

**TRENDS IN FOREST OWNERSHIP,
FOREST RESOURCES TENURE AND
INSTITUTIONAL ARRANGEMENTS IN
MOZAMBIQUE: ARE THEY
CONTRIBUTING TO BETTER FOREST
MANAGEMENT AND POVERTY
REDUCTION?
A 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.

Acronyms

ACODEMADE	Community Association for Environmental Protection of Derre
CBNRM	community-based natural resource management
CBO	community-based organization
CLUSA	Cooperative League of the United States of America
EIA	environmental impact assessment
FRA	Forest Resource Assessment
IUCN	World Conservation Union
NGO	non-governmental organization
NDFW	National Directorate of Forest and Wildlife
NDLF	National Directorate for Land and Forest
NDPA	National Directorate of Protected Areas
NRM	natural resource management
PRS	Poverty Reduction Strategy
SFM	sustainable forest management
WWF	World Wide Fund for Nature

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; Siteo (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 also been 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).² 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 arable land was under cultivation in the period 1992 to 1994 (Boyd, Pereira and Zarembo, 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

² 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.

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	Managed by private companies	Penhalonga (Manica)

	Eucalyptus and Pinus		
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 CBNRM³

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

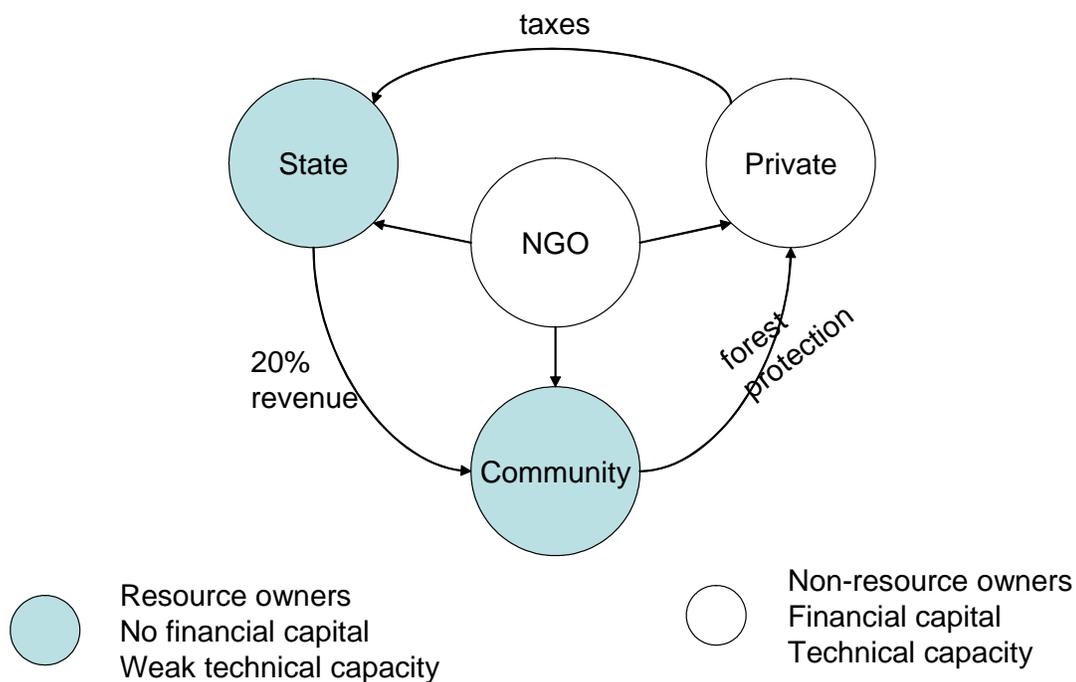
Stakeholder	Means of representation	Role
Community	CBOs: participatory NRM committees, interest groups, traditional leaders, local administration	Resource co-owner (based on customary rules), protection of natural resource for community benefit, negotiation with outsiders who want to exploit community 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

³ 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.

