FOREST FINANCE

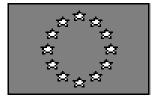
The forest revenue system and government expenditure on forestry in Namibia

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THE FOREST REVENUE SYSTEM AND GOVERNMENT EXPENDITURE ON FORESTRY IN NAMIBIA

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INFORMATION NOTE ON THE FAO PROGRAMME ON FOREST FINANCE

It is generally accepted that financial considerations represent one of the most important factors that can have an impact on the implementation of sustainable forest management. With this in mind, the FAO Forestry Department has implemented a programme of work on forest finance, to examine how government policies (in forestry and other sectors) affect financing in the forestry sector and the consequences of such policies for sustainable forest management.

One of the most important ways in which governments can have an impact on financing in the forestry sector is through the fiscal policies that they implement within the sector. Where forests are owned or managed by the state, the way in which charges for the use of forest resources are determined and implemented can have a major impact on the scale and types of investment in the sector. A vast literature has developed over the last 30 years examining this topic. Other fiscal policies, such as taxes and subsidies both within and outside the sector, can also have a significant impact on the forestry sector.

The purpose of this work will be to review the impact of current fiscal policies on sustainable forest management, along with other related policies, such as land tenure, which have an impact on forest financing. However, the work will attempt to go beyond simple financial analyses of current policies (which have largely been done before) to examine the broader social, institutional and political aspects of policy reform. It is hoped that this work will assist forestry administrations to identify practical ways in which they can revise their fiscal policies, so that they can more easily pursue the goal of sustainable forest management.

This work has been funded through the FAO Regular Programme and the EC Tropical Forestry Budget Line (FAO-EC Partnership Project on Sustainable Forest Management in African ACP Countries). A large part of the work has been produced by national consultants and institutions, with the supervision and assistance of FAO.

Working papers are being produced and issued as they arrive. Some effort at uniformity of presentation is being attempted, but the contents are only minimally edited for style or clarity. FAO welcomes from readers any information that they feel would be useful for this work. Such material can be mailed to the contacts given below, from whom further copies of these working papers, as well as more information about this programme of work, can be obtained:

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ABSTRACT

In Namibia, the Directorate of Forestry, which is an arm of the Ministry of Environment and Tourism, has the mandate to manage and control the utilization of forest resources. This report describes the processes of administering the forest revenue system in Namibia and expenditure by the Directorate.

Anybody who wants to harvest forest products in Namibia must obtain a permit. Charges for these permits are set by the Directorate of Forestry in consultation with other stakeholders and public representatives. Proposed revisions to charges are approved by the Permanent Secretary to the Minister of Finance and are then disseminated through the Directorate's District Offices. District Forest Officers collect charges on forest products and these revenues are remitted to the Directorate's Regional Headquarters, who then send them to Ministry of Finance. The only charges on processed forest products are income taxes on producers, although it is proposed to implement a system of value-added tax (VAT).

Forest revenue collected by the Directorate is currently about N\$ 420,000 (USD 52,200), compared with a budget for the Directorate of N\$ 14,849,000 (USD 1,845,500). In addition, the Directorate receives a significant amount of funding from foreign donors. The report is of the opinion that if the forest resources are well harnessed they could yield enough revenue for forestry development in Namibia.

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EXECUTIVE SUMMARY

Background

The Directorate of Forestry (DoF) was established at Namibia's independence in 1990, to manage Namibia's forest resources and highlight the importance of forestry to national development. The main challenges for the DoF are infrastructure and manpower development and the improvement of data and information for forest planning and management.

The first Forestry Strategic plan for Namibia was produced in 1996 and outlines four priority programmes: Capacity Building, Environmental Forestry, Community Forestry and Farm Forestry. In August 1997, the Namibia-Finland Forestry Programme started to implement the four programmes of the Strategic Plan. In addition, Namibia has recently produced new forestry legislation and a new forest policy, which are currently awaiting approval.

Description of the forest revenue system

The DoF is currently the main authority collecting forest revenue and it works independently of other institutions. There is no formal centralised forest revenue system that sees to administering charges, collecting and sharing of forest revenue. In addition to revenue collected from the production of forest products, a significant amount of revenue is collected from wildlife permits issued for forest areas, but information about this is currently unavailable. Hence, this report presents only the data available at the DoF.

The process of pricing and collecting forest revenue is entirely managed by the DoF. The Directorates of Specialist Support Services and Parks and Wildlife Management carry out the pricing and collection of wildlife revenue. All the revenue collected by any government institution goes to the Ministry of Finance and the disbursement of government revenue is managed by the Ministry of Finance in the national budget process.

Forest charges

Charges are levied on all roundwood production in Namibia, irrespective of the type of land holding (see Appendix 1 on page 27 for the schedule of charges). There are currently no land taxes in Namibia, but the government is in the process of introducing a Land Tax Bill.

Charges are also levied on the commercial production of a few non-wood forest products (grasses; reeds; Makalani palm leaves; and ornamental dry roots) and for various permits (including permits for trophy hunting and live game exports and fees to register as an operator in the wildlife sector).

There are no direct charges levied on the production of processed forest products, other than a general sales tax of about eight to ten percent (which is being replaced by a Value Added Tax). In addition to this, DoF collects fees for permits issued to exporters of wood products and the Government collects import duties on wood and wood products. There are also some fines for breaking forest laws, but these are generally quite small.

Administration of the forest revenue system

The DoF consults with all relevant stakeholders when it establishes the levels of forest charges. The charges shown in Appendix 1 were established in 1997 and have not been updated (although there is provision for annual revisions). The forest charges are published in the government gazette rather than the press, but they are disseminated to any interested member of the public through the DoF's offices.

Roundwood charges are collected through the forest permit system. Permits and/or concessions are issued for a fixed area for one year and charges are based on the volume to be cut in the forest. Due to the small size of the DoF (particularly in terms of manpower), it is quite likely that there may be some evasion of charges.

Currently, district offices, regional offices and the head office of the DoF collect all forest revenue and transmit this to the Ministry of Finance, following the rules established in the Finance Act and Treasury Regulations. However, the DoF is currently working on developing alternative arrangements as part of their work on community forestry.

Total revenue collection

From 1993 to 2000, total annual revenue collection amounted to between N\$ 209,347 and N\$ 937,590. The DoF does not retain any of this revenue, which is all transmitted to the Ministry of Finance.

Government expenditure on forestry

The Government (through the Ministry of Finance) is the main source of funding for the DoF. The annual budget for the DoF has increased from N\$ 5,312,000 in 1993-94 to N\$ 14,137,011 in 1999-00 and it is expected to increase slightly in the future. There is also some additional expenditure on forestry training at the Ogongo Agricultural College (financed by the Ministry of Agriculture, Water and Rural Development). In addition to domestic government expenditure, foreign assistance to the DoF amounted to N\$ 87,778,000 over the last decade. Finland was the largest supporter of the DoF, accounting for 63 percent of all foreign assistance.

