FOREST FINANCE

The forest revenue system and government expenditure on forestry in Ethiopia

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THE FOREST REVENUE SYSTEM AND GOVERNMENT EXPENDITURE ON FORESTRY IN ETHIOPIA

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INFORMATION NOTE ON THE FAO PROGRAMME ON FOREST FINANCE

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

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

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

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

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

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ABSTRACT

This report describes the current structure of fiscal policies in the forestry sector in Ethiopia. Because of the federal system of government, it is not easy to present information about total revenue collection and public expenditure in the whole of the country, but the report presents information at the federal level and from a selection of states. Overall, it is believed that the amount of revenue collected is higher than public expenditure in the sector. The report describes how some states are introducing innovative financing mechanisms such as auctioning harvesting rights, revenue sharing and revenue retention by the forestry administration. It also shows that charges collected from the production of NWFPs are very important in the country. Finally, it presents a number of recommendations about how the current situation of low revenue collection might be improved and suggests some more general policy reforms.

EXECUTIVE SUMMARY

The fiscal policy framework in Ethiopia has changed dramatically over the last decade. The country has changed from a planned economy to a market economy and government control over the sector has been gradually reduced. In addition, the system of government has changed from a strong central government to a federal system of government, giving the regional states much more control over their natural resources.

A number of previous studies have examined forest charges in Ethiopia. These studies have followed two approaches to estimating forest charges: the residual stumpage value approach and the replacement cost approach. The former approach looks at the market prices for forest products and subtracts from these the costs of processing and harvesting to arrive at a standing value of trees. The second approach examines all of the costs of forest management and adds these together to calculate a total cost of production. It has been difficult to use either of these approaches because of difficulties in obtaining data for these calculations. However, the replacement cost approach has been slightly more successful in the past.

In general, despite these efforts, the levels of forest charges are believed to be far too low. However, some states are starting to use more competitive ways of selling harvesting rights, such as auctions. These auctions are resulting in prices that are far higher than the prices set by government.

In addition to the revenue collected from charges on roundwood production, charges on NWFP production and forest recreation are also important sources of forest revenue in Ethiopia. Other forest charges include fines and penalties, sales of confiscated or seized products and seedling sales from government nurseries. There are no specific forestry charges on the forest processing industry or forest products trade. In addition, there is a quite significant area of private forests in Ethiopia and the government does not collect charges on production from these areas.

The total amount of forest charges that should be paid by permit holders is assessed by field technicians from the forestry administration in each state. This money should be paid in advance and is deposited into the general government accounts (Consolidated Fund) in each state. By comparing the level of production with total revenue collection, it is suspected that a lot of producers evade payment of forest charges.

Forest revenue is used by state governments to supplement the grants that they receive from the Federal Government. The forestry administration is not allowed to retain any of this money for reinvestment in the sector unless this is approved by the government. Only Oromiya Regional State allows this and, in Oromiya, about 80% of the forest revenue collected is retained by the forestry administration. There is a general perception that the amount of money collected by the states is far more than the amount that they spend on forestry.

The annual budget allocation to the Federal Ministry of Agriculture is very small (less than one percent of total government spending or between 25 million and 47 million Birr in recent years). Annual expenditure on the forestry sector accounts for less than 1 million Birr (or only about 2 - 3 percent of this), although the budget for wildlife conservation is another 4 million to 5 million Birr.

However, in addition to spending at the federal level, the Federal Government also provides substantial grants to the state administrations for forestry and wildlife to cover most of their recurrent and capital expenditure. In recent years, these grants have amounted to between 10 million and 35 million Birr in capital expenditure and 120 million to 150 million Birr in recurrent expenditure. Thus, the amount spent on forestry and wildlife at the state level is about thirty times the amount spent at the central level.

The states also collect their own revenue from a variety of sources but, with the exception of Oromiya, it is not known how much of this they spend on forestry (i.e. in addition to the grants from the Federal Government). In Oromiya, the state spends about 4 million to 5 million Birr per year of their own revenue on the forestry sector, which is about the same amount that the forestry administration is allowed to retain from forest revenue collection.

It is recommended that the forestry administrations in each state should re-examine their forest charges as they are currently far too low. It is suggested that this should be done using the replacement cost method using updated cost and price information and that the states should do this on a regular basis. It is also suggested that they should try to implement more innovative methods of selling forest goods and services.

In broader terms, it is suggested that the forestry sector suffers from a lack of clear direction and that the absence of clear policies for the forestry sector and land-use are major impediments to the implementation of sustainable forest management. In particular, the clearance of forest land for agricultural production is highlighted as a major problem for sustainable development in the country. There is a gradual realisation that sustainable forest management is an important issue that needs to be addressed, but there is a lack of political will to deal with this. It is suggested that greater efforts must be made to demonstrate the importance of the sector for sustainable development, so that policymakers might give more support for policy reform.

LIST OF ACRONYMS USED IN THE REPORT

CSA	=	Central Statistical Authority
dbh	=	diameter at breast height
FAO	=	Food and Agriculture Organization of the United Nations
GDP	=	Gross Domestic Product
GTZ	=	German Technical Co-operation Agency
MEDAC	=	Ministry of Economic Development and Co-operation
NWFPs	=	Non-wood forest products
SIDA	=	Swedish International Development Co-operation Agency
US$	=	United States Dollar

1 DESCRIPTION OF THE FOREST REVENUE SYSTEM

The forest resources of Ethiopia consist of natural forests, plantation forests and trees on farms. Currently, there are three types of forest ownership in Ethiopia: federal government forests; regional government forests; and private forests (see Table 1). These forests supply local people with forest products such as: fuelwood; construction materials; and other intangible benefits. The industrial forest plantations consist of both softwoods and hardwoods. Most of the hardwood plantations are in peri-urban areas and are mainly used to supply fuelwood and poles to urban enterprises. The main objective of the softwood plantations is to provide industrial roundwood (mostly sawlogs) to forest processors.

Table 1 The forest resources of Ethiopia by type and ownership (average 1996-1999)

Type of forest	Government	Community	Private	Total
Industrial forest plantations	*76,050*	*0*	*0*	*76,050*
Non-industrial forest plantations	*99,664*	*79,500*	*0*	*179,164*
Total – all forest plantations	175,714	79,500	0	255,214
Natural forests	34,995	0	79,500	114,495

Note: all figures are in hectares. Non-industrial forest plantations are forest plantations used to produce poles and fuelwood. Most of the areas included as "natural forests" above have very low forest cover and are classified as "other wooded land" in FAO's Global Forest Resource Assessment.

The contribution of forestry to Ethiopia's Gross Domestic Product (GDP) is significant. However, the contribution has been underestimated due to a lack of data. In addition, the non-market value of the forest resource is not known. For example, the national accounts do not include the value of non-market forest products produced each year and the value of the environmental and social services provided by Ethiopia's trees and forests.

1.1 Charges for roundwood production

1.1.1 Charges levied in government forests

The first charges for logs of different types from natural forests were set in 1979 after the nationalisation of all land and forests over 80 hectares in size. These charges were applied to all forests owned by the government and were set by the former Forestry Development and Conservation Department of the Ministry of Agriculture. The charges were mainly stumpage fees for standing trees or charges for trees cut by Department and transported to the roadside.

These charges varied by tree species, tree diameter at breast height (dbh) and the location of the sale (i.e. standing in the forest or at the roadside). Examples of some of the charges are given in Table 2. The charges also varied according to the distance of the forest from the capital Addis Ababa (see Table 3). These charges were applied from 1979 to 1990.

