

# World Bank / WWF Alliance

FOREST LAW ASSESSMENT IN SELECTED AFRICAN COUNTRIES

## FINAL DRAFT

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**SGS Trade Assurance Services**

Natural Resource Monitoring Services (NRMS)

Sustainable Forestry Programme

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## ACRONYMS

CAR	The Central African Republic
CBO	Community Based Organisation
DFID	Department for International Development (UK)
DFPRN	Direction des Forêts et de la Protection des Ressources Naturelles
DFRN	Direction des Forêts et des Ressources Naturelles
DRC	The Democratic Republic of Congo
FBD	Forestry and Beekeeping Division (Tanzania)
FMU	Forest Management Unit
FSC	Forest Stewardship Council
FSD	Forest Services Division (Ghana)
GDP	Gross Domestic Product
GFBC	Groupement de la Filière Bois au Cameroun
MINEF	Ministry of Environment and Forests (Cameroon)
MNRT	Ministry of Natural Resources and Tourism (Tanzania)
NGO	Non Government Organisation
PFA	Permanent Forest Area
PGFTR	Programme de Gestion des Forêts et Terroirs Riverains
PGRN	Projet de Gestion des Ressources Naturelles
RFA	Royalty for Forest Area
SFM	Sustainable Forest Management
TIDD	Timber Industry Development Division (Ghana)
UCC	Unité Centrale de Contrôle (Cameroon)

## PART 1: OVERVIEW

### INTRODUCTION

This report has been produced as one of two major outputs of work commissioned by the World Bank/WWF Alliance. The purpose of this study is to assess the global<sup>1</sup> scale of the "law enforcement gap" problem in the forest sector governance in some nine countries in Africa. It endeavours to describe the governance situation in the selected countries and the linkage between governance and the level of compliance and implementation of current laws, rules and regulations. It factually documents, where possible, for specific forest products (i.e. logs, timber, veneer, bush meat etc.) by country and at the different stages of the production/supply chain, the difference in production statistics for the estimated actual production, the officially recorded production, and the situation as it should be under current legislation. It also shows the levels of lost rents, royalties, taxes, duties and legitimate employment opportunities etc. The study looks at the level of enforcement through the numbers of convicted offenders, the levels of fines and custodial sentences in relation to the offences. The study also intends to:

1. Identify and assess data sources.
2. Identify winners and losers in the current situation.
3. Evaluate and compile the data by country.
4. Quantify the size of the losses identified above.
5. Identify the main gaps ("disconnects") between theory (i.e. the legal framework) and reality;
6. Identify two or three major avenues to explore for action with large potential impact as a result of the 'gap' analysis.
7. Examine and document, for example: export and import volumes/values, forest data and custom data, custom and shipment data, etc. for discrepancies and loss of revenues, values and revenues.
8. Provide a factual, professional commentary by country to alert high level decision makers of the problems and scale of losses involved – ideally in areas where they would be able to find potential gains in terms of image and political success in implementing recommendations ; and
9. Provide a summary overview of all the countries studied.

As can be seen from the tasks required above, the remit of the study is extensive. The time frame to implement this work has been short so heavy reliance has been made on datasets already available to the authors and on reports already published.

The report has been prepared with an individual report for each country, which is presented in Part 2. For each country there is also a standalone policy briefing document, which has been included again in Part 1. Part 1 also includes an executive summary, which tries to bring together the common issues for each of the countries visited, and also proposes some ideas for addressing the problems.

Throughout this report there is frequent reference to 'certification'. It is important to note that the authors have no intention to refer to any specific certification scheme when using this word. Where specific schemes are being discussed this will be made clear e.g. FSC Certification or PEFC Certification. Two other forms of certification are also referred to in the report; 'Certificate of Legal Origin (CLO)' and 'Certificate of Legal Compliance (CLC)'. These two forms of certification are based on the presence of systems to verify, in the case of CLO, that timber derives from a legal origin, and in the case of CLC, that forest management adheres to the law. Once such systems are in place, an independent agency could certify that the systems are acceptable, resulting in the issuance of certificates. It is important to note that these forms of certification (CLO and CLC) are proposed by the authors - they do not yet exist. The reader must take care not to confuse the various forms of certification when reading this report.

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<sup>1</sup> Global in this context is taken to mean the effects of the law enforcement gap in the selected countries on the world markets.

## EXECUTIVE SUMMARY

The status of forest law and regulation enforcement has been studied in nine countries across Africa (Benin, Cameroon, Central African Republic, Congo, Democratic Republic of Congo, Gabon, Ghana, Mozambique and Tanzania). The study has shown that there is considerable variation between the countries, some with more developed forest sectors than others. However, there are common features that are highlighted and addressed in this summary. Given the range of countries included, the recommendations are general in nature, but these solutions are also applicable to other countries in the region. For more details about the individual countries please refer to the policy briefing notes by country and also to the full country reports.

Before any system of sustainable forest management can be implemented, monitored and enforced, it is essential that both the forest policy and forest legislation (both primary and subsidiary) – possibly referring to an agreed forest management standard - are in place. Countries where this has been established tend to be further down the road to better management of the sector. Delays in passing subsidiary legislation are common, leaving loopholes for producers and leaving those trying to implement the law in a difficult situation. For example, in Cameroon delays in passing subsidiary legislation has meant that only recently have the first management plans for concessions awarded in 1997 been approved and that in the interim, the producers have been working without an approved plan. This would technically be "illegal", even if they were working to a plan that met the highest social and environmental standards. In contrast, an illegal logger could not be reprimanded for lack of an approved plan.

Countries where there is an urgent need to finalise or re view legislation include: Benin, Cameroon, the Democratic Republic of Congo (DRC), Gabon, and Mozambique. Even in Ghana and Tanzania, where legislation is further developed, it is essential that the subsidiary legislation keeps pace with the evolution of the sector.

Table 1. Conservative estimates of revenue losses from poor regulation of timber production

Country	Estimated Revenues Lost per Year US\$ Million
Benin	1.0
Cameroon	5.3
Central African Republic	3.0
Congo Brazzaville	4.2
Democratic Republic of Congo	2.2
Gabon	10.1
Ghana	37.5
Mozambique	2.5
Tanzania	4.3
<b>Total</b>	<b>70.1</b>

Forest taxation seems to be universally too low (with the possible exception of Gabon-Table 1). Comparisons are difficult as each country has its own system, but the following instances are highlighted:

- Benin has not raised forest taxes since 1974 – it has an overall forest taxation of around US\$1/m<sup>3</sup>.
- In the DRC, there are 60 to 80 forest taxes administered by 8 agencies – the total level of forest taxation comes to about US\$5/m<sup>3</sup>.
- In Gabon, most forest taxes have not changed for 25 years and there is a reliance on export taxes to generate income.

- ♦ In Ghana, the problem is that there has not been a mechanism to rapidly update forest taxation rates with the fall of the local currency against the dollar – the royalty rates were last updated in 1999 but the cedi is now (2002) only worth half its 1999 US dollar value.
- ♦ Use of *ad valorem* charges is frequent (Gabon, CAR for example); *ad valorem* taxes have the advantage that they do not need continual review, but they also encourage under invoicing and transfer pricing.
- ♦ Some taxes are so low that they must cost more to collect than they are worth, e.g., the DRC's surface area tax is just US\$0.0015/ha/year, Benin's royalty for native species other than Iroko is US\$0.5 – 2 per tree, and in CAR the average export tax comes to US\$ 0.26/m<sup>3</sup>.

Low or inappropriate taxation causes under valuation, which has the following negative impacts:

- ♦ Users of the resource receive windfall profits at the expense of the rest of society.
- ♦ It creates opportunities for corruption.
- ♦ It does not encourage efficient utilisation of the resource.
- ♦ It can cause inappropriate allocation of scarce investment funds.

A common feature of the countries studied is that the forest institutions are under-resourced in terms of equipment, manpower and training. Staff are frequently underpaid and lack motivation. Poor staff terms and conditions are inextricably linked to corruption. Until those administering the law are paid sufficiently well to provide a reasonable standard of living for their families, widespread taking of bribes must be expected. In developing countries where resources are in short supply and the forestry institutions are part of the national civil service, it is usually not possible to provide the necessary raise in income to the forest service personnel in isolation, or alternatively to provide salary increases across the whole civil service. Raising wages will not be enough anyway if transparency in the forest sector is not increased simultaneously.

The standard of production monitoring by the different countries is extremely variable. In some countries, few statistics appeared reliable. Even in countries where there is reliable collection of measured removals, much of the production escapes official measurement and recording.

A common approach in estimating the illegal production has been to compare the volumes recorded by importing countries with the volumes declared by the producer countries. This approach has a number of flaws, in that there are invariably differences in product definitions and reporting periods. It is generally the case that the overall variation between the two statistics is modest (e.g. in 1999 Cameroon's export figures were just 10% less than those reported by the importing countries). The one notable exception to this is the DRC where in 1999 the importer statistics were nearly 14 times greater than the official export statistics.

In Ghana, however, where the forest sector institutions are probably most developed, a study that surveyed sawmills estimated that a combination of illegal logging, poor royalty collection and forest charges not revised in line with the falling exchange rate have cost Ghana over US\$ 37 million in 1999. It is likely that the losses in other countries are proportionally larger (due to lower forest charges and poorer collection), although due to lack of data it has not been possible to derive those figures.

The conclusion is clear – all the countries studied are losing significant forest revenue due to some or all of the following causes:

- ♦ Inappropriate levels of forest charges that are not regularly reviewed to keep pace with inflation and exchange rate fluctuations.
- ♦ Under recording of production due to lack of resources and inappropriate systems.
- ♦ Corruption of officials due to low salaries and poor morale.
- ♦ Under declaration of production by producers.

Some countries, notably Cameroon and CAR, are using independent monitors to verify their exports. This has had a significant improvement on the reliability and capture of export duties. Co-operation between neighbouring countries is important, as through this independent monitoring programme it is becoming apparent that some operators working in Congo, CAR and Cameroon transport logs and paperwork across borders to reduce tax liabilities in some countries and to avoid the log export ban in Cameroon.

Enforcement also varied across the countries studied. In Cameroon and Ghana, statistics on the numbers and levels of fines are readily available. For example, there were 115 cases in Ghana in 2001, and Cameroon caught and fined 40 companies and suspended a further 20 earlier this year.

The catching and fining (at a realistic level) of infractions against the forest law is a major step forward. However, implementation of the law does need to go hand in hand with stakeholder consultation and, if necessary, support to producers. In many cases, lack of management plans and implementation of forest regulations is the result of a lack of concessionaire training and skills rather than a blatant disregard of the law in an effort to maximise profits.

The uptake of Forest Certification amongst the countries studied is varied, ranging from a national scheme under development in both Gabon and Ghana (although in Ghana the process has stagnated due to a lack of funding) to little or no interest in countries such as CAR and DRC. None of the countries studied have developed a national standard and there are no forests in the countries studied certified to the Principles and Criteria of the Forest Stewardship Council. Certification is, however, an excellent tool to prove forest management meets the standard being used. Usually the standards for certification go well beyond the legal requirements and as such voluntary certification to FSC or similar standards could be the ultimate goal, to demonstrate that the forests are being managed sustainably.

In all the countries, studied the management of wildlife and hunting in forest areas seems to receive scant attention, although there are some donor and NGO projects that try to address the situation locally and hunting is managed in some national parks. There are, therefore, few statistics on the level of production and sustainability. In most countries, logging operations are closely linked with a significant and often highly profitable bushmeat trade. Bushmeat can also be a significant source of income and protein for rural communities. In Gabon, it has been estimated that 40% of a logging company's employee's earnings come from illegal hunting, which on a national scale, amounts to US\$ 50 million. The value of bushmeat consumed in Ghana in 1998 was estimated to be US\$ 350 million. The size and numbers caught in Ghana has suffered rapid decline over the last 30 years as hunting pressure has increased.

The involvement of local communities and other stakeholders was also varied but, in all countries studied, involvement and benefit sharing with the communities and others could be improved. Most of the new forest legislation that has been introduced recently encompasses community forestry and local participation and benefit sharing. Once the local communities are involved and participating, and once they understand the benefits of sustainable forest management, they can be the best protection against illegal logging and hunting. However, as some groups will always be tempted to cheat regulations for short term profit, or may be abused by unscrupulous loggers, the local communities should be considered as common forest managers and be subject to the same requirements.

Given that the countries studied represent a wide range of circumstances and development within their own forest sectors, it is not possible or appropriate to recommend specific solutions to address the country problems here. Rather a process approach has been proposed, which would need to be modified by each country to meet its own specific requirements. Some countries may already be further down this process than others.

The suggested approach is as follows:

- Step 1. Review of policy, legislation, regulations, forest charges and of the institutions that administer the forest sector. The review should identify the gaps between legislation and enforcement and recommend means to progressively close these gaps. Many countries have already completed parts of this step; others need to urgently address the issue, particularly the lack of forest regulations. The procedures for allocation of forest resources need to be transparent and fair, giving the operators sufficient tenure to allow investment in management and infrastructure whilst giving the country the right to take back the resource if the conditions are not met. If inappropriate institutions exist then it is unlikely that there will be significant improvement in the sector. It is also an urgent requirement to get forest charges set at levels fair to both the country and producers. To set the levels accurately requires up to date knowledge of international and local prices and the local costs of production – computerised collection and analysis of data should be the norm, with the results published on the Internet. Systems should be set up to continually review the level of forest charges in particular, and the sector in general, to ensure that there is timely updating of the relevant regulations.
- Step 2. Develop more robust systems for recording and verifying the production, transport and export of timber. Preferably there should be third party verification of legal compliance. Findings should be made available to buyers and regular results summaries should be published in papers and on the Internet. Independent third party verification is an extremely useful tool in reducing fraud and increasing transparency. Computerised databases should be set up to produce invoices, accounts and statements for each producer. Terms should be

established so that operations can be routinely suspended if arrears build up beyond a certain limit. Again, this must be subject to independent third party audit.

- Step 3. Once the basic production and product tracking system described under step 2 has been developed, systems for verifying the legal origin by independent and internationally recognised organisations need to be established. This is increasingly becoming a requirement by importers (see report on the Legal Origin of Timber) particularly to high value markets in Europe and the United States.
- Step 4. Concurrently with steps 2 and 3, efforts should be made to further increase forest management standards through improved monitoring and control of management planning and implementation. The goal should be to be able to verify that producers are working within all the relevant national legislation and regulations. This will probably require additional assistance to the concessionaires and operators as introduction of tropical forest management planning and implementation can be technically complicated. Use of new techniques in the forest, such as reduced impact logging etc. will require operator investment and training. Management and supervision of management should as far as possible be utilising modern technology such as management information systems, GIS for mapping and compartment records and Global Positioning System for stock surveys, surveying, road alignments, etc.
- Step 5. Once Step 4 has been established, again an internationally credible verification system should be developed that proves that the timber is not just legally owned (verified under step 3) but has also been produced in accordance with all the national legislation. This verification of legally valid timber will be of benefit to nations wishing to import only 'legal' timber. Currently there are moves within several European countries to ensure that governments only procure timber from legal sources.
- Step 6. The next step to be implemented, also concurrently with steps 2 to 5, should be the development of national standards and support to producers in their voluntary efforts to achieve certification of sustainable forest management to schemes such as the Forest Stewardship Council. Special attention should be given to getting small producers and community forests included in group schemes to reduce costs.
- Step 7. Fundamental to sustainable forest management in populated areas is the participation in management and sharing of benefits with the local communities. Donor support should be sought to continue building the community support capacity of the institutions, local NGOs and CBOs. Decreasing the level of illegal logging may also decrease the opportunities for local people that currently work for these operations. Therefore, there must be an alternative livelihoods approach pursued in tandem with any campaign to prevent illegal logging.
- Step 8. Systems for managing the sustainable production of game meat needs urgent research and attention. Once sustainable estimates of production have been set a system for monitoring and control needs to be devised. This must be closely connected to the community forestry programme with significant awareness raising and education campaigns. Protected areas need to be respected by the local populations. To encourage this, there must be benefit sharing of the forest resources, but at the same time, an understanding of the sustainable use of resources. Greater responsibility should be placed on the forest industry to ensure, wherever possible, that their operations and facilities are not used as an illicit means to trade in bushmeat.

Action is urgently needed to stem the tide of illegal logging, under reporting and under valuing the removal of forest resources. The levels of loss under current systems will be more than sufficient to pay (in the long term) for the developments needed. In the short term, assistance is required to design, install and implement the new systems.



## POLICY BRIEFING NOTES BY COUNTRY

These policy briefing notes have been made in the context of a review of regional policies on forest law enforcement in Africa. The aim is to assess common problems and to devise a common approach rather than undertake a review in detail for each individual country. The notes here, therefore, summarise the issues described by country and develop some key ideas that may be regionally relevant to address the issues of poor forest governance.

### 1. BENIN

Benin's forest industry, although small by international standards, is of great importance nationally because of the income and employment it provides in rural areas, and the supply of much-needed timber to the domestic market. It also earns a moderate amount of foreign exchange. Unfortunately, natural forest areas are being seriously overexploited and there is little effective control of the widespread illegal activity.

A first step must be to encourage participatory management of the resource by bringing stakeholders together to exchange views and information about a shared national resource.

If forest production is properly controlled and tax rates brought up to date, the figures quoted in the report suggest that the income to the state could be around US\$ 6 million per year, rather than the US\$ 20,000 it is currently estimated to receive.

Some of the issues that require addressing include:

#### **Information requirements to enable long-term planning**

- Better knowledge of the resource for rational and sustainable planning.
- Better collection of basic production and trading data.

#### **Revision of the Forest Law**

- Updating of forest taxes to reflect 2002, not 1974.
- Review of the prohibition of chainsaw cutting, replacement with payment (at each exploitation) of restoration payment to an elected village committee.
- Harmonisation of forest laws between Benin and neighbouring countries, i.e., Nigeria, Togo and Ghana.
- Special laws against corrupt forest agents.
- Simplification of transport controls; fewer control posts, opening of a phytosanitary post at each entry border post.

#### **Investment in plantations**

- More private involvement in forestry management.
- More resources devoted towards planting, maintaining and surveillance of newly-growing plantations.

#### **Decentralisation**

- Introduction of 'codes locaux' in all villages in forested areas, to give a legal basis for community sanctions against illegal activities ('codes locaux' enable the village population to prosecute and penalise illegal activities in their local area).
- Election of village committees to act against natural resource degradation destruction.

#### **Capacity building for DFRN**

- Improvement of conditions for forest agents into a special professional category.
- Recruitment of more forest agents to reach UNESCO recommended levels.
- State clampdown on corruption, with external committees overseeing the actions of DFRN personnel.

#### **Extension**

- ♦ Publicity and awareness-raising, through mass media and local NGOs to local populations about current laws, how they are being broken and principles of sustainable resource management.

At present it is difficult to prioritise such an array of recommendations, due to a lack of exchange of information and opinions between stakeholder groups at both national and local levels.

Clearly a sustained, long-term programme, initiated by but not dependent in the long-term upon donor involvement, will be required to make headway against the current problems and the administrative environment in which they are causing environmental damage.

To assess the benefits and costs of such proposals, a first step should be the setting up of a national stakeholder group (as has recently been done in Mozambique for example) including representatives of government, donors, the wood industry, NGOs and local communities. This would create a national forum for debate on the forest industry. Alongside this national body, local stakeholder groups at department level should bring people together from diverse viewpoints to consider action at a devolved level.

At the same time, a mass awareness campaign among villagers about forest corruption would help to raise the profile of the problem and bring people to support the law. Any effective clampdown on illegal logging will have an adverse effect on those who currently make a living by it. Investment in alternative rural livelihoods, funded by the additional income that will be generated by better control of the sector, must be a high priority.

## 2. CAMEROON

By regional standards Cameroon is a leading economy with sustained GDP growth of 5% for the last three years. Timber is an important sector accounting for 27% of export earnings with over 90% of the timber exported being processed in country.

Currently there is a log export ban in place, although the two main commercial species Ayous and Azobe are not included. The ban has increased investment in the wood processing sector resulting in continued high demand for raw material.

Although enforcement of legislation has improved recently, unregulated production both by industry and small scale loggers remains a significant proportion of total log production.

The first allocation of concessions commenced in 1997. A concessionaire has three years to complete an inventory and to prepare a management plan. As of May 2002, no management plans have been approved, due to delays in approving the necessary subsidiary legislation to specify the systems, procedures and standards.

