, Volume 2, Africa,* chapter 14, pp. 245–262. CIFOR.

Standa-Gunda, W. & Braedt, O. 2005. Fallbacks and tourist traps: Carving wood in Southern Zimbabwe. *In* A. Cunningham, B. Belcher and B.M. Campbell, eds. *Carving out a future: Forests, livelihoods and the international woodcarving trade*, chapter 6, pp. 67–80. London, Earthscan.

TPF. 2005. *Zimbabwe timber industry statistics for year ended 31 March 2005*. Harare.

ANNEX 1. PARTICIPANTS AT HARARE FOREST RESEARCH CENTRE WORKSHOP

Forest Tenure and Relationship with Sustainable Forestry Management and Poverty/Livelihoods in Zimbabwe

Name	Organization
Mr C. Musokonyi	Forestry Commission
Mr L. Tawonezvi	PG ZimBoard
Mr M. Mushongahande	Forestry Commission
Mr J. Mapira	Zimbabwe Commercial Farmers' Union
Mr C.M. Gumbie	Forestry Commission
Mr J.T. Chigwida	ZERO Regional Environment Organisation
Mr T. Dinga	P.G. ZimBoard
Ms T. Mtetwa	P.G. Timbers
Mr J.A. Mhungu	ZimBoard
Mr O.D. Sibanda	Forestry Commission
Dr C.T. Marunda	CIFOR
Mr P.C. Gondo	SAFIRE

ANNEX 2. COMMENTS AND NOTES

Land tenure

Communal areas, resettlement areas and model A1 farms (part of the former large-scale commercial farms) constitute the majority of community-/group-owned areas. This category includes common areas (grazing lands), where the communities collectively manage and exploit the environment and its resources. Trees in fields belong to the owners of the fields only until the crops have been harvested. It is common understanding in communities that it is illegal for another family to harvest fruits from or exploit these trees. This understanding becomes looser when the crops have been harvested.

Most individual owners with exclusive rights are small-scale farmers and model A2 farmers with exclusive rights over the tree resources on their properties. According to Amendment No. 17 of the Constitution of Zimbabwe (2005), however, the farmers do not own the land, but instead lease it from the central government.

National Constitution Amendment No. 17

Zimbabwe is in a transition period in which all land is being transferred to government ownership, and Parliament has amended the Constitution to reflect this. Ideally, land can be leased out to interested parties, such as traditional heads (and hence to grassroots communities) on 99-year leases, to A1 farmers on 25-year leases and to forest companies and practitioners on 125-year leases. At present, however, the only companies to receive such leases are those that are wholly owned by the State and operated as private.

Environmental (forest) management plans

According to the Environmental Management Act, the Minister of the Environment prepares a national environmental plan (with sections on forest management) that observes international conventions. The minister seeks comments from the public before the plan is put into effect; public opinion is very important. Each specified authority, such as government agencies, individuals or groups, must prepare an environmental management plan for its locality or area of interest, in consultation with local communities through consultations at the grassroots level. Project implementation should involve local communities so that they benefit, in addition to the direct levies for their benefit. An environmental impact assessment, approved by the Environmental Management Agency, should also be implemented, usually by an independent third party.

The Environmental Management Act provides for the formation of a National Environmental Council, whose duties include advising on policy formulation and directing implementation of the act. The council represents all sectors of the society: government, NGOs, industry, etc.

Forests owned by indigenous or tribal people

No land/property falls solely into this category. Tribal people have rights to their forest property through the government, which in turn respects these rights and demands through traditional structures – hence the concept of 99-year leases. The central government has structures to cater for this through local authorities. When properly managed, the advantages of this system go beyond the benefits that local communities (indigenous people) derive from forest resources.

Part 3/Partie 3 – TABLES/TABLEAUX