The revenue raised from the sector is much less than the budget of the DoF. However, the total economic contribution of Namibia's forests to society is several times higher than the budget of the DoF.

There are currently no grants or subsidies offered to companies formally registered and operating in the forestry sector. However, informal operators in the sector (e.g. wood carvers) implicitly benefit from falling outside the system (i.e. they do not pay any forest charges).

The effect of fiscal policies on sustainable forest management

The forest revenue system is closely linked to the issuance of harvesting permits, which are based on inventories and farm inspections. This permit system is meant to ensure that harvesting is only allowed at a sustainable level. Thus, it is a mechanism to control and limit the exploitation of forest resources.

The Government has demonstrated a strong commitment to sustainable forest management, by increasing the DoF budget and ensuring that the budget is readily available. The forestry sector is also mentioned in the National Development Plans of Namibia (NDP I and the NDP II, which is currently under preparation) and the Government is actively engaged in a process of policy and legislative reform.

In the agriculture sector, livestock loans have led to fencing of public land, which has led to over-exploitation and overgrazing of the remaining unfenced land. This is the main example of a fiscal policy in another sector that has had an impact on forestry in Namibia.

Discussion and conclusions

At present there is really no comprehensive and unified forest revenue system. DoF, and other related agencies responsible for collecting forestry sector revenue are not yet well coordinated in this endeavour. Thus, it is not possible to reliably determine whether or not the DoF budget can be financed solely by taxes and levies from the forestry sector.

There is a need to set up a centralised forestry revenue system for the whole forestry sector that will readily provide data and information on revenues raised by government from the forestry sector. In the meantime, DoF should continue searching for the fiscal data related to forest charges from the pertinent institutions and FAO should extend further support in this regard. In addition, DoF should examine how to increase revenue collection from the forestry sector.

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LIST OF ACRONYMS

AMCOM Amalgamated Commercial Holdings Limited

DoF Directorate of Forestry

FAO Food and Agriculture Organization of the United Nations

NDP National Development Plan NFRC National Forest Research Centre

NWFP Non-wood forest product
OAC Ogongo Agriculture College

Spp Species

VAT Value Added Tax

1

1 INTRODUCTION

The overall objective of this report is to review the revenue collected from the forestry sector (in the form of taxes, levies and fees) and the current financing of government forestry institutions. In other words, it examines:

- 1. how much money flows from the forestry sector to the government (i.e. in taxes and levies paid to government by the forestry sector); and
- 2. how much money flows back into the forestry sector from the government (i.e. in the form of government expenditure).

1.1 Background information

Namibia's forest resources constitute an important national heritage, which provides both economic and environmental benefits. Forestry development in Namibia started at the beginning of the 20th century when the role of woody vegetation in environmental protection was recognised by the German colonial government. However, the forest resource suffered a great deal under the South African rule when uncontrolled cutting was encouraged, especially in the communal areas of the North and Northeast of the country. Indeed no meaningful development activity was initiated in the forestry sector during South African occupation.

The colonial policy of forest exploitation, especially in the communal areas and commercial areas of Tsumeb and Grootfontein, started in the 1930s and continued unabated until Namibia attained independence in 1990. A lack of technical capacity to administer forest concessions worsened the situation of uncontrolled forest exploitation. Meanwhile, poor forestry administration constrained the initiation of any meaningful forestry development activities. In the early 1970s and late 1980s, the country's liberation struggle prevented the implementation of forestry development activities in large areas of Northern Namibia, which needed attention and still account for the bulk of the forest resource.

For many years, forestry development was managed from a small section within the Ministry of Agriculture. The Directorate of Forestry (DoF) was established at Namibia's independence in 1990, to highlight the importance of forestry to national development and to carry out programmes that are aimed at implementing the national forest policy. The first post-independence forest policy was approved in 1992. One of the deficiencies of the 1992 forest policy was a lack of clarity with respect to: stakeholder participation in the decision-making process on forests; stakeholder participation in forest management programmes; and the impacts on forests of decisions and policies from outside the forestry sector. Therefore, in 1998, Namibia's Forest Policy was reviewed. A new forest policy, that addresses the above-mentioned issues, has been prepared and is currently being formally approved.

At present, the DoF is still in its early developmental stages. The Directorate produced the first Forestry Strategic Plan for Namibia in 1996. The strategic plan outlines four programmes that need to be addressed: capacity building; environmental forestry; community forestry; and farm

forestry. In August 1997, the Directorate started the Namibia-Finland Forestry Programme to implement the four programmes of the strategic plan. The strategic plan was based on ecological, environmental, cultural, and socio-economic considerations and it considered "production, protection and participation" as the three important issues of forestry development in Namibia. Namibia is still using old forestry legislation, for example the Forest Act of 1968 (Act No. 72 of 1968). New forest legislation was prepared in 1997 and is awaiting approval by parliament.

The main challenges faced by the Directorate are manpower development, infrastructure development and improvement of data and information for the planning and management of forest resources. However, several forestry staff are in colleges and universities to obtain Forestry Diplomas and BSc Degrees and infrastructure development is almost complete. Forestry data collection, compilation, analysis and dissemination are in progress, but need further support and strengthening to institutionalise the process. A process to develop criteria and indicators aimed at monitoring sustainable forest management in Namibia is also on-going and a few criteria and indicators have now been selected for actual testing in the field.

1.2 Availability of information about forest revenue collection

All relevant institutions were contacted and asked to provide information about forest revenue collection. However, some of them were reluctant to release fiscal data. For example, authorities such as the Ministry of Finance and other Directorates within the Ministry of Environment and Tourism were asked to provide this data, but they do not seem to have the information in a form that is readily and easily accessible to the public. In particular, the total revenue collected from wildlife permits issued for forest areas (which is an important source of government revenue related to forestry) were not unavailable.

Data on more general tax receipts (e.g. sales tax and/or VAT on forest products, income taxes and import duties) were also not available. However, it must be noted that these general tax receipts are not specific to the forestry sector and would usually be considered as falling outside the forest revenue system.

To summarise, at this stage, it is not easy to collect and compile this type of fiscal data for the forestry sector in Namibia, as statistics on forest revenue collection by some parts of the government are not readily available. This report does present the information that is available at the DoF, but it should be noted that this is only a part of the total forest revenue collected.

2 DESCRIPTION OF THE FOREST REVENUE SYSTEM

2.1 Charges on roundwood production

Land ownership in Namibia is mainly divided into two major categories, namely freehold and communal land (see Table 1).

Table 1 Land area by type of land tenure

Land tenure type	Area (in km²)	Share of land area (in percent)
Freehold land	362,000	44
Communal land	335,400	41
Protected areas (20 State Protected Areas and 1 Mining Area)	126,600	15
Total land area	824,000	100

Freehold land covers about 362,000 km² (44 percent of total land area) and is divided into 4,200 large-scale farms (the commercial farming area). The woody vegetation on commercial farms plays a very important role in providing both the habitat and fodder for wildlife. Tourism, indirectly linked to the woody vegetation, is also an important activity in the commercial farming area and in the proclaimed national parks.

