



FOREST FINANCE



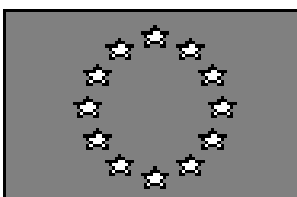
*The forest revenue system and government
expenditure on forestry in Uganda*

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on financing sustainable forest management

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THE FOREST REVENUE SYSTEM AND GOVERNMENT EXPENDITURE ON FORESTRY IN UGANDA

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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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LIST OF ABBREVIATIONS AND ACRONYMS

AAC	Annual Allowable Cut
AiA	Appropriation in Aid
CFM	Collaborative Forest Management
CFT	Combined Forestry Training
CITES	Convention on International Trade in Endangered Species
COMESA	Common Market of Eastern and Southern Africa
DANIDA	Danish International Development Agency
dbh	Diameter at Breast Height
DFO(s)	District Forest Officer(s)
EC	European Commission
ECU	European Currency Unit
EDF	European Development Fund
EIS	Environmental Information System
FAO	Food and Agricultural Organization of the United Nations
FD	Forestry Department
FRP	Forestry Rehabilitation Programme
GoU	Government of Uganda
Ha	Hectares
IDA	International Development Agency
IGAD	Inter Governmental Authority on Drought
ISSMI	Integrated Stock Survey and Management Inventory
ITTO	International Tropical Timber Organisation
IUCN	International Union for the Conservation of Nature
LC	Local Council
MFP	Minor Forest Produce
NBS	National Biomass Study
NEMA	National Environmental Management Authority
NFA	National Forestry Authority
NOK	Norwegian Krona
NORAD	Norwegian Agency for Development
PUP	Peri-Urban Plantation
RS	Remote Sensing
SFM	Sustainable Forest Management
SWG	Planning Sector Working Groups
UNDP	United Nations Development Programme
UNSO	United National Sudano-Sahelian Office
UPE	Universal Primary Education
URA	Uganda Revenue Authority
Ush(s)	Ugandan Shilling(s)
UWA	Uganda Wildlife Authority
VAT	Value Added Tax
VoA	Vote on Account

ABSTRACT

Forestry administration in Uganda is currently changing, as the existing Forestry Department is being transformed into a new self-financing National Forestry Authority. This will involve a number of changes in policies and institutions, which will have an impact on fiscal policies in the sector. This report describes the current structure of fiscal policies in the sector, including the amounts of revenue collected by the Forestry Department, public expenditure on the sector and the sharing of forest revenue with local government. Total forest revenue collection exceeds the operating costs of the Forestry Department but the share retained by central government is less than operating costs. Furthermore, revenue collection is much less than total expenditure on the sector, if investment in forestry projects (including donor funded projects) is taken into account. The report describes the changes in fiscal policies that might be expected after this transformation and presents a number of recommendations about how the current situation of low revenue collection and poor monitoring and control might be improved.

EXECUTIVE SUMMARY

Uganda has a long history of forest management. Historically, the forestry sector was focused on the management of forests for the profitable production of forest products. However, in recent years, forestry policy has been redefined in line with the broader principles of sustainable forest management. This process is still under way and there is still a need to revise many of the existing policies and legislation to adapt to current circumstances.

A full range of forest charges are used in the forest revenue system in Uganda, including charges on the following: industrial roundwood; wood fuel; processed products; and non-wood forest products. The types of charges used are a mixture of volume-based production fees, *ad valorem* taxes and simple flat-rate fees for permits to produce, trade and transport products. In most cases, these charges are believed to be well below the true market value of these products.

Forest charges are determined by Forestry Department staff (based on their knowledge of local market conditions), in consultation with others inside and outside the Department. The revision of forest charges is infrequent, but they were recently revised in 2000. Forest revenue is collected by field-staff of the Forestry Department and a number of improvements have been made to the systems for collecting and monitoring charge collection. These changes include: the development of a database of forest revenue collection; better systems for measuring production; pre-payment of some charges; and the use of a mobile task force to monitor and capture illegal production. However, these advances are undermined by the poor terms and conditions of employment for field-staff, which lead to low staff morale, poor performance and, in some cases, suspected collusion and corruption.

Total revenue collection has increased dramatically over the last five years, with the revisions to charges and the introduction of these improved systems. However, total revenue collection is still considered to be well below the potential amount that could be collected. In addition, 40 percent of the revenue collected is now given to local government under the policy of decentralisation. The amounts collected are considered to be insignificant by many in Government and total revenue collection does not cover the costs of the Forestry Department. This may contribute to the current problems of accessing financial resources for forestry development from the central government.

Public sector expenditure on forestry is determined along with expenditure by all other government departments as part of the annual national budget planning exercise. The Forestry Department budget is divided into automatic releases and Appropriation in Aid (AiA). The latter is partly based on the performance of the Forestry Department in terms of revenue collection. In addition to recurrent expenditure, there is also some expenditure on projects, where the Government of Uganda contributes counterpart funding to donor-funded projects in the forestry sector. There are often problems in accessing financial resources and the current rules regarding public expenditure are inflexible, which causes some problems for forest management.

In addition to problems with the current fiscal policies in the sector, there are also a number of policies and regulations in other sectors that restrict the capacity of the forestry administration to implement sustainable forest management. These include policies on decentralisation, control of land, urbanisation and industrialisation, wildlife management and public sector reform.

A number of improvements to the current situation have been recommended, including raising the forest charges, improving the terms and conditions of staff, providing more resources for monitoring and control and greater collaboration with the private-sector in forestry investment and development. With the transformation of the Forestry Department into the new National Forestry Authority, it is expected that a number of existing policies and legislation will have to be revised to support the new institution. It is hoped that this new self-financing institution will have more flexibility to spend money on urgent priorities in the sector and that the drive for self-financing will encourage and support improved revenue collection in the sector. It is also hoped that this institution will be able to build better partnerships with NGOs and the private-sector, so that performance in the forestry sector can be improved and come closer to the goal of sustainable forest management.

1 INTRODUCTION

Formal forest management in Uganda started over 100 years ago with the establishment of the Scientific and Forestry Department in 1898. The department had a mandate to carry-out research, but did not have a mandate to charge fees for forest products or collect revenue. By 1917, the name was changed to the Forestry Department and its mandate was expanded to include the production of timber and wild rubber and to engage in forest exploitation for profit and to supply the government with its own sawnwood requirements. These functions were later transferred to the private-sector in 1926.

In 1929, the first official forestry policy stated that Uganda's forests would be managed to give the best financial returns and this objective was retained in the revised forestry policy of 1938. This policy remained in force until 1974. In 1974, the policy was revised to include a broader objective of increasing the economic use of the nation's forests, but this policy was not implemented due to political turmoil. The last time that forestry policy was revised was in 1988 (see Annex 1).

Throughout this period, the various Forest Acts gave the task of setting and collecting forest charges to the responsible Minister. As a result of this, the collection of forest charges has been the responsibility of the Forestry Department and these charges have been collected from all forest areas except private forests. Until 1997, all forest revenue was remitted to the central government treasury through the Permanent Secretary of the Ministry. However, when the decentralised system of government was introduced in 1997, revenue sharing with local district administrations was initiated. Today, only 60% of the total revenue collected is submitted to central government and 40% is retained by local government.

The forest revenue system is currently being changed. The Forestry Department is to become a semi-autonomous body and all of its activities are to be funded directly from revenue collection. In addition, the revenue collection and sharing systems are currently being reviewed. The proposed date for launching the new forestry administration is July 2001. The reorganised Forestry Department should improve forest management through better revenue collection, leading to adequate direct funding for forest activities and better salaries for staff.

2 DESCRIPTION OF THE FOREST REVENUE SYSTEM

2.1 *Charges for roundwood production*

Charges for wood production in Uganda are classified into timber royalty, forest produce fees and licence fees. The levels of these charges are contained in the Forest Produce Fees and Licence Order 2000 (Government of Uganda, 2000) and these charges are levied both in forest plantations and natural forests, but not in private forests. There is no regional variation in the charges on roundwood.

Timber royalty is charged on the basis of volume (in cubic meters) of roundwood taken by sawmillers and pitsawyers. The rate charged per cubic meter varies with species and is based on the value of different timber species and market demand. These charges are currently grouped into three classes, with class one representing the species with the most value and highest demand, followed by class two and class three. Class one is further subdivided into Class A and Class B (see Annex 2 for a listing of the species in these classes).

In addition to timber royalty, sawmillers and pitsawyers also pay registration fees of Ush 1,400,000 and Ush 350,000 respectively for their forest concessions. For sawmills consuming an average of 2,300 - 4,200 cubic metres per year, a concession of 5 years is awarded. For sawmills consuming 500 - 2,300 cubic metres per year, a concession of two years is awarded and for handsaws, a one-year concession is offered. The registration fee is paid every year until the concession expires, after which a new application is required. After the registration fees have been paid, a licence is issued to the sawmiller or pitsawyer. This shows the area of operations, gives a description of the products that may be taken, states the annual allowable cut (AAC) and species that may be harvested and gives the minimum cutting diameter for each species etc. (see Annex 3 for an example). The licence is only issued for harvesting; management of the forest remains the responsibility of the Forestry Department.

The forest produce fees are charges levied on smaller sizes of roundwood. Poles are classified according to diameter classes and a distinction is made between poles from forest plantations and poles from the natural forest. Charges are levied per pole for the smaller poles in classes I and II (0.5 - 14cm dbh) and per running metre (i.e. length of the pole in metres) for the larger poles in classes III and IV (15 - 24cm dbh). A cutting charge per pole is also levied on every pole that is harvested.

Faggots (withes) are charged per head-load and fence posts are charged per running metre. Similarly, palms are charged per running metre. Firewood from forest plantations and natural forest reserves is charged per stacked cubic metre. For firewood from other types of public land, firewood is charged per stacked cubic meter or a monthly licence is issued, depending on the interest of the person. In most cases, monthly licences are issued to people who harvest firewood regularly (e.g. firewood traders). The amount charged for the licence varies with the scale of production, with large-scale firewood producers paying more than small traders do.

There is also a charge levied on the haulage or conveyance of firewood, which is based on the size of the vehicle used. A lorry is charged the most and a bicycle is charged the least.

Timber grading fees (payable per cubic metre of sawnwood) are also contained in the Forest Produce Fees and Licences Order 2000. However, they are not charged at the moment because the Forestry Department has not resumed this service.

2.2 *Charges for production of non-wood forest products and services*

In Uganda, the most common non-wood forest products include: charcoal; bamboo; Christmas trees; seeds and seedlings; palms; rattan canes; minor forest produce (MFP); and minerals extracted from the forest. Forest services include: ecotourism; grazing; and hunting.

Licences to produce and sell charcoal are charged per person per month and licences for conveyance are charged according to the size of the vehicle (lorries, pickups, canoes and bicycles). Bamboo and Christmas trees are charged per pole and per tree respectively. Seeds are charged per kilogram and seedlings are charged per seedling.

For MFP (e.g. beds, chairs, mats, baskets, fruits, honey, herbal medicines, ornamentals, wood carvings, walking sticks, drum frames and brewing troughs), casual trade licences are issued and a fee is paid per person per year. Similarly, licences are issued per month per person for harvesting wild coffee. Gum Arabic and resins are charged per kilogram.

Licences for extracting forest minerals (e.g. brick making materials and sandstone) are charged per person per month and higher charges are levied on the production of minerals near cities than in other areas.

2.3 *Charges on processed product production*

Another charge paid by sawmillers and pitsawyers is 17% Value Added Tax (VAT), which is charged on sawnwood and is paid to the Uganda Revenue Authority (URA). In Uganda, all businesses¹ must charge VAT unless their annual gross income is less than Ush 20 million. Below this threshold, businesses are not required to charge VAT. Therefore, small sawmillers and pitsawyers do not usually have to pay this tax because their gross income does not reach the threshold. However, in these cases, the sawmillers and pitsawyers have to pay a tax of 15% (of the value of timber sold) to the Forest Department.²

Currently, all producers in private forests and all pitsawyers are below the VAT threshold and have to pay this tax. In fact, the bulk of timber production in Uganda comes from small producers and traders who do not reach the VAT threshold,³ so only a small fraction of the potential revenue in the form of VAT is currently collected.

The Forestry Department does not have a mandate to levy charges on any other type of production (e.g. production of wood-based panels, pulp and paper etc). However, the URA collects general taxes from the forest industry (e.g. income and corporation taxes). The URA

¹ Including sawmillers and pitsawyers operating in both public and private forests.

² This tax is instead of VAT. Once a sawmiller's income exceeds Ush 20 million, they will no longer have to pay the 15% tax to the Forest Department but will have to charge VAT instead.

³ These small producers are currently estimated to account for about 90% of total production.

uses a broad classification of all businesses and divides them into large, medium and small taxpayers, depending on their income. Each class has a flat rate of income tax that is paid annually. Therefore, the amount of income tax paid by a business in the forestry sector depends on the level of income it generates.

Other general taxes, fees and licence fees (e.g. for the export or production of processed forest products) are the responsibility of the Ministry of Commerce.

2.4 *Charges on forest products trade*

The Forestry Department does not collect any charges on forest product trade. However, trading licenses are required to sell processed forest products and these are issued by urban or local authorities, depending on the location. These licences are issued for one year and the revenue from the charges for these licences goes to local government.

In terms of international trade, there are no taxes or inspection fees on exports. This is the current policy of the Government of Uganda, which is intended to promote exports and increase foreign exchange earnings. The only tax on international trade is a re-export tax, which is charged on forest products that are imported and then re-exported to other countries.

At the moment, all roundwood used in Uganda is produced from domestic sources. There are no imports of roundwood and roundwood exports were banned in the 1980's. Most forest product exports are exports of wooden handicrafts and woodcarvings. The number of people exporting these products is quite small, so the amount of exports is small and is unlikely to have a significant impact on forest resources.

2.5 *Other charges*

Another type of forest charge is ground rent, which is paid by farmers who use government forest reserve land to plant trees (see Box 1 for further details). Rent is charged per hectare per year and, until recently, this rent was fixed at Ush 1,500 per hectare per year.

Box 1 Renting forest land to promote private tree planting

Renting forest land was first introduced in peri-urban areas where the Government had established forest plantations for poles and fuelwood. The purpose of this was to make land available for interested and capable individuals, institutions or organisations to plant trees to supply the urban areas with poles and fuelwood. At first, this was done because the Forestry Department was unable to replant these areas (due to lack of resources), but later it was seen as an initiative to involve private farmers in tree planting.

Under this scheme, each farmer is allocated a five hectare plot. The Forestry Department is responsible for technical guidance in planting and tending operations but the farmer covers all of the costs of labour and materials. Usually, eucalyptus trees are planted in these plantations. When the trees are harvested, all of the income from the sale of the poles and fuelwood goes to the farmer.

Because of the high demand for poles and fuelwood in urban areas, this scheme has been very successful and large areas of privately managed eucalyptus plantations can be found in many peri-urban areas today. The same system is now being examined for industrial softwood plantations and some investors have already shown interest in participating in such a scheme.