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
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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 CBNRM 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 too 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 (Siteo 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 Siteo (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 m³ for all forest types in Mozambique. The logging capacity, according to annual timber production reports, is about 130 000 m³, 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:

- a. *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.
- b. *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.
- c. *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.
- d. *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.
- e. *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.
- f. *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.
- g. *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.
- h. *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.
- i. *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 m³ 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 (see Box 3).

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 m³; 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).

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 *Azelia quanzenis*, 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.

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 (Siteo, 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, health 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 4).

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 (Siteo 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. Ribaué-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 (Siteo, 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. Siteo 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 (see Box 5).

Effective utilization of the conditions created during the early phases of community forestry in protected areas depends on private sector participation or external investment. Siteo (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.

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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
Articles 35 & 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
<p>Chapter II. Protection of Forest and Fauna Resources</p> <p><i>Article 13.</i> Areas of use and with cultural and historic importance</p> <p>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.</p> <p>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.</p>	<p>Section II. Zones with historical cultural use or value</p> <p><i>Article 7.</i> Declaration</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	
<p>Chapter VI. Management of Forest and Fauna Resources</p> <p><i>Article 31.</i> Participatory Management</p> <p>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.</p> <p>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.</p> <p>3. Management shall ensure the participation of local communities in the exploitation of forest and fauna resources and in the benefits resulting from such use.</p> <p><i>Article 33.</i> Delegation of power</p>	<p>Section III. Participatory Management</p> <p><i>Article 95.</i> Local Councils</p> <p>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.</p> <p>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.</p> <p><i>Article 96.</i> Personality (legal)</p> <p>1. COGEPs are collective people in the eyes of the law with private rights, and their own legal personality, independent of their members.</p> <p>2. In the exercise of their activities, COGEPs are independent and obey the law, and may not allow any violation of the law by their associates or by third parties.</p> <p><i>Article 97.</i> Attributes of COGEPs</p>	<p>Ministerial Decree 93/2005 on benefit sharing of 20% of the revenues resulting from exploitation</p> <p>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</p> <p>Ministry of Tourism and Ministry of Planning and Finance draft</p>