Table 2 ***An example of some of the forest charges applied from 1979 to 1990, showing the variation in charges by species***

Tree species	**Stumpage charge for standing trees**		**Charge for trees cut and extracted to the roadside**	
	Birr/m^3	**US\$/m^3**	**Birr/m^3**	**US\$/m^3**
Podocarpus gracilior	19	3.80	34	6.80
Juniperus procera	27	5.40	42	8.40
Eucalyptus spp.	20	4.00	21	4.20
Hagenia abyssinica	38	7.60	53	10.60
Olea africana	27	5.40	42	8.40
Croton machrostachys	6	1.20	21	4.20

Table 3 ***An example of the forest charges applied from 1979 to 1990, showing the variation in charges according to distance from Addis Ababa***

Location	**Stumpage charge for standing trees**		**Charge for trees cut and extracted to the roadside**	
	Birr/m^3	**US\$/m^3**	**Birr/m^3**	**US\$/m^3**
Podocarpus species with a diameter of 40 cm dbh, located 200 km from Addis Ababa	25	5.00	40	8.00
Podocarpus species with a diameter of 40 cm dbh, located 470 km from Addis Ababa	23	4.60	38	7.60

In 1990, the first forest products pricing and marketing study was conducted by the Ministry of Agriculture (Ministry of Agriculture, 1990a and 1990b) in collaboration with the Swedish International Development Co-operation Agency (SIDA). Some of the conclusions of the study were as follows:

- Natural forests carry no silvicultural costs and are often thought to be an inexpensive source of roundwood. However, the charges paid for roundwood from forests owned by the government are very low compared to roundwood production costs and the costs of management and replanting. Indeed, the revenue collected from roundwood production in government forests is not enough to cover the costs of management and replanting.

- For many years, the charges set by the government have been arbitrary and have not considered what a more realistic level of charges should be.

- Charges paid by the private sector for the use of government forests are fixed, while forest products are sold at free market prices. In recent years, the prices of processed forest products have increased while the charges for roundwood have not changed.

As a result of this study, the charges for roundwood were updated in 1990 and again in 1993 (see Table 4). From 1990, the Forestry Department only sold standing trees and charged users stumpage fees for harvesting trees in government forests. As before, these charges were based on the size (dbh) of trees, tree species, the location of the forest and the distance from the forest to the urban centres. Thus, again, these charges were not the same in all locations in the country.

Table 4 Some examples of the stumpage charges applied from 1990 to 1993 and 1993 to 1995

Tree species	Charges from 1990 – 1993 (in Birr/m^3)	Charges from 1993 – 1995 (in Birr/m^3)
Podocarpus gracilior	37	120
Juniperus procera	31	82
Hagenia abyssinica	37	120

The last time that forest charges were changed was 1995 and examples of the stumpage charges levied in Gambella and Oromiya states from 1995 until now are shown in Table 5. Again, these charges vary by tree species and region.

Table 5 Stumpage fees for harvesting in government forests in Gambella and Oromiya states (1995 to present)

Tree species	Stumpage charge in Gambella state (in Birr/m^3)	Stumpage charge in Oromiya state (in Birr/m^3)
Chlorophora excelsa	88	292
Memosops kummel	88	292
Polyscia ferruginea	66	292
Croton machrostachys	66	292
Aningeria adolfi-fredericii	78	292

Now that some government functions in Ethiopia have been decentralised, the Federal Ministry of Agriculture can not set stumpage charges in states and this has resulted in different approaches to setting stumpage charges in each of the states. For example, in Gambella state, charges vary by tree species and quality, with the highest stumpage charges for logs with the highest market demand. On the other hand, in Oromiya State, a minimum stumpage charge of 292 Birr/m^3 is levied for all indigenous tree species. Not only is this much higher than in Gambella, but it should also be noted that this is just a minimum and that the final stumpage charge is decided by auction. There have been reports from Oromiya State that stumpage prices achieved at auctions can reach up to 700 Birr/m^3 for the most desirable sales of logs.

The stumpage charges for some other minor forest products produced in government forests are shown in Table 6 and Table 7.

Table 6 Stumpage fees for roundwood harvested from government forests for charcoal production

Tree species	Stumpage fee until October 1993 (in Birr per stacked cubic metre)	Stumpage fee since October 1993 (in Birr per stacked cubic metre)
Acacia	13	35
Albizia	13	25
Aningeria	13	24
Apodytes	13	35
Pinus	4	4

Table 7 Stumpage fees and taxes for construction, telephone and transmission poles harvested from government forest plantations (1990 to present)

Pole length	Stumpage fee (in Birr/pole)	Tax (service charge) (in Birr/pole)
4 m pole	0.15	-
6 m pole	0.16	0.04
7 m pole	2.60	0.60
9 m pole	3.64	0.84
11 m pole	4.68	1.08
13 m pole	5.73	1.32
15 m pole	6.81	1.56
17 m pole	7.79	1.80
18 m pole	8.33	1.92

1.1.2 Charges levied on production from private forests

Originally, a charge of 40 percent was levied on the value of roundwood sold from private forests. Harvesting in private forests was licensed, and this was considered as a service charge to be paid instead of stumpage fees. Forestry officials used to check for licences and permits and impose charges at checkpoints on roads. Nowadays, the movement of roundwood, sawnwood and wood-based panels is not strictly controlled and these checkpoints have been lifted. Thus, there is a free movement of forest products and these charges are no longer collected.

1.2 Charges for production of non-wood forest products and services

Some of the most important non-wood forest products (NWFPs) in Ethiopia are natural gum products (used to produce incense), which include the following: gum arabic; gum olibanum; gum oppoponex; and gum myrrh. In addition, bamboo and honey products are also significant NWFPs (for further details, see Deffar, 1998).

Until 1992, the Natural Gum Production and Marketing Enterprise (a parastatal company) was the sole government producer and distributor of incense to both domestic and international markets. Nowadays, it largely depends on nomadic pastoralists, private concessionaires and individual traders to supply it with incense. The enterprise uses a system of contracts with these suppliers who collect the incense in return for the payment a fixed price. The enterprise then covers the other costs of cleaning, processing, transporting and marketing the gum and incense products.

There are seven different grades of incense in Ethiopia and representatives of the enterprise grade the products when they are purchased from suppliers. The prices paid to suppliers depend on the grade of the product. For example, the prices paid to suppliers for incense of grades 4 and 5 vary from 5 to 8 Birr per kilogram and the retail price of the same grades of incense vary from 5 to 20 Birr per kilogram. Most of the natural gum products produced in Ethiopia are exported to other countries, but low quality products are sold in the domestic market for local consumption.

The enterprise pays a royalty fee to the forest administration in each state for the harvesting of gum. These royalties are also based on the grades of products that are harvested. Examples of the royalties paid for gum and other NWFPs are shown in Table 8.

Table 8 Royalties paid for the harvesting of gums and other NWFPs in 1990

Commodity	**Quality**	**Royalty Birr/kg**
Kerbie/gum	1	3.50
Incense	1	4.80
Incense	2	2.30
Incense	3	0.30
Honey	n.a.	3.31
Gesho	n.a.	0.49

In most forest areas, local people also collect honey from hives in the trees. There are not any charges on this production.

Charges in the wildlife sector are levied in national parks and for the hunting and export of live animals. Charges levied in national parks include: entrance fees; camping fees; and charges for taking vehicles into the national parks. Camping and entrance fees vary according to nationality, age and the residency status of the visitor (i.e. foreign tourist or resident foreigner). Vehicle fees are based on the size of the vehicles entering national parks. In addition, where aircraft are used for ecotourism in national parks, charges (based on the number of engines) are paid for landing and take-off. These charges are determined by staff of the wildlife service and are summarised in Table 9 and Table 10 below.

Table 9 Camping and entrance fees charged in national parks (1993 to present)

Type of change	Entrance fee (in Birr/visit)	Camping fee (in Birr/night)
Ethiopian citizens		
Adults	3	2
Children	2	2
Resident foreigners		
Adults	30	20
Children	30	5
Tourists		
Adults	50	20
Children	50	5

Table 10 Entrance fees for taking vehicles into national parks (1993 to present)

Entrance fee for vehicles	Charge (in Birr)	Landing/take-off fee for aircraft	Charge (in Birr)
Up to five seats	10	One-engined aircraft	20
Between 5 and 12 seats	15	Two-engined aircraft	10
Above 12 seats	20		

Hunting fees are another sources of revenue for the forestry sector. A quota system is used to limit the number of animals that can be hunted. These quotas are based on the abundance of different species. The numbers of rare wild animals that may be hunted are fixed each year (e.g. these quotas are currently: 9 lions per year; 6 leopards per year; 15 Chilada baboons per year; 27 Nyala per year, etc.). The charges for hunting wild animals also vary by species (see Table 11 below).