Rental payments for other uses of the forest (e.g. radio masts, electricity power lines etc.) are not currently included in the forest revenue system. However, with the intended transformation of the Forestry Department into a self-financing National Forestry Authority all of these potential sources of revenue will be exploited. Innovative revenue raising schemes will also be examined, such as payments for carbon storage and the development of privately owned ecotourism projects.

2.5.1 Fines and penalties

Apart from all of the above charges, there are also fines and penalties for breaking forestry laws and regulations. When a person is convicted of an offence under the provisions of the Forests Act or any other rules and regulations, they may be imprisoned for up to six months and/or fined up to Ush 2,000. All of the equipment and forest products associated with the offence may be seized by the court and sold, with the revenue going to the Forestry Department. A convicted person may also be made to pay compensation equal to the value of any products lost through illegal acts.

The problem with the fine described above is that it is extremely low and is not high enough to discourage unlawful practices. The effect of low fines, especially low fines for offences committed in the forest, was that they were encouraging illegal activities, with the result that offences were on the increase. For example, if an offender knows that they may only lose 10% or less of the value of their production, they would often prefer to act illegally. Such uncontrolled and, in most cases, unprofessional harvesting leads to forest degradation. In addition, harvesting more than the AAC results into over exploitation and reduces the resource base.

Having realised this, the Forestry Department has started to enforce higher penalties. For example, when an offence has been committed, all forest products are now seized and are sold by the Forestry Department at a public auction. This is organised on regular basis and these auctions now account for approximately 15% of monthly revenue collection. A timber monitoring task force has been given the responsibility to collect illegal forest products from timber depots, building sites, transit vehicles and backyards etc. and to bring this to the Forestry Department headquarters for auctioning.

2.6 *Summary of forest charges*

The latest forest charges were calculated on 30th November 1999 and set-out in the Forest Produce Fees and Licence Order 2000, which came into force in March 2000. All forest charges are included in this schedule, which is shown in Table 1.

Table 1 *Timber royalty, forest produce fees and licence fees*

Item	Amount	Remarks
i. Timber¹		
Class IA - Hardwoods	100,000	Per standing cubic metre true measure
Class IB - Hardwoods and cypress	45,000	Over-bark (from FD tables)
Class II - Hardwoods & pines	28,100	Over-bark (from FD tables)
Class III - Hardwoods	17,000	Over-bark (from FD tables)
ii. Poles		
<i>A – From forest plantations</i>		
Class I (5 - 9 cm dbh)	800	Per standing pole
Class II (10 - 14 cm dbh)	1,400	Per standing pole
Class III (15 - 19 cm dbh)	1,400	Per running metre of length
Class IV (20 - 24 cm dbh)	1,800	Per running metre of length
<i>B – From the natural forest and bush</i>		
Class I (5 - 9 cm dbh)	900	Per standing pole
Class II (10 - 14 cm dbh)	1,600	Per standing pole
<i>C – Cutting Charges²</i>	200	Per pole
iii. Faggots (withes)	1,000	Per head load
iv. Fencing posts		
<i>A – Treated posts</i>		
Class II (10 - 14 cm dbh)	1,400	Per running meter of post
Class III (15 - 19 cm dbh)	1,800	Per running meter of post
Class IV (20 - 24 cm dbh)	2,700	Per running meter of post
<i>B – Untreated posts (from forest plantations)</i>		
Class II (10 - 14 cm dbh)	700	Per running meter of post
Class III (15 - 19 cm dbh)	1,400	Per running meter of post
Class IV (20 - 24 cm dbh)	1,800	Per running meter of post
<i>C – Palms (P Reclinata)</i>	400	Per running meter
v. Firewood		
<i>A – From forest plantation</i>	6,000	Per stacked cubic metre (in forest reserves)
<i>B – From the natural forest and bush</i>	7,500	Per stacked cubic metre (on other public land)
<i>C – Licence fees³</i>		
I Petty trade	22,000	Per month per person
II Large scale wood cutting and trade	225,000	Per month per person
<i>D – Licence for firewood transportation⁴</i>		
I Lorry	45,000	Valid for 3 days from the date of issue
II Pick-up or canoe	17,000	Valid for the date of issue of the licence
III Bicycle	12,000	Per month per person
vi. Charcoal⁵		
<i>A – Licence to burn and/or sell</i>	36,000	Per month per person
<i>B - Licence for charcoal transportation⁴</i>		
I Lorry	62,000	Valid for 3 days from the date of issue
II Pick-up or canoe	40,000	Valid for the date of issue of the licence
III Bicycle	22,000	Per month per person
vii. Bamboo		
Wild and forest plantation species	500	Per pole (in forest reserves and public land)
viii. Christmas trees⁶		
Below 3m high	7,000	Per tree
3-5m high	10,000	Per tree
Over 5m high	14,000	Per tree

Table 1 Timber royalty, forest produce fees and licence fees (continued)

Item	Amount	Remarks
ix. Seeds and seedlings⁷		
A – Seeds	10,000+	Per kg. Depending on species
B – Seedlings ⁸	50+	Depending on species and size
C – Fruit plants	1,000+	Depending on species and size
D – Wildings	50+	Depending on species and size
Ornamentals	5,000+	Shade and foliage trees and shrubs and indoor plants
x. Palms		
Borassus palm and other palms	12,000	Per tree (in forest reserves and public land)
xi. Rattan canes	45,000	Per person per month (in forest reserves and public land)
xii. Timber grading fees⁹	22,000	Per cubic metre
xiii. Felling fees¹⁰	4,500	Per tree
xiv. Sawmilling licence fee	1,400,000	Per year per sawmiller (applied in forest reserves)
xv. Pitsawyers registration fee	350,000	Per year per pitsawyer (applied on reserved land)
xvi. Forest fees on sawn timber	15%	of the value of the sawn timber ¹¹
xvii. Casual trade licenses		
Walking sticks, stools, wood carvings, wooden tools and tool handles, mortar and pestles	45,000	Per year per person (for petty trade in all areas)
Non-wood forest products (e.g. grasses, palm fronds, forest lianas and climbers, mats, baskets, winnowers)	45,000	Per year per person (for petty trade in all areas)
Forest based food (e.g. bamboo shoots, palm oil, other forest fruits and vegetables)	45,000	Per year per person (for petty trade in all areas)
xviii. Wild coffee	25,000	Per month per person (in forest reserves)
xix. Gum Arabic	800	Per kg (in forest reserves)
xx. Resins	150	Per kg (in forest reserves)
xxi. Forest minerals		
A – Bricks (Mpigi, Entebbe, Kampala)	300,000	Per month per person (in forest reserves)
B – Bricks (other areas)	100,000	Per month per person (in forest reserves)
C – Sand (Mpigi, Entebbe, Kampala)	300,000	Per month per person (in forest reserves)
D – Sand (other areas)	100,000	Per month per person (in forest reserves)
E – Stones (all areas)	68,000	Per month per person (applied in forest reserves)
F – Murrum (all areas)	11,250	Per tonne (in forest reserves)

Source: Government of Uganda (2000)

- Notes: 1. A complete list of the species in classes IA, IB, II and III is given in Annex 2.
2. This is a labour charge for cutting poles, which is payable to the cutters.
3. This type of licence is for firewood production on other public land and is used mainly by commercial producers.
4. This is paid by everyone transporting firewood and charcoal, regardless of the origin of the produce.
5. This is paid for the production and/or sale of charcoal produced on public land (charcoal burning banned in forest reserves).
6. This is the price charged (per plant) in Forestry Department nurseries.
7. This is the price charged in Forestry Department seed centres and nurseries respectively.
8. This includes planting materials raised from forest tree species.
9. This fee is paid by timber owners to graders, regardless of the source of the timber.
10. This is paid by forest concessionaires to the DFO to obtain a felling permit. It is paid for every tree felled, in all areas and in addition to any other charges or fees due.
11. This is paid by sawmillers falling under the threshold for VAT and is applied in all areas. It is paid when a movement permit is issued.

3 ADMINISTRATION OF THE FOREST REVENUE SYSTEM

The Forests Act and subsidiary legislation or Statutory Instruments, give the Commissioner for Forestry the power to manage gazetted forests and, therefore, to issue permits for cutting, grazing and cultivation etc. in the forest reserves. The forest revenue and licensing system is applied to all trees on reserved land and to trees classified as “reserved” on non-reserved land. The Forestry Department also has a mandate to collect charges on the production of all forest products, including production from non-reserved trees.

The two pieces of legislation that give the Minister the power to set forest charges are the Forests Act and the Forest Rules. Forest charges are set out in a Statutory Instrument (called a “*Forest Produce Fees and Licences Order*”) in accordance with the Forests Act. In the early 1990's when inflation was very high in Uganda, the World Bank recommended that these charges should be reviewed annually, but in practice this has not happened. For example, revisions were suggested in 1994 and 1997, but these were not implemented. The latest set of forest charges is contained in Statutory Instrument 2000 No 16. Before this recent revision to the forest charges, the old charges did not reflect the market value of forest products.

3.1 *The process of setting forest charges*

The process of setting forest charges starts with a survey of the local market prices of forest products. This survey is carried out at the district level by District Forest Officers (DFOs) and in urban areas by headquarters staff. The results of the survey are compiled, analysed and discussed by staff selected by the Commissioner for Forestry. As part of this analysis, the differences between the existing forest charges and the open market prices of products are considered.

During the process of analysing the forest charges there is some consultation. Most of this consultation is with forest concession holders who are, as might be expected, always opposed to increases in forest charges. The output of this analysis is a provisional list of forest charges, which is reviewed by the Commissioner. After the Commissioner has reviewed the proposed charges, a proposed revision to the Forest Produce Fees and Licences Order is sent to the Minister for review. If the Minister is satisfied with the proposal, a Statutory Instrument is issued in accordance with powers given to the Minister under Section 30 of the Forests Act.

The revised forest charges become effective from the date that this Statutory Instrument is published in the Official Gazette of the Government of Uganda. Changes to the existing Statutory Instrument can be made by the Minister and these are issued as supplementary amendments (signed by the Minister) and published in the Official Gazette.

3.2 *Charge collection*

As described above, the Forest Produce Fees and Licences Order 2000 classifies forest produce into timber, poles, fagots, fencing posts, palms, firewood, charcoal, bamboo, Christmas tree, seeds and seedlings, palms, rattan canes, and Minor Forest Produce (MFP). The procedures used to assess and collect forest charges are different for each of these different types of forest product.

3.2.1 Timber royalty

Timber royalty is charged per cubic meter and the volume used in the calculation of royalties is the standing volume of roundwood that will be harvested. In forest plantations, diameter at breast height (dbh) is used to estimate tree volume, while in the natural high forests a technique of stock mapping, called Integrated Stock Survey and Management Inventory (ISSMI), is used to determine the roundwood volume for the purpose of collecting charges.

Concession Rangers measure the trees that will be harvested and volumes are estimated using volume tables. The procedures used to measure and assess harvesting volumes for the purpose of calculating charges have recently changed. Under the previous system, the Concession Ranger measured the mid-diameter and length of each log that had been harvested. Then they estimated log volumes from these measurements using a volume table and charges were assessed using a list showing the charges per cubic metre for each species. The species and volume of logs harvested were recorded on a standard tree volume measurement form, which was sent to the District Forest Officer (DFO) with a copy to the forest concessionaire. The concessionaire would then pay the amounts due to the DFO in cash or by cheque or bank draft.

The disadvantage of this system was that only the best logs were taken and there was a tendency amongst concessionaires to reject short logs and trees with minor defects. This resulted in a lot of wasted logs that could have been used to make sawnwood and, ultimately, a loss in revenue to the Forestry Department.

In order to minimise this waste, the Forestry Department has recently abolished this system and now bases charges on the volume of whole trees harvested. In addition, forest concessionaires now have to pay their forest charges before harvesting.

Under this new system, a stock map is produced before harvesting, which shows all of the trees above the minimum cutting diameter. These trees are numbered with blue water-resistant paint. Tree species and stem quality is assessed and recorded and the relative positions of these trees are shown on the stock map. The Concession Ranger uses this information to identify and decide which trees should be cut and to locate these trees in the field. Charges for the volume actually cut by a forest concessionaire are deducted from the advance payments made by the concessionaire and once the amount paid in advance is exhausted, the concessionaire is stopped from cutting more trees until they make another payment.

It is the responsibility of the Concession Ranger to ensure that only the marked trees are harvested. The Concession Ranger must also ensure that silvicultural practices are observed. This is done on a daily basis with occasional checks by the DFO and staff from headquarters. The DFO and biometrics staff from headquarters also occasionally check that only marked trees are cut. If the forest concessionaire does not observe forest regulations and the conditions of their licence, their licence is suspended or cancelled.

Although this system was only implemented one year ago, it has already resulted in a significant reduction in waste. Every part of a tree that can be utilised is now taken and the efficiency of the new system in other areas is now being assessed.

3.2.2 Charges for other forest products

Charges for poles are based on diameter classes. Poles with a dbh between 5 cm and 14 cm are sold as whole trees. Above 14cm dbh, poles are charged per running meter. It is the responsibility of the Concession Ranger to assess the charges and payments are either made directly to the DFO's office or are collected by the Concession Ranger and submitted to the DFO.

Faggots are charged per head load, fencing posts per running meter, firewood either per stacked cubic meter or as monthly licenses. Charcoal production licenses are also issued on a monthly basis, as are the licences for other forest products that are not easily quantifiable. Such licenses are issued by the DFO on payment of the prescribed fees.

As in the case of timber royalties, the responsible DFO also has to supervise the collection of charges on other forest products with occasional checks by staff from headquarters. The involvement of local communities in the collection of charges is uncommon in Uganda except in the case of ecotourism initiatives developed under collaborative forest management arrangements.

3.2.3 Other charges

As regards the payment of other charges, the only charge paid directly to headquarters is the registration fee, which is paid before a concession is awarded. All of the revenue collected at the District Forest Office is submitted to the Commissioner for Forestry every month along with monthly revenue returns.

3.3 *Monitoring and record keeping*

With the current system used to measure volume and assess charges, the amount of revenue collected and reported depends upon the integrity and honesty of the Concession Ranger and DFO. It is the responsibility of the DFO to supervise the Concession Ranger, but staff from Forestry Department headquarters occasionally make visits to carry out on-the-spot checks. If these people are not honest, the system can easily be abused. Local communities are not yet involved in the collection of charges and checking production levels, although Collaborative Forest Management (CFM) has been initiated by the Forestry Department.

Following the accounting instruction issued by the Government of Uganda, official receipts are given for all central government revenues. The receipts used are Republic of Uganda General Receipts issued by the Treasury Department of the Ministry of Finance and receipt books are issued to all DFOs for the purpose of collecting forest revenues at the District level. The money collected during the month is kept in collection accounts with local banks and, at the end of each month, bank drafts are prepared in favour of the Permanent Secretary of Ministry of Land, Water and Environment. These are submitted to the Commissioner for Forestry and are accompanied by revenue returns for the month.

For the purpose of generating statistics of forest products and revenue collection, standard forms are completed by DFOs and are regularly submitted to the Commissioner for Forestry.