Commercial and large-scale harvesting of wood (even for own-use on privately owned farms) is regulated, using forest permits and farm inspections by the government through the DoF. Farmers pay charges to the government when they harvest forest products (see Appendix 1 on page 27). There are no land taxes for farmers, but the government is now in the process of introducing a Land Tax Bill.

Communal land covers about 335,400 km² (41 percent of total land area) and is owned by about 138,000 households. Access to resources on communal land and other government proclaimed land (owned by the state) is free and authorized by traditional leaders. Traditional leaders (chiefs and headmen) are also responsible for allocating communal land to individuals. There are no land taxes on this land, but the government collects the same charges (as above) for harvesting forest products on this land (See Appendix 1).

Within the communal land, the DoF has also set aside one State Forest and four Community Forests (see Table 2). These protected forests account for just under two percent of the communal land area. The use of forest resources in these protected forests is also subject to the government tariffs for harvesting forest products (See Appendix 1).

Table 2 Protected forests

Name	Area (in km²)
Okongo Community Forest	750
Ongandjera Community Forest	1,282
Uukwaludhi Community Forest	1,530
Uukolonkadhi Community Forest	1,117
Caprivi State Forest	1,461
Total	6,140

Protected areas cover about 126,600 km² (15 percent of total land area). These areas include game parks (such as Etosha National Park and West Caprivi Game Park) and the diamond mining area along the Atlantic coast.

At present in Namibia, there is still no organized forest management. Forest management plans for all forms of forest ownership in Namibia are non-existent. However, starting in August 1997, the DoF is implementing components of the Namibia-Finland Forestry Programme. The overall Programme objective is to ensure an increased role of forestry in the socio-economic development of Namibia through continuous implementation and development of sustainable forest management practices.

One of the programme components is community level forest management, which is to formulate applicable models of sustainable integrated forest management to be implemented on communal lands by Namibians. This component aims at direct involvement of local communities in forest management.

Although traditional leaders allocate land for various uses in communal areas, they do not carry out forest management as such. This is still the mandate of the DoF. However, the DoF is in the process of devolving to communities the power to manage their forests. The new Forest Act 1998, which is still undergoing the formal approval process, takes such issues into account.

The government will initially meet most of the costs of forest management by communities. However, in the long run it is envisaged that the local communities will devise various income generating activities to meet both their income needs and the costs of managing their forests.

2.2 Charges on the production of non-wood forest products and services

2.2.1 Non-wood forest products

Non-wood forest products (NWFPs) play a major role in the lives of the majority of rural Namibians. However, the use of NWFPs is not yet reliably quantified. Data on the total level of NWFP production is non-existent, as is data on the total income and expenditure in this sector.

At present, most NWFPs are collected free of charge, but charges are levied on commercial production of the following NWFPs: grasses; reeds; Makalani palm leaves; and ornamental dry roots. The charges on the collection of these NWFPs are given in Schedule D of the list of forest products tariffs (see Appendix 1). It is not possible to identify the revenue collected from each individual charge on NWFPs, but they are included in the totals for "various permits" shown in the tables later on in this report.

2.2.2 Charges on the use of forests for other commercial services

Even though woody vegetation in the commercial farming area and game parks is an important resource for tourism, statistics are not readily available about the total revenue collected from the use of forests for services such as ecotourism, hunting and wildlife. As a very rough estimate, it is suspected that total revenue collected from these activities could be slightly higher than those collected by the DoF.

Table 3 shows the level of charges collected for permits issued to operators in the wildlife sector. These charges are paid to the Directorate of Specialist Support Services in the Ministry of Environment and Tourism.

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Table 3	Charges .	,,,,	LANULILY	neimus		LILE	WILLIE	secum

Type of charge	Amount (in N\$)
Fees for annual registration	
Trophy dealers	200/year
Trophy manufacturers	250/year
Game dealers	100/year
Nurseries	50/year
Hunting guides	25/year
Master hunting guides	50/year
Professional hunters	100/year
Hunting farms	25/year
Permit fees	
Trophy hunting	25/unit
Export of live game	100/unit

2.3 Charges on processed product production

In Namibia, there are various companies involved in the production of processed forest products (i.e. sawnwood and wood based panels). There are no direct charges levied on the production of processed forest products. However, the government levies a general sales tax on consumers (of eight to ten percent) when they purchase processed forest products and the government has now introduced a system of Value Added Tax (VAT), which is assumed to be a much more efficient tax system. Data about the collection of these taxes specifically from forest products is not available.

2.4 Charges on forest products trade

2.4.1 Domestic trade

The only charge on domestic trade in forest products is a modest fee for issuance of a marketing permit in Schedule E of the list of forest products tariffs (see Appendix 1).

2.4.2 International trade

Namibia imports various forest products, such as: roundwood; sawnwood; wood based panels; and pulp and paper. Import duties are levied on these products when they enter the country and these duties are paid to the Ministry of Finance. It is not known how much was paid to the Government as duties on these imports.

According to sources at the Ministry of Finance, exports of forest products are not taxed. However, the DoF issues permits for exporting forest products and these are shown in Schedule E of the list of forest products tariffs (see Appendix 1). Information about the total amount of charges collected from permits for international (and domestic) trade is unavailable, but they are included in the totals for "various permits" shown in the tables later on in this report.

2.5 Other charges

2.5.1 Fines or penalties for breaking forest laws or regulations

The Forest Act of 1968, the new draft Forest Bill of 1998 and the Nature Conservation Ordinance all protect natural flora and fauna and the physical environment in general (and trees in particular). The 1968 Forest Act, which is currently in force, stipulates fines and penalties for breaking forest laws and regulations. An admission of guilt results in fines ranging from N\$ 100 to N\$ 200 per offence. However, for cases that go to court, magistrates can impose high fines and penalties. These fines are certainly not adequate to discourage the violation of forestry laws and regulations completely and they could be increased.

2.5.2 Other fees for the use of forest land

Fees could be levied for the use of forest land (e.g. cattle owners could be charged for grazing rights in state forests), but there are currently no such arrangements. The only example of this occurs in Katima Mulilo Forestry Office, which rented an old sawmill shed to the agricultural farmers union for maize storage (see Table 7).

2.5.3 Other requirements that can be considered as a charge on production

There are no charges or requirements that forest operators should contribute to village development or provide infrastructure.

2.5.4 Other innovative revenue raising schemes

Namibia's forests provide great social benefits in terms of: conservation of biodiversity, soil and water resources; maintaining water catchments; and in acting as carbon sinks. However, these benefits are unquantified and, at present, there are no schemes to raise revenues to support such functions.