Progress has been made towards adopting a national standard and, once finalised, it is likely that some of the larger operators will seek certification. However, certification on its own cannot address all the issues facing development of the forest sector.

The recent trend of increased enforcement, of offenders being fined and in the increased transparency to show when fines are paid and parties go to court is good, although SGS could not find records of the currently outstanding fines being paid.

Notwithstanding all the improvements that have been and continue to be made, fundamental problems remain to be addressed:

- ♦ Official statistics do not accurately capture the true levels of production - a significant proportion of log production is going unmonitored (approximately 50% to 65% depending on the total estimate of illegal logging).
- ♦ Significant revenue is being lost in terms of Felling Tax (approximately US\$5-10 million per year).
- ♦ This loss is likely to be compounded through reduced reporting and tax collection for further downstream processing for at least some of the domestic consumption.
- ♦ More importantly, illegal logging results in forests being irredeemably degraded or converted to other land uses with the loss of all the intrinsic non-capturable benefits of forest cover, e.g. watershed protection, biodiversity values, cultural values, carbon sequestration, future uses, existence values. Many of these benefits are significant and the total value will be many times that of the potential royalty collection.
- ♦ There are few official statistics on bush meat production. The value of bush meat production can be as great or greater than timber production and it seldom receives any attention in the management planning process, or in control or monitoring of production.
- ♦ The management planning process has been delayed through problems with publishing the relevant subsidiary legislation – lack of management planning cannot be blamed on the producers if the necessary structures and systems of approval and monitoring are not in place.
- ♦ Certification can never address all the problems, as it will only apply to areas where the owners/managers are interested in good forest management – it ignores illegal loggers and those interested in simply making a quick return. It will be costly for small scale loggers who supply a substantial volume of logs in Cameroon.
- ♦ Local communities are not benefiting quickly enough from production in their areas and have in some instances taken to preventing removal of timber until an unofficial tax has been paid. There will never be sustainable production from forests with substantial neighbouring populations unless the community participates in the management planning process and share in the benefits.
- ♦ Cameroon has led the way in using independent monitors to address some of the problems associated with governance of the forest sector, i.e. SGS for log exports and Global Witness for the concession allocation procedure and monitoring of forest fines, and both initiatives have seen substantial benefits although there is still room for improvement.

Given the above points the following suggestions are made to help address some of the issues:

- ♦ Implement a more robust system for recording production and transport of timber throughout the country. There should preferably be independent third party verification with results summaries

being regularly published and posted on the Internet. Computerised databases with invoices, accounts and statements for each producer should be established to utilise the data generated (from the system described above), to ensure efficient collection of forest revenues. Again, this system should be subject to independent audit. The investment required for these systems could often be covered through the improved collection of forest revenues and/or user fees. Compliant producers could get a tax rebate as an incentive.

- ♦ Once the basic log tracking system described above has been instituted, certificates of legal origin could be issued by an independent, internationally recognised certification organisation to accompany exports. This is increasingly required by importers (see the accompanying report on the Legal Origin of Timber) particularly for the supply to high value markets in Europe and the United States.
- ♦ The uptake of community forestry has been restricted to mainly donor and NGO led projects. Sustainable Forest Management will simply not be possible in populated areas without community participation. Further donor assistance should be sought to continue building the community forestry support capacity within the forest department, local NGOs and CBOs to rapidly expand the community forestry activities.
- ♦ Systems for managing the sustainable production of game meat needs urgent research and attention. Once sustainable estimates of production have been set, a system for monitoring and control needs to be devised. This must be closely connected to the community forestry programme with significant awareness raising and education campaigns. Protected areas need to be respected by the local populations. There must be benefit sharing of the forest resources but at the same time an understanding of sustainability.

### 3. CENTRAL AFRICAN REPUBLIC

Although the CAR's forest resource is small by regional standards, it plays a significant role in the national economy accounting for 25% of state revenue and almost 10% of GDP.

However, the country has been plagued by political instability and a lack of investment over recent years. During this short study, it has been extremely difficult to collect reliable and meaningful statistics, but some conclusions can be drawn:

- ♦ resources for monitoring and recording production are severely limited, with concessions near the capital receiving more attention
- ♦ CAR has started to improve sector monitoring through using independent organisations to monitor log and timber exports to Cameroon
- ♦ although CAR uses SGS to monitor exports, the SGS figures are not being used by CAR for analytical purposes and may not even be used as a basis for levying export taxes and other forest charges
- ♦ it is not possible with the current lack of data to estimate the level of illegal logging
- ♦ there is limited stakeholder involvement and community participation in forest management except in some donor funded projects
- ♦ progress towards developing a national standard has stagnated and only one company appears to be interested in pursuing certification.
- ♦ hunting and the associated bushmeat trade are clearly not managed (although there are some projects that try to manage the situation locally). Hunting clearly provides a significant source of income and protein for poor rural communities.

Same comments as for Cameroon apply:

Stability and governance in general need to be addressed before there can be significant development in the Central African Republic. However, as the forest sector is such an important contributor to the economy it is pragmatic to address at least some of the basic needs of control and monitoring as a matter of urgency. These could include:

- ♦ Implementing a more robust system for recording the production and transport of timber throughout the country. There should preferably be independent third party verification with results summaries regularly published and posted on the Internet. Computerised databases with invoices, accounts and statements for each producer should be established to use the data generated (from the system described above) to ensure efficient collection of forest revenues. Again, this system should be subject to independent audit. The investment required for these systems would be covered through improved collection of forest revenues.
- ♦ Once the basic log tracking system described above has been instituted, certificates of legal origin could be issued by an independent, internationally recognised certification organisation to accompany exports. This is increasingly required by importers (see the accompanying report on the Legal Origin of Timber) particularly for the supply to high value markets in Europe and the United States.
- ♦ Systems for managing the sustainable production of game meat needs urgent research and attention. Once sustainable estimates of production have been set, a system for monitoring and control needs to be devised. This must be closely connected to a community forestry programme with significant awareness raising and education campaigns. Protected areas need to be respected by the local populations. There must be benefit sharing of the forest resources but at the same time an understanding of sustainability.
- ♦ Increased participation of all stakeholders, particularly local communities in all stages of planning, implementation and monitoring of management plans. Improved and transparent benefit sharing is fundamental to successful implementation.

## 4. CONGO BRAZZAVILLE

Congo has a significant forest resource (22 million ha) and forest products are the second largest export after oil. Forestry provides work for 10% of the workforce and a substantial proportion of the population depend on the forest for subsistence. It is the Government's intention that log production should double or treble over the next five years. It is estimated that Congo could produce 2 million m<sup>3</sup> per year of logs on a sustainable basis. Production was around 600,000 m<sup>3</sup> in 1999.

Congo's forest sector therefore is important to the economy and has the potential for growth. However, there are some issues that need to be addressed:

- ♦ the new forest law passed in 2000 does not make provision for community forestry (except for municipal forests)
- ♦ the forest statistics available to this study were at least two years out of date and the different sources did not agree
- ♦ although the forest administration is technically competent recruitment has stagnated for many years, and there is a lack of morale and motivation amongst staff
- ♦ the collection of forest taxes has been delegated to the provinces but the forest administration remains centralised, with the resulting lack of supervision and monitoring of operations in the forest, particularly in the north where most of the production is located
- ♦ Government have estimated that over the years they have lost US\$ 4 billion in timber levies; forest taxation remains low (currently 3% FOB value but with the possibility under the new law to charge in the range of 6 – 10 %)
- ♦ unofficial estimates of log production in 1999 were 800,000 m<sup>3</sup>. If this had been correctly recorded and a reasonable average royalty applied of say US\$ 13 /m<sup>3</sup>, a revenue of US\$ 10.4 million would have been realised instead of the CFA Francs 1.6 billion (US\$ 2.27 million at today's exchange rate) actually collected
- ♦ hunting and the associated bushmeat trade are not managed (although there are some projects that try to manage the situation locally). Hunting does, however, provide a significant source of income and protein for poor rural communities.

As the forest sector is an important contributor to the economy, it is therefore pragmatic to address the basic needs of control and monitoring as a matter of urgency. Similarly to Cameroon and the Central African Republic, the following course of action is suggested:

- ♦ Implement a more robust system for recording the production and transport of timber throughout the country. There should preferably be independent third party verification with results summaries regularly published and posted on the Internet. Computerised databases with invoices, accounts and statements for each producer should be established and the data generated used to ensure the efficient collection of forest revenues. Again, this system should be subject to independent audit. The investment required for these systems would be covered through improved collection of forest revenues.
- ♦ Once a basic log tracking system described above has been instituted, certificates of legal origin could be issued by an independent, internationally recognised certification organisation to accompany exports. This is increasingly required by importers (see the accompanying report on the Legal Origin of Timber) particularly for the supply to high value markets in Europe and the United States.
- ♦ Systems for managing the sustainable production of game meat needs urgent research and attention. Once sustainable estimates of production have been set a system for monitoring and control needs to be devised. This must be closely connected to any community forestry programme with significant awareness raising and education campaigns. Protected areas need to be respected by the local populations. There must be benefit sharing of the forest resources but at the same time an understanding of sustainability.
- ♦ Increased participation of all stakeholders, particularly local communities in all stages of planning, implementation and monitoring of management plans. Improved and transparent benefit sharing is fundamental to successful implementation.

## 5. THE DEMOCRATIC REPUBLIC OF CONGO

The Democratic Republic of Congo has tremendous forest resources with the potential to significantly increase production in an environmentally sustainable, socially equitable and economically viable manner. Due to the civil war, there has been a lack of investment and maintenance of both the administration and forest infrastructure. A new forest policy was developed in 1999 and this highlights the need for increased production, development of infrastructure, the lack of technical management capacity, local processing and conservation (through protected areas). The development of legislation to support policy is nearing completion.

There are however a number of key issues that still need to be addressed:

- ♦ The necessary forest regulations following the enactment of legislation are required urgently to prevent more delay in implementation.
- ♦ The review and modernisation of the forest taxation system is essential to enable the collection of significantly increased but fair revenues:
  - there are 60 to 80 different taxes affecting the forest sector;
  - the taxes are generally very low: e.g. surface area tax of US\$0.0015 /ha/year; and
  - the total tax for collected for 1998 was just US\$1.4 million, which amounted to less than US\$6/m<sup>3</sup>.
- ♦ The existing administration of forestry in the country requires urgent review and structural change (there is little or no field capacity to supervise or enforce regulations and there are eight separate agencies involved in the collection of the 60-80 taxes).
- ♦ The existing forest administration has very little capacity to supervise and monitor the field operations; it is estimated that the informal forest sector ranges from two or three times the size of the formal sector. If it were assumed that the total production is three times the official production, then in 1998 the production would have been around 720,000 m<sup>3</sup>. If a fair level of total forest taxation was applied of US\$15/m<sup>3</sup> for example, then this would raise US\$10.8 million or nearly ten times the actual level of revenue capture.

The Democratic Republic of Congo has the potential to sustainably produce between 6 and 10 million m<sup>3</sup> per annum. At a fair level of taxation of US \$15/m<sup>3</sup>, this would yield between US\$90 and US\$150 million per year. The DRC, therefore, has potential to earn significant revenue from the sustainable management of its forests.

As stability gradually returns to the DRC, it is important that the enactment of the new legislation and the supporting regulations for its application proceed quickly. Government will need substantial financial and technical assistance for several years to effectively implement and enforce the new legislation. A major effort will be required to establish effective structures at field level for monitoring logging operations. Investment will be required in transport, information technology, basic forestry equipment and administrative structures.

Most stakeholders, particularly in the private sector, argue that the current status and structure of the forest administration does not reflect the political and economic role that the forestry sector could play in the DRC's development. Centralisation of the structures responsible for forestry under a general direction of forests, as part of a ministry is widely supported.

The lack of human capital is at least as significant as the lack of capital equipment and infrastructure. Due to a freeze on recruitment several years ago, there is a huge problem with an ageing population of forestry professionals. Training facilities covering all levels of technical ability are required to resolve this problem.

Most Government staff are very poorly paid and consequently lack motivation and professionalism. Most officials by necessity find alternative gainful employment and some engage in petty corruption. Field staff will be particularly vulnerable to corrupting influences given the relative wealth of logging companies.

Within the forest administration, information flow is extremely limited due to deficient communication/reporting systems and related activities. Even the most basic statistics on the forest sector are unavailable, or are of dubious origin. Addressing these internal problems will be essential before the administration can turn its attention to dealing with the problems of the wider forest sector.

There is no monitoring of forest sector activity except the monitoring of exports at the main ports but the effectiveness of this limited level of monitoring is doubtful. There have been some attempts to improve the technical effectiveness of monitoring, principally through training provided by SGS two years ago.



## 6. GABON

Gabon has extensive forest resources and in comparison with the region as a whole has a low population density concentrated in urban centres. Forests cover 85% of the land and forest products are the second largest export, generating 13% of the foreign exchange.

The official estimate of the sustainable level of timber production is 2 million m<sup>3</sup>, although corroborating research data is lacking. If the forests are assumed to be as productive as they are in Cameroon, sustainable forest production could be as high as 5 million m<sup>3</sup>. Government estimates that production should reach this level within the next ten years.

Gabon is Africa's largest log exporter with only 15% of the log production being processed in country. This is expected to grow to 50% within 5 years. Gabon relies heavily on one main species (Okoumé) and one additional species (Ozigo) for 70% of its exports. The Okoumé zone will have been completely logged at least once within the next 10 years.

The Government has commenced the process of creating 3.6 million ha (13% of the land area) as protected areas although there may be some inconsistencies, as some areas scheduled for protection have been granted as timber concessions.

In 2001, a new forest policy and accompanying legislation was introduced. The legislation makes provision for the establishment of community forests adjacent to villages and transportation routes. Forest management plans for concessions are compulsory. By the end of 2001, there were four concession management plans approved, five plans being developed and preparations being made in a further 18 concessions which in total will cover an area of 6 million ha.

From the above it is clear that Gabon's forest sector is an important part of the economy and is progressing towards improvements in forest management. However, there are some issues that still need to be addressed:

- ♦ The Ministry of Forestry (Ministère de l'Economie Forestière) is responsible for forest policy, forest management and planning and enforcement. The Ministry has severe manpower and resource constraints to properly oversee and monitor the sector.
- ♦ A partially privatised former state agency, Société Nationale des Bois du Gabon (SNBG), has a compulsory, near monopoly on international sales of Okoumé and Ozigo. SNBG also collects export taxes for government, checks minimum diameters and compiles export statistics. This monopoly, whilst providing some control on the sector, will not enhance free trade and permit businesses to obtain the best markets for their products. With the increased emphasis on other species that will occur in the coming years, the relevance of such an organisation must be questioned – creation of complete or even partial monopolies provides more opportunities for corruption and price fixing.
- ♦ The forest taxation system in Gabon is complicated as there are as many as 12 different types of tax. It would appear that the overall level of rent/tax/royalty is set too low. Data on rent capture is poor.
- ♦ Uncontrolled hunting in Gabon is a problem, although not on the scale of other countries in the region. It does, however, require management and control.
- ♦ Currently it is not possible to make a reliable estimate of illegal logging occurring in Gabon, as there are insufficient comparable datasets.
- ♦ Although the forestry legislation has been recently revised, supporting and subsidiary legislation is still urgently required.
- ♦ There is currently a system (fermage) which although apparently illegal is widespread and tolerated. Fergage permits the selling on of forest rights from the owner to third parties. This allows the appropriation of timber rights by well-connected and influential people who then sell on the rights to genuine timber producers. This has the following disadvantages:
  - As rights can be sold on, it implies that the level of forest rent is too low and that the state is not receiving the full economic value for its resource. An undervalued resource in turn has a number of negative impacts:
    - users of the resource receive windfall profits at the expense of the rest of society;
    - it creates opportunities for corruption;
    - it does not encourage efficient utilisation of the resource; and
    - it can cause inappropriate allocation of scarce investment funds.

- Fermage rights are frequently for short periods that will prevent even the best harvesting operations from investing in the forest management planning and infrastructure required for sustainable forest management.
- If the level of rent/taxation/royalties were set at the correct level there would be considerably less incentive for this practice to occur.

Based on these issues the following course of action is suggested:

- ◆ Review the current taxation system and set up a simpler system that:
  - provides a fair return to society for the use of its timber;
  - is fair to producers;
  - is easy to implement, collect and audit;
  - is independently monitored; and
  - is transparent with the results published.
- ◆ Implement a more robust system for recording production and transport of timber throughout the country. There should preferably be independent third party verification with results summaries regularly published and posted on the Internet. Computerised databases with invoices, accounts and statements for each producer should be established and the data generated used to ensure efficient collection of forest revenues. Again, this system should be subject to independent audit. The investment required for these systems would be covered through the improved collection of forest revenues.
- ◆ Once the basic log tracking system described above has been instituted, certificates of legal origin could be issued by an independent, internationally recognised certification organisation to accompany exports. This is increasingly required by importers (see the accompanying report on the Legal Origin of Timber) particularly for the supply to high value markets in Europe and the United States.
- ◆ Systems for managing the sustainable production of game meat needs urgent research and attention. Once sustainable estimates of production have been set, a system for monitoring and control needs to be devised. This must be closely connected to any community forestry programme with significant awareness raising and education campaigns. Protected areas need to be respected by the local populations. There must be benefit sharing of the forest resources but at the same time an understanding of sustainability.
- ◆ The system of fermage should be reviewed and the practice ceased, although increased rent could render this system obsolete.

## 7. GHANA

The forest sector of Ghana is of substantial size and officially made up 2.3% of GDP in 1999. Exports of wood products in 1999 made a contribution of 8% to Ghana's foreign exchange earnings, and the industry employed approximately 104,000 people. Despite this, Ghana may be losing as much as US\$37 million per annum in public revenue due to a combination of uncontrolled illegal logging, poor performance in royalty collection and outdated fees which have not kept pace with inflation.

Increased royalty and fee collection could be used to:

- ♦ ensure the sustainability of the wood supply from natural forests by effective control of the logging industry, for example through a proposed log tracking project;
- ♦ fund much-needed plantation development to reduce the pressure on natural forests as sources of fuelwood, building materials and charcoal, as well as industrial timber; plantation development would also help to address other environmental problems such as soil erosion and falling water tables;
- ♦ combat rural poverty by funding the start-up of alternative employment opportunities in rural areas.

To improve on the current situation, the following steps are suggested:

- ♦ Implement effective control systems such as log tracking to increase the capacity of forest officers to uncover and demonstrate illegal log flows
- ♦ Recover royalties more effectively from concessionaires, and establish better institutional arrangements to avoid the situation where fees are overtaken by inflation
- ♦ Renew efforts, e.g. through institutional change, to reduce the level of corruption in the public services, which contributes to illegal activity
- ♦ Renew efforts to bring in certification for timber exports; either certification of sustainable production (e.g. FSC or equivalent), and/or certification of legal origin
- ♦ Develop a massive public awareness campaign, in concert with national and local NGOs, to make illegal logging less acceptable in rural communities, and promote the sustainable use of forests; forests will only be effectively conserved where local communities have come to appreciate their value, and are prepared to defend them themselves rather than leaving the job to over-stretched government agencies.

Any effective clamp-down on illegal logging will have an adverse effect on those who make a living by it. Investment in alternative rural livelihoods, funded by the additional income that will be generated by better control of the sector, must be a high priority. These could include:

- ♦ Ecotourism initiatives. Ghana has many advantages in attracting a higher level of tourists from Europe: it is English-speaking, has generally good level of infrastructure and is one of the nearest countries to Europe that still has appreciable areas of tropical forest, much of which is still well preserved. Its rich cultural heritage and history are a further attraction for visitors.
- ♦ Initiatives to promote forest livelihoods, for example, small industries appropriate to rural settings, perhaps craft-based.
- ♦ Plantation development. As already noted, a drive towards plantation development has the potential to provide alternative livelihoods to those who currently make a living out of illegal logging, while providing a sustainable source of wood products of all kinds.