Examples include: the annual summary of production of roundwood and charcoal; annual details of production of industrial wood; details of the production of poles, fuelwood, charcoal, other wood and non-wood products and services; records of industrial wood production and wood product production; records of the exports and imports of wood and wood products; and annual revenue reports.

Up until the late 1970's, when the Forestry Department was well equipped and field staff had the facilities that they needed, there was a smooth flow of information within the Forestry Department and all of these forms were promptly completed and submitted to the Commissioner for Forestry by DFOs. At Forestry Department headquarters, this information was compiled into production and utilisation statistics.

However, during the 1980's, many routine activities came to a halt because of the general decline in government administration caused by political turmoil. Transport equipment was not replaced and the Forestry Department ran out of stationery. Field staff became poorly motivated and illegal production of forest products became much more common. Therefore, it was very difficult to record production during this period.

The situation improved in the early 1990's during the Forestry Department Rehabilitation Project. Attempts were made to revive most routine activities, including the collection of forest production and utilisation data. While there was considerable success at the field level, not much effort was put into compiling and consolidating the information from DFOs at Forestry Department headquarters. Nevertheless, as one of the activities of the EC Forestry Project, a database has been established for the Forestry Department and the Department has started to enter data into this. For practical reasons, this data is being entered for the years from 1995 onwards. Standard reports have been designed to give annual and quarterly statistics of forest production and utilisation. Over time, this database will be used to hold all forest production statistics.

3.4 The involvement of centralised and decentralised levels of government in the forest revenue system

Under the decentralised system of government implemented in Uganda, local councils (LCs) have been established in all districts at the following levels: villages (LC 1); parishes (LC 2); sub-counties (LC 3); counties and municipalities (LC 4); and districts (LC 5). Local councils do play an important and useful role in revenue collection in other sectors but, unlike other parts of the government administration, forestry has not been decentralised. Thus, only the Forestry Department has the responsibility to collect forest revenue.

However, although they are not involved in revenue collection, forty percent of the gross revenue collected by the Forestry Department is allocated to local councils. This is normally received at the LC 5 (District) level. A certain amount of this is supposed to be remitted to the LC 3 (sub-county) level by the LC 5 administration, but this is seldom done.

The revenue shared with local councils only includes the revenue collected from the production of forest products in central government forest reserves⁴ and public land. Public

⁴ Forest reserves in Uganda are divided into central government forest reserves and local government forest reserves. Local government forest reserves are forest reserves where ownership and control has been transferred to the local administration by the Forestry Department.

land is land held by the Uganda Land Commission that has not been leased to anybody. However, according to the new land law, all land belongs to the people, so public land no longer exists. Thus, any revenue collected from forest production on such land should now be given to the landowners. Similarly, revenue collected from the production of forest products in local forest reserves should all be given to the appropriate local administration.

4 TOTAL REVENUE COLLECTION AND DISTRIBUTION

Records of revenue collection were previously kept on file as duplicates of general receipts. With the establishment of the forest production and utilisation database, all revenue data is now held in the database and various revenue reports can be produced.

Table 2 *Total forest revenue remitted to central government since 1995 (in Ush)*

Revenue source	1995/96	1996/97	1997/98	1998/99	1999/2000
Royalty	63,283,169	189,553,776	165,645,362	166,727,842	143,933,323
15% tax		8,089,152	102,788,777	124,777,163	219,927,846
Assorted	283,080	16,759,319	63,760,693	137,232,768	88,174,970
Auction		77,240,762	55,059,024	46,354,800	75,133,620
Registration fee	16,278,244	31,404,934	38,146,372	23,692,680	86,684,076
Timber sales	6,262,915	11,947,750	36,623,531	2,319,576	
Movement fee	2,466,023	15,138,671	22,270,763	25,254,485	32,501,702
Compensation fee	10,458,005	16,281,789	9,958,918	3,601,367	5,675,002
Land lease	1,367,700	13,415,334	5,817,504	2,189,100	1,707,000
Casual sales	6,151,376	29,452,337	4,823,395	2,363,058	3,564,672
Seedling sales	721,830	1,668,528	1,098,894	451,074	210,528
Felling fee	1,137,780	8,670,220	483,360	1,452,120	2,413,236
Services rendered			342,134	103,914	48,600
Concession fee		10,493,400		2,314,355	
1% tax			200,002	1,137,449	5,089,259
Total	108,410,122	430,115,972	507,018,729	539,971,751	665,063,834

Table 3 *Total forest revenue remitted to local government since 1995 (in Ush)*

Revenue source	1995/96	1996/97	1997/98	1998/99	1999/2000
Royalty	42,188,780	126,369,184	110,430,241	111,151,895	95,955,549
15% tax		5,392,768	68,525,851	83,184,775	146,618,564
Assorted	188,720	11,172,880	42,507,129	91,488,512	58,783,314
Auction		51,493,842	36,706,016	30,903,200	50,089,080
Registration fee	10,852,162	20,936,622	25,430,915	15,795,120	57,789,384
Timber sales	4,175,277	7,965,166	24,415,687	1,546,384	
Movement fee	1,644,015	10,092,448	14,847,175	16,836,323	21,667,801
Compensation fee	6,972,003	10,854,526	6,639,278	2,400,912	3,783,335
Land lease	911,800	8,943,556	3,878,336	1,459,400	1,138,000
Casual sales	4,100,918	19,634,892	3,215,596	1,575,372	2,376,448
Seedling sales	481,220	1,112,352	732,596	300,716	140,352
Felling fee	758,520	5,780,146	322,240	968,080	1,608,824
Services rendered			228,089	69,276	32,400
Concession fee		6,995,600		1,542,904	
1% tax			133,335	758,299	3,392,840
Total	72,273,415	286,743,982	338,012,484	359,981,168	443,375,891

Table 2 and Table 3 show the trend in total revenue collection since 1995. As the tables show, revenue collection has steadily increased due to improvements in the Forestry Department. Records of revenue collection are not available for the 1980's and early 1990's, but revenue collection during these periods is believed to be very low due to illegal activities and logistical limitations and lack of motivation on the part of Forestry Department field staff.

5 GOVERNMENT EXPENDITURE ON FORESTRY

Government expenditure on forestry includes the following: expenditure by the Forestry Department; foreign assistance to the forestry sector that is channelled through the Forestry Department; and government expenditure on other institutions involved in forestry. Currently, grants or subsidies are not available to companies and individuals operating in the forestry sector. However, there is a plan to use grants to encourage private-sector participation in forestry, which will be implemented when the Forestry Department is transformed into the new Forest Authority.

5.1 Expenditure by the Forestry Department

The Forestry Department is the lead agency in the forestry sector and is part of the Ministry of Lands, Water and Environment. The expenditure of the Forestry Department is set-out in a budget that is approved by the Ministry of Finance and Economic Planning at the beginning of every financial year.

5.1.1 Budget preparation and approval

The preparation of the Forestry Department budget starts at the district level. Each DFO prepares a work-plan and budget for their planned activities. This budget is categorised into the following types of expenditure: employee costs; administration costs; supplies and services; material supplies and manufactured goods; transport and plant costs; operation and maintenance of vehicles; electricity; water; maintenance of buildings, grounds and equipment; transfer payments to other agencies or persons; transfers to local authorities; and participation in other programmes. These estimates are submitted to the Commissioner for Forestry who compiles them, together with the headquarters budget estimate, into a Forestry Department budget estimate. This is then submitted to the Permanent Secretary of the Ministry.

The Minister for Lands, Water and Environment collects the estimates from all of the departments in the Ministry and submits them to the Ministry of Finance, Planning and Economic Development. In the Ministry of Finance, Planning and Economic Development, Planning and Sector Working Groups (SWG) have been established to discuss the budget proposals.⁵ The objectives of the discussion are: to review the previous year's budget framework paper (published in the background to the budget); to comment on the progress made in implementing the recommendations agreed by cabinet; and to propose resource allocations to programmes (within the ceiling for that sector) that will maximise impact and ensure efficiency and equity in the composition of spending and technical efficiency in the use of budgeted resources.

⁵ SWGs have been introduced by the Ministry of Finance, Planning and Economic Development, to achieve a more consultative and participatory approach in the management of public finance. This process was started with the preparation of the budget for the 1998/99 financial year. The SWG process involves both a public expenditure review and open discussions with the main stakeholders in government, private sector and donor communities. This mechanism should increase transparency and accountability in the planning and utilisation of public resources.

The outputs of discussions in the SWG are:

- an analysis of the outstanding issues and options in the sector, identifying the activities or reforms undertaken to address them and including an indicative expenditure plan for the next three years;
- identification of outstanding or new issues not dealt with and proposals for requisite action;
- a review of budget performance for the three previous financial years; and
- a proposed medium-term expenditure plan for the sector (within the overall ceiling for that sector) for both recurrent expenditure and development and capital expenditure programmes.

The Forestry Department is in the working group of Water, Natural Resources and Environment. Other members of the group are: Ministry for Lands, Water and Environment (as the chair); National Environment Management Authority; Directorate of Water Resources; Department of Lands; and Ministry of Finance, Planning and Economic Development (as the secretary).

The budget estimate document is later passed to the Minister for Lands, Water and Environment, who presents and defends this in front of the Parliamentary Committee on Natural Resources. The Commissioner for Forestry attends the defence on behalf of the Forestry Department and as the person that is ultimately in charge of finance in the Department. The Committee critically reviews the budget estimate and looks for omissions in the proposal. Audits of activities in the past year are also examined and activities that seem to be of less urgency are removed from the budget.

The output from this process is an edited budget that is ready for the Chairman of the Natural Resource Committee to present to Parliament for approval. This stage involves further scrutiny of the budget by Members of Parliament. Any issues that are raised in Parliament have to be addressed by the responsible Minister and his civil servants until Parliament is satisfied with the proposal. The budget proposal is then approved by Parliament (with or without amendments) and becomes the approved budget for the Department.

The approved budget is then sent by the Speaker of Parliament to the Minister of Finance, Planning and Economic Development, for inclusion in the National Budget. The final stage in the budget preparation process occurs when the President endorses the National Budget. However, from the time that Parliament approves the budget, the Forestry Department is authorised to spend money from the approved budget under an authority called the “*Vote on Account*” (VoA), while waiting for the endorsement of the budget by the President.

To summarise, the procedure for budget preparation and approval are as follows:

1. Ministries and Departments prepare and submit budget estimates to the Ministry of Finance, Planning and Economic Development for discussion.
2. The Minister of Finance, Planning and Economic Development reads the draft estimates of expenditure from the various Ministries as the Budget Speech.

3. Committees of Parliament submit ministerial policy statements and the draft budget estimates to Parliament for consideration.
4. Committee reports and the estimates are discussed and approved by Parliament.
5. The Finance and Appropriation bills are then presented to Parliament for consideration and approval.
6. Alterations to any draft estimates already submitted are implemented by the Minister of Finance, Planning and Economic Development by formally presenting any such alterations to Parliament as amendments to the estimates.

The approved budget for the Forestry Department in the financial year 2000-01 is shown in Table 4 below.

Table 4 *Approved Forestry Department budget for recurrent expenditure in 2000-01*

Cost item	Amount - including AiA (in Ush '000)
Employee Costs	
Staff salaries	200,163
Allowances other than salaries	163,000
Travelling and transport of persons (inland)	60,182
Travelling and transport of persons (abroad)	12,040
Recreation, welfare and entertainment	3,072
Training	3,716
Administration costs	
Office expenses	10,254
Advertisements and public relations	1,793
Supplies and services	
Materials, supplies and manufactured goods	5,882
Transport and plant costs	
Operation and maintenance of vehicles (Administration)	154,035
Fuels, lubricants and oils (Administration)	60,213
Operation and maintenance of vehicles (Operational)	10,413
Property Costs	
Electricity	5,000
Water	118,000
Maintenance of buildings, grounds and equipment	70,000
Total	877,763

5.1.2 Budget disbursement

In the Ministry of Finance, Planning and Economic Development, there is a Department of Budgets, which employs a Desk Officer to manage the budget of each Ministry. In the case of the Forestry Department, the Desk Officer for the Ministry of Land, Water and Environment manages the budget for the Forestry Department. Depending on the actual level of government revenue collection and government priorities at the time, the Department of Budgets can still amend the approved budget for each Department. Core government programmes, such as: Universal Primary Education (UPE); Defence; Poverty Alleviation; and Health, take priority when budgets are amended due to low revenue collection. The Forestry

Department is always given a low priority during these exercises, so the amount of money actually disbursed to the Forestry Department always falls short of the approved budget.

For the purpose of budget disbursement, the Ministry of Finance, Planning and Economic Development operates a cash budget system and expenditure is classified as either Automatic Releases or Appropriation in Aid (AiA).

Automatic Releases include money that has to be spent regardless of revenue collection and includes budget items such as: employee costs; administration costs; supplies and services; transport and plant costs; and property costs etc.

The authority to spend AiA is dependent on the amount of revenue collected by the Forestry Department. The amount that can be spent each month is authorised by the Ministry of Finance, Planning and Economic Development and this money is only released when the Commissioner for Forestry produces evidence of the amount of money that has been collected and banked by the Forestry Department. For this purpose, the Ministry has two bank accounts. One is the AiA account, which contains the money authorised by the Ministry of Finance, Planning and Economic Development for direct use by the Forestry Department. The second account is the Ministry of Finance Revenue Account, which contains any money collected in excess of AiA.

AiA includes items that are not included in the Automatic Releases and is used to support activities where the approved budget is insufficient. Much of this money is spent on field operations. The amount of AiA can be reviewed from time to time, depending on the amount of revenue collected by the Forestry Department. While, in principle, the Commissioner for Forestry should be consulted about the allocation of AiA, this is not always done in practice. This leads to allocations of AiA that are insensitive to the priorities of the Forestry Department, even though the governing regulations do not permit the movement of funds across budget items (activities).

5.2 *Foreign assistance to the Forestry Department*

Since the late 1980's, there have been a number of foreign development projects in the forestry sector in Uganda. These have included the Forestry Rehabilitation Project (which included several separate projects funded by different agencies), the National Biomass Study and the Tree Seed Project. Donors have included the World Bank, European Union and, in particular, the Norwegian development agency (NORAD), which has supported the forestry sector in Uganda for a very long time (see Box 2).

Box 2 *A brief summary of development co-operation in the forestry sector between Uganda and Norway*

Development co-operation between Norway and Uganda started in 1963 and support to the forestry sector has always been an important part of this bilateral development programme. In the early years, emphasis was placed on training, with support to Nyabyeya Forestry College and the establishment (in 1970) of the Department of Forestry at Makerere University. The Forestry Department was also strengthened by providing technical assistance and Norway funded a fairly large afforestation programme.

Assistance was suddenly withdrawn in 1973 due to the military coup and brutal repression. However, Norwegian involvement in the Ugandan forestry sector resumed in 1987-88 through the Norwegian Forestry Society (NFS), a Norwegian NGO, and IUCN. From the mid 1980's, the NFS was responsible for the implementation of the following projects:

- Phases I & II of the National Biomass Study (NBS);
- the Peri-urban plantations (PUP) component of the Forestry Rehabilitation Project; and
- the Combined Forestry Training (CFT) Project, which started in late 1984.