Tourism is one of the most rapidly expanding sectors in the Namibian economy and it is based largely on wildlife located within and supported by savannas and woodland. Tourism provides a source of human recreation and generates valuable foreign exchange. In addition, it provides some revenue to government from permit fees (See Table 3).

The government recognises the opportunities for ecotourism offered by wildlife. In addition, cultural tourism (as a component of ecotourism) is still only in its infancy in Namibia, particularly in the Northeastern regions. In view of the government's commitment to develop the tourism industry, ecotourism has a bright future to continue to flourish and expand.

The promotion of tourism and ecotourism depends on sustainable management of the forest resource for biodiversity conservation. However, at present, information about the level of government revenue raised from ecotourism development is unavailable and the DoF, as stewards of the forest resource, do not collect any revenue from these types of development.

3 ADMINISTRATION OF THE FOREST REVENUE SYSTEM

3.1 The process of setting forest charges

3.1.1 Methods for setting charges

The method used by the DoF to set forest charges is consultation. There is no formula used to set forest charges, although inflation is taken into account at the time of determining a new set of forest charges.

The DoF proposes charges in consultation with stakeholders such as farmers and other public representatives. This process is open and transparent. The proposed charges are forwarded as recommendations to the Permanent Secretary and Minister of Environment and Tourism for further consideration. If satisfied, the Minister then forwards the proposed charges to the Ministry of Finance for approval (as per the provisions of the 1968 Forest Act). The charges are then issued as a new list of forest products tariffs, attached as Schedules to the Forest Act.

The current list of forest products tariffs (shown in Appendix 1) were established in 1997 and have not, so far, been updated. However, there is a provision for annual revisions in the Forest Act. In addition, timber concessions note that forest charges can be updated periodically.

3.1.2 Publication of information about forest charges and charge collection

Information about forest charges is published in the government gazette, not in the public press. However, DoF staff distribute the approved list of forest products tariffs to any interested member of the public. The DoF is currently the main authority collecting forest revenue and it works independently of other institutions. Ideally, it would be useful for the DoF and other institutions that collect forest-related revenue to co-operate in sharing and disseminating information about total forest revenue collection (particularly from charges collected from forestry and wildlife activities).

3.2 Collection of charges and monitoring

3.2.1 Assessment of charges

The amount of charges that should be paid is based on the amount of timber to be harvested and the list of forest products tariffs published by the government. Competition or auctions are not used to assess charges, although confiscated timber can be sold by auction.

In the case of timber concessions, a sawmiller first applies to the DoF to harvest timber in a desired area. The DoF then surveys and delimits the area for the concession and awards the concession for that fixed area for one year (renewable). The DoF supervises the timber harvesting to ensure that the concessionaire harvests timber according to the regulations, such as: stipulated stump height; species; minimum damage to the environment etc. This is both to

control the harvesting of the forest resource and to provide the information necessary to assess the forest charges due.

At present, there are no concessions that are operational (but similar procedures to those described above are used to control and supervise forest permits). Previously, forest concessions were Namib Wood in Rundu District and the Development Brigade Corporation concession in West Tsumkwe District. Both concessionaires were cutting Pterocarpus angolensis (Mukwa) for their own sawmills and it should be noted that the price of sawn Pterocarpus angolensis (Mukwa) is about N\$ 4,000 to N\$ 5,000 per cubic metre (compared with a tariff of only N\$ 80 to N\$ 110 per tree).

3.2.2 Charge collection and administration

The process of collecting forest charges is entirely managed by the DoF, while the Directorates of Specialist Support Services and Parks and Wildlife Management collect revenue from charges levied in the wildlife sector. Authority to receive revenue is carried out according to the Finance Act and Treasury Regulations. Any District Forestry Office can be recommended to receive revenue upon registration by the Ministry of Finance and training is normally provided in banking rules and the rules for recording financial information. At present District Offices, Regional Offices and Head Office of the DoF receive revenue.

Forestry Rangers and Forestry Technicians in the DoF are responsible for assessing production levels and calculating total charges due. The Regional Forest Officers are responsible for checking their Forestry Rangers and Forestry Technicians. Data from DoF farm inspections and the issuance of harvesting, transport and export permits are also used to provide information that is input into the Forest Permit System recently established at the Directorate of Forestry.

Charges are collected at the regional level by respective District Forest Officers. Depending on circumstances, government receipts are issued for cash received for services as such issuing permits and payments for forest products. However, in the case of concessionaires, an invoice (based on the calculated volume) would be given and is payable within 30 days.

3.2.3 Effectiveness of monitoring and collection system

Due to the small size of the DoF (particularly in terms of manpower) compared to the large forest areas covered by the staff, it is likely that there may be inaccurate recording of production. In addition, some customers may certainly try to avoid paying charges.

3.2.4 Involvement of local communities and revenue sharing

Communities are not involved in any way in the collection of forest charges and/or checking production levels. This is solely the responsibility of government officials in the DoF. In addition, all the revenue collected by any government institution goes to the Ministry of Finance so the sharing of forest revenue is done through the Ministry of Finance in its annual national budget. However, the DoF, through the community forestry component of the Namibia-Finland

Forestry Programme, is working towards empowering selected local communities to be involved in issuing forest permits and the collection of charges.

4 TOTAL REVENUE COLLECTION AND DISTRIBUTION

The DoF has produced a vision for the period 2001-2005. Among the seven vision statements, one is to have "National accounts reflecting the contribution of the forestry sector". Therefore, there is a great and urgent need to establish a comprehensive database on revenue paid to government by the forestry sector in Namibia. Obviously, this is a long-term exercise, which can only be carried out with the assistance of international development partners.

The DoF has started to keep track of revenue from forest production through the recently established Forestry Permit System. However, this system will need to be expanded to include additional data on revenue generated from all areas of the forestry sector. This undoubtedly requires very close collaboration with all relevant stakeholders involved in collecting government revenue. Only in this way will information on revenue from the entire forestry sector be at the finger-tips of the Directorate and, thereby, become readily available to both government and the wider public.

4.1 Total collection and distribution of forest based charges

As mentioned earlier, it was not possible to find detailed data on the total amount of revenue collected by other institutions involved in the forestry sector. Therefore, the following tables only show the total revenue collected by the DoF between 1993-94 and 1999-00 (note that the financial year for the Government of Namibia runs from 1st April - 31st March).

Table 4 shows the revenue collected by the DoF during the 1993-94 financial year. Total revenue collected in this year amounted to N\$ 937,590. During this period, the DoF operated sawmills at Katima Mulilo and Rundu, which accounts for the high level of revenue collected in those two districts. These two sawmills are no longer operational. In addition, it should be noted that the office in Gobabis was only opened during the financial year 1993-94 and did not, therefore, collect any revenue during this year.