## 8. MOZAMBIQUE

Mozambique has a relatively small and dispersed forest sector, dependent on a few native species that occur in several parts of the country in moderate or small volumes. Concessions are currently being allocated to timber companies amid concerns that participation from local communities is not being adequately sought. Regulations to enforce the new Forest Law are currently making no progress through parliament. Lack of “value added” has been identified as a problem, especially as regards a few especially valuable species that are exported after minimal processing in Mozambique. The extent of illegal logging is suspected to be significant, perhaps 50% of the national cut. Local communities do not feel “ownership” of their timber resources, but a recently formed Policy Group within the national forestry authority (DNFFB) is committed to wide ranging consultations with a diverse and representative group of stakeholders.

### Possible policy avenues

- ♦ To improve on the current situation, assistance to the private sector could be given in the following areas:
  - Help investment in modern sawmilling and processing capacity to improve the quality of processed products, especially those for export
  - Taxing exports more highly to promote domestic processing
  - Introduce subsidies for plantations and conversion of industry to plantation rather than natural forest timber
  - Assistance with marketing processed wood products overseas
  - Institute better training of staff at all levels: technical, managerial, financial, etc.
  - Assistance with producing management plans and community involvement.

### Other recommended initiatives:

- ♦ Speedy enactment of regulations to bring Forest Law into force
- ♦ Awareness-raising to demonstrate to local communities what they are currently losing in terms of uncompensated natural resource use
- ♦ Systems such as log tracking may help to increase accountability by helping to identify individual logs reliably, and thus reduce illegal activity
- ♦ Keeping royalty payments up to a reasonable level and in line with international standards, in the face of continual devaluation of the currency
- ♦ Encouragement of concessions, provided that this is done with community involvement and proper management planning.

## 9. TANZANIA

Studies have shown that Tanzanian government agencies may be failing to collect more than a tiny fraction of the forest revenues that are due under current legislation. In addition, the levels of fees and taxes for forest exploitation are long out of date and bear no relationship to current timber values.

A recent study showed that the government receives only around US\$4.3 million per year, when potentially it could be receiving US\$68 million if enforcement was properly conducted.

The revenue from royalties and taxes could be used to:

- ♦ ensure the sustainability of a high-quality wood supply from natural forests by effective control of the logging industry, by contributing to the funding of the proposed Tanzania Forest Service;
- ♦ fund further plantation development to reduce the pressure on natural forests as sources of fuelwood, building materials and charcoal, as well as industrial timber; plantation development would help to address other environmental problems such as soil erosion and falling water tables;
- ♦ encourage investment by the private sector to raise the quantity and quality of timber produced in plantations, thus promoting exports of high-quality timber and adding value to 'raw' produce by domestic processing;
- ♦ combat rural poverty by funding the start-up of alternative employment opportunities in rural areas.

To turn the situation around, the following steps are suggested:

- ♦ Improve the control systems, to increase the capacity of forest officers to uncover and stop illegal log flows
- ♦ Renew efforts, including institutional change, to reduce the level of corruption in the public services, which contributes to illegal activity
- ♦ Support, in concert with national and local NGOs, for local participation in the management of forests, to make illegal logging less acceptable in rural communities, and promote the sustainable use of forests
- ♦ Develop management plans for forest areas, in co-operation with local communities.

Any effective clampdown on illegal logging will have an adverse effect on those who currently make a living by it. Investment in alternative rural livelihoods, funded by the additional income that will be generated by better control of the sector, must be a high priority. These could include:

- ♦ Ecotourism initiatives. Tanzania has good potential for attracting a higher level of tourists: it is English-speaking and has many largely undeveloped wilderness areas. Its cultural heritage and history are a further attraction for visitors.
- ♦ Initiatives to promote forest livelihoods, for example small industries appropriate to rural settings, perhaps craft-based.

## PART 2: COUNTRY REPORTS

### BÉNIN

#### BACKGROUND

##### GENERAL

According to FAO's recent survey of forest cover, in 2000 Benin had 2.65 million hectares of forest (defined according to FAO's standards), but forest is being lost at a rate of 70,000 ha (2.3 %) per year, through bush fires and forest clearance. Much of the remaining forest has been exploited to some degree.

In this region of open, dry forests, forest area statistics depend on the definition of 'forest' that is applied. According to CENATEL (1995), forest (defined more broadly to include some types of savannah) covers 65% of the national territory. In 1980, the vegetation cover was estimated to be 63,100 ha of dense forest, 1,274,400 ha of open forest and wooded savannah, and 6,059,600 ha of tree savannah. This has declined markedly, as shown in Table 1.

**Table 2 Benin – Trends in forested areas, 1980 – 1995**

Forest Type	Forest Area (ha)			
	1980	1985	1990	1995
Deciduous, semi-deciduous and gallery forests	63 125	59 427	55 946	52 669
Open forest and wooded savannah	1 274 375	1 119 726	1 129 449	1 063 289
Tree and shrub savannah	6 095 625	5 738 560	5 402 411	5 085 954
Forests on rocky ground	235 000	221 234	208 275	196 075
Periodically flooded	162 500	152 981	144 020	135 584
<b>TOTAL</b>	<b>7 830 625</b>	<b>7 371 928</b>	<b>6 940 101</b>	<b>6 533 571</b>

Source: CENATEL, 1995.

Benin has a high population growth rate, with the current population of 7 million expected to double by 2020. Over the next 20 years, domestic needs for wood products are expected to grow even faster than the population growth.

The country has around 36,000 ha of teak plantations (Siebert, 2001), some dating from the 1950s and 1960s. Some teak from these plantations is exported to Southeast Asia. The state-run company ONAB manages about 60% of the plantation area, the remainder being privately managed. In 2000 and 2001, approximately 31,000 m<sup>3</sup> of teak logs were produced from ONAB plantations per annum.

The forest sector contribution to GDP is estimated to be about 3 %.

#### STAKEHOLDER ANALYSIS

Six forest sector stakeholders have been identified: the state, the rural communities, local collectives (communes), the private sector, NGOs and donors (FOSA, 2000). However, stakeholder roles are poorly developed, and the full range of interests is not properly represented at national, or any other level.

According to information given by DFNR, a more participatory approach is now being adopted at village level to give communities control over their own local resources, based on five principles:

- ♦ Participation
- ♦ Sustainable harvesting
- ♦ Management of the ecosystem
- ♦ Multiple use of the forest

- Generation of enough revenue to cover the management costs.

Benin's current forest policies are largely dependent on external donors and projects. In 1999, the previous aid programme, the PGRN (Projet de Gestion des Ressources Naturelles), came to an end, and the World Bank and other donors agreed to finance a new project, the 'Programme de Gestion des Forêts et Terroirs Riverains' (PGFTR), intended to further enhance a participatory approach and co-ordinate forestry projects at a national level. An institutional audit (MDR/DFRN/PGFTR, 1999) was initiated to provide a basis for project development. The audit proposed, among other things, the creation of a national forum for debate and policy development on forestry issues.

The PGFTR is a component of the 'Programme National de Lutte Contre la Pauvreté' (National Program against Poverty), and is intended to promote sustainable livelihoods and diversified sources of income in rural areas by preventing degradation of the natural resource base. Starting in 2002, it will consist of:

- i) Institutional strengthening.
- ii) Participatory forest management.
- iii) Sustainable management of fuelwood.

No information was found on any certification initiatives. Starting from present conditions, it is likely to be a long time before forest certification to an international standard can be introduced.

## LEGISLATION AND POLICY

The PGRN (1992-1999) was the context in which new policies and legislation were developed. The Forest Law dates from 1993, but the decree to enforce it was not passed until 1996.

The law was intended to develop participatory forestry and a more rational use of resources, but in spite of this, most of it is devoted to timber exploitation and sanctions (Siebert, 2001). Timber felling is regulated through the issue of permits to individuals and collectives, which are more restricted in the case of "forêts classées".

The Forest Policy was developed in the same initiative as the Forest Law (1993) and was published in 1994. Its main themes are:

- Promotion to the public of the management and development of forest resources.
- Management of forest resources to ensure the continued existence of the forest heritage.
- Conservation and protection of forest and wildlife heritage.
- Institutional strengthening and reorganisation.

The last theme is intended to be implemented by:

- Creation of a national forest fund, partly funded from exploitation of the resource.
- Updating taxes and charges.
- Reform of procedures for granting access to products, recovery of revenue, control and accountability of revenue.

However, none of these concrete measures have yet been successfully implemented. According to FOSA (2000), forest strategies are not sufficiently well integrated in the overall agricultural policies and the national economy to be effective.

## Land Tenure and Forest Ownership

Under the law, the entire forest domain remains state property. Forests were designated as either "forêts protégées" or "forêts classées", with different regulations applying to each.

Political and administrative decentralisation is key issue in Benin's forest policies. Law number 97-028 of 15 January 1999 enacts the policy of decentralisation, but does not define the respective powers of the state and the collectives in the management of forests; this legal loophole could lead to the over-exploitation of forest resources by local communities (FOSA, 2000). The number of departments (provinces) in the country was increased from six to twelve by the law of 1999. Land administration is being decentralised to the single level of 77 local collectives known as Communes, administered by an elected council and financially autonomous.

According to the new laws on decentralisation and local organisation, communities will be substituted for the existing *sous-préfectures* and will be vested with financial and administrative autonomy. They will be able to become managers of natural resources, following a community development plan to organise the necessary infrastructure. Forests will thus constitute a part of the capital of the village and community, and contribute to financing local requirements.

This decentralisation will impact upon forest management. The “forêts protégées” will belong to the communes, under the administration of the elected mayors. Communes will be able to develop a management plan for these areas. The “forêts classées” are considered a national heritage and will remain under the control of the DFNR.

Decentralisation implies a new approach to natural resource management. Departments and communes will be able to create their own forests, but they will need to gain skills and capacity to manage their own natural resources.

### Enforcement

According to the analysis of Agbetou (2002), the law does not have a clear means of implementation. It has not been used effectively against illegal loggers, and this inability has contributed to deforestation and further lack of respect for the law. Nor has it proved effective in deterring wrong-doers or punishing those who break the law.

Levels of taxes on wood products have not been changed since 1974.

### INSTITUTIONS

The national body controlling forest sector is the ‘Direction des Forêts et des Ressources Naturelles’ (DFRN), part of the Ministry of Agriculture, Livestock and Fisheries (Ministère de l’Agriculture, de l’Elevage et de la Pêche, MAEP). Operations at departmental level, including collection of forest taxes, are carried out by the DFPRNs (Directions des Forêts et de Protection des Ressources Naturelles).

The audit of the DFRN carried out in 1999 (MDR/DFRN/PGFTR, 1999) revealed that the reforms of the early 1990s had not been successful, due to insufficient personnel and a failed implementation of the participation approach. As a precondition for financing the main phase of the new PGFTR project, the audit recommended that DFRN should be restructured and increased in size, with a recommended *annual* increase of 80 forest officers between 2000 and 2010. However, Agbetou (2002) reports that there is still a freeze on new recruitment of forest officers. Outsourcing of selected services from independent surveyors may be an option to be considered as a way of unblocking the situation of under-resourced authorities.

According to FOSA (2000), forest research has suffered from lack of policies, political will and investment in the improvement of promising commercial species.

### STATISTICS

#### National – Official

#### Production

Information on the forest sector is scarce, contradictory and unreliable, both in terms of the resource itself and its exploitation.

Tchiwanou (2000) assembled production records from DFRN data for 1995 to 1999 as shown in Table 2:

**Table 3 Benin – Wood production, 1995 - 1999**

Year	Teak logs (m <sup>3</sup> )	Sawnwood (native - m <sup>3</sup> )	Sawnwood (teak - m <sup>3</sup> )	Parquet (teak - m <sup>3</sup> )	“Frisés” (teak)	Poles of teak – no.
1995	32,641	840	15,480	918	-	3,244
1996	30,093	24,529	10,850	650	1,275	390,742
1997	33,845	14,522	11,974	1,942	1,863	16,122



1998	37,309	18,407	12,672	1,205	2,150	30,030
1999	35,102	27,380	12,848	1,260	2,102	266,629
Total	138,531	85,681	63,826	5,977	7,391	706,767

Source: Direction des Forêts et des Ressources Naturelles (collated by Tchiwanou).

Bediye (2001) arrived at different figures for native (i.e. non-teak) wood production, also derived from DFRN records (Table 3 and Table 4). However, the overall picture of officially recorded production is around 15,000 – 30,000 m<sup>3</sup> of native species per year, and that it has been on the increase over the past five years.

**Table 4 Benin – Production of sawnwood 1996 - 2000**

Sawnwood	1996 (m <sup>3</sup> )	1997 (m <sup>3</sup> )	1998 (m <sup>3</sup> )	1999 (m <sup>3</sup> )	2000 (m <sup>3</sup> )
TOTAL	5,613	18,268	22,804	28,203	30,505

Source: Bediye, 2001.

**Table 5 Benin – Production of wood products 1996 – 2000: all years together**

All departments by product	Unit	No. of units
Sawnwood	(m <sup>3</sup> )	105,403
Poles	Each	632,850
Firewood	Stères	479,334
Charcoal	Bags	756,853

Source: Bediye, 2001.

In 2001, according to reported DFNR statistics, 6,171 trees were felled, producing a total of 32,300 m<sup>3</sup> of sawn timber. Significant volumes of teak were also exploited from non-plantation forest areas.

Non-industrial forest products, such as building poles, firewood and charcoal are also shown in Table 4. The unit of firewood used is the 'stère' (apparent cubic meter), of which ten can be transported in the back of a small utility vehicle. Siebert (2001) estimates fuelwood demand at 7,642,000 m<sup>3</sup> per year, and predicts serious fuel shortages in the near future.

Production of other forest products, such as palm products, is included in the revenue statistics later in this report. There is widespread exploitation and use of other non-wood forest products, including medicinal plants, but no quantified estimate has been found.

In some departments, particularly in the south of the country, where population density is high, cutting of natural forests has already stopped because timber resources have been exhausted. In other areas, there is little natural forest with valuable timber species. The departments of Atlantique/Littoral and Ouémé/Plateau in the south of the country have high production figures for fuelwood and poles, which are obtained either from plantations, or from agricultural clearance.

### Royalties

Exploiters pay a stumpage fee according to the size and species of the tree they intend to cut. The rates in use date from 1974, and are therefore extremely low. New rates are currently being presented to the National Assembly for ratification but do not appear to be imminent.

Iroko, the most valuable species, is charged at approximately US\$1-2 per m<sup>3</sup> in log form. There are nine other valuable species which are rated at around 25 – 50% of that amount, and all other native species are charged at approximately US\$0.5– 2 per tree, i.e. less than US\$0.5 per m<sup>3</sup>.

Building poles are taxed at 5 FCFA each, a load (stère) of firewood at 150 FCFA and a bag of firewood (approximately 100 kg) at 100 FCFA. (US\$ 1 is approximately 700 FCFA).

All these amounts are extremely low in today's prices: as a comparison, new stumpage rates imposed in Ghana in 1999 had an average of US\$ 13 /m<sup>3</sup>, with the most valuable species costing double that amount.

The average reported revenue per m<sup>3</sup> received for sawn wood varies from about 500 FCFA (US\$ 0.7) to 2000 FCFA (US\$ 3) in different departments. These revenues are for sawn timber rather than logs, and so are higher than the stumpage fees quoted above because they supposedly take into account the conversion rate of logs into timber, typically around 30% -40%.

## Processing

The native timber sector does not incorporate vertical integration. Logs are produced by independent operators and sold on to sawmills. In 2001 there were 419 permit-holders licensed by DFRN for exploitation, trading or processing wood from natural forests. However, Agbetou (2002) maintains that the sawmills in fact clandestinely employ many so-called independent log producers.

Eleven sawmills are officially registered with the DFRN (FOSA, 2000), and there are five more employed for sawing of teak for export. Most of these are located in the south of the country. There are only a few large sawmills: the biggest and most modern, most of which process teak, include those detailed in Table 5:

**Table 6 Benin – Throughput of major sawmills**

Name	Volume of logs used per year (m <sup>3</sup> )
ONAB	30,000
Compagnie du Golfe	12,00
Trebi	3,600
Benteck	7,200

Source: Tchiwanou, 2001.

The 'Etude Filière Bois au Bénin' (GWV, 1997) found around 900 small workshops making 'madrriers' (standard sized planks of around 0.1 m<sup>3</sup>) and other planks, mainly in Cotonou and the south of the country. Together they process 70 000 m<sup>3</sup> of sawn wood per year, made up of 40 000 m<sup>3</sup> of native timber and 30 000 m<sup>3</sup> teak. This would imply at least double this volume of logs before conversion to sawn wood. There is also widespread illegal processing of logs into sawn wood in the forest, using chainsaws.

## Import taxes

The forest agents charge taxes on imported timber, again at a very low level. The tax amounts to 100 FCFA (US\$ 0.15) per madrier. Planks, which are smaller, are taxed at 25 FCFA each.

Customs charges amount to 20% of the value of the import, which, in theory, would mean about FCFA 3000 per madrier. In view of the widespread reported fraud, it is doubtful how closely this reflects reality. Customs revenue on forest products for the period 1996 – 2000 is reported by Bediye (2001) to be 888 million FCFA (US\$ 1.3 million), or US\$ 0.26 million per year.

## Wildlife revenue

Controlled hunting takes place in the three national parks of Pendjari, Atacora and Djona. In the 1999-2000 season the number of permits issued was 125, bringing in a total revenue of 69 million FCFA for hunting permits and trophy fees, plus 0.7 million FCFA in camping fees. Fishing permits brought in another 1.5 million FCFA. Further details are given in Table 6 below.

**Table 7 Benin – Hunting receipts from five seasons in the National Parks**

Fees	'000s CFA Franc by Year				
	1995 - 1996	1996 - 1997	1997 – 1998	1998 - 1999	1999 - 2000
Game viewing	830	10,542	10,640	15,282	21,959
Hunting permits	12,400	15,200	15,850	17,200	22,666
Fishing permits	668	624	830	1,320	1,545
Trophy fees	20,200	30,000	35,400	41,620	34,078
Guide licence	8,080	9,465	10,320	10,500	12,000
Other income	645	842	944	1,070	1,196
<b>TOTAL</b>	<b>49,823</b>	<b>66,673</b>	<b>73,984</b>	<b>86,992</b>	<b>93,444</b>

Source: Bediye, 2001.

According to FOSA (2000), yearly visitor numbers to the national parks in the hunting season average 2000-3000. Receipts from hunting in the last few years are recorded as higher than those given above, as follows: 1997-1998: 125 million FCFA; 1998-1999: 92 million FCFA; 1999-2000: 93 million FCFA.

Wildlife harvesting fees are again extremely low, for example 12,000 FCFA (US\$ 20) for local residents to kill a buffalo, even though rates were updated in 1997. The scale of illegal trophy hunting is not known, nor is the scale of harvesting of bush-meat for local consumption, but the situation is likely to be similar to that in Ghana, where there is virtually no control of bush-meat harvest.

### Overall forest sector revenues

Total revenues for production and import of wood products for the period 1996-2000 (Bediye, 2001) are given in Tables 7 and 8 below. None of these figures can be regarded as more than indicative.

**Table 8 Benin - Revenue from wood production by year 1996-2000**

Product	'000s CFA Franc by Year					
	1996	1997	1998	1999	2000	TOTAL
Sawnwood	4,667	18,078	16,583	18,624	22,089	80,054
Poles	1,558	294	459	474	368	3,160
Firewood	9,486	12,144	10,799	16,500	23,038	71,898
Charcoal	2,567	7,736	10,488	11,021	10,146	41,957
<b>Total</b>	<b>18,278</b>	<b>38,252</b>	<b>38,329</b>	<b>46,619</b>	<b>55,641</b>	<b>197,069</b>

Source: Bediye, 2001.

**Table 9 Benin – Import duties on madriers and planks 1996 - 2000**

Departments	Madriers		Planks		Total Revenue
	Quantity (m <sup>3</sup> )	Revenue (FCFA)	Quantity (number)	Revenue (FCFA)	
Atacora	9,060	10,872 840	210,000	5,250,000	16,122,840
Atlantique	-	-	-	-	-
Borgou	816	897,700	2,500	62,500	960,200
Mono	469	610,142	2,320	50,817	660,959

Ouémé	8,411	8,734,950	318,276	7,941,000	16,675,950
Zou	-	-	-	-	-
Total	18,757	21,115,632	533,096	13,304,317	34,419,949

Source: Bediye, 2001.

Overall DFRN revenue from all sources for the period 1996-2000 is estimated below.