The Norwegian development agency (NORAD) reviewed these projects in 1993 and recommended continuing support for another four years. This new programme included the following:

- Phase II of the Peri-urban plantations project;
- Phase II of the National Biomass Study;
- further support to the Combined Forestry Training Project and Phase I of the Nyabyeya Forestry College (NFS) Project;
- Support to the reorganisation and strengthening of the Forestry Department (the RSFD Project) and a Programme Co-ordination Project (including monitoring and evaluation and a small fund for forestry research); and
- limited unallocated funding, intended for "new projects".

In total, NORAD provided NOK 62.4 million (approximately equal to Ush 10 billion) in financial support during the four years (or about NOK 15 million per annum), in addition to the NOK 11.7 million spent on the Forestry Rehabilitation Project during 1987 – 1992.

5.2.1 The Forestry Rehabilitation Project (1987 - 1992)

After many years of neglect, the Government of Uganda decided to rehabilitate forests and the forestry service in order to protect the environment and ensure an adequate supply of forest products. Donor support was sought and this started with the Forestry Rehabilitation Project, which was supported by a number of donors led by the World Bank.

This project comprised the following six components:

1. **Peri-Urban plantations:** to establish and maintain 900 ha of forest plantations for use in nearby urban areas that would replace degraded peri-urban fuelwood and pole plantations on gazetted forestry land.
2. **Farm forestry:** to establish 3,700 nurseries in 24 districts that would produce 14 million seedlings for planting and by farmers for a variety of purposes.

3. **Natural forest management:** to re-establish 1,350km of boundaries in the natural high forest and plant them with marker trees.
4. **Industrial softwood plantation rehabilitation:** to rehabilitate 15,000 ha of softwood plantations managed on a 15 year rotation.
5. **Training:** to rehabilitate Nyabyeya Forestry College and provide in-service training for staff.
6. **Forestry rehabilitation:** to provide logistical support and infrastructure to strengthen the Forestry Department's capability to implement this project and future activities.

The sources of funding and budgets for the six project components are summarised in Table 5 below and an example of a typical annual budget for the project (from 1990-91) is shown in Table 18 in Annex 4. Several of the individual projects included under the Forestry Rehabilitation Project were continued in later phases and project extensions (see below).

Table 5 Funding for the Forestry Rehabilitation Project 1987 - 1992

Project component	Funding agency	Executing agency	Amount	Amount (in US\$ million)
Peri-urban plantations	NORAD (grant)	Norwegian Forestry Society	NOK 11,700,000	1.80
Farm forestry	DANIDA (grant)	Forestry Department and CARE	US\$ 7,500,000	7.50
	CARE (grant)		US\$ 180,000	0.18
Natural forest management	EDF (grant)	EEC	ECU 8,500,000	10.20
Softwood plantations	IDA (credit)	Forestry Department and DMF Forest Consult	SDR 10,000,000	13.46
Rehabilitation of the Forestry Department				
Training	UNDP (grant)	FAO	US\$ 1,547,663	1.55
Government of Uganda contribution			Ush 561,000,000	1.75
Total				36.44

Note: due to fluctuations in exchange rates, the amounts in US\$ are approximate.

5.2.2 Peri-urban Plantations Project: Phase II (1996 - 2000)

Phase I of the Peri-urban Plantations and Pilot Wood Farms Project was one of the original components of the Forestry Rehabilitation Project and was implemented from 1988 to 1994. The intention of the project was to introduce the Forestry Department to modern participatory forestry practices and to encourage private investment in industrial forest plantations on forest reserve land. The activities of Phase I were largely dominated by procurement and the establishment of infrastructure.

Phase II of the Peri-urban Plantations Project covered the period from July 1996 to June 2000. The objectives of Phase II of the Project were as follows:

- to re-orientate the project's personnel towards new skills in management, organisation, extension and communication;

- to introduce commercial forest management into the forest plantations managed by the Forestry Department;
- to expand private-sector forest management into existing forest plantations in peri-urban areas;
- to slightly expand Forestry Department forest plantations in peri-urban areas; and
- to establish Forestry Department forest plantations for sawlog production in two Forest Districts (Jinja and Mbarara).

Table 6 *Planned NORAD contribution to Phase II of the Peri-urban Plantations Project, by activity and type of expenditure (in NOK '000)*

Cost item	Total planned expenditure
Building construction and rehabilitation	2,000
Road construction and rehabilitation	600
Sub-total: infrastructure	2,600
4 tractors with trailer and disc plough	1,200
4 motorcycles	60
20 bicycles	20
Tools	100
Materials	100
Sub-total: equipment, machinery and materials	1,480
Old peri-urban areas for poles and fuel (100 ha)	200
New peri-urban areas for poles, fuel and sawlogs (200 ha)	400
Plantations (1,000 ha)	1,930
Sub-total: plantation establishment (Forestry Department)	2,530
Sub-total: all investment costs	6,610
Short courses	400
Pilot projects	100
Study tours	150
Post graduate training	150
Sub-total: human resource development	800
International consultants	660
Local and regional consultants	300
Sub-total: technical assistance	960
Backstopping, review, audits, communication etc.	600
Vehicles and machinery	1,135
Office and miscellaneous	200
Sub-total: other recurrent costs	1,935
Buildings	640
Roads	400
Sub-total: maintenance of infrastructure	1,040
Sub-total: all recurrent costs	4,215
Investment and recurrent costs	10,825
Contingencies (+7%)	875
Total	11,700

Phase II had a total budget of Ush 2.23 billion. NORAD offered to donate NOK 11.7 million (or approximately US\$ 1.8 million) to the project (see Table 6) and the Government of Uganda agreed to contribute Ush 0.43 billion (US\$ 0.43 million). Most of the direct contribution from the Government of Uganda was in the form of Appropriation-in-Aid.

Greater detail about the NORAD contribution to the Project is given in Table 6 above. The contribution from the Government of Uganda was channelled through the Forestry Department budget and included the following:

- Ush 152 million in salaries for staff working full-time or part-time on the Project (equal to approximately 9% of the donor contribution to the project);
- Ush 1,440 million for the use of the land in the Forest Reserves during the Project;
- Ush 41 million to cover the payment of duties and taxes and purchase four tractors, four motorcycles and some other imported materials; and
- approximately Ush 450 million in Appropriation-in-Aid, where income from the sale of forest products was ploughed back into staff allowances, vehicle and machinery running costs, plantation maintenance costs and office expenditure.

Detailed annual budgets for Phase II of the Project are shown in Table 20 and Table 21 in Annex 4.

5.2.3 Natural forest management and conservation: project extension (1995 - 1999)

The Natural Forest Management Project was a component of the World Bank Forestry Rehabilitation Project (FRP) that was funded by a grant from the European Development Fund (EDF). The FRP was designed to restart forestry activities, promote conservation and restore the Forest Reserves that had suffered from encroachment during the 1970's. The purpose of the Natural Forest Management and Conservation Project was to manage and conserve the natural forests in Uganda, for sustained timber and charcoal production by the private-sector, for the generation of forest revenues collected from logging operations and for environmental protection and nature conservation.

The Project helped the Forestry Department to successfully regain control of the Forest Reserves, through boundary demarcation and the eviction of illegal settlers in the Forest Reserves. The Project also put in place some of the conditions for improved forest management for production and conservation. The Project was originally implemented over the period 1988 to 1995 and included expenditure on vehicles, equipment, housing for Forestry Department staff and training of professional and sub-professional staff. The total amount of funding from the EDF was ECU 8.5 million (equal to about Ush 2,800 million). A detailed budget showing expenditure by activity on the Natural Forest Management Project is given in Table 19 in Annex 4.

The Project was extended from July 1995 to March 1999, using an EDF facility for stabilisation of export earnings (stabex facility). The purpose of this was to consolidate the achievements of the first phase and to begin preparatory work for a new development phase that was expected to start in 1999. In general, the emphasis during this period was to improve the technical, financial and professional aspects of forestry operations. The budget for the project extension is shown in Table 7 below.

Table 7 *Expenditure on the extension to the Natural Forest Management Project, by activity (1995 - 1999)*

Cost item	Expenditure (Ush)
Forest field work	102,667,330
Nature reserve and conservation support	6,600,600
Stock-mapping, forest management and protection	80,155,100
Education and training	7,149,840
Revenue collection	28,584,884
Public relations	77,400
Renovation of buildings	10,887,730
Office costs	22,641,182
Tools and equipment	5,170,604
Vehicle and motorcycle procurement	0
Vehicle running expenses	103,874,854
Transport and travel	24,959,050
Project special allowance	0
Non-civil service staff wages and salaries	23,730,700
Additional responsibility allowance	25,903,900
Miscellaneous	0
Pre-feasibility study modules	34,114,135
Strengthening of project financial management	4,050,000
Core management team	0
Foreign exchange and other contingencies	0
Total	480,567,309

Source: Unpublished EC-Funded Natural Forest Management and Conservation Project (stabex 91 & 92) progress report

5.2.4 The National Biomass Study (1989 - 2000)

The National Biomass Study was originally part of a power project within the Ministry of Energy, which included a number of woodfuel-related studies. In 1987, it was decided that the Forestry Department should implement the study, linking it to the Forest Inventory Project. This was one of the elements of the FRP and was funded with a grant from NORAD channelled through the Norwegian Forestry Society.

Phase I of the project was implemented between November 1989 and March 1992. The main objective of the project was to estimate the growing stock and annual increment of woody and non-woody biomass for woodfuel production in nine peri-urban areas (Arua, Jinja, Kabale, Kampala/Entebbe, Kamuli, Kumi, Mbale, Mbarara and Moroto). During Phase I, an inventory of the growing stock of woody biomass was carried out and the annual increment of woody biomass was estimated.

Table 8 shows the planned budget for Phase I of the project.

Table 8 *Planned budget for Phase I of the National Biomass Study*

Cost item	Quantity '000	Unit cost NOK ¹	Total (NOK '000)				
			Year 1	Year 2	Year 3	Year 4	Total
Labour and allowances²							
Inventory teams	24.9	34.0	75	226	314	233	848
Supervisors	2.2	63.0	14	42	42	41	139
Central staff	3.5	63.0	31	63	63	63	220
Daily labour	16.5	10.0	15	45	60	45	165
Sub-total, labour and allowances			135	376	479	382	1,372
Vehicles, operation and maintenance ³	625.0	1.4	70	168	342	294	874
Total recurrent costs			205	544	821	676	2,246

Notes: 1. All costs are calculated as 90% of the total costs, using an exchange rate of NOK 1 = Ush 10 (November 1987).
 2. The quantity is the number of days in the field. In open areas the number of persons in each team might be reduced.
 3. The quantity is the number of kilometres of vehicle use. It is based on: 2 units x 25,000 km per vehicle in year 1; 4 units x 30,000 km per vehicle in year 2; 7 units x 35,000 km per vehicle in year 3; and 7 units x 30,000 km per vehicle in year 4.

Phase II started in 1990 and ended in 1992. In Phase II, Uganda's biomass resources were studied with the following specific objectives:

- to estimate woody and non-woody biomass and potential woodfuel production for the whole of Uganda, using a land-cover and land-use stratification at a scale of 1:50,000;
- to initiate dynamic monitoring of woody biomass by continuous re-measurement of about 1,000 field plots established during Phase I of the project; and
- to develop an Environmental Information System (EIS).

The planned budget for Phase II of the project is shown in Table 9.

Table 9 *Planned budget for Phase II of the National Biomass Study*

Cost item	Total (NOK '000)				
	Year 1	Year 2	Year 3	Year 4	Total
Investment costs					
Vehicles, equipment and materials	1,238	3,805	640	210	5,893
Technical assistance	1,500	1,325	1,400	300	4,525
Recurrent costs					
Labour and allowances, vehicle operations	205	544	821	676	2,246
Total baseline costs	2,943	5,674	2,861	1,186	12,664
Physical contingencies	147	284	143	60	634
Backstopping	247	477	240	100	1,064
Total project costs	3,337	6,435	3,244	1,346	14,362

Actual expenditure on Phases I and II of the project is shown in Table 10 below.

Table 10 *Actual expenditure on Phases I and II of the National Biomass Study from 1991 to 1995*

Expenditure	1991	1992	1993	1994	1995
In NOK million	1.571	3.768	3.249	2.814	2.935
In Ush million	245	588	507	439	458

Phase III of the project ran from July 1996 to June 2000. The objectives of Phase III were as follows:

- to establish a framework for the continuous dynamic monitoring of land-cover, land-use and woody biomass in Uganda;
- to maintain and update the EIS and all of the datasets associated with the EIS; and
- to collaborate with other professional groups within or outside the Forestry Department in research and analysis on the subject of maximising the use of biomass.

The total budget for Phase III of the project was Ush 2.03 billion. NORAD contributed NOK 9.0 million (or approximately US\$ 1.38 million) to the project (see Table 11)

Table 11 *Budget for Phase III of the National Biomass Study, by activity and type of expenditure (in NOK '000)*

Cost item	Total planned expenditure
Investment costs	
Construction and Buildings	33
Vehicles, equipments, upgrades, spares and imported materials:	
Three landcruiser hardtops	520
Equipment, upgrades and spares	1,170
Other fixed assets	85
Sub-total: investment costs	1,808
Recurrent costs	
Human resources development	850
Local salaries and wages	420
Compensation, field allowance and night allowance	2,210
Technical assistance	1,200
Non-wage recurrent costs:	
Maintenance and vehicle running costs	1,410
Utilities and property costs	360
Auditing and reviews etc	742
Sub-total: recurrent costs	7,192
Total	9,000

The Government of Uganda contributed to the project by paying taxes on vehicles, upgrades, spares and remote sensing data (approximately Ush 110 million) and by contributing to salaries (Ush 67 million). In addition, Appropriation-in-Aid was used to take income from sales and licensing of data and products and re-invest this in the project (Ush 0.29 billion or approximately US\$ 0.3 million). Details of the budget for Phase III of the National Biomass Study are in Table 22 and Table 23 in Annex 4.

5.2.5 Tree Seed Project (1991 - 1996)

The Government of Uganda is aware of the importance of tree planting activities as a tool for implementing environmental policy. Realising that optimal benefits from tree planting are best achieved with quality seeds and planting material, the United Nations Sudano-Sahelian Office (UNSO) offered to support this with a five-year Tree Seed Project starting in 1991.

The overall objective of the Project was to upgrade the genetic and physical quality of the seed being used for tree planting activities in Uganda. The specific activities of the Project were as follows:

- to survey all existing seed sources in the country to establish their current status and present and future seed production capacity and recommend necessary treatments to ensure realisation of their full seed production potential;
- to establish a list of species preferences and the required seed quantities by species for the different tree planting programmes in Uganda (including visits to the various tree-planting programmes in the country);
- to establish the main constraints to the effective use of seed in the country and recommend the necessary seed research and extension activities to overcome them;
- to critically analyse seed supply demand situation and projections to the year 2000, with a view to establishing seed supply potential from local sources, new seed source development needs and seed importation needs; and
- to critically review the current seed movement regulations in Uganda, including import and export regulations, quality controls, quarantine regulations and seed documentation procedures.