Table 11 Charges levied for hunting wild animals (1993 to present)

Species	Annual quota (number of animals)	Hunting charge (US$ per animal)
Lion	9	2,000
Leopard	6	2,300
Chilada baboon	15	1,000
Nyala	27	5,000

1.3 Charges on processed forest products

There are no specific forest charges on the production of processed forest products such as sawnwood, wood-based panels and paper products. Rather, charges are levied on the wood raw materials used to make these products (as already described above). However, a general sales tax is levied on the sale of processed forest products. Currently, this tax is levied at a rate of five percent of the value of all sales.

1.4 Charges on forest products trade

There are also no specific forest charges on trade in processed forest products. Customs duties are levied on some products, but no duty is charged on imported lumber. This policy has been implemented to provide an incentive to import lumber.

1.5 Other charges

The Forestry Department also collects revenue from a range of other charges including the following:

- **Fines and penalties.** There are a number of forestry laws and regulations concerning forestry conservation, development and utilisation. For example, nobody is allowed to harvest forest products without written permission from the Ministry of Agriculture or the appropriate regional body. Fines and penalties can be levied if such forest laws and regulations are not followed.

- **Sales of seized products.** Forest products that are produced illegally can be confiscated and sold by the government. Such products are often sold by auction and official receipts are issued for these sales.

- **Sales of seedlings.** Seedlings produced by state owned nurseries are sold in the open market.

The money collected from such charges is deposited in the usual account for forest revenues.

The use of forest land for any other purpose also requires the user to pay an annual tax on the land. This tax is the same as for any other type of land used for such purposes.

2 ADMINISTRATION OF THE FOREST REVENUE SYSTEM

2.1 The process of setting forest charges

Since the 1975 land proclamation, which turned over all ownership rights of land to the state, the use of forests has been based on a system of production quotas issued by the forest administration. Technicians in the field locate the areas of forest from which the quotas may be cut and assess charges. This assessment depends on the volume of each tree species that will be cut, the quality and type of roundwood that will be produced and the location of the forest.

Until 1990, the government determined or approved the prices for all forest products, based on technical guidelines and estimates of the value of the products. The guidelines focused on the royalty fees and stumpage fees that should be charged for different types of roundwood. However, these charges did not take into account the cost of production or the cost of replacing the forests that would be cut. Instead, they were mainly based on the local market prices of different forest products, taking into account the distance of each forest from major towns. This resulted in prices that were generally too low. Along with the inadequate recognition of many of the goods and services provided by forests in Ethiopia, this is believed to be one of the main reasons why it has been difficult to implement sustainable forest management in the country.

2.1.1 The 1990 forest products pricing and marketing study

In 1990, a study was conducted in order to improve the estimation of forest charges (see: Ministry of Agriculture, 1990a and 1990b). The objective of the study was to rationalise stumpage fees, based on two alternative methodologies:

- the residual value method – where the stumpage value is based on the market price of forest products minus all costs of production (i.e. harvesting, extraction, transport and other costs); and

- the production cost or replacement cost method – where the stumpage value is based on the cost of forest management (including all forest costs from the production of seedlings to production of the final product).

In the first method, the stumpage fees for different types of roundwood were to be determined from the market prices of different forest products in 23 selected towns, minus the costs of production. However, this methodology did work very well because it was difficult to obtain the true sale prices of forest products from many producers. For this reason, this methodology was not used to estimate stumpage fees.

The second methodology was also difficult to use because detailed research was required to estimate the production cost of each tree species, starting from seed collection to the end of the rotation. Therefore, in order to overcome these difficulties, a special study was carried out to estimate the costs of production. Information was collected about the costs of producing trees, plus harvesting and transportation costs. In addition, computer models were developed to help the study group to include interest rates and a profit margin (estimated at 8 percent and

15 percent respectively) in the calculations. The study also assumed a 45 percent sawnwood recovery rate in the calculations.

The species and forest products included in the study were as follows:

- roundwood;
- sawnwood;
- Eucalyptus poles;
- fence posts;
- charcoal;
- fuelwood;
- bamboo; and
- incense and natural gum products.

Following this study, forest charges were updated in 1993 (see Table 12). As the table shows, the stumpage charges for different tree species were increased dramatically, so that the charges for indigenous tree species such as *Podocarpus gracilior*, *Juniperus procera* and *Olea africana* were increased to over 200 Birr per cubic meter.

Table 12 Increases in average stumpage charges as a result of the 1990 forest products pricing and marketing study

Product type	Charges from 1990 – 1993 (in Birr/m^3)	Charges from 1993 – 1995 (in Birr/m^3)
Sawlogs		
Indigenous	83	292
Exotic	34	193
Construction poles	21	78
Fuelwood		
Indigenous	28	54
Exotic	4	14
Wood for charcoal		
Indigenous	35	54

The stumpage charges shown above are averages but, as noted earlier, stumpage charges also vary by species. For example, the current stumpage prices paid for fuelwood (in the free market) are as follows:

- *Eucalyptus* spp 46.8 Birr per cubic meter
- *Cupressus* spp 14.8 Birr per cubic meter
- Indigenous species 54.8 Birr per cubic meter

It should also be noted that, before 1993, there were two types of prices for forest products in the market. In the free market, prices were determined by market forces (i.e. the interaction of supply and demand). However, government forestry enterprises had to sell their forest products at prices set by the government. Table 13 below compares the market prices for sawnwood in 1993 compared with the prices set by the government. As the table shows, the difference between the prices charged by government forestry enterprises and the private sector was over 1,000 Birr per cubic meter of sawnwood. Thus, in view of this, the increase in stumpage charges introduced in 1993 can still be considered insignificant.

Table 13 The market price of sawnwood compared with the fixed prices of government forestry enterprises in 1993

Tree species	Fixed prices set for government forestry enterprises (in Birr/m^3)	Free market prices charged by the private sector (in Birr/m^3)
Juniperus procera	717	1,800
Aningeria	717	1,800
Cordia africana	717	1,800
Olea africana	717	1,800

2.1.2 The current process used to calculate forest charges

As already noted above, for many years stumpage charges did not reflect the cost of growing trees or the markets ability to pay for roundwood and forest products. For example, a number of studies have shown that if stumpage charges had followed forest management and production costs, the selling prices of forest products such as lumber would have doubled a long time ago.

Therefore, the replacement cost method is now used to estimate stumpage charges. As before, this involves calculating the cost of production from seed collection to the end of the rotation, using the most up to date cost and price information available. However, market-based stumpage prices are also now used to cross-check and correct the prices calculated by this method. Indeed, in most regions, the level of market demand and forest product recovery rates are now very important factors that influence the level of royalties that are set. Furthermore, some states are introducing more market-orientated methods of selling standing trees (see, for example, the comments on stumpage auctions in Oromiya state in Section 1.1.1 above) and, where forest products are sold by auction, this is believed to benefit the forestry sector.

2.1.3 The administrative and legal process used to set and enforce forest charges

The administrative process used to set and enforce forest charges is as follows:

- the responsible forestry administration in each state makes recommendations about what the level of forest charges should be;
- there is a period of consultation on the proposals;

- the Council of People's Representatives has the ultimate responsibility for agreeing to changes in forest charges; and

- once new forest charges have been agreed, the Council of Ministers issues regulations specifying the new fees and charges that will be levied by the forest administration.

The details of any new fees and charges and of any changes to existing fees and charges are always widely publicised by the forestry administration in media such as the press. These notices also give information about the dates from which any new fees and charges will become effective.

In terms of the legal instruments used to set forest charges, the Government Decree No. 50 of 1963 was the original instrument that gave the government the power to set the prices of forest products. However, this decree was repealed as part of the free market economic policy declared in March 1992.