Table 4	Total revenue	collected by the	Directorate	of Forestry in	1993-94
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District	Revenue collecte	Revenue collected by source (in N\$)			
	Timber	Sales of seedlings	(in N\$)		
Katima Mulilo	63,660	2,596	66,256		
Rundu	758,280	3,843	762,123		
Ongwediva	0	16,719	16,719		
Grootfontein	69,910	20,749	90,659		
Windhoek	0	1,019	1,019		
Gobabis	0	0	0		
Mariental	0	814	814		
Total	891,850	45,740	937,590		

Total revenue collection in 1994-95 amounted to N\$ 209,347 (see Table 5). The figures for Katima Mulilo and Kanovlei include royalties from timber contracts. Timber contracts are the same as timber concessions, so these figures include the fees paid by the concessionaires to DoF.

Table 5 Total revenue collected by the Directorate of Forestry in 1994-95

Region	District	Rev	Revenue collected by source (in N\$)					
	Forestry	Plant	Wood harvest	Fines	Timber	(in N\$)		
	Office	sales	permits		contracts			
Northern	Katima	2,782	0	0	20,000	22,782		
Region	Rundu	5,650	54,914	0	0	60,564		
	Ongwediva	10,100	8,192	3,400	0	21,692		
	Kanovlei	0	0	0	76,520	76,520		
	Grootfontein	22,940	0	700	0	23,640		
Sub-total:	Northern	41,472	63,106	4,100	96,520	205,198		
Southern	Windhoek	280	0	0	0	280		
Region	Gobabis	0	67	2	0	69		
	Mariental	3,800	0	0	0	3,800		
Sub-total: Southern		4,080	67	2	0	4,149		
Total		45,552	63,173	4,102	96,520	209,347		

Table 6 Total revenue collected by the Directorate of Forestry in 1997-98

Region	District	Rev	Total			
	Forestry	Plant	Wood harvest	Fines	Other	(in N\$)
	Office	sales	permits			
North	Katima	4,372	222,669	27,200	0	254,241
East	Rundu	2,396	125,331	4,520	0	132,247
Region	Grootfontein	1,690	24,000	1,323	0	27,013
	Kanovlei	0	0	0	0	0
	Tsumkwe	0	0	0	0	0
Sub-tota	l: North East	8,458	372,000	33,043	0	413,501
North	Ongwediva	6,616	0	0	20,600	27,216
West	Outapi	0	0	0	600	600
Region	Eenhana	0	0	0	0	0
	Opuwo	0	0	0	430	430
Sub-tota	l: North West	6,616	0	0	21,630	28,246
South-	Windhoek	0	0	0	0	0
Central	Otjiwarongo	0	0	0	0	0
Region	Keetmanshoop	3,020	0	0	80	3,100
	Gobabis	0	0	0	0	0
	Mariental	3,087	0	0	0	3,087
Sub-tota	Sub-total: South-Central		0	0	80	6,187
Total		21,181	372,000	33,043	21,710	447,934

During the 1997-98 financial year, the DoF collected N\$ 447,934 in revenue (see Table 6). Other revenue shown in the table included the following:

- Ongwediva fines, sales of confiscated wood and sales of plantation poles;
- Outapi fines and sales from beekeeping (the DoF pilot Beekeeping Project, which has since finished);
- Opuwo sales of confiscated firewood; and
- Keetmanshoop sales of confiscated wood.

Table 7 Total revenue collected by the Directorate of Forestry in 1999-00

Category	Revenue co	Revenue collected by region (in N\$)		
	North	North	South-	(in N\$)
	West	East	Central	
Various permits	14,975	37,753	0	52,728
Timber sales (to AMCOM)	n.a.	230,000	n.a.	230,000
Poles and firewood	0	2,325	0	2,325
Seedling sales	20,000	36,328	53,635	109,963
Rental of premises (Katima Mulilo)	n.a.	14,000	n.a.	14,000
Fines	7,670	0	900	8,570
Total	42,645	320,406	54,535	417,586

During the 1999-00 financial year, the DoF collected N\$ 417,586 in revenue (see Table 7). This includes the sale of Pterocarpus angolensis (Mukwa) logs, which were confiscated from illegal cutters in Katima Mulilo and sold to the (now defunct) AMCOM sawmill. It also includes the rental of the old DoF sawmill shed to the agricultural farmers union for maize storage in Katima Mulilo.

Reports on revenue collection for the years 1995-96, 1996-97 and 1998-99 are not available. However, the results in Table 4 to Table 7 above show that annual revenue collection by DoF amounted to between N\$ 209,347 and N\$ 937,590. For comparison, during the 1993-94 fiscal year, the budget for the DoF was N\$ 5,312,000 and today it is N\$ 14,137,011. Therefore, the revenue collected by the DoF is far below the Directorate's budget.

Although the amount of revenue collected by DoF is well below expenditure, it should be noted that the forest resources of Namibia have immense value in terms of their contributions in areas such as domestic energy supply, ecosystem and habitat value, crop fencing and in the arts and crafts industry (see Table 8 below). The value of all these activities is far greater than the current budget allocation for the forest administration, suggesting that an appropriately high level of public expenditure on the forest sector can be justified in terms of the DoF's activities to protect and maintain this resource.

Table 8 Estimated total economic value of all forest outputs

Product	Main species	Estimated total annual value (in million N\$)
Construction poles	Mopane	383.0
Tourism	Ecosystem	218.0
Fences for crop protection	Mopane	175.0
Firewood	Mopane, Acacia spp	131.0
Medicine	Various species	31.5
Kraals	Mopane	31.0
Charcoal	Various bush invaders	22.4
Crafts and implements	Various species	21.0
Mahangu baskets	Mopane	12.4
Goat forage	Various species	9.5
Fencing poles	Mopane	6.6
Food	Marula oil	4.6
Basketry	Hyphaene spp	4.0
Commercial logging	Pterocarpus, Baikea	2.4
Mortar and pestle	Various hardwoods	1.5
Beverages	Various species	1.5
Ornamental roots	Mopane	1.1
Carvings	Various species	1.0
Mopane worm forage	Mopane	0.5
Food	Mangetti kernels	0.2
Total economic value		958.2

Source: Strategic Plan 1997

5 GOVERNMENT EXPENDITURE ON FORESTRY

5.1 Expenditure by the main government forestry institution(s)

5.1.1 Procedures used to plan, prepare and approve budgets

The Director of Forestry has final responsibility for preparing the Directorate's annual budget, while the Deputy Director for Forest Management Division compiles the detail of the DoF budget each year. First, the Regional Offices with the District Forest Offices prepare and submit their draft budgets to the Deputy Director. Then the Deputy Director drafts a budget for the whole DoF, which is discussed and finalised with the Director of Forestry. The draft DoF budget is then submitted to the Permanent Secretary, Ministry of Environment and Tourism, who combines all of the budgets of the Ministry's Directorates into a single Ministerial Budget.