**Table 10 Benin – Revenue of DFNR from forest products, 1996 -2000**

Product	Millions of FCFA
Sawnwood	80
Building poles	3
Firewood	72
Charcoal	42
Palm products	41
Import dues	34
Fines	43
Wildlife Viewing	66
Hunting charges	83
Fishing	5
Licences to kill animals	151
Guide licences	50
Other taxes	4
Export of specimens	43
<b>TOTAL</b>	<b>717</b>

Source: Bediye, 2001.

Revenue raised by the DFRN in 2001 (from imports, felling permits and taxes on other wood products) was recorded variously (in the same document) as 121 million and 134million FCFA (around US\$ 200,000). This is broadly in line with Bediye's figures of 717 million FCFA over five years.

Agbetou (2002) estimates that one madrier, with a volume of about 0.1 m<sup>3</sup>, sells for 14,000 FCFA (i.e. US\$ 20) or US\$ 200 per m<sup>3</sup> in the south of the country. Siebert (2001) gives a slightly higher estimate for planks, with a truckload of timber of 100 planks, probably around 3 cubic metres, selling for US\$ 1000 – 1700.

According to GVW (1997), the prices of madriers in the north and south of the country are markedly different, namely 7,500 and 13,500 FCFA respectively, taking into account the cost of transport and the presence of the market in the populous south.

If the domestic price of sawn timber is around US\$ 200 / m<sup>3</sup>, the value of timber produced in the last five years could amount to US\$ 100,000,000. The export price could be much more, perhaps 1.5 – 2 times this value for good quality products.

### Enforcement

Cases are brought to court for illegal cutting, the occupation of protected forests, illegal storage of forest products, transport of madriers without a permit, and cutting timber with chainsaw.

**Table 11 Benin – Court cases brought for illegal timber activities**

Years	1994	1995	1996	1997	1998	1999	2000	TOTAL
No. of cases brought	2	9	83	48	96	47	39	324

No. of cases fined	2	9	33	48	50	12	24	178
No. of cases in judgement	0	0	18	0	1	3	0	22

Source: Agbetou, 2002.

According to DFNR records, an average of 46 cases are brought to trial each year, a very small figure compared to the estimated scale of illegal activity (see Table 11), although numbers have risen as a result of the introduction of the Forest Law in 1996. According to Agbetou (2002), one third of these are acquitted, due, he suspects, to family or other influences being brought to bear.

Fines for wrongdoing range between 20,000 FCFA (US\$ 30) and 100,000 FCFA (US\$ 150) according to the gravity of the offence. One fifth of the money raised goes to the forest agent involved, the other 80% is received as revenue by DFNR.

**Table 12 Benin – Total fines imposed: 1996-2000**

Département	Total fines CFA Francs
Atacora	2,653,125
Atlantique	4,139,060
Borgou	11,411,330
Mono	1,927,500
Ouémé	5,607,000
Zou	17,262,859
Total	43,000,784

Source: Bediye, 2001.

### National – Other

According to the forest sector study carried out by General Woods and Veneers (GWV) in 1997, sawn wood consumption was estimated in 1997 to be 112,000 m<sup>3</sup> of logs per year. This figure consisted of the production of 52,000 m<sup>3</sup> of plantation teak and 60,000 m<sup>3</sup> of native timbers, about half of which was reckoned to come from Nigeria and Togo. As will be seen below, the native timber figure is probably a considerable underestimate: there is thought to be widespread illegal logging within Benin, with planks cut illegally by chainsaw being passed off as imports.

The potential harvest from the whole area of natural forests and plantations in the country has been estimated to be 652 000 m<sup>3</sup> of logs per year (GVW, 1997).

**Table 13 Benin – Availability and consumption of forest resources**

Product	Availability	Consumption 1997	Observations
Sawn wood	652,000 m <sup>3</sup> of logs per year	112 000 m <sup>3</sup> of logs per year	Includes 52,000 m <sup>3</sup> teak; 60 000 m <sup>3</sup> native timbers of which 30 000 m <sup>3</sup> imported from Togo and Nigeria
Building materials	2,700,000 m <sup>3</sup> per year	20 000 – 25 000 m <sup>3</sup> per year	
Fuel	10,900,000 m <sup>3</sup> per year	7 642 000 m <sup>3</sup> per year	Projected consumption in 2012 is 11,530,000 m <sup>3</sup> per year.

Source: GVW, 1997.

Consumption of wood fuel is estimated to be around 5,200,000 tonnes of fuel-wood and 19,000 tonnes of charcoal per year. Eighty percent of the population uses wood or charcoal as their energy source.

## Imports

Sawn wood is imported from neighbouring countries such as Togo and Nigeria, or at least that is the official position. In fact, there is a substantial illegal trade in sawn wood products masquerading as imports, as described below.

Information on imports is very confused, apparently because of (among other things) confusion between *volumes* and *numbers* of planks or madriers. Bediye (2001) gives the total *volume* of madriers imported from 1996 – 2000 as 18,757 m<sup>3</sup>, and the total *number* of planks as 533,096. Since the import tax on a madrier is 100 FCFA and that on a plank 25 FCFA (see below) one might expect the average volume of a plank to be around 0.025 m<sup>3</sup>, since a madrier is approximately 0.1 m<sup>3</sup>. In this case the volume of planks imported would be about 13,300 m<sup>3</sup>. This would make total imports over 1996 – 2000 to be around 32,000 m<sup>3</sup>, or on average only 6,400 m<sup>3</sup> per year.

The 2001 DFNR report gives imports as 468,000 m<sup>3</sup> but this is evidently an error based upon counting units (of planks and madriers) rather than volumes.

In another table, Bediye's figures imply that total imports during 1996 – 2000 were 55,124 m<sup>3</sup>, or about 10,000 m<sup>3</sup> per year (see Table 13). According to figures quoted by Tchiwanou, imports of sawn wood increased from 5,000 m<sup>3</sup> to 49,000 m<sup>3</sup> between 1998 and 1999 (the last year recorded at that time). The correct figure, bearing in mind the presence of substantial illegal activity, can only be guessed at.

**Table 14 Benin - Imports of wood products 1996 – 2000.**

Département	Products	Production in cubic metre equivalents by year					
		1996	1997	1998	1999	2000	TOTAL
Atacora	Madriers imported	7739		8124	7634	4231	27728
Mono / Couffo	Madriers imported	300	122	70	441	321	1254
	Planks imported				29		29
Ouémé / Plateau	Madriers imported	1623	1740	2020	2478	2510	10371
	Planks imported	2809	2762	3001	3068	3141	14780
Zou / Collines	Madriers imported	300	122	70	441		933
	Planks imported				29		29
	Overall	12771	4746	13285	14120	10203	55124

Source: Bediye, 2001 (from DFNR). Note: Assumptions needed to be made as some numbers had no units. One madrier assumed to be 0.1 m<sup>3</sup>, one plank 0.025 m<sup>3</sup>.

### Illegal imports

As in Ghana, production of timber from of felled trees in the forest by chainsaw is illegal. However, in surrounding countries, such as Togo and Nigeria, this is not the case, and chainsaw timber is legal. As a result of this, widespread and serious mis-reporting is taking place over the origin of timber that is claimed to have been imported into the country (Siebert, 2001). Large amounts of timber are estimated to be harvested and sawn up in Benin using chainsaws, then passed off, with the collusion of forest and customs agents, as being legally imported from Togo or Nigeria.

Siebert (2001) and Agbetou (2002) describe how false import documentation is allowed to pass customs by corrupt forestry officers in return for bribes. Siebert (2001) estimated that 80-90% of the 2000 production in Benin was in fact illegal. This could make the real production figure for 2000 to be around 150,000 m<sup>3</sup>, not 30,000 m<sup>3</sup>.

A report by Aitchedji, quoted in Bediye (2001), supports these estimates of illegality. Aitchedji estimates that forest taxes are under collected (due to undeclared production) by a factor of ten due to undeclared production.

### Exports

As can be seen from the above discussion, Benin's land borders are extremely porous, so it is impossible to know whether any sawn timber is actually exported overland to Togo and Nigeria. However, as the main regional market appears to be Benin itself, unrecorded exports of native timbers are unlikely to be very large.

There are some legal exports by ship of teak sawn wood to South East Asia. FAO records 2,000 m<sup>3</sup> of sawn wood exported in 2000; this is likely to consist of teak. Exports of logs from Benin are prohibited to protect the local industry, but exporters can get round this requirement by squaring off the sides of logs to a minimal degree. Meanwhile, teak logs are sold domestically to the industry at around \$35 per cubic metre, representing a considerable economic loss to the country, since plantation teak FOB prices from Gabon are around 400 Euros (approximately US\$ 400) per cubic metre.

According to FOSA (2000), in the period 1993-1998 Benin exported, or re-exported, 6,000 m<sup>3</sup> of sawn wood, 4,817 m<sup>3</sup> of parquet and 2443 m<sup>3</sup> of "frises".

Tchiwanou (2000) gives figures for exports in 1998 and 1999 as shown in the table below, noting that although most exports are teak, there is increasing interest in exporting timber on the part of companies other than ONAB. Again, there is a wide range of figures available.

**Table 15 Benin – Wood exports 1998-1999**

	Sawnwood (m <sup>3</sup> )	Planks (m <sup>3</sup> ) [no units]	De-barked wood (kg)	Plywood (kg)	Frises (m <sup>3</sup> )	Parquet (m <sup>3</sup> )	Others [no units]

1998	730,900	78,748	200	2,400	635	1,616,429	370,705
1999	554,980	1,156	18,400			1,840,821	49,570

Source: Tchiwanou, 2000.

## ANALYSIS

### COMPARISON OF STATISTICS

Leaving aside losses in the collection of dues for fuel-wood, charcoal and building materials, figures suggest that the state has received \$1.00 per m<sup>3</sup> of sawn wood produced (80 million FCFA over five years, equivalent to around US\$ 100,000, for 105,000 m<sup>3</sup> of sawn wood).

If estimates for illegal logging are correct, then the real total is at least five times this volume, i.e. at least 500,000 m<sup>3</sup>. If this had been adequately controlled, and stumpage charged at an average US\$ 13 per m<sup>3</sup> (still low by international standards), then the revenue would have been at least US\$ 6,000,000.

If this is the case (and it may be an underestimate), the state has been losing over US\$ 1.2 million per year, at a time when (in 2001) the annual DFRN return to the treasury is quoted as 120 - 130 million FCFA (US\$ 170,000).

Environmental costs created by the loss of forest cover (soil erosion, loss of woody vegetation, fires, loss of soil fertility) have been estimated at 10–20 billion FCFA, more than 3% of GDP (FOSA, 2000).

Siebert (2001) indicates an average domestic income of US\$ 50 per month (US\$ 600 per year), and estimates that the bribes paid to forest officers amount to US\$ 600 per load of, say, 3 m<sup>3</sup>. If the annual volume traded illegally is 100,000 m<sup>3</sup>, then the overall quantity of bribes paid is US\$ 20,000,000, a total of some 34,000 domestic incomes.

## CONCLUSIONS

The following measures are recommended by Siebert (2001) as changes in structural conditions necessary to reduce corruption:

- The current forest law should be revised to increase its transparency for all forest users.
- Donor projects should start to create local expertise in self-government, administration and forest management.
- Rapid implementation of decentralisation will increase the number of stakeholders at the local level, resulting in a decrease in DFRN's monopoly of control. DFRN's role should be more of an advisory one, while communities themselves have their own management bodies to control their local forests.
- Donor projects and local NGOs should create alternative sources of local income, such as cashew nut plantations and afforestation with teak and other species.
- Rural land tenure reform to motivate local investments in land and forests, since the current situation creates insecurity for potential forest management.
- Control committees consisting of international donors' personnel and state agents' external to the DFRN should control forest agents and forest check points on the local level.
- Introduction of "codes locaux" in all villages in forested areas, since the local level currently constitutes a space devoid of law. Such codes can enforce sustainable forest management plans, allow forest use at village level and make the local population responsible for forest control. In the absence of a locally accessible independent court system, local codes help the village population to prosecute and penalise illegal activities of local loggers, labour, headmen and entrepreneurs. FIN and TI (Transparency



International) could develop and promote guidelines for management regulations such as “codes locaux” and tribunals.

## **WINNERS AND LOSERS**

### **Winners**

- Corrupt forest agents and officials are receiving large bribes.
- Wood traders and processors are able to purchase timber cheaply, and make large profits on the sale of secondary products.

### **Losers**

- Local communities are left with no forest with exploitable timber value and no basis for further income generation when they are left with deforested land with degraded soils.
- Government who has lost revenue that could be used to support services in the forest sector.

## **THE GAP BETWEEN LEGISLATION AND REALITY**

Production and import/export statistics bear little relationship to reality. Corruption is allowing the wastage of a large, valuable natural resource.

Local people have little motivation or power to intervene in the destruction of their resources, as most of them do not benefit under the current legal regime. This is being addressed in the current schemes for decentralisation and participatory forestry.

## **COMMENTARY – POLICY BRIEFING NOTE**

Benin's forest industry, although small by international standards, is of great importance nationally because of the income and employment it provides in rural areas, and the supply of much-needed timber to the domestic market. It also earns a moderate amount of foreign exchange. Unfortunately, natural forest areas are being seriously overexploited and there is little effective control of the widespread illegal activity.

A first step must be to encourage participatory management of the resource by bringing stakeholders together to exchange views and information about a shared national resource.

If forest production is properly controlled and tax rates brought up to date, the figures quoted in the report suggest that the income to the state could be around US\$ 6 million per year, rather than the US\$ 20,000 it is currently estimated to receive.

Some of the issues that require addressing include:

### **Information requirements to enable long-term planning**

- Better knowledge of the resource for rational and sustainable planning.
- Better collection of basic production and trading data.

### **Revision of the Forest Law**

- Updating of forest taxes to reflect 2002, not 1974.
- Review of the prohibition of chainsaw cutting, replacement with payment (at each exploitation) of restoration payment to an elected village committee.
- Harmonisation of forest laws between Benin and neighbouring countries, i.e., Nigeria, Togo and Ghana.
- Special laws against corrupt forest agents.
- Simplification of transport controls; fewer control posts, opening of a phytosanitary post at each entry border post.

### **Investment in plantations**

- More private involvement in forestry management.

- More resources devoted towards planting, maintaining and surveillance of newly-growing plantations.

### **Decentralisation**

- Introduction of 'codes locaux' in all villages in forested areas, to give a legal basis for community sanctions against illegal activities ('codes locaux' enable the village population to prosecute and penalise illegal activities in their local area).
- Election of village committees to act against natural resource degradation destruction.

### **Capacity building for DFRN**

- Improvement of conditions for forest agents into a special professional category.
- Recruitment of more forest agents to reach UNESCO recommended levels.
- State clampdown on corruption, with external committees overseeing the actions of DFRN personnel.

### **Extension**

- Publicity and awareness-raising, through mass media and local NGOs to local populations about current laws, how they are being broken and principles of sustainable resource management.

At present it is difficult to prioritise such an array of recommendations, due to a lack of exchange of information and opinions between stakeholder groups at both national and local levels.

Clearly a sustained, long-term programme, initiated by but not dependent in the long-term upon donor involvement, will be required to make headway against the current problems and the administrative environment in which they are causing environmental damage.

To assess the benefits and costs of such proposals, a first step should be the setting up of a national stakeholder group (as has recently been done in Mozambique for example) including representatives of government, donors, the wood industry, NGOs and local communities. This would create a national forum for debate on the forest industry. Alongside this national body, local stakeholder groups at department level should bring people together from diverse viewpoints to consider action at a devolved level.

At the same time, a mass awareness campaign among villagers about forest corruption would help to raise the profile of the problem and bring people to support the law. Any effective clampdown on illegal logging will have an adverse effect on those who currently make a living by it. Investment in alternative rural livelihoods, funded by the additional income that will be generated by better control of the sector, must be a high priority.

## SFM DIAGNOSTIC AND PLANNING TABLE

(modified from IIED, Dec 2001)

Element of good sustainable forest management practice		What's working?	What's missing?	Score (red, amber, green)	What needs to be done?
1. ROLES. Stakeholder roles and institutions negotiated and developed	1.1 Recognition among policy makers of multiple stakeholder groups	Only in theory	Effective role for consultation fora.	Red	Set up national and local bodies for exchange of information and views
	1.2 Stakeholder representatives ready to negotiate	Very little stakeholder involvement. Groups have been set up within the context of forest sector aid programmes	Stakeholder capacity-building	Red	As above
	1.3 Organised national & local participation system	Village and departmental co-operatives, committees exist	Meaningful devolution of power to local level	Amber	
	1.4 Forest information generated and accessible by all	Limited information but available only to professionals	Reliable, available information	Amber	Effort to collate statistics and ensure they are realistic
	1.5 Forest policy developed and shared	Forest policy developed.	No sense of ownership at local level	Amber	Translate policy into strategy and implement it
	1.6 Stakeholder roles developed	Only within professional organisations	Farmers, pastoralists, fishermen, hunters not included	Amber	Wider representation by society
	1.7 Basic forest institutional structures in place	Yes		Green	
	1.8 Mechanisms for capacity building amongst all stakeholders in place	No	More emphasis on training for government agents	Red	Training and information for non-foresters, so they can contribute to the debate

Element of good sustainable forest management practice		What's working?	What's missing?	Score (red, amber, green)	What needs to be done?
	1.9 Sources of finance identified & engaged	International donors have supported forestry reform	Management of the forest should be paid for by exploitation revenue	Red	Proper enforcement of laws
	1.10 Collaboration and partnerships arranged	Partnerships exist at village level between producers, traders and industry	Partnerships are often weak	Amber	Harmonised approach to organising village structures
	1.11 International agencies supportive of national forest policy	Yes	Lack of co-operation between agencies sometimes	Green	Better co-ordination between agencies
2. POLICIES. Forest policies, standards for SFM & legislation in place	2.1 Policies and laws recognise forest vision, roles and institutions	Yes	Policies, regulations and standards are not applied	Amber	Better implementation of existing laws; promote understanding by civil society of need for regulation
	2.2 Priority-setting methods/criteria agreed & adopted	No	No effective sharing of views and information between stakeholders	Amber	Communication / awareness of issues
	2.3 Permanent forest designated under various forms of ownership	No	Forest is not regarded as permanent	Red	Education programmes
	2.4 Clear equitable & legally defensible rights in place (e.g. to manage and extract forest resources)	Yes		Green	
	2.5 Stakeholders aware of rights	Not generally	Lack of education and awareness.	Red	Education programmes
	2.6 Formalisation of systems to define, implement and improve forest policy & standards in place	Within DFNR this exists	Little mechanism to consult outside the profession	Amber	Stakeholder groups required
	2.7 Forest legislation in place to support the above	Yes	Widely ignored	Amber	
3. INSTRUMENTS. Coherent set of 'carrots and sticks' for	3.1 Coherent set of instruments striven for at national level	Yes	Widely ignored	Amber	

Element of good sustainable forest management practice		What's working?	What's missing?	Score (red, amber, green)	What needs to be done?
implementation in place					
	3.2 Rules & sanctions in place covering forest tenure rights, protection of interests, investment, market access, anti-corruption and revenue system	Yes, but not generally implemented		Amber	
	3.3 Market instruments in place covering property rights-based approaches (concessions, licences & permits), incentives, finance	No		Amber	Need to develop these market-based approaches
	3.4 Information systems in place	Progress is being made but the situation is still poor		Amber	Better information systems with reliable data in them
	3.5 Institutional /contractual structures in place covering human resources, support for the poor, management guidelines, conflict management, codes of conduct, finance, partnerships	Structures exist	Existing structures are poorly developed, and spread between government and civil society	Amber	Improved co-ordination between the institutions involved
4. EXTENSION. Promotion of SFM to stakeholders undertaken	4.1 Forest producers are involved in mechanisms to share and receive information relating to SFM	Forests ("forêts classées") have management plans	Most forest areas are unmanaged, or unsustainably managed	Red	Participatory management plans to be developed
	4.2 Consumers of forest products & general public have information on SFM and SFM products	No	No public perception of sustainability	Red	Awareness campaign
	4.3 Forest authorities have access to information on SFM	Yes		Amber	
	4.4 Forest authorities regularly conduct stakeholder needs assessment on SFM	Some cases, but not regularly		Amber	More participatory approach
5. CERTIFICATION/ VERIFICATION on SFM undertaken	5.1 Feasibility of certification has been assessed	No	Lack of information and awareness	Amber	
	5.2 Forest producers and consumers have access to a certification scheme which is internationally recognised	No		Amber	

Element of good sustainable forest management practice		What's working?	What's missing?	Score (red, amber, green)	What needs to be done?
	5.3 Multi-stakeholder national/local group exists to oversee scheme set up and operations	No		Amber	
	5.4 Local auditor/assessor capability exists to carry out certification at competitive cost	No		Amber	
	5.5 Information is generated on progress in certification and its impacts	No		Amber	
	5.6 Information on progress with certification communicated to policy makers	No		Red	

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# CAMEROON

## 1 BACKGROUND

### OVERVIEW

Cameroon has a population of 15 million and forest covering 22 million hectares, predominately in the south, covering approximately half of the total land area. Over the last decade, Cameroon has enjoyed a period of sustained economic growth. In the last three years, GDP growth has averaged 5%. Currently GDP is approximately US\$520 per head per annum. By regional standards, Cameroon is a leading economy<sup>2</sup>.