The legal instruments currently used to enforce forest charges are:

- Proclamation No. 57/1996, which is in place at the federal level of government and covers financial administration and management; and

- Regulation No. 17/1997 (based on the above proclamation), which was developed by the Council of Ministers and also covers the issue of financial administration.

2.2 Collection of charges and monitoring

In previous years, royalty collection was the responsibility of the central government and royalties were collected and deposited in the Central Treasury. Currently the regional offices of the Ministry of Agriculture collect royalties and the Federal Forest Conservation and Development Team of the Ministry of Agriculture has little knowledge of the revenue collected and has no mandate to collect this information. Furthermore, different regional governments have different royalty systems and there is no uniform royalty across the whole of the country.

2.2.1 Charge assessment and monitoring in the field

The Forest Conservation and Development Departments at Regional Agricultural Offices have the mandate to issue logging quotas to government and private sawmillers and are also responsible for the control of logging and monitoring compliance with forestry rules and regulations. The site forest technician is responsible for the marking of compartments and the trees that will be harvested. The technician also makes follow-up visits to sites to see whether felling regulations have been followed. However, this procedure does little to prevent loggers from cutting other trees.

Nowadays, logging is normally carried out by the sawmillers and charges are assessed by the forest technician. The forest technician is responsible for the assessment of the grades of both wood and non-wood forest products at the forest site. The forest technician measures the volume of logs that will be harvested and calculates the charges that should be paid, then this information is included in a summary report that is sent to the Woreda Office of Agriculture. This report includes information about the logging site, the type of logs harvested, the identification numbers of the logs, volume estimates, the date of removal and the number plate of the truck that will be used for transporting the logs. It also includes the total estimated charges that must be paid. The Woreda Office of Agriculture checks the all of these reports and then aggregates this information and sends a report to the Zonal Office of Agriculture. The Zonal Office of Agriculture then does the same and sends a report to the Regional Bureau of Agriculture.

2.2.2 Charge payment

All forest charges are paid in advance of harvesting operations. Every time forest revenue is collected on behalf of the Regional or Federal Government of Ethiopia, serially numbered official receipts from the Ministry of Finance are issued and used.

The charges for forest products are usually paid by cheque to the Commercial Bank of Ethiopia, where there is an account for forest revenues. This money is then transferred to a government account under the control of the Ministry of Finance or one of the regional finance bureaus.

All forest revenue from the use or disposal of forest products is deposited in the Consolidated Fund, unless the department is authorised to retain and spend some of this money. When this is permitted, this money is included as both income and expenditure in the department's accounts.

2.2.3 Financial accounting and auditing

The Ministry of Finance has the overall responsibility for supervising the management of public funds, which also include subsidies from the Federal Government to the states. Although, states have a substantial degree of autonomy, the Federal Government takes the lead in setting financial management standards and the states are required to report their expenditure to the Ministry of Finance of the Federal Government.

The administrative process of forest revenue collection is supervised and controlled by the Ministry of Finance at the federal level and the regional bureaus of finance are responsible for administering revenue collection in the field. The regional bureaus of agriculture are responsible for the collection of statistics about the production and utilisation of forest products. This information is used by the Auditor General or the auditor of the Ministry of Finance to compare the amount of revenue generated with the recorded production of forest products.

The Ministry of Finance has unrestricted access to all books, papers, accounts and records of all public bodies, including the Ministry of Agriculture. In addition, all regional governments have a financial management and reporting system. The regional bureaus of finance also have access to the accounts of the regional government bureaus and can conduct audits of the use of budget subsidies and revenue collection. Development budgets for departments are only released after departments have passed an audit by the Ministry of Finance or Regional Finance Bureau.

2.3 Centralised and decentralised levels of government in revenue collection and administration

As noted above, revenue collection is totally decentralised and regional governments have the right to set and collect all forest charges. However, local communities are not involved in revenue collection and are not really involved in decisions about the production of forest products or expenditure on forestry programmes. This is one of the causes of conflict between local people and the forestry administration in many areas.

3 TOTAL REVENUE COLLECTION AND DISTRIBUTION

3.1 Total government revenue

Total government revenue in Ethiopia comes from the following sources:

- direct taxes, which include personal income taxes (including income from the sale of forest products) and land use fees;
- indirect taxes, which include duties on trade and sales taxes on goods and services sold in the domestic market;
- non-tax revenue;
- external loans and credits; and
- external grants.

The total revenue of the Federal Government (including external assistance) was over 7 billion Birr in 1994 and increased to over 10 billion Birr in 1999. A large proportion of this revenue comes from indirect taxes on international trade.

Table 14 Total revenue collected at the federal level

Year	Domestic revenue	External grants	Total revenue
1994	5,913	1,132	7,045
1995	6,966	1,097	8,063
1996	7,985	1,504	9,489
1997	8,298	1,273	9,571
1998	9,019	1,756	10,775

Note: all figures are in million Birr.

3.2 Total forest revenue collection and distribution

Currently, Ethiopia is a federation of nine regional states, plus two urban administrations that come under the control of the Federal Government (see Figure 1 on page 19). Before decentralisation, all forest revenue was deposited in the government's bank account and the approval of the Ministry of Finance was needed before money could be spent on reinvestment in the forestry sector. However, the Ministry of Finance generally allowed the forestry administration to use a fixed amount of the forest revenue collected for forest development and conservation.

After decentralisation, control over forest resources was handed over to the regional governments. The forest revenue collected is now deposited in a special account opened in the National Bank of Ethiopia in each region. This money is put into the Consolidated Fund for each region and can only be used after authorisation by the regional council.

In general, forest revenue is collected from the following activities:

- royalty fees from the production of wood in private and state owned forest resources;
- license fees for the movement of forest products;
- seedling sales and stumpage fees;
- concession fees for harvesting non wood forest products;
- sales of illegally cut timber; and
- penalties for illegal harvesting.

Before decentralisation, most revenue collected from the forestry sector came from royalties and sales of wood products and the average level of revenue collected from these sources was around five million Birr per year (see Table 15). However, by comparing the revenue collected to the amount of wood produced, the amount of revenue collected was lower than would be expected from the amount of wood that was harvested. It is likely that a lot of forest products were harvested without any payment of forest charges due to poor control and the low number of staff working in the sector.

Table 15 Government revenue collected from charges on wood products at the central level before decentralisation

Year	Revenue collected (in Birr)	Year	Revenue collected (in Birr)
1985	7,506,753	1989	5,797,375
1986	4,124,276	1990	4,661,393
1987	4,052,419	1991	6,041,755
1988	5,950,823	1992	6,902,806

Table 16 Government revenue collected from the sale of gum and incense at the central level before decentralisation

Year	Domestic sales (in thousand Birr)	Foreign sales (in thousand Birr)	Total sales (in thousand Birr)
1988	3,908	3,366	7,274
1989	5,652	3,057	8,709
1990	2,779	1,174	3,953
1991	548	848	1,395
Average	**3,222**	**2,111**	**5,333**

Government revenue collected from the sale of natural gum and incense before decentralisation varied between 1.4 million Birr and 8.7 million Birr per year, with an average of 5.3 million Birr per year (see Table 16). Since decentralisation, the revenue collected from these sales has probably increased substantially. For example, in 1998-99, revenue from the sale of 20,672 quintals of natural gum and incense was 8,708,569 Birr in Afar Regional State alone.

The wildlife sector also generates government revenue from hunting for sport, the export of live animals, tourism and sales of Civet musk (see Table 17). This revenue is still collected at the central (i.e. federal) level. About 4.5 million Birr per year was collected from hunting between 1996 and 2000 and charges on the export of live animals contributed a further 2 million Birr to total revenue collection in the same years (note that the figures presented for these items in Table 17 are in US$ per year). It should also be noted that the administration is allowed to retain about 500,000 Birr of this revenue each year for reinvestment in the sector.