Table 12 *UNSO and Government of Uganda contributions to the Tree Seed Project*

Cost item	UNSO (US\$)	Cost item	GoU (Ush)
Personnel	524,000	Staff: silviculture research division	43,078,000
Travel allowance	65,270	Personnel allowances	83,960,000
National project staff	170,520	Staff: silviculture research division	9,883,614
Casual Labour	27,840	Personnel – soldiers	8,886,060
Sub-contractors (for consultancy service)	306,000		
Equipment and operating costs	247,300		
Buildings	476,500	Maintenance of buildings	14,250,000
Vehicles	369,400	Vehicles	13,200,000
Establishment of seed stands	60,400	Seed collection, processing, tools & equipment	5,000,000
Training and extension	270,000		
Miscellaneous	444,801		
Total	2,962,031	Total	178,257,674

The budget for the Project is shown in Table 12, which also shows the contributions to the Project from UNSO and the Government of Uganda. More detailed information about the budget for the Project in the current year is given in Table 24 in Annex 4.

5.3 *Expenditure by other government forestry institutions*

5.3.1 Nyabyeya Forestry College and Combined Forestry Training Project

Nyabyeya Forestry College is the only institution in Uganda that trains forest technicians to diploma and certificate level. Until recently, it was financed and run by the Forestry Department but with the restructuring of government ministries and departments it is now under the Ministry of Education.

A four year project has combined and extended previous projects on "Support to the Nyabyeya Forestry College" and "Combined Forestry Training". The goal of the project was to assist human resource development in the forestry sector and to promote environmentally sound and sustainable use of forest resources, while increasing the supply of forest products to the economy and contributing to broad-based economic development, especially in rural areas.

The project was implemented by the Forestry Department from July 1996 to June 2000. Technical assistance, backstopping and other services were provided by the Norwegian Forestry Society. The project was supported by NORAD with a grant of NOK 12.7 million (approximately US\$ 2million). The Government of Uganda contributed to the project by covering the costs of taxes and by reinvesting in the project the revenue generated by the project. This expenditure (Appropriation-in-Aid) amounted to Ush 240 million (or approximately US\$ 0.24 Million). Details of the budget for this project are given in Table 13.

Table 13 *Budget for the Nyabyeya Forestry College and Combined Forestry Training Project, by activity (1996 - 2000)*

Cost item	Expenditure (NOK '000)
Investment costs	
Infrastructure, plantation and sawmill:	
Fire tower, fire fighting equipment	110
Mechanic workshop upgrading	65
Mechanic workshop equipment	110
Demonstration plots establishment	25
Bee-keeping equipment and materials	25
Un-allocated, sawmill	65
Communications, equipment and teaching aids:	
HF-radio	23
CB radios (walkie-talkies)	7
Un-allocated	35
Equipment, tools, books, literature, overhead	400
Computers etc.	250
General infrastructure (new staff houses, dispensary, extension of guest house, sewage and water, roads, lights etc.)	2,250
Sub-total: investment costs	3,355
Recurrent costs	
Human resources development (staff programme)	1,300
Visiting lecturers, local and regional expertise for conducting courses	650
Compensation, field allowance and night allowance	500
Technical assistance	4,780
Mobile unit, sawmilling courses	815
Backstopping administration, auditing	300
Reviews, evaluation, steering committee	400
Five percent contingencies on investment and recurrent expenditure	600
Sub-total: recurrent costs	9,345
Total	12,700
Government of Uganda contribution	
	Expenditure (Ush)
Appropriation-in-Aid	
Local salaries, wages and services	160,000,000
Payment of import duties and taxes ¹	80,000,000
Total Appropriation-in-Aid	240,000,000
Other recurrent costs	
Salaries	4 x 32,343,044
Housing for lecturers and support staff	4 x 15,296,508
Maintenance of vehicles	4 x 3,420,396
Maintenance of college buildings	4 x 1,955,400
Students upkeep	4 x 11,337,600
Training and equipment	4 x 2,700,600
Electricity, water and other utilities	4 x 1,952,124
Total	276,022,688

Notes: 1. Duties were paid on the following items: one bus (US\$ 23,400); one motorcycle (US\$ 3,000); and assorted machinery and equipment (US\$ 25,000).

6 DISCUSSION AND CONCLUSIONS

6.1 *Overall appraisal of the forest revenue system*

To be able to assess the efficiency of the forest revenue system, it is worthwhile looking at the modes of collection with respect to the various forest products (i.e. timber, poles, charcoal, firewood, etc.).

In terms of cost effectiveness, the timber royalties are probably very cost-efficient. The DFO's and field staff collecting timber royalties are government employees earning civil service salaries. In a district, the total monthly salaries of a DFO and field staff involved in collecting these royalties may not exceed Ush 500,000, but the total amount collected is usually much more than this.

Regarding the evasion of charges, this is possible where the field officers collude with the sawmillers to under-declare the volumes cut and where logs are stolen from the forest. Although this is not very common, it has been reported in some stations. In most cases, these temptations are brought about by factors such as poor remuneration for staff, delays in paying salaries and the non-payment of allowances. Illegally harvested timber is normally transported without the necessary documentation and is transported at night or disguised in some form in order to escape arrest. Attempts have been made to minimise this by patrolling with a task force, which verifies the documentation of timber in transit and at timber sheds and stock markets. Timber without proper documentation is impounded and auctioned. The success of these patrols is shown by the collection of Ush 137,898,936 during the 1999/2000 financial year (an increase on the previous year's figure of Ush 36,827,180). This accounted for 12.4% of total revenue collection. Certainly, the expenses incurred by members of the task force (e.g. allowances, fuel, etc.) are less than 30% of the total amount collected.

The new system of making advance deposits to the District Forest Office will also minimise the evasion of charges if it is implemented honestly. One of the current weaknesses of timber royalty collection is monitoring in the forest. Even with the rigorous patrols of the task force, a lot of illegally obtained timber still finds its way to the market, implying that monitoring and control at the source is still weak. Two of the reasons for this are inadequate staffing in the field and the lack of transport. In addition, even the few existing staff are not motivated and not particularly concerned about what goes on inside the forest. Therefore, their collusion in illegal activities cannot be ruled out.

Irregular monitoring by Forestry Department headquarters staff is also a contributing factor to the evasion of charges. There is no proper system at headquarters to check the amounts collected against what might be expected. Field visits are irregular due to difficulties with transport and the lack of money for allowances. Therefore, field staff are not very worried about colluding with the private-sector, because they know that audits by headquarters staff are very infrequent.

The current systems to document timber production and royalty collection also include some measures that reduce the scope for revenue losses. Advance payment ensures that legal producers will not get into arrears with their royalty payments. The declaration of production to the URA before timber is stamped also ensures the timely payment of VAT.

Timber royalty collection has been dealt with in detail because it is the only system of forest revenue collection that is complex and it accounts for nearly 60% of total revenue collection. For the other types of forest products (e.g. charcoal, firewood, poles, etc.) the system of revenue collection is relatively simple. The producer simply visits the DFO's office to pay for the quantity taken or to obtain a licence to deal in the products for a specified period of time. In some cases, the Forest Ranger in charge collects the revenue and later submits this to the DFO. However, as with the timber royalties, charges can be evaded through collusion and stealing.

On the whole, the forest revenue system could be improved by implementing a number of measures:

- **Level of charges.** In the past, forest products were viewed as a service by government for the welfare of the people and, as such, forest charges were very low. Charges should be revised to reflect realistic market prices.
- **Staff motivation.** The people responsible for revenue collection should be well-motivated and harsh punishments should be prescribed for illegal acts.
- **Mobility.** Field staff have to have transport in order to be able to collect revenue. In particular, effective patrols in and around forest reserves require transport.
- **Supervision.** In addition to local supervision by the DFO, there must be regular supervision by headquarters staff.
- **Forest practices.** The loss of revenue through careless tendencies (e.g. abandoning short logs, abandoning of less valuable species and the use of destructive logging techniques) should be minimised by carrying out technical audits and by intensifying supervision. Failures in any of these areas should be met with severe punishments (e.g. the cancellation of a licence)
- **Bonuses.** Revenue could also be increased by introducing a bonus system for those who excel in the collection of revenue. This would require the setting of targets which, if exceeded, would qualify the staff member for a bonus award.

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

The ITTO definition of sustainable forest management is:

“Sustainable forest management is the process of managing forests to achieve one or more clearly specified objectives of management with regard to the production of a continuous flow of desired forest products and services, without undue reduction of its inherent values and future productivity and without undesirable effects on the physical and social environment.”

In Uganda, the major factors in the forest revenue system that are likely to have an impact on sustainable forest management are the legal and policy framework, revenue sharing and control and supervision.

6.2.1 Legal and policy framework

Much of the forest revenue system in Uganda is regulated by Section 30 of the 1961 Forest Act (Cap 246) which, amongst other things, gives the Minister the powers to do the following:

- to prescribe fees to be paid for a license issued for forest produce;
- to prescribe fees to be paid for the cutting or removal of forest produce; and
- to prescribe the manner in which the Commissioner or any other person specified by such rules may sell or dispose of forest produce.

Section 31(1) of the same Act gives powers to the local authorities to make rules applicable to the local forest reserves controlled by them.

It is one of the objectives of the current Forestry Policy to promote the development of viable and efficient forest-based industries, so as to fully utilise forest products, reduce excessive waste and satisfy domestic and export demand for competitively priced quality products. However, the law has not been updated to reflect this and much of the 1961 Forest Act is still in force today. Problems with the current legal and policy framework include: the low level of royalties and penalties; inadequate provision for private-sector development; and the lack of resources for the Forestry Department.

Low levels of penalties and royalties. The Act includes rules and regulations for sustainable forest management and prescribes penalties for contravention of the Act, but those penalties are now so ridiculously low that they are no deterrent to illegal activities. For example, for cutting more than the allowable cut, the fine is Ush 2,500 or imprisonment for 6 months, regardless of the quantity of roundwood cut. From 1964 to 1971 this fine was equivalent to US\$ 375, but now it is only equal to about US\$ 1.40. Thus, this fine is very easy to pay and it encourages people to over-cut the forest.

Another problem is the pricing policy. The Annual Allowable Cut (AAC) for Class I hardwoods taken from forest reserves is 1,960 m³ of roundwood, which is equivalent to 163 m³ of roundwood each month. This AAC is based on an agreed number of sawmillers and pitsawyers working in a forest reserve and the average volume of roundwood that each is able to take in a month. The timber royalty for Class I hardwoods was Ush 34,000/m³ or approximately US\$ 18.80/m³, before the recent revision to the royalties. At a 30 percent recovery rate, the output of sawnwood from 163 m³ of roundwood is 49 m³ and the current market price of sawnwood from Class 1 hardwoods is approximately US\$ 482/m³. Therefore, the 49 m³ of sawnwood would sell for US \$23,618 after paying a royalty of US\$ 3,065. Even after offsetting the expense of producing the sawnwood, the profit margin is still so big that a sawmiller would have a strong incentive to make more money by cutting more than the AAC. The new timber royalties may have reduced this problem, but it remains to be seen how effective it will be at reducing the incentive to harvest more than is allowed.

In conclusion, the low royalties on forest products and very low penalties for illegal acts do little to discourage the over-exploitation of forest resources and lead to unsustainable forest management. The effects of this have been: a decline in forest resources in the tropical high forest, where about 280,000 ha is now degraded; a reduction in the area of other woodlands,

where there has been a lot of clearance; and a reduction in the area of government forest reserves, where there is now only 740,000 ha of the original 1.1 million ha.

Private-sector development. Much of the current forestry policy and legislation focuses on protected areas and forest reserves and only engages the private-sector in an advisory role. This may have led to some forest degradation on private and public lands and the loss of revenues. Unlike other sectors of the economy, there has been no privatisation of forest reserves so far. In addition, another gap in the current forestry policy is that there is no provision for subsidies in the sector. Grants are not even available to support forest extension (as they are in agriculture).

Resource constraints. According to the Forestry Policy, the management of gazetted forest reserves is entirely the responsibility of the Forestry Department. However, the remittance of most of the revenues collected from the sector to the Treasury and the ever declining budgetary allocation to the sector from the Treasury prevents the Forestry Department from executing the routine and development activities of the sector. The authorised AiA is far less than what is required for all of the planned activities throughout the country, with the result that many activities are not executed, illegal activities have increased and the forest is degraded and revenue is lost. The decline in the budgetary allocation for the forestry sector may be partly due to the relatively low contribution from the sector to the Treasury, but the management of forest reserves by poorly paid and demotivated government staff has resulted in a cycle of increased illegal activities, degradation of forests and the corruption of some demoralised staff.

6.2.2 Revenue sharing

The Government of Uganda is the main recipient of forest revenue collected from the forest reserves, followed by the local government at the LC 5 level. In most districts, the 40 percent of revenue that is retained at the district level is rarely passed onto lower levels (LC 3), but remains at the LC 5 level. The equitable sharing of forest revenue with the lower levels is rarely considered, so local government at the LC 3 level and the District Forest Offices do not benefit directly and have limited control over the forest revenue that is collected.

Although the parishes or sub-counties adjacent to the forest reserves do not benefit from forest revenue collection, they bear most of the costs and responsibility for forest protection. The absence of benefit sharing leads to the desire by local government at the lower levels to levy additional taxes on timber and their reluctance to participate in the protection of forest reserves.

Furthermore, many districts are opposed to any sharing of revenue with the central government. They want to retain all of the forest revenue collected and, where this feeling is strong, the support of these local governments is minimal. The protection of forest reserves requires the support of local government, so there is a need for the Forestry Department to come to an amicable arrangement with local government about revenue sharing, so that their co-operation can be obtained to support sustainable forest management.

Out of the 60 percent of forest revenue that is remitted to the central government, a certain fraction is paid back to the Forestry Department as AiA on a monthly basis. This mainly covers recurrent expenditure. On average, every DFO receives Ush 200,000 (US\$ 117) per

month, which is grossly inadequate to cover the costs of forest protection activities and operating expenses. This situation leads to the severe demotivation of Forestry Department field staff. Even more important is the pay and conditions offered to Forestry Department staff, which are very poor. Given the poor pay and terms and conditions of employment, it is almost inevitable that some staff will seek to improve their lot through corrupt practices. However, this situation may improve shortly, as the Forestry Department is currently undergoing re-structuring and it is expected that the new organisation will include fewer staff than at present, but with significantly improved terms and conditions.

Finally, it is the prerogative of the Treasury Department in the Ministry of Finance to determine which items on the Forestry Department work-plan are financed and the ceiling for the Forestry Department budget. This depends on their assessment of national priorities at the time and has, for a long time, undermined the prioritisation of activities by the Forestry Department (particularly forestry development programmes).

For example, the forest plantations that were planted in the 1960's and 1970's have not been regenerated after clear-felling, due to a lack of funds. The National Environmental Management Authority (NEMA) states in its State of the Environment Report for Uganda 1988 (page 81):

“It has been predicted that if massive afforestation is not immediately undertaken, the country will face sawnwood production deficits by the year 2010 at the current level of harvesting. This will have major implication on both the economy to import timber to satisfy domestic need and the environment (through reduction of both the products and services accruing from the forests).”