The Ministerial Budget is discussed by the respective Directors under the Chairmanship of the Permanent Secretary. When agreed upon and approved by the Minister of Environment and Tourism, the budget is submitted to the Ministry of Finance. The Ministry of Finance then prepares a draft annual budget for all Government Ministries and presents this to Parliament, where it is scrutinised and debated, Ministry by Ministry. When the budget is approved by parliament, the Ministry of Finance is authorised to disburse funds for expenditure to and by the relevant ministries.

Table 9	Budget of the	Directorate of Forestry	1999 - 2002

Item	Amount by year (in thousand N\$)				
	1999-00	2000-01	2001-02	2002-03	2003-04
				(est.)	(est.)
Personnel expenditure	10,612	10,957	11,185	12,300	13,530
Goods and other services	3,096	2,610	2,700	4,573	5,000
Subsidies and other current transfers	10	10	10	10	11
Total recurrent expenditure	13,718	13,577	13,895	16,883	18,541
Acquisition of capital assets	1,131	560	800	1,000	500
Total Forestry Budget	14,849	14,137	14,695	17,883	19,041

5.1.2 Sources of revenue used to fund the forest administration

The State is the main source of funding for the DoF budget and this money is provided through the Ministry of Finance, following standard government procedures. At present, the DoF budget is about N\$ 14 million per year and it has been more or less the same for the past three years (see Table 9). However, it is expected to increase to about N\$ 18 million in the next two years because most of the professional posts in the DoF are still vacant. As more Namibian staff complete their BSc degree programmes, they will fill the vacant positions, new offices and housing for forestry sub-stations will be constructed (e.g. at Omega and Nkurenkuru) and additional vehicles will be needed. This accounts for the need for additional funds for salaries and capital expenditure.

The DoF does not keep any money raised through the forest revenue system and there are no special forestry funds. All of the revenue collected by DoF goes to the Ministry of Finance (as is the case with all government institutions). This money is pooled within the Ministry of Finance and then allocated to various ministries through the agreed national budget.

In addition to the national budget, the DoF has also received foreign assistance. The amount of foreign assistance to the DoF from 1990 to 2000 is shown in Table 10. The total contribution during the period was just under N\$ 88 million, with the biggest contribution from Finland (accounting for 63 percent of the total).

Table 10 Foreign assistance to the Directorate of Forestry 1999 - 2000

Project	Country	Years	Total	l, N\$
			(in N\$)	(in percent)
National Remote Sensing Centre	Denmark	1993-96	3,000,000	3.42
Vegetation Mapping	Sweden	1993-96	4,721,000	5.38
Institutional Strengthening	Finland	1991-96	4,100,000	4.67
Forest Inventory	Finland	1995-96	3,300,000	3.76
Forest Fire Control	Finland	1996	900,000	1.03
National Tree Seed Centre	Canada	1994-00	2,800,000	3.19
Forest Research and Development	UK	1994-97	3,510,000	4.00
Kavango Forestry Support	Luxemburg	1994-97	1,692,000	1.93
Support to Forestry Sector	Australia	1995-97	1,500,000	1.71
North Central Community Forestry	Denmark	1997-99	6,765,000	7.71
Volunteer Services to Forestry	Germany	1995-99	7,490,000	8.53
Namibia-Finland Forestry Programme	Finland	1997-00	48,000,000	54.68
Total from 1990 to 2000			87,778,000	100.00

5.2 Expenditure by other government forestry institutions

The National Forestry Research Centre (NFRC) is located at Okahandja, 70 Km north of Windhoek. Forest Research is a Division within the DoF and the budget for the NFRC is part of the entire DoF budget shown in Table 9 above. The budget for the NFRC is about N\$ 255,000 or 1.7 percent of the total DoF budget (see Table 11), plus expenditure on personnel (which is included under the main DoF budget). This budget is inadequate to enable DoF to carry out an adequate amount of forestry research.

Table 11 Budget of the National Forestry Research Centre at Okahandja

Item	Budget for 2001-02 (in N\$)
Travel & subsistence (domestic)	34,000
Materials and supplies	60,000
Transport	132,000
Utilities	16,500
Other services and expenditure	12,500
Total	255,000

Diploma level forestry training is carried out at Ogongo Agricultural College (OAC), which is an institution that primarily offers diploma courses in Agriculture. In collaboration with the DoF, the OAC established a Department of Forestry to offer, initially, a 2-year certificate course in forestry. Now, the Department of Forestry also offers a 3-year diploma course in forestry. The OAC is under the Directorate of Research and Training in the Ministry of Agriculture, Water and Rural Development and the budget for the OAC is summarised in Table 12.

Table 12 Budget of the Department of Forestry at Ogongo Agricultural College

Item	Budget for 2001-02
	(in N\$)
Personnel (teachers)	400,000
Student costs	50,000
Materials and supplies	30,000
Transport	120,000
Utilities	100,000
Other services and expenditure	15,000
Total	715,000

5.3 Grants and subsidies to the forestry sector

There are no grants or subsidies offered to companies formally registered and operating in the forestry sector. However, wood carvers and retail traders in wood carvings (who are considered as part of the informal sector) are normally not taxed. This could be considered as a subsidy from the Government to encourage self-employment and income generation at the grassroots level.

Namibia's four long-term national objectives are:

- Reviving and sustaining economic growth
- Creating employment opportunities
- Alleviating poverty
- Reducing inequalities in incomes

Hence, wood carvers and traders in wood carvings are engaged in creating employment opportunities, thereby alleviating poverty, which is in line with the Government's national objectives.

5.4 Income and expenditure of state forestry enterprises

There are currently no state forestry enterprises operating in Namibia, as the only one that existed was recently privatised (at a value of N\$ 5 million). The objectives of government involvement in state forestry enterprises are usually job creation and the development of value-added processing. It seems that the government's involvement in this enterprise was contradictory to its policy of promoting private enterprise, which resulted in the privatisation of this enterprise.

It must be noted that privatisation of state enterprises does not necessarily lead to sustainable forest management. All it does is reduce government expenditure on unprofitable parastatal companies. In most cases, the nature of such companies is that, even if they make losses, government funds them to keep people in employment. However, in the long run this is a significant drain on government finances.

6 DISCUSSION AND CONCLUSIONS

6.1 Overall appraisal of the forest revenue system

In summary, a comparison of forest revenue (Table 4 to Table 7) and expenditure (Table 9 to Table 12) shows that DoF spends much more on forestry than it collects in revenue from the sector. However, this is only based on the data that is readily available and it does not include some revenue from the sector (especially revenue from activities related to wildlife).

At present, there is no comprehensive and unified forest revenue system and a lot of work still needs to be carried out to establish such a system. However, the DoF has established an electronic forest permit database, which is important to keep track of revenues accruing through the issue of permits.