Table 17 Government revenue collected from the wildlife sector at the central level

Year	Revenue from Civet musk sales		Revenue from charges on other wildlife products and services	
	Domestic sales (in Birr)	Foreign sales (in Birr)	Hunting fees (in US$)	Charges on the export of live animals (in US$)
1991	329,506	10,281	n.a.	n.a.
1992	980,070	10,778	n.a.	n.a.
1993	1,485,488	38,279	n.a.	n.a.
1994	2,035,134	63,954	n.a.	n.a.
1995	3,097,413	73,365	89,734	349,200
1996	1,851,624	56,648	779,635	191,200
1997	962,231	24,601	687,776	532,900
1998	3,233,336	84,826	734,925	519,130
1999	4,155,632	82,592	538,255	245,460
Total	**2,014,493**	**49,480**	**566,065**	**367,578**

Since decentralisation, total forest revenue collection is unknown for the whole of Ethiopia, although a little information has been collected from some states and is presented below. In addition, the amount of forest revenue collected depends on the amount of forest resources available in each state. For example, Oromiya Regional State has more forest and more capacity to generate forest revenue than other regions. In Oromiya, the average amount of forest revenue collected between 1994 and 2000 was over 5 million Birr per year (see Table 18). Furthermore, unlike other states, some of this revenue (about 80%) has been reinvested in the development and conservation of forest resources in the state.

Table 18 Government revenue generated from forests and wildlife in Oromiya Regional State since decentralisation

Year	Revenue collected (in Birr)	Year	Revenue collected (in Birr)
1994	4,492,932	1998	5,228,653
1995	5,817,233	1999	6,272,746
1996	4,779,607	2000	5,065,682
1997	3,639,498	**Average**	**5,042,335**

In Gambella Regional State, total forest revenue collection has been over 1 million Birr per year on average since decentralisation. Over 60% of this has come from charges on wood products and the remainder from royalties on the sale of gum and incense (see Table 19).

Table 19 Forest revenue collected in Gambella Regional State since decentralisation

Year	Revenue collected from wood production (in Birr)	Revenue collected from royalties on sales of gum and incense (in Birr)
1994	402,562	n.a.
1995	667,573	342,236
1996	725,308	370,818
1997	1,022,486	430,800
1998	570,540	437,338
1999	619,298	429,404
Average	**667,961**	**402,119**

The average level of forest revenue collection in Addis Ababa has been about 250,000 Birr per year since 1993. This revenue comprises: sales of forest products; royalty fees; seedling sales; and other taxes and charges (see Table 20).

Table 20 Forest revenue collected in Addis Ababa since decentralisation

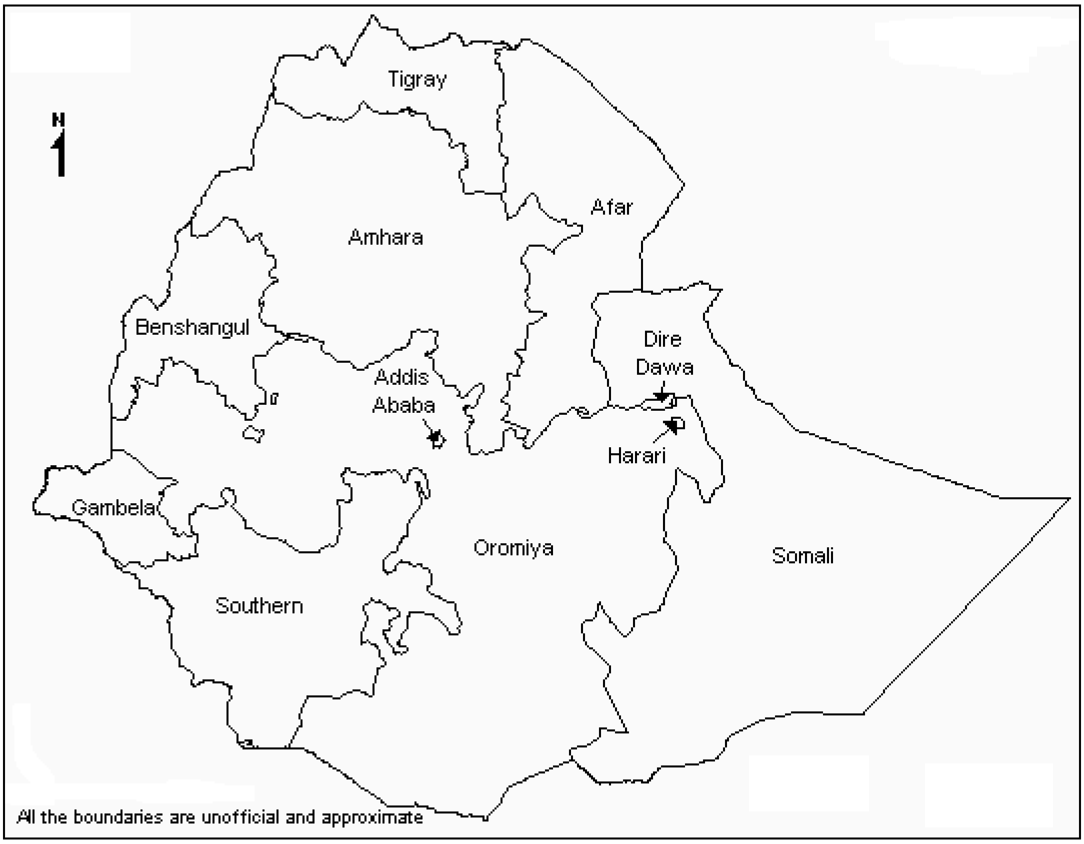
Source of revenue	Year						
	1993	1994	1995	1996	1997	1998	1999
Royalty fees	n.a.	n.a.	15,017	152,450	110,257	25,835	111,801
Sale of forest products	102,379	306,251	232,596	88,707	11,337	n.a.	n.a.
Taxes on non-timber forest products	57,633	67,372	25,557	49,609	n.a.	n.a.	n.a.
Sales of seedlings	n.a.	n.a.	202,484	21,231	53,231	11,976	33,177
Pass permits	72,200	23,461	n.a.	21,136	n.a.	n.a.	n.a.
Other revenue	1,005	2,092	n.a.	n.a.	1,350	1,792	1,470
Total	**233,217**	**399,176**	**475,654**	**333,133**	**176,175**	**39,603**	**146,448**

Note: this revenue is collected at the central level because Addis Ababa is one of the urban administrations that come under the control of the Federal Government.

4 GOVERNMENT EXPENDITURE ON FORESTRY

In 1991, the Ethiopian Government introduced a policy of decentralisation and devolution that resulted in new political and administrative institutions. A federal system of government was introduced, which changed the balance of power in favour of nine newly created regional states (see Figure 1). Each state was based on the different tribal settings in the country and was further divided into Woreda and peasant associations, which became the main administrative units within each state.

Figure 1 Map of Ethiopia showing the nine regional states and two urban administrations (Addis Ababa and Dire Dawa)



After this change, the regional agricultural development bureaus became responsible for the preparation of plans and budgets for the forestry administration in their respective regions. The regional states were also given the power to raise their own revenue and to plan and execute their own development activities in accordance with the overall policies of the federal government. Furthermore, the decentralisation and devolution process did not stop at the regional level. The Woreda (which is the lowest level of formal government within the regions) started to play a more prominent role and, below this, the peasant associations, kebelles, tabias and village councils were given the mandate to develop and enforce bylaws governing the management of natural resources.

4.1 Government budget planning and preparation

At both the regional and federal government level, planning and annual budget preparation starts with an assessment of the economic situation. Amongst other things, this includes an estimation of future revenue. This is particularly important for the forestry administration because, unlike the other government departments, the forestry administration is responsible for the collection of numerous fees, taxes, and royalties associated with the exploitation of state forests. Following this initial assessment, the Federal Government and regional governments follow their own procedures to arrive at a final budget for the forestry administrations under their control.