Such a scenario is an example of the unsustainability of current forest management. However, it is expected that the proposed National Forestry Authority will have greater autonomy. The Authority will encourage minimal government involvement in the sector, the out-sourcing of activities and privatisation, to boost productivity and support the drive towards sustainable forest management.

6.2.3 Control and supervision

Under the current systems for monitoring and controlling forestry practices and revenue collection, supervision is inadequate. Few staff from the Forestry Department Headquarters travel to the field. The absence of field visits from the top management of the Forestry Department has led to field staff becoming increasingly alienated towards good forestry practice and has led to low productivity and low levels of forest revenue collection. To achieve sustainable forest management and improved forest revenue collection, regulatory and advisory services (such as monitoring, standard setting, inspection and technical assistance) are necessary.

There are no specific mechanisms in the forest revenue system to promote sustainable forest management. Performance bonds and improvement grants are not available. Consequently, investors in forest plantations have invested very little in their projects and are not working to a high technical level. Indeed, groups of local people, if properly supported, could probably grow trees on leased land inside the forest reserves or on their own land that would meet higher standards than the current investors are achieving. Technical and financial support

systems are required to encourage this. There is also a need to provide systems to minimise and control the degradation of forests. These should be based on appropriate incentives and disincentives to encourage better management of the existing forest resource and the expansion of the resource onto agricultural land and other suitable land.

The following recommendations are suggested to enhance the impact of the forest revenue system on sustainable forest management:

- forest charges should be set with reference to the existing economic situation, so that real market values are charged;
- similarly, penalties for forest offences should be more of a deterrent (i.e. the fines should be high enough to make illegal operations unattractive);
- there should be a complete reform of the sector, to allow the participation of other stakeholders outside the Forestry Department;
- grants and other subsidies should be used to provide incentives for good forest management and extension by the private-sector;
- AiA should be increased so that the priorities of the sector are adequately funded;
- forestry policy should be revised to address the protection of forests on public and private land;
- the ban on public-sector recruitment should be lifted to allow the recruitment of field staff required for the effective policing of the forest reserves and improved revenue collection; and
- in order to maintain the minimum amount of forest required for sustainable forest management, land-use policies must be defined and clarified to stop tendencies such as the de-gazetting of forest reserves for industrial development.

6.2.4 Government expenditure on sustainable forest management

From all the above, it is evident that the level of sustainability achieved now in forest management is dependent on donor funding. The government only provides money for recurrent expenditure (e.g. staff salaries, allowances and administration costs etc.), supplemented with AiA. Of the total government expenditure on forestry, 22 percent is used for salaries, 19 percent is used for allowances, 18 percent is spent on administration costs and the rest is spent on paying for utilities.

In the current financial year (2000-01), the government budget for forest operations is Ush 877,763,000 (approximately US\$ 487,646), compared to donor funding of Ush 1,241,116,000 (US\$ 1,930,624). This money is used for forestry projects implemented by the Forestry Department, such as: the Tree Seed Project; the National Biomass Study; the Peri Urban Plantations Project; and capacity building. This money is shared between over 50 District Forest Offices, so that each district receives between Ush 20,000 and Ush 300,000

from the government each month, to cover all operational expenses, such as: transport; fuel; stationery; office supplies; etc. Vital management activities (such as: protection from fires and illegal activities; new planting; tending operations; stock surveys; management inventories; tending of permanent sample plots; forest boundary demarcation; forest management planning; awareness campaigns; and forest extension services) are all not catered for at all in government funding. Salary levels are very low and there are no measures to motivate staff (e.g. bonuses or extra allowances). In addition, there is no provision for subsidies or grants to motivate companies and individuals operating in the forestry sector.

All of the expenditure on development activities is donor-funded, with the exception of the taxes that should be paid on imported goods and the salaries of local staff attached to projects. This grossly inadequate level of government funding leads to the low level of achievement in terms of sustainable forest management. Forest degradation has been increasing and it is only through these projects that the Forestry Department has managed to regain some control over the forest estate and to plan some sustainable forest management activities.

It appears that the priorities of government have led to the inadequate resources devoted to forestry and the critical problem of financing in the Forestry Department. The revenue collected by government (from all sources) is not sufficient to cover all of the programmes in the various ministries and departments of government. The government has core programmes, such as: Universal Primary Education (UPE); Defence; Poverty Alleviation; and Health etc., which are given higher priority during budgetary allocations. The result of this is that departments such as the Forestry Department are seriously marginalised. This is probably due to a combination of factors, such as low revenue collection in the forestry sector and the lack of understanding amongst legislators about the environmental importance of forestry.

One of the solutions to the problems mentioned above could be to improve revenue collection, so that the contribution from the forestry sector to the Treasury becomes significant. If legislators view the sector as an important source of government revenue then the budget allocations to the Forestry Department will definitely be increased.

Secondly, the Forestry Department should become autonomous, so that it has the authority to use the revenue it collects. If this is done, expenditure will be allocated according to the priorities of the Forestry Department and important activities for sustainable forest management will rank high in that list of priorities. An alternative to this would be to increase the flexibility of the AiA, so that funds can be switched around when circumstances make this necessary. Currently, it is not permitted to move AiA funds across activities and this often doesn't make any sense. For example, in the 2000-01 budget for AiA, the budget for water is Ush 118,000,000 and the budget for electricity is only Ush 3,716,000, but the use of water is far more limited than the use of electricity.

Finally, another important measure would be to create awareness amongst the legislators about the environmental benefits of forestry. This might help them to appreciate these benefits and protect the Forestry Department from drastic budgetary cuts.

6.3 *The effects of other government policies on sustainable forest management*

There are a number of related Acts and policies that affect sustainable forest management and these are discussed below.

6.3.1 Wildlife Statute (1996)

Under the Wildlife Statute of 1966, 321,000 ha of forest were transferred to the Uganda Wildlife Authority (UWA). The UWA simply resorted to clear-felling the forest plantations within the boundaries of these areas (many of which were valuable research and seed areas) in the hope that they would convert to natural forest. They did not know that many of these areas were established on grassland not natural forest and that it might have been better to carefully thin them to protect and enhance the natural regeneration of indigenous species.

Clear-felling leads to a tangle of weeds and competing species, which take decades to develop into a natural forest. This felling, which was done without a harvesting plan, deprived the sector of the important seed sources and the revenue that could have been obtained from the wood. In addition, it stopped the research on sustainable forest management in these areas. On the whole, the transfer of control of these areas to the UWA led to the loss of valuable forest resources and did not meet their stated objectives very well.

6.3.2 Local Government Act (1997)

The framework for decentralisation in the 1997 Local Government Act included the devolution of powers from central government to the districts and lower-level councils. This included the transfer of powers over management of a number of natural resources, such as water, fisheries and forestry.

The management of all forest reserves was decentralised at first, but management of the major forest reserves (areas over 5,000 ha – known as Central Forest Reserves) was soon brought back under central government control. This policy was reversed because it was felt that the districts lacked the technical expertise and the financial resources needed for effective and sustainable forest management. In addition, there was a fear that the districts might disregard the biological and environmental status of these forests (e.g. AACs) and over-exploit the forests in order to cover their budget deficits.

Uncontrolled harvesting has already been noted in the local forest reserves that remained under the control of local government. For example, uncontrolled felling for charcoal and timber production, uncontrolled grazing and the conversion of forest areas to agricultural land have been reported. In view of this, the degradation of most of the local forest reserves in Uganda seems highly likely.

The reasons for these problems are that none of the districts have adequate mechanisms for managing forest resources and none of them are aware of the need for reinvestment in order to ensure sustainable forest management. In addition, none of them have recruited forest officers to plan the management of these local forest reserves.

If local governments are concerned about sustainable forest management, they have the powers to make bye-laws (under various Acts and the Constitution) and they could introduce a bye-law to regulate forest harvesting.

6.3.3 Land-use policy - Land Act (1998)

The 1998 Land Act gives the responsibility of managing land resources to the districts and empowers them to manage all land-related issues in their respective areas. This Act has important implications for the management of forest areas on public land outside the forest reserves. These areas have had almost no formal management and many have been converted to other land uses, particularly agriculture. It is not clear if the districts will also assume the responsibility managing these forests or leave them to fate.

The 1998 Land Act also gives the authority to people to claim ownership of land that they have used or lived on 13 years or more. This could become a threat to sustainable forest management, if a user claims ownership of forest reserve land that they have used for more than 13 years. In particular, this is a problem in forest reserves where the boundaries have not been clearly marked. There is the danger that private ownership of land will lead to more forest fragmentation, which could be a hindrance to obtaining large blocks of land for commercial forest plantation development. Private land ownership may also cause people without land to move into forest areas. Finally, the private ownership of land could lead to the depletion of forests on private land, if private land owners are not made aware of the importance of their forests and helped to improve their farming methods.

On the other hand, private land ownership could encourage investment in forest plantations by individuals that have the necessary resources and interest. However, under the prevailing economic conditions at the moment, there is a great need for immediate income generation, which is likely to encourage more expansion of agriculture.

6.3.4 Urbanisation

The current policy on urbanisation and industrialisation is seen as threat to sustainable forest management due to the pressure this generates for the conversion of forest land. Many urban and peri-urban plantations are threatened with clearance. For example, the increasing demand for industrial land has caused the loss of 1,000 ha of forest in Namanve Forest Reserve (on the Kampala-Jinja highway) and another loss of 8,744 ha in Wabisi-Wajala Forest Reserve. There are also numerous smaller areas of peri-urban plantations that have been cleared by some urban authorities.

6.3.5 Public service reform and restructuring

The Public Service Reform and Restructuring Exercise has led to the depletion of human resources in the forestry sector and there is now a staff requirement gap of 154 Forest Rangers, 284 Forest Guards and 25 Forest Officers. This has led to very weak protection of the forest estate, a lack of extension services, and illegal activities.

6.4 *Attitude to change*

To date, the Government's overall financial support to the forestry sector has been minimal. The reasons for this have already been discussed at length above. However, the sector does enjoy enormous political support. The appointment of a Minister of State for Environment signifies the importance that the government attaches to the sector.

Support is also shown by the fact that Uganda participates in the regional and international level intergovernmental meetings on sustainable forest management. At the regional level, Uganda is a signatory to the East African Co-operation Treaty and is a member of IGAD and COMESA. Uganda is also a party to the following international conventions: the Convention on Biological Diversity (CBD); the Convention on International Trade in Endangered Species of Fauna and Flora (CITES); the Ramsar Convention; and the African Convention on the Conservation of Nature and Natural Resources. These are all opportunities to pursue forestry policy development through regional and international cooperation.

Given the limited resources that Uganda can commit to the forestry sector, significant benefits have been realised and effectiveness has been increased through regional and international initiatives. The high level of political support for forestry in the Government has been recognised by donors and accounts for the large number of donor-funded projects that the Forestry Department is currently implementing.

Uganda's forest resources can contribute to poverty eradication and wealth creation, through woodland management operations and forest-based industrial activities. In addition, although formal management of Uganda's forests began over 100 years ago, the sector is still faced with many challenges as a result of the country's turbulent post-independence history and the new developments in policy and legislation. Consequently, the existing 1988 Forest Policy is considered weak and inadequate and the Cabinet has proposed to transform the Forestry Department into a semi-autonomous National Forest Authority (NFA).

6.4.1 **The proposed National Forest Authority (NFA)**

The proposed NFA is expected to improve the performance of the Ugandan forestry sector in general and, in particular, to improve the management of Central Forest Reserves. In line with this, a new sectoral forestry policy is being formulated. The aim of this is to protect an adequate level of forest cover, which will be owned by the Government, but will be sustainably managed with the participation of the private-sector and non-governmental organisations. This should provide the ecological services and goods that will be required by present and future generations of Ugandans and the global community. The creation of the NFA is also expected to lead to the benefits described below.

Reduced government spending on the forestry sector. As mentioned earlier, the revenue collected by the Forestry Department is far below potential revenue, due to insufficient funding and capacity. As a result, the districts are gaining little from the Government's involvement in the forestry sector and the current arrangement leads to net expenditure on forestry by the central government. Higher revenue collection is expected with the creation of a semi-autonomous NFA and it is expected that the effectiveness of expenditure will be improved by improvements in the prioritisation of expenditure.

More efficient management of the Central Forest Reserves. Forest management in the Central Forest Reserves has been inefficient due to a lack of capacity in the Forestry Department. The NFA is to restore this capacity, so that the desired economic and environmental contributions of forestry to society will be achieved.

Increased investment in the forest sector. In the past, both public and private investment in the forestry sector has been limited. The reasons for this are partly economic and partly legal and institutional. In particular, the Forestry Department seems to lack the capacity to attract private investors. The NFA is expected to be more private-sector orientated and will raise the possibility of attracting small and large-scale investors in forestry by providing better public-private management agreements and improved support and control.

Better income allocation in the forest sector. In spite of the high level of activity in the forestry sector, revenue collection is limited. The proposed NFA should improve the forest revenue system by implementing a number of the following recommendations:

- in Central Forest Reserves, stumpage fees should be flexible in order to adapt to changes within and between markets and the use of auctions has been suggested as a way to charge the true market prices for certain products such as sawlogs;
- market-based values should be used to assess the 15% tax (in lieu of VAT) on sawnwood production, so that there is no discrimination against VAT registered sawnwood producers;
- the NFA's income should be based on activities within the Central Forest Reserves and services supplied to and paid for by the private-sector, government institutions and donors, but trees outside the reserves should not be reserved by the NFA and should not be subjected to forest charges;
- charges on the export or production of processed forest products should not be a responsibility of the NFA, but should remain the responsibility of another government institution and they should not favour government owned enterprises;
- districts should collect the 15% tax on sawnwood production from private farmers and those below the VAT threshold, instead of the current system whereby the revenue to the districts is allocated through the Forestry Department.
- the role of districts as forest owners should be reviewed and it is suggested that they should collect revenue from forestry activities in their boundaries through licence fees, the 15% tax on sawnwood production, employment and income taxes, rather than through direct involvement in forest operations (where the private-sector should become more involved in the management of Local Forest Reserves); and
- The 40% gross revenue collection allocation to the districts should be reviewed and revised so that the proposed NFA is not dependent on government funding for their activities and will become financially sustainable.

6.5 *Conclusions*

In conclusion, the forestry sector in Uganda is currently being restructured in order to achieve a higher degree of sustainable forest management. A new sectoral forestry policy is being formulated and the Forest Act and accompanying rules and regulations are also being revised in order to provide an enabling environment for sustainable forest management.

With respect to the forest revenue system, the aspects currently being reviewed and revised include the following:

- the extent to which the Forestry Department can levy taxes on reserved tree species on private land and timber from private forests;
- the management of forest revenue collection;
- the funding of forest management activities; and
- the arrangements for revenue sharing.

It is anticipated that this restructuring will allow the forestry sector to grow to reach its full potential. Both the Government of Uganda and local government are expected to gain from these institutional changes and the proposed changes to the forest revenue system.