In addition, the DoF and other related agencies responsible for collecting forestry sector revenue are not yet well co-ordinated in this endeavour. Each institution collects revenue independently, it is not known how the data is analysed and disseminated and some institutions are reluctant to divulge fiscal data. Furthermore, the costs of collection versus the amounts of revenue collected are currently not unknown. Therefore, a more mutually beneficial and consistent approach is clearly needed.

One possibility to improve information would be to establish a sector-based central revenue database system (e.g. located in DoF), whereby other institutions involved in the collection of revenue in the forest sector would regularly supply data according to agreed formats. A committee of the stakeholders could be formed to workout the modalities of such a system.

At this stage, in the absence of a comprehensive study to assess revenue collection in the forestry sector, it is not possible to quantify avoidance or the evasion of charges. However, intuitively, it is suspected that there could be some avoidance of charges, as the number of DoF staff is not adequate on the ground to stop all charge avoidance and evasion.

Revenue from import and export charges is probably the most reliable revenue base, because custom controls at border points are very effective. However, the data on forest product import charges is not recorded in a format that allows easy retrieval and regular monitoring.

It certainly would be feasible to collect more revenue from the forestry sector through more efficient charge collection mechanisms. This would entail collaboration with other forestry related government agencies (such as agricultural extension) to increase the number of staff issuing permits and checking on people avoiding paying charges.

Suggestions or recommendations for improvements in the efficiency of charge collection and the total amount of charge collection could include the following:

- levying taxes and royalties on wood carvers;
- introducing realistic farm inspection costs;
- charging higher tariffs on seedlings sold from nurseries (both private and DoF);

- charging higher import tariffs;
- charging higher taxes on exports of wood products; and
- promoting and improving value-added manufacturing to broaden the tax base.

6.2 The impact of the forest revenue system on sustainable forest management

The Government is currently working towards achieving sustainable forest management in Namibia through the annual Government budget of approximately N\$ 14 million, supplemented by the donor funds as shown in Table 10. Namibia has not yet reached the goal of sustainable forest management, as this is a long-term goal that is still in its early developmental stages in the country.

Forest charges are collected through the forest harvesting permit system, which is based on inventories and farm inspections. The system is designed to allow harvesting of forest products at sustainable levels and control the exploitation of forest resources. There are also restrictions on harvesting protected species to conserve biological diversity and ecosystem functions and forest concession contracts require concessionaires to use only authorised and sustainable forest practices.

The DoF staff, in co-operation with local police and communities, occasionally set-up check points (road blocks) to check the permits of anybody transporting forest products. This assists in curbing the illegal logging of protected species.

The DoF also operates forest nurseries to raise and sell seedlings to the general public. The subsidised costs of tree seedlings are meant to support or stimulate tree planting and care on farms and to reduce or mitigate deforestation.

At the moment, there is no direct sharing of revenue with other stakeholders. However, this will in future be possible under the new forest Bill, now under discussion in Parliament.

The forest revenue system is not entirely equitable because, at present, revenue is only collected from commercial operators in the sector and not from the large number of others engaged in the informal trade in the forestry sector. These traders could be included in the system at some future point in time.

6.3 The effect of other fiscal policies on sustainable forest management

In the agriculture sector, livestock loans have led to the fencing of public land. This, in turn, has led to over-exploitation and overgrazing of the remaining unfenced land and a decrease in the amount of forest and tree resources. This is the only major fiscal policy in other sectors that has an obvious effect on sustainable forest management.

6.4 Government support for the forestry sector

The DoF is the lead agency for the development of the forestry sector in Namibia. The Government of Namibia has ensured that:

- 1. The budget is readily available to the Directorate of Forestry from the Ministry of Finance and the Government has always looked favourably on increasing the budget.
- 2. Training of Namibian staff has also increased over the years since 1990, as qualified staff are essential to maintain the various functions of the Directorate.

In 1992, the DoF produced a Forest Policy, followed by the first Namibia Forestry Strategic Plan (Forest Biodiversity for Present and Future Generations) in 1996. Both the Forest Policy and Strategic Plan aim at promoting sustainable forest management practices through community participation. In addition, the Government and non-governmental agencies attempt to improve and promote local and export markets for indigenous tree products. This is likely to stimulate more practical interest in forestry development in the country.

At the national level, forestry legislation includes the Forest Act of 1968, the new draft forest bill and the Nature Conservation Ordinance. The Nature Conservation Ordinance Amendment Act of 1997 allows the formation of wildlife conservancies to protect scattered trees or trees in groves within a conservancy and prohibits their destruction. Because such trees form part of the wildlife habitat and the physical beauty of conservancies, this law is generally respected.

The DoF has proposed new forest policy and legislation, to enable communities to have more control over forest management and utilisation. For example, the new draft Forest Policy, *inter alia*, aims to: "reconcile rural development with biodiversity conservation by empowering farmers and local communities to manage forest resources on a sustainable basis". Until now, local communities have not managed their forests sustainably. However, the DoF has made a start with NWFP pilot projects in communities in Ontanda village (Uukwaludhi Community Forest). Hopefully, four years from now, there will be evidence of sustainable forest management by local communities.

The new draft forest policy will be supplemented by the new draft Forest Act of 1997, which proposes a more enabling framework of local participation in forest management. Article 10 defines the aims of forest management as: "the forest resources of Namibia shall be managed and developed in order to conserve soil and water resources, to maintain biological diversity and to supply the greatest amount of forest produce compatible with forestry's primary role as protector and enhancer of the natural environment'. The new draft Forest Bill of 1998 (which is currently under debate in the Namibian National Assembly) was drawn up with the assistance of the FAO and will enhance participation of local communities and other stakeholders in forest management.

The Forestry sector is mentioned in the National Development Plans of Namibia (e.g. in the National Development Plan I (NDP I) and the NDP II, which is currently under preparation). The Government has not recently analysed or requested assistance to analyse how the economic,

social and environmental performance of the forestry sector can be improved, but the current efforts to implement the Criteria and Indicators Dry Zone Process is quite relevant to this.

6.5 Conclusions and recommendations

There is no co-ordinated forestry sector revenue collection system. The data seems to be available within a number of different institutions, but it needs to be synthesised properly. For example, the DoF and other institutions in the forestry sector collect all sorts of revenue, but information about this is not accessible because some institutions are very cautious and hence reluctant to divulge fiscal data.

Because of the problem above, it is currently not possible to determine reliably whether or not the DoF budget is more or less than the taxes and levies collected from the whole of the forestry sector. In particular, a major omission is the revenue collected from wildlife activities (which are dependent on services provided by the forest resource).

Recommendation: The total revenue raised from the forestry sector should be assessed to identify the financial contribution of the forestry sector to public finances. In particular, this should take into account the revenues raised from wildlife activities. DoF should continue this work and FAO should extend further support in this regard. This will also need confidence building amongst the different institutions that hold this information.