The forest sector contribution to GDP (minus oil) has increased from approximately 4% to 9% for the period between 1996 and 2000. Cameroon leads the region in terms of value added processing. Over 90% of timber production is exported. Wood product exports were the second largest source of revenue after oil in the year 1998-1999, representing 27% of total export earnings.

Corruption is a significant problem for effective governance in Cameroon. According to Transparency International's Corruption Index (see [www.transparency.org](http://www.transparency.org)), Cameroon is currently ranked amongst the three most corrupt countries in the world. The Government has announced several measures to address the corruption problem.

### THE FOREST SECTOR

#### The Economics of the Forest Sector

Productive forest covers 17 million ha (78% of the total forest area)<sup>3</sup>, with a potential production of 4-5 million m<sup>3</sup> per annum. The current official estimate of the sustainable level of production is 3.5 million m<sup>3</sup> per annum. Approximately 90% of this is processed.

In recent years, the forest sector has undergone a period of rapid change due to the log export ban and more effective enforcement of forest regulations. As a consequence of the log export ban, there has been increased investment in forest industry, but the raw material supply has declined due to more effective enforcement, which has resulted in many mills closing or reducing production.

Allocation of forest concessions commenced during the year 1997-1998 and should be completed by 2003. In 1999, there were more than 1000 registered logging companies. Foreign owned companies, primarily French, Italian and Lebanese, managed 57% of the forest resource under the concession system.

Currently, there are over 100 processing companies, mostly located in urban areas near Yaoundé and Douala. The major processing operations are located close to the forest resource, mainly in the country's eastern region. Green, sawn timber is the main processed product although the larger processors kiln-dry a proportion of their sawn timber production. Most production is exported. Secondary processing remains relatively limited; there are only four veneer and three plywood factories. Ten companies are engaged in the secondary processing of moulded products and parquet.

Due to tightening resource constraints, processing companies are encountering problems obtaining adequate quantities of raw material. GFBC (Groupement de la Filière Bois au Cameroun), the organisation representing the interests of forest industry, have called on the Government to extend the ban on log exports to the two main commercial species (Ayous and Azobe).

Unregulated production includes that undertaken by the formal sector and small scale logging by individuals. This supplies a significant proportion of domestic consumption, conservatively estimated at approximately 200,000 m<sup>3</sup> (CIRAD I&D, 2000), and also provides raw material to the processing sector.

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<sup>2</sup> Although GNP is less than some other countries due to relatively lower oil revenues.

<sup>3</sup> A proportion of this is set aside as protection forest.



## Forest Management

The densest forest (14 million ha) is located in the south of the country. Of this, 8.9 million ha is classified as PFA (Permanent Forest Area), 2.6 million ha of this is protected, 0.3 ha is under the management of municipalities and 6 million ha is classified as FMU (Forest Management Unit) and managed for timber production (FOSA, 2002). Concessions may span one or more FMU. Each FMU must be exploited following a management plan on a 30 year felling cycle. The concessionaire has a three-year period following allocation of the resource for completion of inventories and management plans. A committee has been formed within MINEF (Ministry of Environment and Forests) to evaluate management plans submitted under the first concession allocation in 1997. To date, 16 management plans have been submitted, but only two have been approved and these two were prepared with international assistance.

Particularly in remote areas, due to the high transport costs, logging tends to concentrate on high value species resulting in logged over forest having a low proportion of commercially valuable species, thereby reducing the incentive for longer-term management.

### Community Involvement in Forest Management

The 1994 Forest Law provided the legal basis for community involvement in forest management. Subsequently DFID provided assistance through the Community Forestry Development Project (CFDP) to develop MINEF's capacity to support community participation in forest management. A Community Forestry Unit was eventually established and integrated into MINEF. Progress in establishing community forests has been slow due to the complexity of the process, problems with the legal definition of a community, conflicts of interest and a lack of capacity amongst all stakeholders. Not surprisingly, most of the successful initiatives have been largely financed and supported by NGOs and donors. Logging companies have supported the establishment of a number of community forests; in several cases, this appears to be a mechanism for the logging company to secure access to the resource.

Local communities are eligible for a 10% share of the Annual Royalty for Forest Area (RFA) charged on concessionaires operating within the Permanent Forest Area (PFA)<sup>4</sup>. Due to pressure from local communities, who believed that they did not obtain a fair share of revenue from Government, MINEF recommended a fixed rate payment of CFA 1,000 per m<sup>3</sup> (US\$ 1.40 per m<sup>3</sup>), which concessionaires were required to pay directly to local communities. Although this measure was not legislated for, in many cases local communities have demanded payment from the concessionaires by blocking the movement of logs. This has provided a significant source of revenue for communities, much of it deriving from illegal logging (Fomété, 2001). Concessionaires are lobbying Government on the issue. As a consequence of the problems encountered with the payment and distribution of RFA, the Government is establishing a structure termed the Inter-council Equalisation Fund (Fonds de Péréquation) to manage the distribution of the RFA to improve transparency and reduce delays in payments to communities and local councils.

Although the state retains ownership of both permanent and non-permanent forest, local people's usufruct rights are recognised in all forest types (Djeumo, 2001).

### Forest Certification

An FSC-endorsed National Working Group was established in 1996. It comprised representatives of the government, NGOs, timber enterprises, local communities and the scientific and academic community. The working group has drafted a set of national standards. These are based on a combination of FSC principles and criteria, the ITTO guidelines and the ATO principles and criteria. These were field tested under the guidance of CIFOR and standards revised as a result of the field tests. In late February 2002, a workshop was held to validate the draft national certification standard against FSC and ATO/ITTO criteria. The workshop revised aspects of the national standards to bring them in line with FSC and ATO/ITTO standards.

Amongst the private sector stakeholders, interest in the certification process has been limited. Concessionaires are focused on developing their management plans to ensure that they retain their concessions. Only a small number of the larger concessionaires have actively participated in the certification process by integrating certification objectives into their management plans.

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<sup>4</sup> Outside PFAs communities can also claim 10% of the Forest Rent levied on ventes de coupe.

Several donors are actively engaged in improving forest management standards in Cameroon. The French development agency AFD has supported French concessionaires in financing the development of management plans and associated field operations. The EU and WWF have supported the development of SFM and Certification through a pilot project. At one stage this involved working with a concessionaire but this aspect of the project was discontinued. ECOFAC is a regional programme working in Cameroon to protect the Dja Reserve, which is threatened by illegal logging.

## STAKEHOLDER ANALYSIS

Stakeholders are well defined in Cameroon at the all levels although they are not always well represented. Table 15 shows the principal stakeholders:

**Table 16 Cameroon - Forest sector stakeholders**

Category	National level	Local level
Government	Prime Minister, MINEF, MINEFI	District and sub district administrations
Private Sector	Professional Association of Foresters, GFBC (Forest Industry Association)	Processing companies, loggers and concessionaires
Local communities	Members of the National Assembly	Local Councillors, Village chief.
Civil Society	NGOs, universities	
International community	World Bank, EU, DFID, GTZ, SNV, AFD, FAO, UNDP, IUCN, IMF, WWF, Global Witness	Donor supported projects

The UNDP Programme on Forests (PROFOR) began working in Cameroon in 1998, seeking to encourage the spread of improved forest management. A major activity has been facilitating dialogue between stakeholders to improve governance of the sector and to encourage information exchange (PROFOR, undated).

The multi donor programme PSFE (Programme Sectoriel Forêt Environnement) has just commenced and seeks to integrate donor funding to support forest sector development. The programme's component projects are currently being defined through a stakeholder consultation process.

## LEGISLATION AND POLICY

Forest policy emphasises the sustainable management of the forest resource and the development of added value processing. It also significantly refers to the importance of distributing the wealth generated by forest management in an equitable manner. The forest law passed in 1994 provided the basis for implementing forest policy. Subsequently legal provision was made for the use of forestry taxation as an instrument for policy implementation. The law also sought to improve the transparency and efficiency of resource allocation through the introduction of open auctions.

### The Land and Forest Laws

Numerous difficulties have been encountered with the implementation of the concession system. In 1997, concessions were ostensibly allocated through an open auction, although serious irregularities occurred. Several companies who were awarded concessions, were subsequently found to be in violation of their concession contracts (GFW, 2000). In order to reduce the likelihood of such problems recurring, an independent observer (Global Witness) was contracted by the Government in 1999 to monitor the concession allocation process. This has resulted in improved transparency in the allocation of concessions. To date, 47 concessions covering an area of 3.9 million ha have been allocated. The final 1.1 million ha should be allocated in the next two years.

Outside the PFA, on non-permanent forestland, permits are issued for areas up to 2,500 ha for the sale of standing timber (ventes de coupe) and are valid for three years. Harvesting can also be undertaken through individual felling authorisations and as part of a community forest management plan. To reduce the level of abuse, the Government has discontinued the allocation of individual felling

authorisations and the 'Titre de récupération' (collection of lost or abandoned logs). As a result of Government action, loggers now make use of 'vente aux enchères' (open auctions), which is intended as a mechanism for the Government to sell illegally felled timber that has been seized. Some loggers reportedly collude with corrupt local officials to arrange the harvest and sale of illegal timber under the 'vente aux enchères'.

## INSTITUTIONS

MINEF is responsible for forest policy and its enforcement. There are three main divisions within MINEF covering forest management and inventory, wood industry and wildlife. Forest law enforcement is undertaken by a unit (Unité Centrale de Contrôle, UCC) reporting directly to the minister and assisted by the independent observer Global Witness. In practice, forest law enforcement still remains closely associated with management functions.

The current institutional review is considering options for decentralising forest law enforcement (I&D, 2000). This will include decentralisation of the UCC to provincial level through institutional strengthening of the BPC (Brigade Provinciale de Contrôle).

## STATISTICS

### NATIONAL – OFFICIAL

Official government estimates suggest that the sustainable level of log production should be no greater than 3.5 million m<sup>3</sup> per annum. Forests Monitor (2000), however, estimate log production to already be between 4.5 million m<sup>3</sup> and 5.1 million m<sup>3</sup>. This study estimates that production is at least 3 million m<sup>3</sup>. As the production is likely to come from easily accessed areas and the estimate for sustained yield comes from all productive forests, it is likely, however, that the forests are currently being over cut.

### REVENUE

Table 16 presents the official revenue statistics.

**Table 17 Cameroon - Analysis of trends in direct forest taxes for Cameroon (US\$ million)**

Description	Year									
	91/92	92/93	93/94	94/95	95/96	96/97	97/98	98/99	99/00	00/01
Felling Tax (FT)	1.83	1.55	2.36	2.46	4.09	5.60	7.35	9.17	7.71	5.76
Annual Royalty for Forest Area (RFA)	0.35	0.27	0.47	0.49	1.51	1.66	3.10	4.37	4.12	14.15
Entry tax (for logs entering factories )	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.02
Additional taxes (Autres taxes)	0.33	0.25	0.55	0.56	0.41	1.36	1.30	2.09	3.37	1.75
Income from resale of confiscated timber	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.68
Penalties	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29
Surcharge on log exports (Surtaxe)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.21	1.14
Tax on export of processed products	N/A.	N/A.	N/A.	N/A.	N/A.	1.09	1.56	2.42	3.11	0.18
Log export duty	N/A.	N/A.	N/A.	N/A.	25.00	28.45	37.65	24.75	13.30	5.20
<b>Total</b>					<b>34</b>	<b>38</b>	<b>51</b>	<b>43</b>	<b>34</b>	<b>33</b>

Source: MINEF & MINEFI, 2001.

The RFA increased significantly during 1995-96 following fiscal reform and subsequently, in 2000, there was an increase in both concession rent and area allocated. During this year, the RFA became the most significant direct levy on the forest sector. This was a significant reform as it greatly simplifies tax collection procedures.

Revenue from log exports was greatest during 1997-1998, when there was significant Asian demand for logs. The following year exports dropped dramatically due to the effects of the Asian economic crisis. Log exports declined further during 1999-2000 as a result of the partial log export ban. As the domestic processing sector has developed, exports of logs declined further due to increased domestic demand.

During 2000-2001, the tax on processed product exports was replaced by a processing charge payable on the raw material supplies to industry. This measure was introduced to improve conversion efficiency in the processing sector.

The overall trend in felling tax demonstrates that harvesting levels increased up to 1998-1999. Although the felling tax declined between 1999 and 2001, this is considered to be a result of difficulties with collection and the introduction of a permit system (Recuperation, vente aux enchères) that did not require payment of a felling tax.

## NATIONAL-OTHER

### Estimates of illegal logging

A conservative indication of timber production is provided by MINEFI & MINEF (PSRF, 2001). This figure is based on the monthly declaration of timber harvested for calculation of the felling tax. For 2000-2001, this was 1.46 million m<sup>3</sup>. An alternative means of calculating production is given by adding log exports to domestic consumption and estimated log consumption by the processing sector (see Table 17)

**Table 18 Cameroon - Estimated log production (m<sup>3</sup> 000's) by destination during 2000-2001**

Description	Production (m <sup>3</sup> 000's)
Export log market	280
Processing sector (including domestic market)	2230
Total (logs)	2510
Logs plus waste (20%)	3012

The figure for log exports is considered accurate as log exports are monitored by SGS. For 2000-2001, 982,000 m<sup>3</sup> is estimated to have entered the non-'free zone' processing sector. This estimate is based on monthly entry tax (tax on log input to sawmills) declarations provided by processing companies and analysed by SGS. It is estimated that the free zone sector accounts for 56% of total timber exports (CIRAD, I&D 2000), therefore the volume of logs entering the entire processing sector is estimated at 2230 m<sup>3</sup>. This gives a total log production of 2,510 m<sup>3</sup> for 2000-2001. An additional 20%<sup>5</sup> is added to account for timber felled, but left on site. However, this is almost certainly an underestimate since companies are likely to under declare production to minimise tax liability and small scale logging supplying the domestic market directly is not included. Small-scale logging is likely to make a significant contribution to production as many farmers regularly supplement their income by felling and processing trees.

The figure for official log production provided by MINEFI & MINEF is 1.5 million m<sup>3</sup> and 1.8 million m<sup>3</sup> respectively. Comparing these figures with the figure given in Table 17, undeclared logging can be considered to represent around half of total production. This represents a loss in felling tax revenue of approximately US\$5 million *per annum*. If the Forests Monitor estimate of production (4.5 to 5.1 million m<sup>3</sup>) is used, the loss in revenue is even greater at around US\$ 10 million<sup>6</sup>.

### Enforcement

Recently, there have been some indications of the Government's determination to enforce controls on logging. In early January, the Government (Ministry of Environment and Forestry) fined 40 companies found guilty of logging outside authorised limits and felling protected species. Offenders were fined

<sup>5</sup> This is the official figure used to calculate total timber felled based on the volume of logs entering the processing sector for tax purposes.

<sup>6</sup> The increase in tax revenue is hypothetical as it is unlikely that this level of production is sustainable.

between US\$2,600 and US\$125,000. Twenty other companies whose offences were not specified had their permits suspended (Hardwoodmarkets.com, 2002b).

Although fines are documented, SGS has so far received no evidence of payment. The current system for paying fines allows for negotiation between the government and the alleged offender. If an agreement is not reached on the amount to be paid, the parties go to court. The system is not transparent as information on the details and processing stage of a fine is not readily accessible. MINEF is aware of the current problems with the fine payment system. A unit (Unité Centrale de Contrôle, UCC) has been created which reports directly to the Minister. This unit is assisted by an independent observer (Global Witness) and regulates concessionaires, ensuring that they undertake management according to the concession regulations. The unit also monitors the system for paying fines following breaches of the regulations. Table 18 presents the some of the concessionaire's detected infractions and the sanctions taken by Government.

**Table 19 Cameroon - Documented infractions by concessionaires and sanctions taken by Government**

Company	Infraction	Sanction
SIBAF	Poor identification of the boundaries of annual cutting areas; unmarked logs in preparation areas	6 million CFA Francs (~ US\$ 8,400)
COFA	Logging annual cutting area without permission	10 million CFA Francs and 3 month suspension (~ US\$ 14,000)
Thanry subsidiary	Unplanned logging without any reference to the annual cutting area	10.5 million CFA Francs and banned from bidding for new concession in 2000. (~US\$ 14,750)
SFH	As above	As above
SIM	Severe infraction in logging practice	Excluded from bidding for new concession in 2000
CFE	As above	Fined 1 million CFA Francs and excluded from bidding for new concession (US\$ 1,400)
SEFAC	Severe infraction in logging practice	Excluded from bidding for new concession
AFRIGRUM	Documentation not proving ownership of logging equipment	Disqualified during bidding process for new concession
SOFOCAM	Tax evasion	Disqualified from bidding for new concession
Mballa Bindzi	Failed to meet minimum technical requirements	As above

Source: Collomb *et al*, 2001.

Although there are signs that the Government is enforcing the regulations, there appear to be inconsistencies related to the extent to which, concessionaires are linked to political power (Collomb *et al*, 2001).

I & D (Institutions et Développement) is currently undertaking an institutional review of MINEF, which commenced in November 2001 and is financed by the World Bank. The objective of the review is to clarify the roles of the major stakeholders in forest sector development; this includes redefining ONADEF's functions (I&D, 2002)<sup>7</sup>. The intention is that ONADEF should assist concessionaires and Municipalities in the technical aspects of managing concessions. To date, ONADEF has had a limited role in assisting concessionaires with mixed results. The review will also consider options for developing MINEF's enforcement capacity.

<sup>7</sup> ONADEF (National Office for Forest Development/Office National de Développement des Forêts) is a semi autonomous agency reporting to the Ministry with responsibility for inventory and management planning in concessions (also responsible for other technical activities such as reforestation).

## Hunting

According to Wilkie & Carpenter (1998), 78,000 metric tons of bush meat is harvested annually in Cameroon. Logging operations are often closely linked to the trade in bush meat as logging roads improve access to previously remote forests. Logging trucks are also used to transport meat to the urban markets. Given the extremely high prices that can be obtained for bush meat sold in the cities, the incentive for engaging in hunting is high. Chimpanzee meat is particularly prized and can earn the hunter up to US\$20-25 per piece (GFW, 2000). The lack of Government capacity to regulate hunting means that hunters are almost certain to escape punishment.

## INTERNATIONAL – CONSUMER COUNTRIES

### Overview

Between 1995 and 2000, Italy was the major EU importer of timber products from Cameroon. However, over this same period Chinese imports grew rapidly in importance.

**Table 20 Cameroon - Total timber exports in roundwood equivalent for 1995 and 2000**

Year	Timber exports (sawn+logs+veneer+plywood) from Cameroon ' 000 m <sup>3</sup>									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	UK
1995	50	10	266	96	19	381	111	121	226	26
2000	54	230	136	88	25	337	134	115	233	47

Source: based on Eurostat data and China Customs Statistics Yearbook.

An analysis of log exports from Cameroon demonstrates the increasing importance of China as a timber importer. Chinese growth in timber imports from 1995 to 2000 is in marked contrast to most other major importers who greatly reduced their timber imports over this period.

**Table 21 Cameroon - Log exports for 1995 and 2000**

Year	Log exports from Cameroon (' 000 m <sup>3</sup> ) to major EU countries and China									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	29	10	227	88	16	292	78	116	152	6
2000	5	214	47	77	18	161	39	87	57	7

Source: based on Eurostat data.