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7 ANNEX 1 THE 1988 FORESTRY POLICY IN UGANDA

The Forestry Policy of the Government of Uganda is:

1. To maintain and safeguard enough forest land so as to ensure that:
 - i. sufficient supplies of timber, fuel, pulp, paper and poles and other forest products are available in the long-term for the needs of the country and, where feasible, for export; and
 - ii. water supplies and soils are protected, plants and animals (including endangered ones) are conserved in natural ecosystems and forests are also available for amenity and recreation.
2. To manage the forest estate so as to optimise economic and environmental benefits to the country by ensuring that:
 - i. the conversion of the forest produce into timber, charcoal, fuelwood, poles, pulp and paper and other products is carried out efficiently;
 - ii. the forest estate is protected against encroachment, illegal tree cutting, pests, diseases and fires;
 - iii. the harvesting of timber, charcoal, fuelwood, poles and other products applies appropriate silvicultural methods, which ensures sustainable yields and preserves environmental services and biotic diversity; and
 - iv. research is undertaken to improve seed sources for planting stock and the silvicultural and protection methods needed to regenerate the forest and increase its growth and yield. Research is also carried out into new and existing forest products including tourism and education with the object of maximising their utilisation potential. Research is undertaken to monitor and promote the preservation of environmental services and conservation of biotic diversity.
3. To promote an understanding of forests and trees by:
 - i. establishing extension and research services aimed at helping farmers, organisations and individuals to grow and protect their own trees for timber, fuel and poles and to encourage agro-forestry practices;
 - ii. publicising the availability and suitability of various types of timber and wood products for domestic and industrial use and publicising the importance of environmental services provided by forests;
 - iii. holding open days at regular intervals in all districts to demonstrate working techniques and raise attention to the positive benefits of forestry; and
 - iv. promoting scientific research, environmental tourism, education and related activities inside the forest.

8 ANNEX 2 CLASSIFICATION OF TREE SPECIES INTO DIFFERENT FOREST ROYALTY CLASSES

Table 14 *Tree species in forest royalty Class IA*

Species code	Botanical name	Common or trade names
116	Afzelia africana	Afzelia, Beyo
128	Araucaria angustifolia	Araucaria
129	Araucaria cunninghamii	Araucaria
130	Cedrela odorata	Cedrela
103	Entandrophragma angolense	Mukusu, Gedu Nohor
104	Entandrophragma cylindricum	Muyovu, Sapele
105	Entandrophragma excelsa	Muyovu
106	Entandrophragma utile	Mufumbi, Utile
107	Fagara leprieurii	
108	Fagara macrophylla	Munyenye, East African satinwood
109	Fagara mildbraedii	
117	Guarea cedrata	Scented guarea
118	Hagenia abyssinica	Omujesi, Hagenia
120	Hallea rubrostipulata	Nzingu
121	Hallea stipulosa	Nzingu, Abura
119	Holoptelea grandis	Mumuli
143	Juniperus procera	African pencil cedar
110	Khaya anthotheca	Munyama, African mahogany
111	Khaya grandifoliola	Tido, African mahogany
112	Khaya senegalensis	African mahogany
114	Lovoa swynnertonii	Nabulagala, Brown mahogany
113	Lovoa trichiliodes	Nkoba, Uganda walnut
102	Milicia excelsa	Mvule, Iroko
122	Ocotea usambarensis	East African camphor-wood
123	Olea africana	Brown olive
124	Olea hochstetteri	
115	Olea welwitschii	Elgon Olive, Loliondo
125	Podocarpus glacilior	Musenene, Podo
126	Podocarpus milanjanus	Musenene, Podo
127	Podocarpus usambarensis	Musenene, Podo
144	Tectona grandis	Teak

Table 15 *Tree species in forest royalty Class IB*

Species code	Botanical name	Common or trade names
145	Albizia coriaria	Mugavu
131	Cordia africana	Mukebu, Large leaved cordia
132	Cordia millenii	Mukebu, Mukumani
133	Cupressus lusitanica	Mexican cypress, Cypress

Table 16 *Tree species in forest royalty Class 2*

Species code	Botanical name	Common or trade names
213	Acacia albida	Apple-ring acacia, Ewoi
214	Acacia seyal	Shittim wood, Agagi
292	Acacia spp	
223	Alangium chinense	
224	Albizia adianthifolia	Nongo
202	Albizia ferruginea	Nongo
225	Albizia glaberrima	Nongo
203	Albizia grandibracteata	Nongo
204	Albizia gummifera	Nongo
205	Albizia zygia	Nongo, Ebata
226	Allophylus abyssinicus	
227	Allophylus macrobotrys	
228	Alstonia boonei	Mujwa, Alstonia
295	Amblynocarpus obtusangulus	Lizo
229	Anigerea adolfi-friederici	
230	Anigeria altissima	Osan, Mutoke
231	Antiaris toxicaria	Kirundu, False Mvule
232	Balnites wilsoniana	Naliggwalimu, Mukunga
299	Callitris spp	Cypress pine
233	Canarium schweinfurthii	Muwafu, Incense tree
206	Carapa grandiflora	Uganda crabwood
234	Cassia mannii	
235	Cathormion altissimum	Muchole
236	Celtis adolfi-frederici	Ekembe bakaswa
237	Celtis africana	Akasiisa, White stink wood
238	Celtis durandii	Namanuka, Stinkwood
239	Celtis integrifolia	Zingale
240	Celtis mildbraedii	Lufugo, Celtis
242	Celtis nightii	
241	Celtis zenkeri	Mukomakoma, Kisiisa
243	Chrysophyllum albidum	Mululu, White star apple, Muhambulya
244	Chrysophyllum gorungosanum	
245	Chrysophyllum mnerense	
246	Chrysophyllum pentagonocarpum	
247	Chrysophyllum perpulchrum	Mubakampungu, Monkey star apple
296	Cordyla richadii	Malindi
249	Cynometra alexandrii	Muhimbi, Cynometra
253	Dambeya goetzenii	Omukole
250	Diospyros abyssinica	Giant diospyros
251	Diospyros mespiliformis	African ebony
252	Dombeya bagshawei	Nkokwa
254	Dombeya Mukole	Mukole
255	Drypetes spp	Mushabarara
256	Ekerbegia capensis	Cape ash, Mufumba
257	Ekerbegia senegalensis	Kitwalabafu
258	Erythrina abyssinica	Uganda Coral, Muyirikiti
259	Erythrina excelsa	Mubajjangabo, Mulungula
260	Erythrina mildbraedii	Muyirikiti
261	Erythrophleum sauveolens	Sasswood, Mumara
248	Eucalyptus grandis	Kalitunsi, Eucalyptus
207	Eucalyptus robusta	Kalitunsi, Eucalyptus
215	Eucalyptus tereticormis	Kalitunsi, Eucalyptus

Table 16 *Tree species in forest royalty Class 2 (continued)*

Species code	Botanical name	Common or trade names
210	Fagaropsis angolensis	Muyinja, Mafu
208	Fagaropsis angolensis	Muyinja, Mafu
262	Faurea saligna	Mukuka, Moyokwo
209	Ficalhoa laurifolia	Mwumanga
263	Funtumia africana	False rubber, Nkago
264	Funtumia elastica	African wild rubber, Nkago
298	Grevillea robusta	Silky oak
265	Ilex mitis	Segar, Munyambasi
293	Juniperus grandis	African pencil cedar, Torokio
266	Macaranga Kilimandscharica	Mushasha, Mudwess
267	Macaranga lancifolia	Omuburashasha
268	Macaranga monandra	Omurara
269	Macaranga schweinfurthii	Mweganza, Mukomakoma
211	Maesopsis eminii	Musizi, Maesopsis
212	Markhamia lutea	Nsambya, Markhamia
270	Mildbraediodendron excelsum	Muyati, Nbulere
271	Morinda lucida	Mubajjansamu
272	Morus mesozygia	East Afr. mulberry, Mukoge
273	Musanga cacropoides	Umbrella tree, Namagulu
274	Myrianthus holstii	Giant yellow mulberry, Mugunga
275	Myrianthus salicifolia	Maruss, Mujeje
276	Nauclea diderrichii	Opepe, Kilingi
216	Newtonia buchananii	Mpewere, Newtonia
277	Parinari excelsa	Grey plum, Mubura
278	Parkia filicoidea	African locust bean, Joge, Ngega
219	Peptadeniastrum africanum	Mpewere, Dahoma
300	Pinus caribaea	Slash pine, Cuban pine
301	Pinus oocarpa	
302	Pinus patula	Mexican weeping pine, Spreading leaved pine
279	Polyscia fulva	Settala, Mungu
280	Premna angolensis	Mutala
294	Proposis africana	Zingili, Ekiki
220	Prunus africana	Ntaseesa, Red stink wood
281	Pseudospondias microcarpa	Bagamba nimpaya, Muziru
282	Pterygota mildbraedii	Mubande witch tree, Mukoko
283	Pycnanthus angolensis	Pycnanthus, Lunaba
284	Schrebera alata	Gagawa
285	Schrebera arborea	Ndela, Muhona
286	Spathodea campanulata	Nandiflame, Kifabakazi
287	Sterculia dawei	Kitokwe, Musandasanda
288	Sterculia setigera	Mukokola, Kitekwe
221	Symphonia globulifera	Musaali
289	Syzigium guineense	Waterberry, Kakungensamvu
218	Terminalia ivorensis	Terminalia
217	Terminalia superba	Terminalia
290	Tetrapleura tetraptera	Kikangabalimi, Munyegenye
222	Trichilia dregeana	Sekkob
297	Uapaca pedulosa	Nunamagulu, Acak
291	Warbugia ugandensis	East African greenwood, Mukuzanume, Mwiha

Table 17 *Tree species in forest royalty Class 3*

Species code	Botanical name	Common or trade names
582	Acanthus spp	Matovu, Itojo, Karaka
576	Afrocrania volkensii	Musonganyonyi, Tasakia
401	Afrosersalisia cerasifera	
402	Afzelia bipindensis	
405	Allanblackia kimbiliensis	Omutaka
410	Anthocleista grandiflora	Cabbage tree
411	Anthocleista schweinfurthii	Cabbage tree, Omugabogabo
409	Anthocleista vogelii	Cabbage tree
592	Antidesma laciniatum	
412	Antrocaryon micraster	
413	Aphania senegalensis	Omukaka, Kobwa
414	Apodytes dimidiata	White pear, Munywamazzi
403	Baikiaea insignis	Nkoba, Nkobakoba
416	Balsamocitrus dawei	
417	Balthasaria schliebenii	
418	Beilschmiedia ugandensis	Mwasa, Mukarata
419	Bequaertiodendron oblanceolatum	
420	Blighia unijugata	Nkuzanyana
421	Blighia welwitschii	
422	Bombax buonopozense	Wild silkcotton, Mulungula, Omulimbi
557	Bragglia longipedicellata	
603	Bridelia brideliifolia	Kataza, Omuji
425	Bridelia micrantha	Katazamiti, Mubalagaza
424	Bridelia ndellensis	
564	Caloncoba schweinfurthii	Tambe, Muhekeheke
426	Casearia battiscombei	Seruwa, Sihuling
427	Casearia engleri	Omburatutu
430	Cassipaurea gummifera	Pillar wood
429	Cassipourea melanosa	Pillar wood
431	Catha edulis	Somali tea, Mutabungwa
570	Chaetacme aristata	Mubambanjobe, Omulere
588	Cleistanthus polystachus	Muhindi
439	Cleistopholis patens	
571	Cobretum spp	Omukora, Karagi
558	Coffea spp	Wild robusta coffee, Mwanyi
442	Cola gigantea	Cola, Mutumbwe
598	Craterispermum laurinum	Enura, Omunywamaizi
443	Crossonophelis africanus	
444	Croton macrostachys	Musogasoga, Muhuta
445	Croton megalocarpus	Nkulumire, Mutugunda
604	Croton oxypetalus	Mwatansale
448	Daniela oliveri	African copaiba balsam, Bitok, Masa
451	Dichaetanthera corymbosa	
565	Dictyandra arborescens	
456	Ehretia cymosa	Omukobakoba, Chibondwe
459	Elaeodendron buchananii	
460	Elaeophorbia drupifera	Kididi, Nkururu
580	Euclea divinorum	Nsikizi, Musikizi, Uswa
463	Euphorbia obovalifolia	
465	Ficus spp	
468	Garcinia odoratissima	
469	Gareinia millensis	Musali, Atenum
566	Glyphaea brevis	Mukona - Nyakabito
470	Greenwayodendron suaveolens	
594	Guarea mayombensis	

Table 17 *Tree species in forest royalty Class 3 (continued)*

Species code	Botanical name	Common or trade names
473	Hannoa longipes	
474	Haronga madagascariensis	Mulirira, Njuli
591	Hymenocardia acida	Nabaluka, Kagabo, Okanga
476	Irvingia gabonensis	Wild mango
599	Kigelia africana	Sausage tree, Muikya, Edodoi
406	Klainedoxa gabonensis	Klainedoxa, Nkuzanyana
477	Lanea welwitschii	Mukowa
567	Lasiodiscus mildbraedii	Bulindi, Munyamaija
479	Lecaniodiscus cupanioides	Tayi
480	Lecaniodiscus fraxinifolius	
481	Leplaea mayombensis	
560	Linociera johnsonii	
612	Linociera latipetala	
482	Lychnodiscus cerospermus	
487	Majidea fosteri	
488	Mammea africana	
489	Manilkara butugi	
491	Manilkara dawei	
490	Manilkara obovata	Nkunya
581	Maytenus spp	
492	Melletia dura	Murongo, Muhakwa
493	Mimusops bagshawei	Musandasanda, Musali
494	Monodora myristica	Calabash nutmeg, Mugema, Namagole
568	Mystroxyton aethiopicum	Omusongati, Emus
501	Neoboutonia macrocalyx	Omwanya, Chebakwa
502	Neogordonia kabrigresis	
579	Nuxia congesta	Omubuzije, Chorowa
503	Ochna holstii	Jokotono, Siteti
504	Olinia usambarensis	Nerekio
574	Oncoba spp	Munyege, Chibeye
606	Ouratea spp	Mulyangabi
506	Pachystela msolo	
595	Pauridiantha holstii	Omwatamabale
597	Peddiea fisheri	Omushinya
510	Phyllanthus discoideus	Kamenyambazzi, Omuhahara
511	Picalima nitida	
593	Pittosporum ripicolum	Lapingdyek, Mubazzankonyo
589	Pittosporum spathicalys	Mubaruka, Omusibura
512	Pittosporum viridiflorum	Chemwororia
575	Polyalthia spp	
509	Porposia guineensis	Segwafu
611	Premna angolensis	Mutala, Nkubwa
607	Rauvofia caffra	
518	Rauvolfia oxyphylla	Mutongo, Kisalako
519	Ricinodendron heudelotii	Erimado, Corkwood, Musodo
520	Rinorea ilicifolia	
561	Ritchiea albersii	Omutamwa, Munwabisani
521	Sapium ellipticum	Musasa, Muzanvuma
522	Schefflera abyssinica	Omuhenvu, Lududu
523	Schefflera, volkensii	
527	Spondianthus preussii	Mimbiri, Muttambuizi
528	Staudtia stipitata	
601	Steganotaenia araliacea	Kimulyangimbe, Muhotora, Enyongai
404	Strombosia scheffleri	Munyankono, Chiusa
596	Strombosia toroensis	Munyankono, Mutora
530	Strychnos mitis	Mukusakusa, Akomya