4.1.1 Budget planning and preparation at the federal level

At the federal level, the first stage of the budget process is to produce an estimate of total expected government revenue. This estimate is produced by the co-ordinating ministries (i.e. the Ministry of Economic Development and Co-operation and the Ministry of Finance) in consultation with the National Bank of Ethiopia. This macro framework is then reviewed and approved by the Prime Minister's Office.

Based on the above information, expenditure budgets are then allocated to the regional and federal governments and are divided into budgets for recurrent and capital expenditure. As part of this process, the Ministry of Finance determines an overall budget ceiling, which is the basis for the submission of budget proposals to each ministry. Once budget proposals have been prepared, negotiated and reviewed by the Ministry of Finance, they are submitted to the Council of Ministers. After the Council of Ministers review the proposals and make their recommendations, the budget proposals are submitted to the Council of People’s Representatives for approval. After they have been approved, the Ministry of Finance announces the budgets for each ministry for the next financial year.

4.1.2 Budget planning and preparation at the regional level

One component of the federal budget is a grant from the Federal Government to the state governments. The allocation of this grant is determined by the Federation Council, which bases their decision on a formula that includes variables such as the population in each state and the capacity of each state to generate their own revenue. The states with less capacity to generate their own revenue are entitled to get a larger allocation of this money.

The state governments follow similar budget planning and preparation procedures to the Federal Government. Regional finance bureaus prepare ceilings for expenditure by the regional bureaus for each sector, which include allocations for capital and recurrent expenditure. This is done after the grant for each state from the Federal Government is announced. The finance bureaus at the zonal and Woreda levels also follow this process at their levels of the administration. The regional finance bureaus then submit their budget proposals to the regional councils for approval. Once the budget proposals have been approved, they are published in the regional Negarit Gazeta.

4.1.3 Budget planning and preparation in the forestry administration

As part of the budgeting process, the Ministry of Agriculture at the federal level and regional level submits their budget plans and proposals to the Ministry of Finance or the regional finance bureaus for discussion. These proposals have to be defended as part of the review process, and then the Ministry of Finance makes their recommendations to the Council of Ministers through the Prime Minister's Office. Finally, the Council of Peoples` Representatives approves the final plans and budgets and they are published by the Ministry of Finance. The same procedure is used at the state level, except that these plans are submitted to the regional councils through the regional finance bureaus.

The planning of forestry activities starts at the development centre level, where plans are prepared and submitted to their respective Woredas. Woredas then aggregate these plans and formulate the Woreda plan, which is submitted to zonal agricultural offices. The plans for each zone are then aggregated to form the regional plans that are discussed and finally submitted to the regional councils for approval. In the case of the forestry sector, these plans are prepared by the regional forest conservation and development team in each state, which is one section of the Ministry of Agriculture.

4.2 Federal government expenditure on the forestry sector

The following tables present some statistics on Federal Government expenditure on the forestry sector in recent years. Table 21 shows total Federal Government expenditure in Ethiopia since 1994 and the budget allocation given to the Ministry of Agriculture. As the table shows, the Ministry of Agriculture accounts for much less than one percent of total Federal Government expenditure in Ethiopia.

Table 21 Total Federal Government expenditure and allocation to the Ministry of Agriculture

Year	Total Federal Government expenditure (in million Birr)			Allocation of expenditure to Ministry of Agriculture	
	Capital expenditure	Recurrent expenditure	Total	(in million Birr)	(in percent)
1994	3,156.5	5,711.6	8,868.1	n.a.	n.a.
1995	3,562.5	5,894.0	9,456.5	n.a.	n.a.
1996	4,299.9	5,842.8	10,142.7	25.2	0.25
1997	4,265.1	7,094.9	11,360.0	27.5	0.24
1998	6,178.9	8,771.8	14,950.7	21.2	0.14
1999	n.a.	n.a.	n.a.	28.8	n.a.
2000	n.a.	n.a.	n.a.	47.0	n.a.

Source: CSA (1999).

4.2.1 Federal Government budget allocation to the federal forestry administration

Table 22 shows the Federal Government budget allocation to the forestry and wildlife sectors since 1995. This table shows that these two sectors account for about one quarter of the total budget allocation to the Ministry of Agriculture.

Table 22 Federal Government budget allocation to the federal administration for forestry and wildlife resources conservation and development

Year	Forestry budget (in thousand Birr)	Budget for wildlife resources conservation and development (in thousand Birr)			Total (in thousand Birr)
		Salary	Operating cost	Total	
1995	n.a.	1,595.6	761.0	2,356.6	n.a.
1996	n.a.	1,996.4	803.3	2,799.7	n.a.
1997	867.5	2,305.5	2,119.7	4,425.2	5,292.7
1998	468.3	3,132.4	1,337.1	4,469.5	4,937.8
1999	382.2	1,607.3	1,841.9	3,449.2	3,831.4
2000	595.5	1,612.6	2,023.0	3,635.6	4,231.1

The Federal Government budget allocation to the forestry and wildlife sectors is also shown in Table 23, by source of funds (i.e. foreign assistance and expenditure supported by domestic revenue collection). This table shows that foreign assistance to the sector has declined in recent years, while domestic financing has increased. However, domestic financing has not increased by the amount that foreign assistance has fallen, so the total budget allocation to these sectors has declined overall. (Note, the figures presented in Table 22 and Table 23 differ slightly, due to the different data sources used).

Table 23 Budget allocation to the federal administration for forestry and wildlife resources conservation and development, by source of funds

Year	Budget allocated from foreign assistance (in thousand Birr)	Budget allocated from Central Treasury (in thousand Birr)	Total (in thousand Birr)
1995	7,383.5	2,878.4	10,261.9
1996	1,209.0	2,357.1	3,566.1
1997	1,738.2	3,989.1	5,727.3
1998	953.6	5,265.5	6,219.1
1999	n.a.	4,145.1	n.a.

4.2.2 Federal Government budget allocation to the state forestry administrations

Table 24 shows the forestry and wildlife budget allocation (or the level of the Federal Government grant) from the Federal Government to the state administrations in recent years. As the table shows, the overall level of grant appears to have increased over time. In addition, the grant for recurrent expenditure is several times larger than the grant for capital expenditure.

The capital budgets of the state governments are fully covered by the Federal Government grant and the states may not add to this. However, the recurrent budgets of the state governments are only partially covered by the Federal Government grant. States can supplement their recurrent budgets with the revenue that they collect (after this has been approved by their respective councils). Unfortunately, information about the amount of money that is collected by the states is not readily available and the amount that is used to supplement their budgets for forestry is not known.

Table 24 Budget allocation from the Federal Government to the state administrations for forestry and wildlife

Region	Capital budget					Recurrent budget	
	1995	1996	1997	1998	1999	1997	1998
Addis Ababa (Region 14)	n.a.	394.7	n.a.	2,762.0	2,088.0	895.4	968.4
Afar	1,994.6	915.4	930.0	2,168.5	838.07	1942.8	2,539.8
Amhara	n.a.	n.a.	n.a.	n.a.	n.a.	81,184.6	105,727.0
Benshangul	175.0	270.0	864.0	n.a.	547.5	1,625.7	1,818.0
Dire Dawa	418.7	888.0	170.0	n.a.	90.10	2,615.1	3,035.3
Gambella	750.0	n.a.	3,658.3	3,936.5	n.a.	1,848.5	1,983.0
Harari	55.1	142.6	n.a.	n.a.	n.a.	1,352.1	1,830.7
Oromiya	4,398.5	4,491.8	4,107.0	1,855.1	2,456.6	n.a.	n.a.
Somali	1,270.0	956.7	1,281.7	804.0	92.6	1,869.2	3,010.2
Southern Region (SNNP)	162.5	5,713.2	981.8	2,850.2	n.a.	5,770.7	4,971.1
Tigray	1,321.0	n.a.	20,100.5	21,461.4	n.a.	20,100.5	21,461.4
Total	**10,545.4**	**13,772.4**	**32,093.3**	**35,837.7**	**6,112.9**	**119,204.6**	**147,344.9**

Note: all figures are in thousand Birr.