<p>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.</p> <p><i>Article 35. Fees</i></p> <p>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.</p> <p><i>Article 39. General norms</i></p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p><i>Article 98. Representation</i></p> <p>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.</p> <p><i>Article 99. Delegation of powers</i></p> <p>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.</p> <p>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.</p> <p><i>Article 102. Benefits for the local communities</i></p> <p>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.</p> <p>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.</p> <p>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.</p>	
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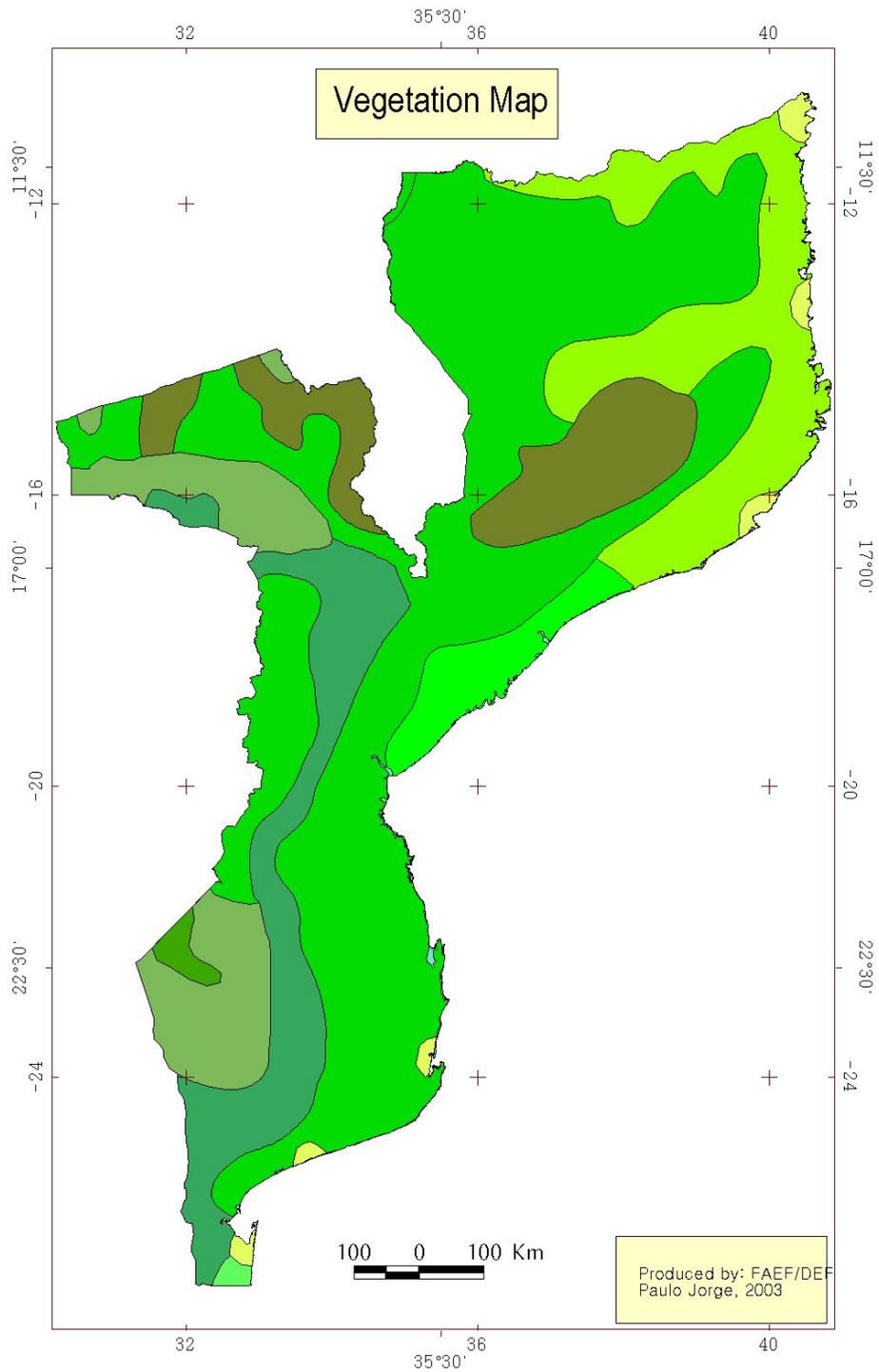
Source: Johnstone, Cau and Norfolk, 2004.

ANNEX 3. PROTECTED AREAS OF MOZAMBIQUE

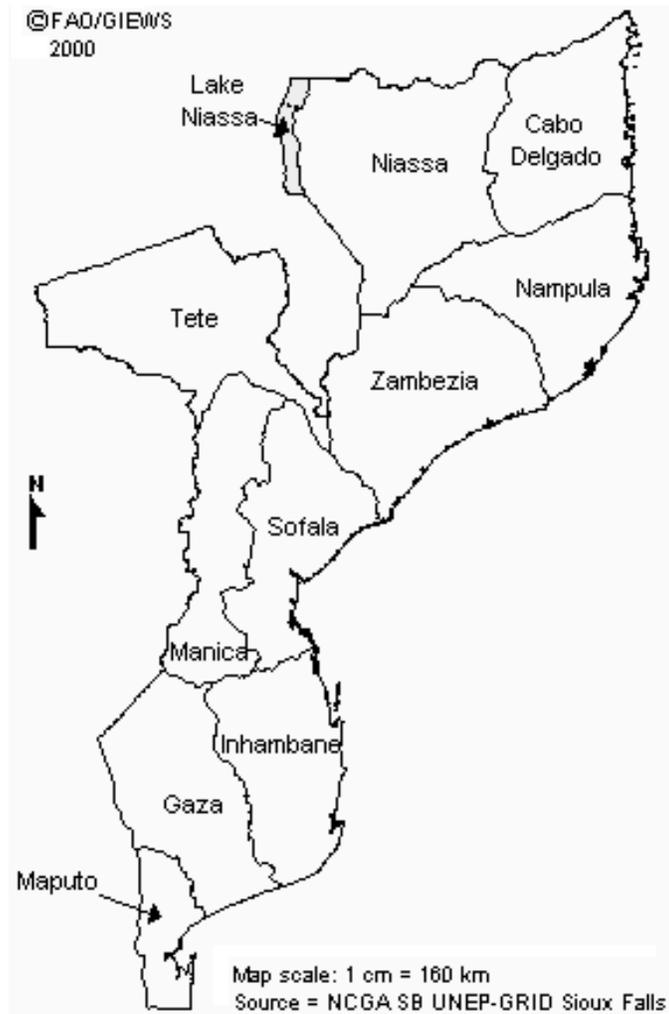
Protected areas	Area (km²)
a) National parks	
Quirimbas	7 506
Gorongosa	5 370
Zinave	6 000
Arquipélago do Bazaruto	16 000
Banhine	7 000
Limpopo	10 000
Total national parks	51 876
b) Game reserves	
Reserva de Niassa	42 200
Reserva de Chimanimani	1 000
Reserva de Gilé	2 100
Reserva de Marromeu	1 500
Reserva 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
<hr/>	
Total forest reserves	5 342
<hr/>	
Total protected areas	157 241
<hr/>	