Most of the major importing countries, with the exception of China, have significantly increased the volumes of sawn wood imported from Cameroon. This is presumably to partially compensate for the reduced availability of logs for export.

**Table 22 Cameroon - Sawn wood exports to EU and China for 1995 and 2000**

Year	Sawn wood exports from Cameroon (' 000 m <sup>3</sup> ) to major EU countries and China									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	20	0	31	6	2	40	33	6	74	20
2000	49	16	80	12	7	143	95	26	173	40

Source: based on Eurostat data.

Italy is the only significant importer of veneer from Cameroon, though the quantity traded has declined significantly since 1995.

**Table 23 Cameroon - Veneer exports to EU and China for 1995 and 2000**

Year	Veneer sheet exports from Cameroon (' 000 m <sup>3</sup> ) to major EU countries and China									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	1	0	2	2	0	43	0	0	0	0
2000	1	0	4	0	0	24	0	1	3	0

Source: Based on Eurostat data.

Cameroon's exports of plywood are minimal, most going to Italy and France.

**Table 24 Cameroon - Plywood exports to EU and China for 1995 and 2000**

Year	Plywood exports from Cameroon ('000 m <sup>3</sup> ) to major EU countries and China									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	1	0	6	0	0	7	0	0	0	0
2000	0	0	5	0	1	9	0	1	0	0

Source: Based on Eurostat data.

## INTERNATIONAL – OTHER SOURCES

### Estimates of illegal logging

Several international agencies have attempted to determine the level of trade in illegal tropical timber sourced from Cameroon, notably FOE (2001), Greenpeace (2000) and FERN (2001). According to Global Forest Watch, at least 50% of logging licenses were operating illegally in 1997 to 1998. CED (Centre pour l'Environnement et le Développement) states that at least 50% of logging is illegal (quoted in FOE, 2001).

ITTO have compared Cameroon's log export statistics with the corresponding data for importing countries (Table 24). The unaccounted trade between importing and exporting countries is on average only 10%, however, in the case of Spain and China, unaccounted trade is much higher at 26%. The negative figure for Italy suggests that there may be differences between importer and exporter in the way data is collated.

**Table 25 Cameroon - Comparison of export and import statistics**

Source	Log imports m <sup>3</sup> (1999) for Selected importing countries					
	China	France	Italy	Portugal	Spain	Total
Exporter	171275	152174	187741	92101	86427	689718
Importer	216240	154461	182229	100000	108649	761579
Unaccounted	44965	2287	-5512	7899	22222	71861
% unaccounted	26%	2%	-3%	9%	26%	10%

Source: based on ITTO, 2000.

### Qualitative data on illegal logging

There are several reported incidents of 'illegal' trade in forest products. Major reported transgressions include trading in banned species, extracting logs of lower diameter than specified in forest regulations, under reporting of volumes harvested and felling outside concession areas.

In June 1999, Greenpeace reported the 'illegal' import of 640 m<sup>3</sup> of *Afromosia* (*Pericopsis elata*) logs from Cameroon to the Belgian port of Zeebrugge. Trade in this species is regulated by CITES (Appendix II). Under the convention, any trade in *Afromosia* is allowed only with a CITES certificate, an export, and an import licence (Greenpeace, 2000).

According to Forests Monitor (2000), there is widespread abuse of the permit system particularly in relation to 'vente de coupes' and 'titre de Récupération'. Frequently the area logged is four to five times larger than that permitted. Some logging companies have also been implicated in the fraudulent establishment of community forests to enable them to log extensive areas of forest. This problem is now addressed through the requirement for a management plan and more rigorous monitoring.

## ANALYSIS

The estimate for illegal logging given is probably conservative, given the exclusion of small scale chainsaw felling from the overall production figure. It is therefore likely that the Government is losing significantly more than US\$ 5 million per annum in uncollected felling taxes. This is based on the

current level of harvesting (both legal and illegal). If a discount rate of 5% is used, the capital equivalent needed to generate this revenue is US\$ 100 million. If the official annual felling allowance for the entire productive forest estate (3.5 million m<sup>3</sup>) is taken as the sustainable yield, FT tax revenues could reach a maximum of approximately US\$13.5 million, just over US\$7.5 million more than was collected in FT during 2000-2001.

Ensuring the forest sector provides an adequate return to Government is always a key issue. A cursory review of the main taxes applied to the forest sector demonstrates the importance of the Annual Royalty for Forest Area (RFA) and the Felling Tax (FT). The Government is increasingly reliant on these taxes as a means of raising revenue for forest sector investment. In spite of this, the FT collection rate is poor due to under declaration of harvesting levels. Collection of the RFA is satisfactory since a commercial bank must provide a guarantee of payment. Enforcement of the log export tax is not a critical issue as log exports have been declining and, since 1995, exports have been well regulated due to the presence of an independent monitor. The Government's increasing reliance on RFA as a source of revenue is considered to be a positive development as it simplifies tax collection, easing the burden on already over-stretched resources and helps to stabilise the revenue flow to Government.

The allocation of much of the forest resource to concessionaires has improved the Government's ability to regulate the forest sector. Concessionaires can now be held responsible for any illegal logging taking place on their concessions thereby simplifying the Government's role in regulating the sector. The management of forest under the concession system is likely to encourage longer term and more sustainable management compared to the 'ventes de coupes' system that it is replacing.

Ineffective regulation is probably the major constraint to forest sector development in Cameroon. The administration's capacity to effectively regulate the sector is to a large extent dependent on how it is perceived by those being regulated and the wider public. The creation of the Unite Centrale de Contrôle (UCC), as a separate office within the MINEF, reports directly to the minister improves transparency and demonstrates Government commitment to dealing with the problems of illegal logging and corruption. In spite of this, many staff outside ONADEF retain an unofficial role in regulating forestry operations, thus jeopardising the regulatory function. This problem is likely to be exacerbated if UCC is reintegrated into the Forestry Division, as some have recommended.

## WINNERS AND LOSERS

Winners:

- ♦ Concessionaires and others who are logging illegally and avoiding payment of taxes.
- ♦ Local Government officials involved in illegal harvesting operations.
- ♦ Local small scale chainsaw loggers.
- ♦ Local communities that benefit from the unofficial rents.

Losers:

- ♦ Cameroon as a whole, with lost revenues and depleting resource base (loss of the resource costs are many times higher than simply the loss of current and future rents)
- ♦ Law abiding concessionaires who have to pay felling tax revenue twice. Once to central government and again on demand by local communities.
- ♦ Local communities who are not fully aware of their rights and are not obtaining a fair share of logging revenues, or an opportunity to manage forest resources under the community forestry legislation.

## COMMENTARY-POLICY BRIEFING NOTE

By regional standards Cameroon is a leading economy with sustained GDP growth of 5% for the last three years. Timber is an important sector accounting for 27% of export earnings with over 90% of the timber exported being processed in country.

Currently there is a log export ban in place, although the two main commercial species Ayous and Azobe are not included. The ban has increased investment in the wood processing sector resulting in continued high demand for raw material.



Although enforcement of legislation has improved recently, unregulated production both by industry and small scale loggers remains a significant proportion of total log production.

The first allocation of concessions commenced in 1997. A concessionaire has three years to complete an inventory and to prepare a management plan. As of May 2002, no management plans have been approved, due to delays in approving the necessary subsidiary legislation to specify the systems, procedures and standards.

Progress has been made towards adopting a national standard and, once finalised, it is likely that some of the larger operators will seek certification. However, certification on its own cannot address all the issues facing development of the forest sector.

The recent trend of increased enforcement, of offenders being fined and in the increased transparency to show when fines are paid and parties go to court is good, although SGS could not find records of the currently outstanding fines being paid.

Notwithstanding all the improvements that have been and continue to be made, fundamental problems remain to be addressed:

- ♦ Official statistics do not accurately capture the true levels of production - a significant proportion of log production is going unmonitored (approximately 50% to 65% depending on the total estimate of illegal logging).
- ♦ Significant revenue is being lost in terms of Felling Tax (approximately US\$5-10 million per year).
- ♦ This loss is likely to be compounded through reduced reporting and tax collection for further downstream processing for at least some of the domestic consumption.
- ♦ More importantly, illegal logging results in forests being irredeemably degraded or converted to other land uses with the loss of all the intrinsic non capturable benefits of forest cover, e.g. watershed protection, biodiversity values, cultural values, carbon sequestration, future uses, existence values. Many of these benefits are significant and the total value will be many times that of the potential royalty collection.
- ♦ There are few official statistics on bush meat production. The value of bush meat production can be as great or greater than timber production and it seldom receives any attention in the management planning process, or in control or monitoring of production.
- ♦ The management planning process has been delayed through problems with publishing the relevant subsidiary legislation – lack of management planning cannot be blamed on the producers if the necessary structures and systems of approval and monitoring are not in place.
- ♦ Certification can never address all the problems, as it will only apply to areas where the owners/managers are interested in good forest management – it ignores illegal loggers and those interested in simply making a quick return. It will be costly for small scale loggers who supply a substantial volume of logs in Cameroon.
- ♦ Local communities are not benefiting quickly enough from production in their areas and have in some instances taken to preventing removal of timber until an unofficial tax has been paid. There will never be sustainable production from forests with substantial neighbouring populations unless the community participates in the management planning process and share in the benefits.
- ♦ Cameroon has led the way in using independent monitors to address some of the problems associated with governance of the forest sector, i.e. SGS for log exports and Global Witness for the concession allocation procedure and monitoring of forest fines, and both initiatives have seen substantial benefits although there is still room for improvement.

Given the above points the following suggestions are made to help address some of the issues:

- ♦ Implement a more robust system for recording production and transport of timber throughout the country. There should preferably be independent third party verification with results summaries being regularly published and posted on the Internet. Computerised databases with invoices, accounts and statements for each producer should be established to utilise the data generated (from the system described above), to ensure efficient collection of forest revenues. Again, this system should be subject to independent audit. The investment required for these systems would be covered through the improved collection of forest revenues.
- ♦ Once the basic log tracking system described above has been instituted, certificates of legal origin could be issued by an independent, internationally recognised certification organisation to

accompany exports. This is increasingly required by importers (see the accompanying report on the Legal Origin of Timber) particularly for the supply to high value markets in Europe and the United States.

- ♦ The uptake of community forestry has been restricted to mainly donor and NGO led projects. Sustainable Forest Management will simply not be possible in populated areas without community participation. Further donor assistance should be sought to continue building the community forestry support capacity within the forest department, local NGOs and CBOs to rapidly expand the community forestry activities.
- ♦ Systems for managing the sustainable production of game meat needs urgent research and attention. Once sustainable estimates of production have been set, a system for monitoring and control needs to be devised. This must be closely connected to the community forestry programme with significant awareness raising and education campaigns. Protected areas need to be respected by the local populations. There must be benefit sharing of the forest resources but at the same time an understanding of sustainability.

**APPENDIX 1: S STATISTICS FOR CAMEROON 1991 - 2000****Log exports 1991-2000 ('000 m<sup>3</sup>)**

Country	Cameroon – Log exports									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	27	25	23	30	29	29	18	24	14	5
China	0	0	0	11	10	61	320	234	216	214
France	110	98	133	243	227	183	200	208	172	47
Germany	51	55	53	82	88	45	71	87	77	77
Greece	37	34	28	42	16	15	9	11	14	18
Italy	177	182	217	321	292	259	287	261	197	161
Netherlands	63	61	59	71	78	65	57	56	38	39
Portugal	55	90	97	90	116	80	103	186	135	87
Spain	69	68	72	146	152	101	138	152	90	57
UK	6	7	8	14	6	24	28	32	23	7

**Sawnwood exports 1991-2000 ('000 m<sup>3</sup>)**

Country	Cameroon - Sawn wood exports									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	7	7	17	27	20	26	37	30	38	49
China	0	0	0	44	0	53	2	2	8	16
France	17	19	20	35	31	27	29	27	38	80
Germany	4	3	3	7	6	2	3	6	9	12
Greece	2	2	4	8	2	5	4	6	2	7
Italy	16	21	23	28	40	47	64	86	98	143
Netherlands	16	24	29	37	33	39	45	49	67	95
Portugal	2	4	5	1	6	8	9	9	17	26
Spain	82	89	69	59	74	92	114	142	128	173
UK	3	4	9	24	20	21	21	21	18	40

**Veneer sheet exports 1991-2000 ('000 m<sup>3</sup>)**

Country	Cameroon - Veneer sheet exports									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	1	1	0	2	1	1	1	1	1	1
China	0	0	0	0	0	0	0	0	0	0
France	3	5	4	6	2	3	4	7	3	4
Germany	1	1	1	2	2	0	1	1	0	0
Greece	0	0	0	0	0	0	0	0	1	0
Italy	24	30	24	30	43	36	40	47	31	24
Netherlands	0	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0	1
Spain	0	0	0	0	0	1	4	5	4	3
UK	0	1	0	2	0	1	0	0	0	0

**Plywood exports 1991-2000 ('000 m<sup>3</sup>)**

Total wood product exports (sawnwood+logs+veneer+plywood) 1991-2000 ('000 m<sup>3</sup>)

Country	Cameroon – Plywood exports									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	0	0	0	0	1	0	0	0	0	0
China	0	0	0	0	0	0	0	0	0	0
France	3	3	3	7	6	6	8	6	5	5
Germany	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	1	1	1	1	1
Italy	1	1	1	3	7	6	2	10	10	9
Netherlands	0	1	0	1	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0	1
Spain	0	0	0	1	0	0	1	0	0	0
UK	0	0	0	0	0	0	0	0	0	0

Country	Cameroon – Total wood product exports									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	35	33	40	60	50	56	55	55	52	54
China	0	0	0	55	10	115	322	236	224	230
France	133	125	160	291	266	219	241	247	217	136
Germany	55	59	58	91	96	47	74	94	86	88
Greece	38	36	32	50	19	21	14	18	18	25
Italy	218	234	265	381	381	348	391	403	336	337
Netherlands	79	86	89	108	111	105	102	105	105	134
Portugal	57	94	102	91	121	89	112	195	152	115
Spain	151	157	141	206	226	194	257	299	222	233
UK	9	12	17	39	26	45	48	53	41	47

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## CENTRAL AFRICAN REPUBLIC (CAR)

### 2 OVERVIEW

#### THE FOREST SECTOR

The Central African Republic (CAR) is landlocked and one of the poorest countries in Central Africa. According to the ITTO (2000), the forest sector in CAR contributes substantially to the national economy accounting for 25% of State revenue and almost 10% to GNP in 1995.

The CAR has a relatively small forest resource by regional standards (5 million ha representing 8% of the total land area, Forests Monitor 2001). There are two distinct forest regions in the country. The south-western region, covering 3.5 million ha, of which 2.7 million ha are potentially exploitable, and the south-eastern region, which is isolated and under-developed (Hardwoodmarkets.com, 2000). An indication of the value of the main forest resource in the Southwest comes from an inventory completed in the 90's, which estimated that Limba, Sapele and Ayous comprised 75% of commercial species. Commercial volume is estimated to be 15 m<sup>3</sup>/ha. In addition to the high commercial value of the resource, CAR's forests occupy an important transition zone between several bio-geographic regions within Central Africa.

The poor state of CAR's transport infrastructure is the major constraint to timber production (ITTO, 2000). The resulting high transportation costs<sup>8</sup> tend to encourage more selective felling focusing on higher value species (WWF, 1998).

Most wood exports leave the country either via Cameroon by road and previously along rivers to Congo-Brazzaville.

#### The Economics of the Forest Sector

Most of the productive forest in the south-western region has been allocated and is being managed under a concession system. Concessions are valid for the lifetime of the company managing the concession. This enables companies to more easily obtain credits for capital investment and also to receive compensation, in the event of their rights be annulled unfairly by Government (Forests Watch, 2001). The average size of a concession is 200,000 ha.

Most operations are vertically integrated and logs are either exported or fed directly into concessionaires' own processing plants. There is, therefore, a poorly developed local log market.

In 1999, 3,500 people were engaged in forest related employment, making the forest sector an important employer for the country (Forests Monitor, 2001).

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<sup>8</sup> Some estimates indicate that transport costs add 60% to the cost of production (Forests Monitor, 2001).

## Forest Management

**Table 26 CAR - Areas of productive forest by management system**

Management system	Area (ha)	Forest area (ha)
Concession	3,080,000	2,645,000
Permit system	240,000	76,000
Total	3,320,000	2,721,000 <sup>9</sup>

Source: Ministère des Eaux, Forêts, Chasses, et Pêches, de l'Environnement et du Tourisme, 2002.

In 2001, the French Development Agency (AFD) commenced funding a project to support companies in developing management plans for concession areas. In order to ensure that management planning is based on accurate and reliable data, companies are also given technical assistance in the implementation and analysis of forest inventories.

To date, only one management plan has been approved by the government. The logging method adopted under the plan is based on a cutting cycle of 35 years. It has been developed with support from ECOFAC (EU Programme – Conservation et utilisation rationnelle des Ecosystèmes Forestiers d'Afrique Centrale). The concession in question is located next to a protected area, which ECOFAC is supporting the government to regulate and the concessionaire IFB (Industrielle Forestière de Batalimo) to manage. ECOFAC and the government have drawn up conditions for logging in the concession. The conditions include provision for the closure of tracks following logging and the protection of ecologically sensitive sites. The concessionaire must also ensure that employees do not engage in illegal hunting of wildlife. In return, ECOFAC works with the concessionaire to develop a botanical inventory of species present in the concession (ECOFAC, undated).

### Community Involvement in Forest Management

The ECOFAC project mentioned above is one of the few examples of significant community involvement in commercial forest management in CAR. According to ECOFAC, the needs of local people and the full integration of forestry exploitation into the local economy have been explicitly addressed in management planning.

### Forest Certification

In the late 90's, with EU support, an attempt was made to establish a national working group for certification with a similar structure and purpose to the group established in Cameroon. Due to political instability, the working group was disbanded. According to key stakeholders, there is currently limited motivation for developing national standards in CAR. To date, only one company, IFB, has publicly stated that they are pursuing certification, although they are not intending to meet FSC requirements, as they are considered too onerous. IFB are hoping instead to achieve Keurhout certification. IFB have already taken the first step towards improving forest management practices following the recent approval of their management plan by government.

### Bushmeat Trade

The bush meat trade is a significant source of income for many rural dwellers (70% of the country's population; Forests Monitor, 2001) in CAR. Addressing the hunting problem is not a simple matter in CAR, as many of the populations involved are poor and of various ethnic origins. In the south-western region of the country, where the problem is particularly acute, there are four main ethnic groups: the Issago, the Boffi, the Banda Yanguere and Pygmies. Most of these peoples are hunter-gatherers, but they are also engaged in slash-and-burn agriculture. Due to the limited markets for agricultural produce, and the growing demand for bushmeat from urban centres, there has been an increased dependence on hunting among many forest dwellers.

Attempts have been made to seek solutions to the problem of excessive hunting of wildlife by local people. The Development Programme for the North Region (PDRN) has established two village

<sup>9</sup> Non-forest vegetation comprises a significant proportion of areas allocated under permit and concession systems.

hunting zones that are allocated by villagers as hunting concessions, thereby providing substantial revenues to the local communities (ECOFAC, undated).

## STAKEHOLDER ANALYSIS

**Table 27 CAR - Forest sector stakeholders**

Category	National level	Local level
Government	MEEFCP, MINEFI	
Private Sector	IFB, Thanry, WTK, SCAD, SBB, SESAM, SEFCA	
Local communities	Pygmy communities (Bayaka) and other hunter gatherer groups	Pygmy communities
Civil Society	NGOs	
International community	ECOFAC	

To date, there has been minimal recognition of stakeholders, let alone any meaningful participation in forest sector development. Particularly at the local level stakeholder, involvement has been virtually non-existent, except where donor funded projects are located.

## LEGISLATION AND POLICY

### The Land and Forest Laws

Forest policy is generally sound in addressing issues of sustainability and industrial development. The Forestry Code of 1990 regulates most aspects of the law relating to forest concessions.

## INSTITUTIONS

The Ministère de l'Environnement, des Eaux, Forêts, Chasses et Pêches is responsible for the administration of the forest sector. Given the prevailing economic climate in the country, it lacks significant material resources and funds for comprehensive monitoring of the sector and enforcement of legislation, particularly in the more remote regions of the country. The Ministry's planning capability is particularly weak (Forests Monitor, 2001).