4.2.3 Government expenditure on forestry from retained forest revenue

As already noted, all forest revenue collected in the states is deposited in the Regional Treasury, unless approval has been given to use some of this money for reinvestment in the sector. In most states, the forest revenue that is collected is used as a general source of revenue for the state governments and is not used for the development of the sector. However, in Oromiya Regional State, the forestry administration is allowed to retain and utilise some of the forest revenue that is collected for reinvestment in the sector. It is believed that this is the only state where this is allowed at the moment.

Table 25 shows the amount of forest revenue that has been retained for reinvestment in the forestry sector in Oromiya Regional State and the amount of additional money that is made available to the forestry administration from the state government budget. As the table shows, the amount of forest revenue retained by the administration only covers about half of the total government expenditure on forestry in the state. Most of the additional budget for forest conservation and development is used for forest extension. It is believed that most of the budget allocations in the other state governments are also used mainly for this purpose.

Table 25 Retention of forest revenue and state budget allocated to forestry in Oromiya Regional State

Year	Retained forest revenue	State budget allocated to forestry			
		Forest protection	Forest extension	National parks	Total
1994	2,916	n.a.	n.a.	n.a.	n.a.
1995	5,638	n.a.	n.a.	n.a.	n.a.
1996	4,391	924	4,155	n.a.	5,079
1997	3,399	824	4,063	192	5,079
1998	4,507	1,116	2,790	302	4,208
1999	5,845	1,060	2,650	302	4,012
2000	4,386	650	1,785	211	2,646
Average	**4,506**	**915**	**3,089**	**252**	**4,205**

Note: all figures are in thousand Birr.

Other revenue retention schemes that are currently being developed include the following:

- **Environmental Protection Authority.** The Environmental Protection Authority supports environmental and conservation activities at the local level and has initiated non-profit funding mechanism. This innovative scheme to raise revenue from domestic sources has been developed because the prospects for external assistance in this area are not encouraging

- **Bale Zone Development and Conservation Fund.** A community development and conservation fund has been started to support sustainable natural resource use in the Bale Zone of Oromiya Regional State. The fund amounts to US$ 135,898 and is disbursed in form of small loans or grants to support small-scale development projects in the zone. At the moment the fund is largely supported by donors, but the fund should become self-financing at some pint in the future.

- **Shashemene Munessa Forest Development Enterprise.** The Shashemene Munessa Forest Development Enterprise is allowed to retain and use the forest revenue it generates (see below).

- **Menagesha Suba.** One final case worth mentioning is the Menagesha Suba Forest Development and Conservation Centre. This centre operates at the federal level and is supervised by the Federal Ministry of Agriculture. In the year 2001, the centre will be allowed to use 1.6 million Birr of the revenue that they expect to collect. Amongst other things, this will be used for the development and implementation of participatory forest management practices.

4.3 Expenditure on forestry by other government institutions

The Ministry of Education, Ministry of Agriculture and Institute of Biodiversity, Conservation and Research account for most of the expenditure on forestry by other government institutions. Expenditure by all three of these institutions has been supported to a large extent by foreign assistance.

4.3.1 Ministry of Education - forestry training

Forestry training is the responsibility of the Ministry of Education, which has received a lot of support for this activity from SIDA since 1978. The development of a capacity to train foresters in Ethiopia started with courses at diploma level and has now progressed to training foresters at the MSc. Level. Forestry courses are held at Southern University and part of the support to the university is collaboration with universities in Sweden. A summary of capital expenditure on forestry training in recent years is given in Table 26.

Table 26 Capital expenditure on forestry training at Southern University

Year	Government contribution	Foreign assistance	Total
1997	593.6	3,362.0	3,962.0
1998	60.0	340.0	400.0
1999	4,000.0	12,950.0	16,950.0

Source: MEDAC, 2000. Note: all figures are in thousand Birr.

4.3.2 Institute of Biodiversity, Conservation and Research

The Institute of Biodiversity, Conservation and Research also works in the forestry sector. The institute is supported mainly by foreign assistance and recent capital expenditure at the institute is shown in Table 27 below. These figures include domestic funding and foreign assistance and show that foreign assistance accounts for over 90% of capital expenditure at the institute. The institute is just about to start a forest genetic resources conservation project, with a technical and financial co-operation from Gesellschaft für Technische Zusammenarbeit (GTZ). This project will receive funding from GTZ of over 12 million Birr for three years between 2001 and 2004.

Table 27 Capital expenditure on biodiversity at the Institute of Biodiversity, Conservation and Research

Year	Government contribution	Foreign assistance	Total
1997	782.5	8,510.3	9,292.8
1998	690.1	8,715.0	9,405.1
1999	738.5	8,139.2	8,877.7

Source: MEDAC, 2000. Note: all figures are in thousand Birr.

4.3.3 Woody Biomass Inventory and Strategic Planning Project

The Woody Biomass Inventory and Strategic Planning Project was established with the objective of collecting and analysing valuable baseline information about the status and condition of forests in the country. The project is implemented by the Ministry of Agriculture and is funded by the Ethiopian Government with loans from the World Bank. The project will run for a period of 10 years in two phases. The first phase of the project has been completed and the Ministry of Agriculture is still implementing the second phase of the project. The budget for the project is summarised in table Table 28 below.

Table 28 Budget for the Woody Biomass Inventory and Strategic Planning Project

Funding source	**1998**	**1999**	**2000**	**2001**	**2002**
Government contribution	3,893.6	4,742.3	4,742.3	4,742.3	2,215.1
Foreign assistance (World Bank)	7,935.6	9,093.9	4,877.1	3,239.3	3,239.3
Total	**11,829.3**	**13,836.3**	**9,619.5**	**7,981.7**	**5,454.5**

Note: all figures are in thousand Birr.

4.4 Income and expenditure of state forestry enterprises

Information is only readily available about one state forest enterprise and that is the Munnessa Shashemene Forest Development Enterprise in Oromiya Regional State. The objective of the enterprise is to ensure the sustainable development of forest resources through the generation of forest revenue and the correct use of this revenue to ensure that the forest resource is protected and well managed.

As already noted above, this enterprise uses all of the revenue that it generates for forestry development. In 1998, the enterprise generated Birr 3,405,463 and spent Birr 4,032,036. The enterprise could spend more than they collected because they had a surplus of revenue remaining from the previous year, which was carried-over. In 1999, the enterprise generated Birr 5,509,726 in revenue and spent Birr 4,292,340. Most of the money earned by the enterprise is spent on silviculture and forest management.

The major limitation of the enterprise is that land for the establishment of forest plantations is not available and the forest area can not be expanded. If land were available, then the enterprise would probably expand and could be used as a model of sustainable forest management practices. The enterprise is successful, but the adoption of methods used by the enterprise will require changes in attitudes of local investors towards forestry development and conservation.

4.5 Grants and subsidies to the forestry sector

The Ministry of Agriculture is currently developing policy and legislation that will support the greater involvement of the private-sector in forest conservation and development. In discussions about this subject, there have been a number of proposals in the past to issue long-term leases for forest management and to reduce the taxes paid on forest land. However, these proposals have never been implemented. Furthermore, the forestry sector has not been asked for advice on this subject.

Apart from these proposals, the only two fiscal incentives that affect the forestry sector are as follows:

- **Low taxes on forest product imports.** Many people import lumber and other forest products into Ethiopia. Unlike most other products, these imports are not taxed. This policy has been implemented to reduce the pressure to harvest indigenous trees.

- **Bale Zone Development and Conservation Fund.** As already noted above, the Bale Zone Development and Conservation Fund makes loans and grants to support small-scale development projects. At the moment this is mainly a donor project, which focuses on a few selected pilot communities. In the long-run, the objective of the fund is to promote sustainable natural resource use including joint forest management. In addition to forest management, the fund also supports improved agricultural practices, the development of agroforestry techniques and improved harvesting and marketing of non-timber forest products. The fund will also to be used to develop small-scale tourist facilities in the future.