Table 17 *Tree species in forest royalty Class 3 (continued)*

Species code	Botanical name	Common or trade names
532	<i>Tabernaemontana holstii</i>	Kitwekyankima
533	<i>Tabernaemontana johnstonii</i>	
534	<i>Tabernaemontana usambarensis</i>	
535	<i>Tamarindus indica</i>	Tamarind, Mukoge, Chwaa
536	<i>Tapura fischeri</i>	Kazunganjuki, Bererewa
610	<i>Tarenna</i> spp	Kuizuzu
537	<i>Teclea nobilis</i>	Nzo, Achacho
538	<i>Terminalia brownii</i>	Musongi, Museta
540	<i>Tetrorchidium didymostemon</i>	
541	<i>Treculia africana</i>	African bread fruit, Muzinda
542	<i>Trema orientalis</i>	Kasisa, Muhera
543	<i>Trichilia emetica</i>	Makaku, Akwir akwir
544	<i>Trichilia mantineana</i>	
545	<i>Trichilia prieuriana</i>	Sessambya, Muralike
546	<i>Trichilia rubescens</i>	Mugaba
423	<i>Trilepisium madagascariensis</i>	Mugwi
562	<i>Turraea floribunda</i>	Muhojole
547	<i>Turraenthus africanus</i>	Mbahira
578	<i>Vangueria</i> spp	
550	<i>Vitex amboniensis</i>	Rwata
551	<i>Voacanga thonarsii</i>	
553	<i>Xylopia aethiopica</i>	Nsagalane
554	<i>Xylopia parviflora</i>	
555	<i>Xymalos monospora</i>	Lemon wood, Namalindi
556	<i>Zanha golungensis</i>	Muyuki, Omukaka

9 ANNEX 3 EXAMPLE OF A LICENCE TO TAKE FOREST PRODUCE

THE REPUBLIC OF UGANDA		R.4 Substituted					
SECOND SCHEDULE (Cap. 246 3385)							
Not Transferable	of 1961	FORM A. L. N. 78					
THE FORESTS ACT							
LICENCE TO TAKE FOREST PRODUCE							
No.: Date: Station:							
Subject to the conditions of the Forest Act and any Rules made thereunder and to the terms and conditions stated herein							
is hereby authorised to cut, take and remove the undermentioned forest produce from the Forest Reserve/Open Lands for years within the period to							
<i>Forest Produce Allowed</i>							
Block or Compt.	Description of Produce	**AAC	Species	Minimum diameter	Qty	Rate per m ³	Fees (Shs)
TOTAL CHARGES							
* at breast i.e. 1.3m above the ground ** Annual Allowable Cut							
Received sum of Shillings/=							
(Shs.)							
..... Issuing Officer							
..... Designation							
Distribution:- Original to Licensee Duplicate for Account Triplicate to remain in the book							

ANNEX 4 FURTHER DETAILS OF FOREIGN ASSISTANCE TO THE FORESTRY SECTOR IN UGANDA SINCE 1990

The tables below present more detailed financial information about some of the foreign assistance projects described in Section 5.2 of this report.

Table 18 *Forestry Rehabilitation Project budget in 1990 - 91, by project component, cost category and source of funds (in US\$ '000)*

Cost category	Project component and source of funds											
	Industrial softwood plantations			Forestry Department rehabilitation			Forestry Department farm forestry			Farm forestry spearheading		
	IDA	GoU	Total	IDA	GoU	Total	DANIDA	GoU	Total	DANIDA	GoU	Total
Civil works building	73.75	4.25	78.00	1,915.60	110.50	2,026.10	1,089.17	62.83	1,152.00			
Civil works roads	52.89	5.31	58.20									
Other civil works	44.98	4.52	49.50	9.09	0.91	10.00	62.29	6.23	68.52			
Plantations	269.39	26.85	296.24	0.09	0.91	10.00	41.67	4.17	45.84	22.61	2.26	24.87
Vehicles	5.00		5.00	1,742.50		1,742.50	99.06		99.06	3.64		3.64
Materials & equipment	235.60		235.60	977.80		977.80	227.44		227.44	28.53		28.53
Technical assistance	10.00		10.00	830.60		830.60	30.15		30.15	340.55		340.55
Other recurrent costs				10.47	3.13	13.60				17.50	3.50	21.00
Repairs & maintenance	59.38	17.82	77.20	129.63	38.87	168.50	67.56	13.52	81.08	59.99	12.00	71.99
Allowances & wages				117.46	35.24	152.70	225.38	45.08	270.46	34.30	6.86	41.16
Total	750.99	58.75	809.74	5,733.24	189.56	5,931.80	1,842.72	131.83	1,974.55	507.12	24.62	531.74

Cost category	Project component and source of funds									
	Peri-urban plantations	Natural Forests	Training	Total breakdown of project budget by source of funds					GoU	Total
	NORAD	EU	UNDP	DANIDA	IDA	OTHERS				
Civil works building	236.00	1,165.00		1,089.17	1,989.35	1,401.00		177.58	4,657.10	
Civil works roads					52.89			5.31	58.20	
Other civil works	44.00			62.29	54.07	44.00		11.66	172.02	
Plantations	54.00	326.00		64.28	278.48	380.00		34.19	756.95	
Vehicles		146.50		102.70	1,747.50	146.50			1,996.70	
Materials & equipment		52.00		255.97	1,213.40	52.00			1,521.37	
Technical assistance		400.00	39.40	370.70	840.60	439.40			1,650.70	
Other recurrent costs	4.50	328.00		17.50	10.47	332.50		6.63	367.10	
Repairs & maintenance	26.30	130.30		127.55	189.01	156.60		82.21	555.37	
Allowances & wages	31.00	75.00		259.68	117.46	106.00		87.18	570.32	
Total	395.80	2,622.80	39.40	2,349.84	6,493.23	3,058.00		404.76	12,305.83	

Table 19 *Expenditure from the European Development Fund on the Natural Forest Management Project, by activity (1988 - 1995)*

Sub-component	Expenditure ('000 ECU)
Energy farming	960
High forest (boundary demarcation)	310
Savannah forest	370
Encroachment and enrichment planting	2,310
Charcoal production management	210
Logging management and revenue collection	1,630
Natural forest conservation	310
Technical assistance	1,600
Training and evaluation	400
Contingencies	400
Total	8,500

Source: Evaluation report - Natural Forest Management and Conservation Project (1988-1995)

Table 20 *Original budget for Phase II of the Peri-urban Plantations Project (1996 - 2000), by year, cost category and source of funds*

Cost item	1996/97 Budget			1997/98 Planned			1998/99 Planned			1999/2000 Planned		
	Donor '000 US\$	Local Ush mill.	Total Ush mill.	Donor '000 US\$	Local Ush mill.	Total Ush mill.	Donor '000 US\$	Local Ush mill.	Total Ush mill.	Donor '000 US\$	Local Ush mill.	Total Ush mill.
Fixed assets												
Construction & buildings	154.0		165.6	77.0		82.8	77.0		82.8			
Machinery & equipment	62.0		66.7	46.0		49.5				92.0		98.9
Roads	7.0		7.5				31.0		33.3	54.0		58.1
Transport vehicles												
Trucks												
Cars & pickups												
Other vehicles	12.0		12.9									
Other fixed assets												
Personnel												
Long term experts												
Consultants	78.0		83.9	34.0		36.6	74.0		79.6	34.0		36.6
Local salaries & wages	23.0		24.7	104.0		111.8	123.0		132.2	138.0		148.4
Incentives & allowances	6.0	30.0	36.5	5.0	30.0	35.4	5.0	30.0	35.4	5.0	30.0	35.4
Non-wage goods & services												
Training	46.0		49.5	46.0		49.5	16.0		17.2	15.0		16.1
Vehicle O & M	62.0	15.0	81.7	39.0	38.0	79.9	39.0	54.0	95.9	35.0	68.0	105.6
Consumables	5.0		5.4	14.0		15.1	1.0		1.1	1.0		1.1
Utilities	6.0		6.5	6.0		6.5	6.0		6.5	6.0		6.5
Property costs				20.0	12.0	33.5	30.0	22.0	54.3	30.0	61.0	93.3
Other goods & services				55.0		59.1	13.0		14.0	67.0		72.0
Taxes												
All taxes		13.0	13.0		8.0	8.0		2.0	2.0		18.0	18.0
Total (inc. tax)	461.0	58.0	553.6	446.0	88.0	567.5	415.0	108.0	554.1	477.0	177.0	689.8
Total (exc. tax)	461.0	45.0	540.6	446.0	80.0	559.5	415.0	106.0	552.1	477.0	159.0	671.8
Funds secured												
Government of Norway	461.0		495.6	446.0		479.5	415.0		446.1	477.0		512.8
Ministry of Nat. Res.		13.0	13.0		8.0	8.0		2.0	2.0		18.0	18.0
Appropriation-in-Aid		45.0	45.0		80.0	80.0		106.0	106.0		159.0	159.0
Total secured funds	461.0	58.0	553.6	446.0	88.0	567.5	415.0	108.0	554.1	477.0	177.0	689.8

Note: the above figures were prepared using an exchange rate of US\$ 1 = Ush 1,075.

Table 21 *Current budget for Phase II of the Peri-urban Plantations Project (1999 - 2001), by year, cost category and source of funds*

Cost item	1999/2000 Budget		2000/01 Planned		
	Donor '000 US\$	Local Ush mill.	Donor '000 US\$	Local Ush mill.	Total Ush mill.
Fixed assets					
Construction & buildings					
Machinery & equipment		92.0			
Roads		54.0		2.9	4.0
Transport vehicles					
Trucks					
Cars & pickups					
Other vehicles					
Other fixed assets					
Personnel					
Long term experts					
Consultants		34.0		43.3	59.0
Local salaries & wages		138.0		22.0	30.0
Incentives & allowances		5.0		11.0	55.0
Non-wage goods & services					
Training		16.1		11.0	15.0
Vehicle O & M		350.0		13.2	43.0
Consumables		1.0		2.2	10.0
Utilities		6.0		3.7	8.0
Property costs		30.0		2.2	13.0
Other goods & services		67.0		1.5	17.0
Taxes					
All taxes			79.5		
Total (inc. tax)		793.1	79.5	113.0	254.0
Total (exc. tax)		793.1	0.0	113.0	437.4

Table 22 *Original budget for Phase III of the National Biomass Study (1996 - 2000), by year, cost category and source of funds*

Cost item	1996/97 Budget			1997/98 Planned			1998/99 Planned			1999/2000 Planned			Donor total '000 US\$
	Donor	Local	Total	Donor	Local	Total	Donor	Local	Total	Donor	Local	Total	
	'000 US\$	Ush mill.	Ush mill.	'000 US\$	Ush mill.	Ush mill.	'000 US\$	Ush mill.	Ush mill.	'000 US\$	Ush mill.	Ush mill.	
Fixed Assets													
Construction & Buildings				5.0		5.4		5.0	5.0		10.0	10.0	5.0
Machinery & Equipment	40.0		43.0	40.0		43.0	50.0		53.8	50.0		53.8	180.0
Roads													
Transport vehicles													
Trucks													
Cars/Pickups				80.0		86.0							80.0
Other vehicles													
Other fixed assets	8.0	62.0	70.6		60.0	60.0	5.0	50.0	55.4		40.0	40.0	13.0
Personnel													
Long term experts													
Consultants	60.0		64.5	40.0		43.0	50.0		53.8	40.0		43.0	190.0
Local salaries & wages	20.0		12.5	15.0		16.1	15.0		16.1	15.0		16.1	65.0
Incentives & allowances	100.0		107.5	80.0		86.0	80.0		86.0	80.0		86.0	340.0
Non-wage goods & services													
Training	50.0		53.8	20.0		21.5	40.0		43.0	20.0		21.5	130.0
Vehicle O&M	52.0		55.9	55.0		59.1	55.0	10.0	69.1	55.0	10.0	69.1	217.0
Consumables		10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Utilities	5.0		5.4	5.0		5.4	5.0		5.4	5.0		5.4	20.0
Property costs	5.0		5.4	10.0		10.8	10.0		10.8	10.0		10.8	35.0
Other goods & services	20.0		21.5	20.0		21.5	20.0		21.5	30.0		32.3	90.0
Taxes													
All taxes		110.0	110.0		30.0	30.0		104.0	104.0		30.0	30.0	
Total (inc. tax)		182.0	569.0		100.0	497.8		179.0	533.8		100.0	427.9	
Total (exc. tax)	360.0	72.0	459.0	370.0	70.0	467.8	330.0	75.0	429.8	305.0	70.0	397.9	1,365.0

Table 23 *Current budget for Phase III of the National Biomass Study (1999 - 2001), by year, cost category and source of funds*

Cost item	1999/2000 Budget		2000/01 Planned		
	Donor '000 US\$	Local Ush mill.	Donor '000 US\$	Local Ush mill.	Total Ush mill.
Fixed assets					
Construction & buildings				2.2	13.6
Machinery & equipment		55.0			
Roads					
Transport vehicles					
Trucks					
Cars & pickups		30.0		2.8	2.8
Other vehicles					
Other fixed assets					
Personnel					
Long term experts					
Consultants		40.0		20.5	33.3
Local salaries & wages		15.0		5.2	8.4
Incentives & allowances		100.0		38.3	62.2
Non-wage goods & services					
Training		15.0		46.0	74.7
Vehicle O & M		65.0		12.8	20.8
Consumables				5.0	5.0
Utilities		10.0		3.7	6.0
Property costs		10.0			
Other goods & services		20.0		7.3	31.8
Taxes					
All taxes				30.0	30.0
Total (inc. tax)		360.0		67.8	288.5
Total (exc. tax)		360.0		37.8	258.5

Table 24 *Current budget for the Tree Seed Project (1999 - 2001), by year, cost category and source of funds*

Cost item	1999/2000 Budget		2000/01 Planned		
	Donor '000 US\$	Local Ush mill.	Donor '000 US\$	Local Ush mill.	Total Ush mill.
Fixed assets					
Construction & buildings		19.2	2.5	5.0	9.1
Machinery & equipment	8.2	8.2	11.1	1.0	19.0
Roads					
Transport vehicles					
Trucks	5.3	7.2			
Cars & pickups					
Other vehicles					
Other fixed assets					
Personnel					
Long term experts	45.0		35.0		56.8
Consultants	15.0		45.0		73.0
Local salaries & wages	3.1	47.9	14.0	50.0	72.7
Incentives & allowances	19.3	38.8	28.4	11.8	57.9
Non-wage goods & services					
Training	33.2	2.0	20.4	1.0	34.1
Vehicle O & M	14.1	42.4	9.6	5.8	21.4
Consumables			3.9		6.3
Utilities	7.5	12.0	4.8	6.1	13.9
Property costs		13.8		18.0	18.0
Other goods & services	5.2	8.6	6.5	1.3	11.9
Taxes					
All taxes		24.2		1.5	1.5
Total (inc. tax)	155.9	224.2	181.2	101.5	395.6
Total (exc. tax)	155.9	200.0	181.2	100.0	394.1

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

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