Institutional structures in the forest sector have deteriorated during recent years due to a lack of capital investment in infrastructure. The effective human resource base is also somewhat diminished due to a lack of regular attendance amongst qualified staff. Government statistics do not of course reflect this problem. According to the administration, there are 350 staff employed - 28% are educated to degree level, 27% to a technical level and 36% to a basic level, employed as forest guards. The majority of staff is based in the capital, resulting in a shortage of field staff, thereby making policy implementation difficult. The shortage of qualified and experienced staff is particularly acute, as most leave to work on donor funded projects. Several informants claimed that many donors were not interested in supporting forest sector development, preferring instead to support conservation and wildlife projects.



## STATISTICS

### NATIONAL – OFFICIAL

Table 28 CAR - Production, export and revenue figures

Product and Units	Year		
	1999	2000	2001
<b>Total production m<sup>3</sup> x 10<sup>3</sup></b>			
Logs	553	720	750
Sawnwood	78	144	150
Plywood	1.6	3.6	3.8
Total	632.6	867.6	903.8
<b>Exports m<sup>3</sup> x 10<sup>3</sup></b>			
Logs	153	108	112
Sawnwood	64	72	76
Plywood	0.6	0.4	0.4
Total	217.6	180.4	188.4
<b>Export tax US\$ x 10<sup>3</sup></b>			
Logs	23.8	27.7	30.5
Sawnwood	13.8	15.3	18
Plywood	0.70	0.72	0.83
Total	38.3	43.7	49

Source: Calcul sur la base des estimations statistiques de la DEC (MEEFCP).

### REVENUE

There are three main forest taxes: the forest rent (US\$0.66 /ha), felling tax (7% of f.o.b. value) and the reforestation tax (11% of f.o.b.). It was not possible to get total revenue statistics in the short time available.

The felling and reforestation taxes are based on the f.o.b. value for the previous year, which means the tax only lags one year behind inflation and real price increases. *Ad valorem* taxes have the advantage that they do not need continual review, but they also encourage under-invoicing and transfer pricing. This can cause a substantial undervaluing of the resource, which, in turn, creates windfall profits for the operators (at the expense of the country as a whole) and does not encourage efficient utilisation of the resource.

The average log export tax revenue per cubic metre comes to just 26 US cents (US\$0.26) (derived from Table 27 by dividing the log export revenue by the log export volume).

Felling taxes and annual fees are distributed between the Treasury (30%), the Forest Development Fund (40%) and communities (30%). The replanting tax is allocated to communities (25%) and to the Forest Development Fund (75%).

### NATIONAL – OTHER

#### Illegal Logging

At least two major logging companies are operating in CAR, Congo Brazzaville and/or Cameroon. Monitoring log flows between company sites in these countries is complex, and there are indications that log origins are falsified in order to reduce tax liability and avoid the log export ban in Cameroon.

#### Enforcement

The Ministère de l'Environnement, des Eaux, Forêts, Chasses et Pêches, has overall responsibility for administering the forest sector. Resources for monitoring and enforcement are severely limited

(Forests Monitor, 2001). Nine companies hold concessions totalling 2.9 million ha. Allocation of concessions in CAR is tightly controlled, with only five major companies undertaking logging activities on a large scale (Hardwoodmarkets.com, 2001).

All logging companies are required by law to have a forest management plan prior to logging a forest concession. As only one company has an approved management plan, all the others are operating in contravention of the law. The French Development Fund is assisting the Government in assessing company management plans.

According to the 1995 Finance Act, companies are required to process 85% of logs locally. Given the extent of log exports, the act is clearly not being effectively enforced (see Table 27).

Monitoring of concession management varies across the country. It is high near the capital (Bangui), and low in remote areas (Gaden IFB, *pers. comm.*).

There are indications that information on log exports is not being transferred effectively from provincial to regional authorities, thereby reducing monitoring effectiveness. SGS currently inspect logs in Douala that are exported from CAR. In CAR, the provincial authorities are responsible for collecting much of the tax on log and timber exports. Although SGS reports the volume of logs exported back to the CAR Government, it seems likely that any under declaration is not detected due to poor transmission of the declared log exports from the provinces to central Government.

## INTERNATIONAL – CONSUMER COUNTRIES

### Overview

Most exports from C.A.R. are absorbed by the EU, although regional markets also capture a significant share (Hardwoodmarkets.com, 2000). Sapele and Ayous are the main species exported, comprising around 75% by volume of wood exports in 1999 (*ibid.*).

Total timber imports into the EU and China have more than doubled between 1995 and 2000. This is broadly in line with the ATIBT figure (see Table 34). French and Portuguese imports have increased more than ten-fold. Spain is the CAR's main trading partner for the period studied (Table 28).

**Table 29 CAR - Total timber imports**

Year	Timber imports (sawn+logs+veneer+plywood) from CAR ' 000 m <sup>3</sup>										Total
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	
1995	1	0	2	1	0	2	0	2	39	0	46
2000	3	6	22	0	0	9	0	24	58	1	123

Source: based on Eurostat data.

Total log imports have increased from 9,000 m<sup>3</sup> in 1995 to 62,000 m<sup>3</sup> in 2000. This indicates, that the EU imports an increasing proportion of CAR's log exports (Table 29).

**Table 30 CAR - Log imports**

Year	Log imports from CAR ' 000 m <sup>3</sup>										Total
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	
1995	0	0	1	0	0	0	0	1	8	0	9
2000	1	1	12	0	0	4	0	16	30	0	62

Source: based on Eurostat data.

**Table 31 CAR - Log exports from CAR via Cameroon**

Year	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	Total
2000	N/A	21	22	40	5	41	N/A	5	45	N/A	260

Source : SGS.

The CAR government has contracted SGS to verify log and timber exports via Cameroon. Table 30 demonstrates that the vast majority of CAR's exports are sent via Cameroon.

The Eurostat data from the consuming countries records the loading port rather than country of origin.

Sawn wood imports into the EU and China are unchanged between 1995 and 2000. Virtually all sawn wood from CAR is imported by Spain (Table 31).

**Table 32 CAR - Sawn wood imports**

Year	Sawn wood imports from CAR ' 000 m <sup>3</sup>										Total
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	
1995	0	0	0	0	0	0	0	0	19	0	19
2000	1	0	0	0	0	0	0	3	15	0	19

Source: based on Eurostat data.

Veneer exports to the EU and China have more than doubled between 1995 and 2000. Again, Spain is the major market although French imports have increased greatly since 1995 (Table 32).

**Table 33 CAR - Veneer sheet imports**

Year	Veneer sheet imports from CAR ' 000 m <sup>3</sup>										Total
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	
1995	1	0	1	1	0	2	0	1	13	0	19
2000	1	6	10	0	0	5	0	6	13	1	41

Source: based on Eurostat data.

## INTERNATIONAL – OTHER SOURCES

**Table 34 CAR - Wood production 1993-1999**

Product	Wood production 1993-1999 '000 m <sup>3</sup>						
	1993	1994	1995	1996	1997	1998	1999
Logs	168	231	244	305	461	530	553
Sawn Lumber	60	38	70	61	72	91	79
Plywood	1.5	0.3	2.4	1.5	1.4	1.4	1.6
Total	229.5	269.3	316.4	367.5	534.4	622.4	633.6

Source: ATIBT.

Total wood production has doubled in the four years between 1995 and 1999 (Table 33), mirroring the trend in exports. The majority of production remains in log form. The volume of production converted into sawn lumber and plywood has not changed greatly between 1993 and 1999. However, processing capacity has not kept pace with production; a comparison of the proportion of logs converted into sawn lumber in 1993 with 1999 shows a decline from 26% to 12.5%.

**Table 35 CAR - Wood exports 1993-1999**

Product	Wood exports 1993-1999 ' 000 m <sup>3</sup>						
	1993	1994	1995	1996	1997	1998	1999
Logs	43.4	84.2	73	42	64	117	154
Sawn Lumber	34	38	30	31	47	72	64
Plywood	1.5	0.3	2.4	1.5	1.4	1.4	1.6
Total	78.9	122.5	105.4	74.5	112.4	190.4	219.6

Source: ATIBT.

The volume of wood exported by CAR increased by over 100% between 1995 and 1999 (Table 34). The volume of sawn lumber exported has also doubled over this period. Plywood exports, though minor, have actually decreased in relative importance between 1995 and 1999.

**Table 36 CAR - Wood exports as a proportion of total production**

Product	Wood exports as a % of production 1993-1999						
	1993	1994	1995	1996	1997	1998	1999
Logs	26%	36%	30%	14%	14%	22%	28%
Sawn Lumber	57%	100%	43%	51%	65%	79%	81%
Plywood	100%	100%	100%	100%	100%	100%	100%
Total	34%	45%	33%	20%	21%	31%	35%

Source: ATIBT.

From Table 35, it is clear that CAR has considerably increased its exports of sawn lumber. Between 1995 and 1999 sawn wood exports have increased from 43% of total sawn wood production to 81%.

### Estimates of illegal logging

There are four likely routes which timber can take leaving the CAR: via Cameroon and Congo-Brazzaville. Given the proximity of Cameroon's ports compared to Congo Brazzaville's, and the significantly better transport routes within the former, it is probable that the vast majority of timber exports are sent via Cameroon rather than Congo-Brazzaville.

Comparison of Table 27 (CAR's production statistics) with Table 30 (SGS monitored exports to Cameroon) shows that in 2000, the CAR government statistics account for 108,000 m<sup>3</sup>, a shortfall of 152,000 m<sup>3</sup> on the SGS figure for log exports of 260,000 m<sup>3</sup>. Apparently permission to export logs is given by provincial authorities. It would therefore appear that at least the export taxes on 152,000 m<sup>3</sup> in 2000 were not paid due to poor transfer of data from provincial to central authorities. Assuming the same level of log export tax for the officially recorded production, this would indicate that there was a loss of log export tax of US\$ 40,000 for the year 2000. If this under-reporting also means that the Felling Tax and Reforestation Tax were not paid, assuming an average f.o.b. value at the CAR border of US\$ 100 /m<sup>3</sup>, then a further US\$ 2.7 million has not been collected.

Although CAR may not be receiving the full export taxes and duties, this does not necessarily mean that the production is illegal. It could well be that the companies do everything correctly but that due to poor administration the exporters and concessionaires are not being asked to pay them by the authorities.

Due to a paucity of comparable data sets, it is not possible to make further estimates of illegal logging.

## ANALYSIS

Any analysis of the forest sector in CAR must consider the general political and economic conditions prevailing in the country. CAR has suffered from internal conflict and the current political situation is unstable - a curfew ended only recently. The administration is suffering from a serious budget crisis. Some government staff have not been paid for two years. As a consequence, staff attendance is poor and motivation is low. There is degree of apathy amongst key stakeholders. Several informants commented that there is very little donor interest in CAR due to the huge political and financial problems facing the country.

Given the forest sector's substantial contribution to government revenues relative to its contribution to GNP, it would appear that enforcement, at least for the purposes of taxation, is reasonably effective.

The administration appears to recognise the need to deal with the illegal timber trade in order to secure much needed Government revenues. The recruitment of SGS to monitor log exports is a first and preliminary measure to address the problem of illegal logging. Other limited measures have been taken to curb the harvesting of threatened species and to combat the mislabelling of wood. However, due to limited finances, and insufficient numbers of field staff, impact is minimal (Forests Monitor, 2001).

Government staff are particularly susceptible to corrupting influences, given their very low rates of pay. Fortunately, much of this corruption is on a minor scale.

## WINNERS AND LOSERS

### Winners

- Companies who take advantage of lax monitoring of the sector to avoid duties and other formal payments.

### Losers

- Local communities who in practice appear to obtain an inadequate share of forest sector revenue.
- Government; currently suffering from a lack of infrastructure and technical capacity to effectively regulate the sector.

## COMMENTARY – POLICY BRIEFING NOTE

This policy briefing note has been made in the context of a review of regional policies on forest law enforcement in Africa. The aim is to assess common problems and to devise a common approach, rather than undertake a review in detail for each individual country. This note therefore summarises the country issues described and develops some key ideas that may be regionally relevant in addressing the issues of poor forest governance.

Although the CAR's forest resource is small by regional standards, it plays a significant role in the national economy accounting for 25% of state revenue and almost 10% of GDP.

However, the country has been plagued by political instability and a lack of investment over recent years. During this short study, it has been extremely difficult to collect reliable and meaningful statistics, but some conclusions can be drawn:

- Resources for monitoring and recording production are severely limited, with concessions near the capital receiving more attention.
- CAR has started to improve sector monitoring through using independent organisations to monitor log and timber exports to Cameroon.
- Although CAR uses SGS to monitor exports, the SGS figures are not being used by CAR for analytical purposes and may not even be used as a basis for levying export taxes and other forest charges.
- It is not possible with the current lack of data to estimate the level of illegal logging.
- There is limited stakeholder involvement and community participation in forest management except in some donor funded projects.
- Progress towards developing a national standard has stagnated and only one company appears to be interested in pursuing certification, although not to the more rigorous Principles and Criteria of the Forest Stewardship Council.
- Hunting and the associated bushmeat trade are clearly not managed (although there are some projects that try to manage the situation locally). Hunting clearly provides a significant source of income and protein for poor rural communities.

Stability and governance in general need to be addressed before there can be significant development in the Central African Republic. However, as the forest sector is such an important contributor to the economy it is pragmatic to address at least some of the basic needs of control and monitoring as a matter of urgency. These could include:

- Implementing a more robust system for recording the production and transport of timber throughout the country. There should preferably be independent third party verification with results summaries regularly published and posted on the Internet. Computerised databases with invoices, accounts and statements for each producer should be established to use the data generated (from the system described above) to ensure efficient collection of forest revenues. Again, this system should be subject to independent audit. The investment required for these systems would be covered through improved collection of forest revenues.
- Once the basic log tracking system described above has been instituted, certificates of legal origin could be issued by an independent, internationally recognised certification organisation to accompany exports. This is increasingly required by importers (see the accompanying report on

the Legal Origin of Timber) particularly for the supply to high value markets in Europe and the United States.

- ♦ Systems for managing the sustainable production of game meat needs urgent research and attention. Once sustainable estimates of production have been set, a system for monitoring and control needs to be devised. This must be closely connected to a community forestry programme with significant awareness raising and education campaigns. Protected areas need to be respected by the local populations. There must be benefit sharing of the forest resources but at the same time an understanding of sustainability.
- ♦ Increased participation of all stakeholders, particularly local communities in all stages of planning, implementation and monitoring of management plans. Improved and transparent benefit sharing is fundamental to successful implementation.

**STATISTICS FOR CAR 1991-2000 ('000 m<sup>3</sup>)****Log imports from CAR for selected countries 1991-2000 ('000 m<sup>3</sup>)**

Country	Central African Republic - logs									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	0	0	0	0	0	0	0	0	0	1
China	0	0	0	0	0	0	0	0	0	1
France	1	0	0	1	1	1	6	11	7	12
Germany	0	2	2	2	0	0	0	0	3	0
Greece	0	0	0	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0	0	1	4
Netherlands	0	1	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	1	3	0	1	4	16
Spain	10	5	4	9	8	5	11	18	21	30
UK	0	0	0	0	0	0	0	0	0	0

**Sawnwood imports from CAR for selected countries 1991-2000 ('000 m<sup>3</sup>)**

Country	Central African Republic - sawn wood									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	0	0	0	0	0	0	1	0	1	1
China	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	1	0
Greece	0	0	0	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	1	1	0
Portugal	0	0	0	0	0	0	1	3	4	3
Spain	17	21	14	15	19	11	17	28	18	15
UK	0	0	0	0	0	0	0	0	0	0

**Veneer sheet imports from CAR for selected countries 1991-2000 ('000 m<sup>3</sup>)**

Country	Central African Republic - veneer sheet									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	1	0	1	0	1	1	1	2	1	1
China	0	0	0	0	0	0	0	0	0	6
France	1	1	1	1	1	2	11	16	13	10
Germany	1	1	2	1	1	0	1	3	0	0
Greece	0	0	0	0	0	0	0	0	0	0
Italy	0	2	1	1	2	2	3	3	4	5
Netherlands	0	1	1	0	0	1	0	0	1	0
Portugal	0	0	0	0	1	4	4	5	8	6
Spain	16	17	15	11	13	12	9	16	15	13
UK	1	0	1	1	0	0	0	0	2	1

**Statistics for CAR 1991-2000 ('000 m<sup>3</sup>) - Continued****Total wood product imports from CAR for selected countries  
(sawnwood+logs+veneer+plywood) 1991-2000 ('000 m<sup>3</sup>)**

Country	Central African Republic - total									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	1	0	1	0	1	1	2	2	2	3
China	0	0	0	0	0	0	0	0	0	6
France	1	1	1	2	2	3	17	27	20	22
Germany	1	3	4	3	1	0	1	3	4	0
Greece	0	0	0	0	0	0	0	0	0	0
Italy	0	2	1	1	2	2	3	3	5	9
Netherlands	0	2	1	0	0	1	0	1	2	0
Portugal	0	0	0	0	2	7	5	10	16	24
Spain	42	43	33	36	39	28	36	63	55	58
UK	1	0	1	1	0	0	0	0	2	1



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## CONGO BRAZZAVILLE

### 3 OVERVIEW

Congo has a population of just fewer than 2.9 million, with an annual GDP per capita of US\$ 1,100 per annum. Oil has supplanted forestry as the mainstay of the economy in providing the major share of government revenue.

#### THE FOREST SECTOR

##### The Economics of the Forest Sector

Timber is the country's second biggest export commodity. The forestry sector provides 10% of formal employment and its contribution to GNP increased from 1% in 1982 to 5% in 1996 (WRM, 2001). More recently, forestry has been reported to account for 7% of GDP (Tropical Timbers, 1998).

60% of Congo is covered by rainforests (22 million ha), most of the resource is located in the sparsely populated north of the country. Congo's forest minister has recently claimed that log production will double or even treble in two to three years time (Hardwoodmarkets.com, 2002). In order to realise this increase in production, a dozen new timber licenses were allocated to international and indigenous companies (Hardwoodmarkets.com, 2000).

The Government has made attempts to encourage wood processing through the legislation. However, enforcement has been poor. Although the Forest Code stipulates that 60% of exports should be semi-processed, the actual level of conversion is only 35% (ITTO, 2000).

##### Forest Management

Productive forest comprises approximately half of the total resource. The sustainable yield from Congo's forests is estimated as 2 million m<sup>3</sup> (ITTO, 2000). By 2000, 8.8 million ha of concessions had been allocated to 40 firms. Expatriate companies accounted for most production (ITTO, 2000). Only 3.6 million ha of the allocated forest has been inventoried, and 1.7 million ha have forest management plans (ITTO, 2002). The main tree species used in commercial activities include Okoumé, Limba, Sapele and Sipo.

Starting in 1997, the Government has worked on developing a National Forest Management Master Plan. An important element of this has been the development of management plans for two significant forest areas; North Nngoua 2 and Souanke-Sembe Kelle. The French development agency, AFD, is supporting the preparation of management plans for some concessionaires.

Several donors are active in the forestry sector including ITTO, the EU and USAID. Projects to date have included the Regional Programme for Environmental Management (PRGIE), the Management of Central African Forest Ecosystems (ECOFAC), and the management of adjacent areas to the Nouabale-Ndoki National Park Project (PROGEP). The latter project has involved the Ministry of Forest Economy, the Wildlife Conservation Society and the concessionaire, CIB, in attempting to combine productive management of a concession with biodiversity conservation.

Forest operations vary from north to south: in the north concessions tend to be larger and issued to large international companies where there is a greater chance for proper management planning; in the south permits for smaller areas are subcontracted under the 'fermage' system and the principles of sustainable forest management are not well understood.

##### Community Involvement in Forest Management

Community involvement at the national level is poor, with little or no consultation. At the local level, many forest companies support local administration with contributions to road maintenance, schools, transport of forest officers, and water and electricity supplies to local communities.

Pygmies are particularly dependent on forests for their subsistence livelihoods, and are therefore key stakeholders in the forest sector. They are often not effectively involved in consultation processes and, as they are perceived by logging companies as being unreliable, do not generally gain employment in commercial logging or its associated activities.

## Forest Certification

An ITTO pre-project to identify and analyse the major constraints to the application of the ITTO criteria and indicators commenced in early 2002 (ITTO, 2002). One company, CIB, is certified to the Keurhout system.