5 DISCUSSION AND CONCLUSIONS

5.1 Overall appraisal of the forest revenue system

A requirement of an effective forest revenue system is that forest revenue is generated from all possible sources (i.e. marketed and non-marketed forest goods and services) and that this money is then reinvested the sector for the sustainable production of forest goods and services. At the moment, this is not the situation in Ethiopia.

The state forestry sector generates revenue from state owned natural forests and forest plantations, mostly in the form of stumpage fees. In addition, before decentralisation, forty percent of the value of sales by private forest owners was collected as a service charge. This money was used to support the sector, but nowadays the revenue collected by the forestry administration is deposited in the general government accounts at the federal and regional levels of government. The amount of money released back into the sector again is not sufficient for investment in the future development of the forest resource or even for the sustainable management of the forest resource.

Most forestry sector activities are currently financed by development funds from the Federal Government of Ethiopia. The level of these funds often falls short of requirements. For example, the total forestry development budget is tiny compared to the total national development budget. Thus, the sector largely depends on foreign assistance to secure modern forestry equipment and other facilities that are important from the implementation of sustainable forest management. Furthermore, under the current fiscal arrangements, there is no link between the costs and benefits (to the government) of improved forest management and there is very little scope to use modern management techniques.

The current market structure in the forestry sector in Ethiopia is also a problem. On the one hand, processed product markets are unregulated and the free market gives rise to many different prices based on wood quality, species and rarity. However, the sale of harvesting rights to roundwood by the state remains heavily regulated and this distorts the prices of roundwood in the private-sector and reduces the incentives for good forest management.

In addition, there has been very little monitoring and evaluation of the impact of previous development efforts in the forestry sector. For example, the rehabilitation of degraded land by afforestation has not been evaluated systematically.

To improve the effectiveness of the forest revenue system, the following recommendations are proposed:

- Each regional state should conduct a study on forest products pricing, using the methodology developed by SIDA in 1990 in collaboration with the Ministry of Agriculture. This should take into account the need to recover tree replacement costs and the need for a little additional money to cover future development expenditure in the sector. The aim of this should be to produce appropriate stumpage fees and royalties for each state.

- Following this, states should closely monitor forest product prices in order to update their stumpage prices, royalties and other charges.

- The responsibility of managing trees and forest resources should be supported more clearly by the provision of supportive policies and adequate incentives in the sector.

- Stumpage fees and royalties should be put into a revolving fund rather than the general government accounts so that it becomes easier for the sector to invest in the development of forest resources. This should enable the forestry sector to play a more active role in the development of the country.

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

The present levels of funding for sustainable forest management are insufficient to address all of the threats to Ethiopia's forests and the shortage of funds is a major constraint to the effective management of the remaining forest resource. For example, most forest plantations in Ethiopia have not been tended properly and are stunted or deformed due to lack of silvicultural treatment (as result of financial constraints). In addition, there is no infrastructure in most natural forests, which cases bottlenecks for the control of forest fire hazards. Under these circumstances, it is almost impossible to think about how to implement sustainable forest management.

Funding from government sources is mostly limited to recurrent costs, such as staff salaries and administration, and is equal to only a fraction of the revenue that the sector generates. Most forest revenue is used by government for other sectors that do not have direct links with the forestry sector. Steps must be taken to allow forest revenue to flow back to the forestry sector.

Market prices of many forest products fail to reflect their full economic costs, due to the open access to the forests and woodland resources. For example, most of the woodfuel collected from these open access forests has an (implicit) stumpage price of zero, which results in waste and inefficiency in the production and consumption of energy.

In order to ensure sustainable forest management, the following actions and improvements are suggested:

- The forest revenue collection system should be revised to guarantee that forest revenue will be reinvested in forest conservation and development.

- Stumpage prices should be raised to a level that recovers the tree replacement costs plus an additional amount to cover future development expenditure.

- Stumpage fees should be based on replacement costs, cross-checked with market prices.

- Innovative financing mechanisms for the forestry sector should be introduced and promoted.

5.3 Government expenditure on sustainable forest management

At both the federal and regional levels, less than 10% of the budget of the Ministry of Agriculture is spent on forestry and the total budget for the ministry is only a tiny fraction of total government expenditure. Most of this expenditure is spent on salaries and allowances and very little is spent on investment. Furthermore, a high proportion of this expenditure is spent on extension services.

In general, funding to the forestry sector is very low. This is due to the following:

- The exclusion of the forestry sector from the national development planning process.

- The underestimation of the contribution of forestry to GDP.

- The frequency of institutional changes in the sector.

- The lack of adequate land-use and forestry policies.

These factors have all contributed to the low level of support for the sector, which is reflected in the very low level of funding allocated to the sector.

5.4 The effect of policies in other sectors on sustainable forest management

Given the high degree of dependence on natural resources and the environment in Ethiopia, there is a need to integrate environmental protection and sustainable forest resource management, in order to achieve economic and social development in the country. At the national level, there is a growing realisation of the value of forests as a renewable resource and of their role in the production of a range of goods and services. However, at the practical level, this realisation is not being turned into action.

For example, despite the growing public concern about forests, the increases in population and pressures for social and economic development continue to drive the trend towards more forest clearance. This problem is further increased by the domination of short-term economic and market forces over environmental considerations, which frequently results in the acceptance of unsustainable activities.

Most of the natural forest in Ethiopia has been lost during the past three to four decades and the major reason for this has been the lack of proper policies for forests, land-use and population pressure. These failures have been exacerbated by the traditional farming practices used in the country and increasing poverty, which have resulted in very strong forces to expand agricultural land in the country by clearing forests.

This increasing demand for more food and farmland remains point of conflict between agricultural development and sustainable forest management. The core of the conflict is that agricultural areas have to expand to increase the production of food and farmers are continuously looking for land to clear for agriculture. The result of this is that farmers clear vast areas of forest every year.

Furthermore, the current approach to increasing agricultural production in the country is largely based on the expansion of agricultural areas. This is further exacerbated by the development of cash crops (the expansion of private coffee and tea plantations is a prime example of this) and the absence of secure land tenure. For example, farmers currently have little incentive to intensify production because this requires investment in land improvement. Farmers are unlikely to make such investments as long as land tenure remains uncertain.

The loss of access to common property resources (such as forests) is another major problem in the country. Traditionally, forests belonged to local communities, but over time they have lost the sense of ownership and responsibility for these resources.

The absence of a clear land-use policy prevents the development of a capacity in land-use planning at all levels of the administration. The development of a clear land-use policy could help to improve the co-ordination of activities in different land-use sectors and contribute to the achievement of sustainable forest management.

5.5 Attitudes to change

Improved forest management and the conservation and protection of genetic resources are embraced in the overall conservation strategy of the Ethiopian Government. The government has issued a number of proclamations about the conservation and development of forest resources, including several proclamations about revenue sharing with local communities living in and around protected forest areas. Furthermore, the Ministry of Agriculture is currently developing policies and legislation for the management of protected areas and wildlife. The government is committed to conservation through the development of an efficiently managed protected area system, including: national parks; wildlife sanctuaries; and state forests; and the government is currently developing of policies and legislation to turn this commitment into action.

The needs of forest dependent people are gradually being given more attention, in line with the international trends that stress the benefits of involving local population in forest management. Indeed, participatory forest management is now seen as a means to encourage sustainable forest management. As a first step, the government has decentralised the forestry administration and the responsibly for managing forests has been handed over to the regional administrations. Other developments in this area include the proposals to start to issue long-term leases to the private-sector for the management of forests.

Currently, policies and policy related issues are probably the most important constraints that restrict progress towards sustainable forest management in both the public and private-sector. For example, Ethiopia has never had a forestry policy or a policy on land-use. Various development programs have been tried in the past to promote the development of the forestry sector, but they have met with very limited success due to lack of an adequate policy environment in the country. This limitation has been recognised as a concern by both the government and non-governmental organizations, but there remains a lack of political will to implement radical changes. It seems likely that this situation can only be rectified if policymakers develop a better understanding the role that could be played by the forestry sector in the development of the country.

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