Ideally, the forest revenue system should include data from the DoF, Ministry of Finance and any other agencies involved in collecting forest related revenue. The system should summarise this information to provide an insight into the total contribution of the sector to public finances and could be published annually.

Recommendation: A centralised forest revenue system should be established to collect and disseminate information about revenue raised by the government from the whole of the sector.

Most of the funding to support sustainable forest management in Namibia comes from the Government. This funding aims to improve forest management, which was severely neglected during the pre-independence era. Forest revenue collected by the DoF (from tariffs and other services) is insufficient to cover the DoF's recurrent and development budgets. However, the contribution of forest resources to the national economy (if properly accounted for) is at least ten times as large as the annual DoF Budget.

Certainly, in the future, it would be better to finance the DoF budget from taxes and levies accruing from the whole of the forestry sector. Charging for more of the services provided by DoF and stimulating forest-based industries could also expand the revenue base.

Recommendation: The forest revenue system should be reviewed and revised with the aim of increasing the financing of sustainable forest management from domestic resources. Further assistance in this area would be welcomed.

7 REFERENCES

- 1. Registry Files (Correspondence). Directorate of Forestry, Windhoek. .
- 2. Strategic Plan. Directorate of Forestry, Windhoek. Secondary source.
- 3. Forest Policy. Directorate of Forestry, Windhoek.
- 4. Draft Forest Act 1998. Directorate of Forestry, Windhoek.
- 5. Forest Act 1968, (No. 72 of 1968) Directorate of Forestry, Windhoek
- 6. Forest Permit System. Directorate of Forestry, Windhoek.
- 7. 1993/94, 1995/96 1997/98, 1999/2000 Annual Reports, Directorate of Forestry. Windhoek.
- 8. First National Development Plan (NDP1) Volume 1. 1995/1996-1999/2000. National Planning Commission. Windhoek. Namibia.
- 9. Ministry of Environment and Tourism, Specialist Support Services
- 10. Ministry of Finance, Commissioner of Taxes

APPENDIX 1 FOREST PRODUCTS TARIFFS

Schedule A: Timber and poles

Forest product	Tree species	Tariff (i	n N\$)
Timber (sawlogs)	<u>-</u>		
Protected commercial species	Pterocarpus angolensis	Living trees	110.00/tree
	Baikiaea plurijuga	Dead/dry trees	80.00/tree
	Burkea africana		
	Guibortia coleosperma		
	Colophospermum mopane		
	Combretum imberbe		
Other protected tree species		Living trees	75.00/tree
		Dead/dry trees	40.00/tree
Non-protected tree species		Living trees	45.00/tree
		Dead/dry trees	20.00/tree
Poles			
Preferred tree species	Colophospermum mopane		7.00/pole
	Terminalia sericea		
	Acacia erioloba		
	Baikiaea plurijuga		
	Burkea africana		
Other tree species			4.00/pole
Exotic trees (treated)	Eucalyptus species	up to 2.1 m	1.50/pole
		2.1 - 2.4 m	12.00/pole
		2.4 - 3.0 m	15.00/pole
		3.0 m and over	25.00/pole
Exotic trees (untreated)	Eucalyptus species	up to 2.1 m	1.00/pole
		2.1 - 2.4 m	8.00/pole
		2.4 - 3.0 m	10.00/pole
		3.0 m and over	17.00/pole

Schedule B: Firewood

Definition	Tariff (in N\$)
Firewood is any wood not serviceable or saleable other than for use as fuel.	2.50/headload
The charge is collected on commercial firewood production (i.e. for sale).	30.00/tonne or m ³

Note: Local residents are allowed to collect firewood for their own use up to 1 ton or 1 m³ free of charge.

Schedule C: Nursery seedlings

Type of seedling and purpose	Tariff (in N\$)	
Indigenous species		
Ornamental		8.00/each
Fruit tree		3.00/each
Afforestation	First 200 seedlings	4.00/each
	All additional seedlings	2.00/each
Exotic species		
Ornamental		8.00/each
Fruit tree		5.00/each
Afforestation	First 200 seedlings	4.00/each
	All additional seedlings	3.50/each

Schedule D: Commercial non-timber forest products

Type of product	Tariff (in N\$)
Grass	0.50/bundle
Reeds	1.00/bundle
Makalani palm leaves	2.00/bundle
Ornamental dry roots	20.00/tonne

Schedule E: Service fee for permits

Type of permit	Validity	Service fee (in N\$)	
Harvest permit (commercial)	6 months	15.00	
Marketing permit (commercial)	6 months	15.00	
Transport permit (commercial)	7 days	15.00	
Transport permit (own use - up to 1 tonne)	7 days		15.00
Export permit (commercial - per consignment)	7 days	Up to 10 tonnes	5.00/tonne
	7 days	Each additional tonne	4.00/tonne
Export permit (own use - up to 1 tonne)	7 days		5.00/tonne

LIST OF PAPERS PRODUCED UNDER THE FAO PROGRAMME ON FINANCING SUSTAINABLE FOREST MANAGEMENT

- Whiteman, A, 2001, Financing sustainable forest management: constraints and opportunities, working paper on financing sustainable forest management: FSFM/WP/01, Food and Agriculture Organization of the United Nations, Rome.
- **Federal Department of Forestry, Nigeria,** 2001, The forest revenue system and government expenditure on forestry in Nigeria, working paper on financing sustainable forest management: FSFM/WP/02, Food and Agriculture Organization of the United Nations, Rome.
- **Maile, N,** 2001, The forest revenue system and government expenditure on forestry in Lesotho, working paper on financing sustainable forest management: FSFM/WP/03, Food and Agriculture Organization of the United Nations, Rome.
- **Bekele, M,** 2001, The forest revenue system and government expenditure on forestry in Ethiopia, working paper on financing sustainable forest management: FSFM/WP/04, Food and Agriculture Organization of the United Nations, Rome.
- **Hamissou, G,** 2001, The forest revenue system and government expenditure on forestry in Niger, working paper on financing sustainable forest management: FSFM/WP/05, Food and Agriculture Organization of the United Nations, Rome.
- **Alassane B. Maiga,** 2001, The forest revenue system and government expenditure on forestry in Mali, working paper on financing sustainable forest management: FSFM/WP/06, Food and Agriculture Organization of the United Nations, Rome.
- **Kabongo Tshikala,** 2001, The forest revenue system and government expenditure on forestry in Democratic Republic of Congo, working paper on financing sustainable forest management: FSFM/WP/07, Food and Agriculture Organization of the United Nations, Rome.
- **Arumadri, Joel,** 2001, The forest revenue system and government expenditure on forestry in Uganda, working paper on financing sustainable forest management: FSFM/WP/08, Food and Agriculture Organization of the United Nations, Rome.
- **Chakanga, M,** 2001, The forest revenue system and government expenditure on forestry in Namibia, working paper on financing sustainable forest management: FSFM/WP/09, Food and Agriculture Organization of the United Nations, Rome.