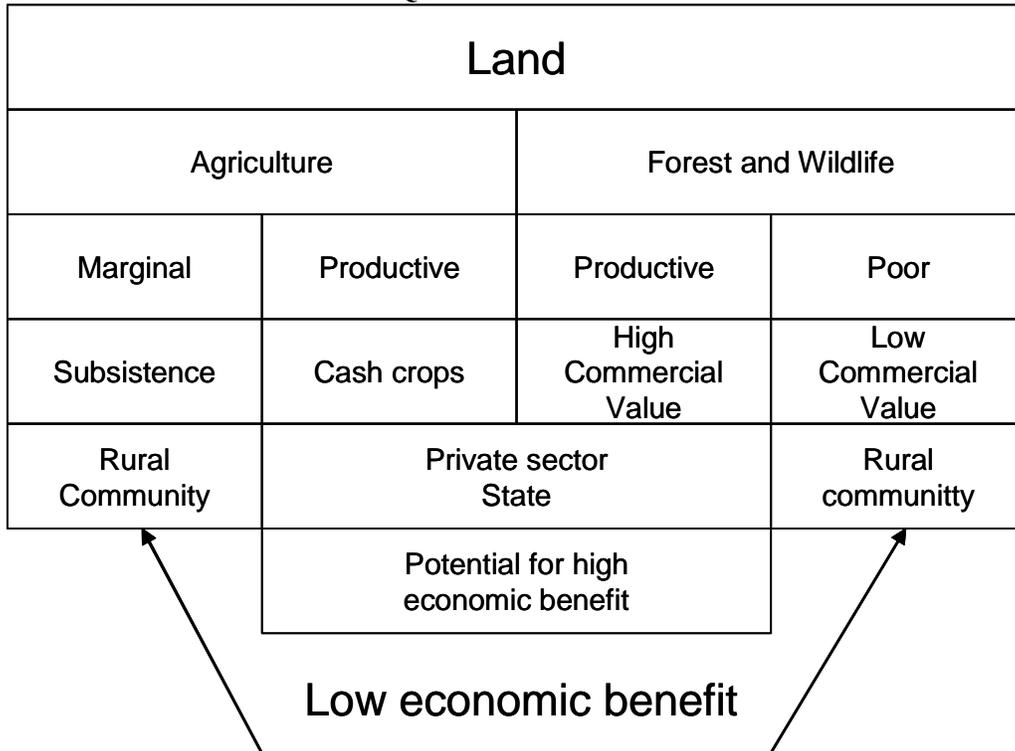
ANNEX 4. VEGETATION TYPES OF MOZAMBIQUE



ANNEX 5. ADMINISTRATIVE MAP OF MOZAMBIQUE



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



Source: Nhantumbo, 2000.