## STAKEHOLDER ANALYSIS

Table 37 Congo – Forest sector stakeholders

Category	National level	Local level
Government	DGEF (Direction Générale de l'Economie Forestière)	Local authorities
Private Sector	Unicongo-Unibois	Companies, concessionaires
Local communities		Many ethnic groups including Pygmy communities
Civil Society	No significant NGOs active in the forest sector at national level	
International community	FAO, WB, AFD, EU, ECOFAC	

## LEGISLATION AND POLICY

### The Land and Forest Laws

The previous Forest Act of 1974 covered forest management principles, community forests and the fermage to permit subcontracting. This was replaced in 2000 by a new forest law, which confirms forest management principles and industrialisation objectives, but with no mention of local community involvement (except for local 'municipal' forest, for example). The legislation emphasises measures both to ensure the retention of the forest estate, and its rational utilisation. The subsidiary legislation required to implement the law is still to be passed.

The implementation plan for the National Forestry Action Plan for Congo is based on SFM, and the conservation and protection of important forest ecosystems.

The national policy is to allocate large concessions to facilitate local vertical integration. Almost all the productive forests have been allocated in both the north and south regions.

There is also a regulation, in which it is stipulated that only a maximum of 40% of the export production can be exported as logs. In the new forest law, this has been reduced to 15%. For newly allocated concessions, concessionaires have three years to meet this target.

## INSTITUTIONS

The DGEF (Direction Générale de l'Economie Forestière) has overall responsibility for administration of the forest sector in Congo. Although the collection of forest taxes is decentralised to the provinces, overall the administration remains very centralised. The administration is technically competent although recruitment has stagnated for many years. Wages are low and there is a lack of training. Consequently, motivation and morale is low, so there are ample opportunities for corruption.

The new forest law requires that the export monitoring function be given greater priority and that the office responsible, though remaining within DGEF, gains a degree of autonomy. The law also requires greater emphasis on inventory and management planning through the creation of a new office within DGEF.

## STATISTICS

### NATIONAL

The statistics obtained for Congo were at least two years old and the different sources frequently did not agree.

**Table 38 Congo – Log production by province from 1996 to 1999**

Province	m <sup>3</sup> by Year			
	1996	1997	1998	1999
Kouilou	77 876	96 416	72 292	96 381
Niari	48 661	91 416	41 908	60 661
Lekoumou	138 697	96 469	106 536	113 900
Bouenza	9 172	8 728	3 116	0
Cuvette	0	0	24	0
Cuvette Ouest	0	0	16	4
Plateaux	364	0	0	0
Brazzaville	28	0	0	0
Sangha	288 224	253 396	373 613	285 817
Likouala	49 869	48 868	105 900	103 774
Total	612 891	595 293	703 405	660 537

Source: MINEFI/MINEF Audit de la gestion des taxes lies à l'exploitation et à l'exportation du bois (2000).

**Table 39 Congo – Total production by year and product**

Product	m <sup>3</sup> by Year		
	1997	1998	1999
Logs	595 742	703 405	519 537
Sawnwood	69 499	73 408	73 870
Veneer	49 775	51 898	18 465
Plywood	7 932	1 600	2 819
Plantations	372 859	257 027	360 998

Source: Hardwoodmarkets.com

Comparison of Table 38 with Table 39 shows that the different sources only agree on log production levels in 1998. Timber exports are depicted in Table 40. Clearly logs are the main export. Primary and secondary processing is minimal, although the quantity of sawnwood exported has almost doubled between 1997 and 2000.

**Table 40 Congo - Export production by product from 1997 to 2000**

Year	Product (m <sup>3</sup> x 1000)				Total
	Logs	Sawn timber	Veneer	Plywood	
1997	257	38	42	3	340
1998	273	59	48	1	381
1999	211	62	17	0	290
2000	294	64	8	0	366

Source: ATIBT/Congo Timber.

## REVENUE

In 2001, wood production was valued at around US\$92 million (Hardwoodmarkets.com, 2002). The Government only captures a modest proportion of this value in taxes and duties. In 1999, for example, just over US\$4 million (CFA 2,587 million) was collected.

**Table 41 Congo – Forest taxes and export duties by year**

Tax/duty	Millions of CFA Francs by year			
	1996	1997	1998	1999
Forest taxes	1 886	2 561	1 872	1 619
Export duty	1 448	1 078	1 327	968
Total	3 334	3 639	3 200	2 587

## Enforcement

The Ministry of Forest Economy (Ministère de l'Economie Forestière) has severely limited capacity to manage the forest sector. Government officials are largely absent from the north of the country where much of the timber production is located (Forests Monitor, 2001).

Congo (Brazzaville)'s government estimates that US\$ 4 billion in timber industry levies have been lost due to poor enforcement and irregularities in the collection of revenue (Economist Intelligence Unit, 1999). Even without significant levels of unofficial rent seeking, Government revenues from the sector would remain low given the low royalty rates. According to Karsenty (2001), the cutting royalty in Congo is only 3% of f.o.b. value. Under the new forest law, there is provision for cutting royalty to vary from 3-10% depending on species. Other indications of inappropriate levels of revenue collection include the allocation of a 370,000 ha concession in 1999 to the French company Rougier. The terms were reportedly so generous that Rougier expects to recover its capital investment in two years (Forests Monitor, 2001).

## INTERNATIONAL – CONSUMER COUNTRIES

### Overview

The EU is the major importer of timber from the Congo. Outside the EU, Japan is the most significant importer (Forests Monitor, 2001). Portugal is the major EU importer of timber products from Congo; although volumes imported have declined by 25% since 1995. Imports have also declined for most of the other major European importers. China, though still a relatively minor market for logs, is likely to increase in importance.

**Table 42 Congo - Total timber exports from Congo to EU and China**

Year	Volume Exported by Product (m <sup>3</sup> x 1000)				
	Logs	Sawn timber	Veneer	Plywood	Total
1997	231	30	26	2	289
1998	239	46	22	1	308
1999	156	45	12	0	213
2000	181	44	1	0	226

Source: Eurostat/China Custom Statistics Yearbook.

A comparison of Table 39 and Table 41 demonstrates a significant gap between national export volumes and the import volumes to the EU and China. In 2000, according to Table 39, 366,000 m<sup>3</sup> of timber was exported; this is considerably more (by 44%) than the 226,000 m<sup>3</sup> recorded in Table 41. The difference is probably not fully accounted for by other importing countries (Japan and Malaysia's imports were negligible during 1998 and 1999; UNECE/FAO, 2001). It is likely that the gap is at least in part due to logs exported via Cameroon being identified by the importing countries as deriving from Cameroon rather than Congo.

Comparison of Table 43 and Table 44 demonstrates the overwhelming importance of logs in Congo's wood products trade.

**Table 43 Congo - Timber imports to Europe and China from Congo**

Year	Timber imports (sawn+logs+veneer+plywood) from Congo (Brazzaville) ' 000 m <sup>3</sup>									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	5	0	53	31	4	49	0	99	19	1
2000	1	11	41	30	1	41	1	75	23	1

Source: based on Eurostat data.

**Table 44 Congo -Log imports to Europe and China from Congo**

Year	Log imports from Congo (Brazzaville) ' 000 m <sup>3</sup>
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	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	1	0	41	22	4	46	0	98	6	1
2000	1	6	29	30	1	35	1	68	10	0

Source: based on Eurostat data

Sawn wood exports are a fraction of log exports but growing. Since 1995, Portugal and France have greatly increased their sawn wood imports from Congo, by eightfold and tenfold respectively.

**Table 45 Congo - Sawnwood imports to Europe and China from Congo**

Year	Sawnwood imports from Congo (Brazzaville) ' 000 m <sup>3</sup>									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	1	0	1	1	0	2	0	1	13	0
2000	1	6	10	0	0	5	0	8	13	1

Source: based on Eurostat data

Congo's veneer sheet exports collapsed between 1995 and 2000 due to the civil war which damaged much of the industrial processing capacity in the south of the country where secondary processing facilities were concentrated.

**Table 46 Congo - Veneer imports to Europe and China from Congo**

Year	Veneer sheet imports from Congo (Brazzaville) ' 000 m <sup>3</sup>									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	3	0	11	8	0	1	0	0	0	0
2000	0	0	1	0	0	0	0	0	0	0

Source: based on Eurostat data

Plywood, like other semi-processed products, is exported in modest quantities. Again, the limited production, which did exist prior to the civil war, ceased when the conflict began. The country's major plywood facility owned by Socobois and located in Dolisie was reportedly plundered during the war (Hardwoodmarkets.com, 2001).

**Table 47 Congo - Plywood imports to Europe and China from Congo**

Year	Plywood imports from Congo (Brazzaville) ' 000 m <sup>3</sup>									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	0	0	0	1	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0

Source: based on Eurostat data.

## INTERNATIONAL – OTHER SOURCES

### Estimates of Illegal Logging

**Table 48 Congo - Comparison of exporter and importer statistics**

	Log imports m <sup>3</sup> (1999) for selected importing countries					
	<i>China</i>	<i>France</i>	<i>Italy</i>	<i>Portuga</i>	<i>Spain</i>	<i>Total</i>
Exporters	200	38,000	16,000	91,000	10,000	155,200
Importers	634	107,486	100,758	111,463	90,230	410,570
Unaccounted	434	69,486	84,758	20,463	80,230	255,370
% unaccounted	217%	183%	530%	22%	802%	165%

Source: based on ITTO, 2000.

From Table 48, it appears that there is a considerable and consistent underreporting of timber volumes leaving Congo. Only in the case of Portugal is there an approximate parity between the exporters' and importers' figures. For Spain and Italy, there is a huge discrepancy in reported volumes traded.

According to Hardwoodmarkets.com (2000), timber production was 800,000 m<sup>3</sup> in 1999. Local press reports suggest, that the overall production of un-barked logs may reach 850,000m<sup>3</sup> during 2001 (Hardwoodmarkets, 2001a). From Table 40, the total timber exports for 1999 are 290,000 m<sup>3</sup> (this figure is similar to ITTO's estimate of exports ITTO, 2000). This implies that only 36% of production was exported. This seems unlikely, and provides further support for the view that the level of unaccounted timber exports is considerable. According to Forests Monitor (2001), significant volumes of logs are smuggled out of the north region from some of the newly allocated concessions.

## ANALYSIS

The forest and its resources are the main source of livelihood for most of the rural population.

Low forestry taxes, weak monitoring and enforcement capacity, irregularities and corruption in the awarding and exploitation of generous concessions have allured companies and boomed forestry operations.

## WINNERS AND LOSERS

Winners:

- ◆ Concessionaires that wish to circumvent the legislation, cut costs and underpay royalties and duties;
- ◆ Illegal loggers;
- ◆ Corrupt officials; and
- ◆ Importing countries that are more concerned with price than how the product was produced.

Losers:

- ♦ The state losing revenue and resources;
- ♦ Local population;
- ♦ Law abiding concessionaires that wish to practice sustainable forest management;
- ♦ Law abiding civil servants that want to do a good job; and
- ♦ Importing countries that want to import sustainably produced tropical timbers.

## COMMENTARY – POLICY BRIEFING NOTE

This policy briefing note has been made in the context of a review of regional policies on forest law enforcement in Africa. The aim is to assess common problems and to devise a common approach rather than undertake a review in detail for each individual country. This note therefore summarises the country issues described and develops some key ideas that may be regionally relevant in addressing the issues of poor forest governance.

Congo has a significant forest resource (22 million ha) and forest products are the second largest export after oil. Forestry provides work for 10% of the workforce and a substantial proportion of the population depend on the forest for subsistence. It is the Government's intention that log production should double or treble over the next five years. It is estimated that Congo could produce 2 million m<sup>3</sup> per year of logs on a sustainable basis. Production was around 600,000 m<sup>3</sup> in 1999.

Congo's forest sector therefore is important to the economy and has the potential for growth. However, there are some issues that need to be addressed:

- ♦ The new forest law passed in 2000 does not make provision for community forestry (except for municipal forests).
- ♦ The forest statistics available to this study were at least two years out of date and the different sources did not agree.
- ♦ Although the forest administration is technically competent recruitment has stagnated for many years, and there is a lack of morale and motivation amongst staff.
- ♦ The collection of forest taxes has been delegated to the provinces but the forest administration remains centralised, with the resulting lack of supervision and monitoring of operations in the forest, particularly in the north where most of the production is located.
- ♦ Government have estimated that over the years they have lost US\$ 4 billion in timber levies; forest taxation remains low (currently 3% FOB value but with the possibility under the new law to charge in the range of 6 – 10 %).
- ♦ Unofficial estimates of log production in 1999 were 800,000 m<sup>3</sup>, if this had been correctly recorded and a reasonable average royalty applied of say US\$ 13 /m<sup>3</sup>, a revenue of US\$ 10.4 million would have been realised instead of the CFA Francs 1.6 billion (US\$ 2.27 million at today's exchange rate) actually collected.
- ♦ Hunting and the associated bushmeat trade are not managed (although there are some projects that try to manage the situation locally). Hunting does, however, provide a significant source of income and protein for poor rural communities.

As the forest sector is an important contributor to the economy, it is therefore pragmatic to address the basic needs of control and monitoring as a matter of urgency. The following course of action is suggested:

- ♦ Implement a more robust system for recording the production and transport of timber throughout the country. There should preferably be independent third party verification with results summaries regularly published and posted on the Internet. Computerised databases with invoices, accounts and statements for each producer should be established and the data generated used to ensure the efficient collection of forest revenues. Again, this system should be subject to independent audit. The investment required for these systems would be covered through improved collection of forest revenues.
- ♦ Once a basic log tracking system described above has been instituted, certificates of legal origin could be issued by an independent, internationally recognised certification organisation to



accompany exports. This is increasingly required by importers (see the accompanying report on the Legal Origin of Timber) particularly for the supply to high value markets in Europe and the United States.

- ♦ Systems for managing the sustainable production of game meat needs urgent research and attention. Once sustainable estimates of production have been set a system for monitoring and control needs to be devised. This must be closely connected to any community forestry programme with significant awareness raising and education campaigns. Protected areas need to be respected by the local populations. There must be benefit sharing of the forest resources but at the same time an understanding of sustainability.
- ♦ Increased participation of all stakeholders, particularly local communities in all stages of planning, implementation and monitoring of management plans. Improved and transparent benefit sharing is fundamental to successful implementation.

## APPENDIX 1 STATISTICS FOR CONGO 1991-2000 ('000 m<sup>3</sup>)

### Log imports from Congo for selected countries 1991-2000 ('000 m<sup>3</sup>)

Country	Republic of Congo - logs (excluding pulpwood)									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	3	2	1	0	1	0	0	0	2	1
China	0	0	0	10	0	0	12	4	0	6
France*	102	116	69	72	41	61	95	67	29	29
Germany	43	42	37	33	22	21	17	20	18	30
Greece	0	15	7	9	4	7	7	4	8	1
Italy*	68	55	47	37	46	23	29	31	23	35
Netherlands	0	0	0	0	0	0	0	1	2	1
Portugal*	110	98	70	88	98	94	66	109	70	68
Spain*	45	22	9	4	6	6	5	3	4	10
UK	0	1	0	0	1	0	0	0	0	0

### Sawn wood imports from Congo for selected countries 1991-2000 ('000 m<sup>3</sup>)

Country	Republic of Congo - sawn wood									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	1	0	1	0	1	1	1	2	1	1
China	0	0	0	0	0	0	0	0	0	6
France	1	1	1	1	1	2	11	16	13	10
Germany	1	1	2	1	1	0	1	3	0	0
Greece	0	0	0	0	0	0	0	0	0	0
Italy	0	2	1	1	2	2	3	3	4	5
Netherlands	0	1	1	0	0	1	0	0	1	0
Portugal	0	0	0	0	1	4	4	5	8	8
Spain	16	17	15	11	13	12	9	16	15	13
UK	1	0	1	1	0	0	0	0	2	1

### Veneer sheet imports from Congo for selected countries 1991-2000 ('000 m<sup>3</sup>)

Country	Republic of Congo - veneer sheet									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	0	1	2	3	3	3	4	4	2	0
China	0	0	0	0	0	0	0	0	2	0
France	11	9	9	13	11	11	16	10	4	1
Germany	14	12	10	9	8	7	6	7	2	0
Greece	0	0	0	0	0	0	0	0	0	0
Italy	4	3	2	2	1	1	1	1	1	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0
UK	0	0	0	0	0	0	0	0	0	0

### Plywood imports from Congo for selected countries 1991-2000 ('000 m<sup>3</sup>)

Country	Republic of Congo - plywood									
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	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Belgium</b>	0	0	0	0	0	0	0	0	0	0
<b>China</b>	0	0	0	0	0	0	0	0	0	0
<b>France</b>	0	0	0	0	0	0	0	0	0	0
<b>Germany</b>	0	0	0	1	1	2	2	1	0	0
<b>Greece</b>	0	0	0	0	0	0	0	0	0	0
<b>Italy</b>	0	0	0	0	0	0	0	0	0	0
<b>Netherlands</b>	0	0	0	0	0	0	0	0	0	0
<b>Portugal</b>	0	0	0	0	0	0	0	0	0	0
<b>Spain</b>	0	0	0	0	0	0	0	0	0	0
<b>UK</b>	0	0	0	0	0	0	0	0	0	0

**Total wood product imports from Congo for selected countries  
(sawnwood+logs+veneer+plywood) 1991-2000 ('000 m<sup>3</sup>)**

Country	Republic of Congo - total									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Belgium</b>	4	2	4	3	5	3	5	6	6	1
<b>China</b>	0	0	0	10	0	0	12	4	2	11
<b>France</b>	113	125	79	86	53	74	122	93	47	41
<b>Germany</b>	58	55	49	44	31	31	26	30	21	30
<b>Greece</b>	0	15	7	9	4	7	7	4	8	1
<b>Italy</b>	72	61	50	40	49	26	33	36	28	41
<b>Netherlands</b>	0	1	1	0	0	1	0	1	3	1
<b>Portugal</b>	110	98	70	88	99	98	70	115	78	75
<b>Spain</b>	61	39	24	15	19	19	14	19	20	23
<b>UK</b>	1	1	1	1	1	0	0	0	2	1

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## THE DEMOCRATIC REPUBLIC OF CONGO (DRC)

### 4 OVERVIEW

#### THE FOREST SECTOR

Forest covers 52% of the land area, or 125 million ha, representing 47% of Africa's dense tropical forests (Tropical Timber, 1999). An inventory undertaken in the 80's by SPIAF (Forestry Department, of former Zaire) calculated the average standing timber volume in the country's central region at 200m<sup>3</sup> per ha (Hardwoodmarkets.com, 2002).

Despite its immense potential, in terms of timber production, processing and exports, DRC is one of Central Africa's poorest performers. The forest sector's contribution to GDP is said to be approximately 1% (sources: FAO and WB).

Although DRC has been beset by civil war, according to the Economist Intelligence Unit the DRC may be the most surprising country during 2002 due to the recent reforms made. WB and IMF have re-engaged and other donors are likely to follow (Hardwoodmarkets.com, 2002).

#### The Economics of the Forest Sector

The forests that are potentially productive are estimated to cover an area of 60 million ha, of which two million ha in the province of lower Congo have largely been logged out. In contrast, much of the remaining area, situated in the central valley, is virtually void of any industrial exploitation. The potential annual production based on sustainable exploitation is estimated to be between 6-10 million m<sup>3</sup>.

During the late 90's, forest sector production declined by 50% and several major facilities closed due to intensified conflict in the country's eastern region and the associated deterioration of infrastructure. Currently, there are only four companies operating in the forestry sector, of which, the principal one, SIFORCO (a DANZER subsidiary), is mainly supplied by wood from Congo Brazzaville<sup>10</sup>. The transportation infrastructure remains extremely dilapidated and even when transportation is possible, it is typically very unreliable.

According to Sizer *et al* (WWF, 1998), annual timber production in DRC has remained well below one million m<sup>3</sup>. Total timber production in 1990 reached a high of 830,000 m<sup>3</sup>, falling to 440,000 m<sup>3</sup> by 1995. More recent official estimates indicate that around 200,000 m<sup>3</sup> of timber is being produced annually.

#### Forest Management

Only 40 million ha of forest is under direct Government control and is managed through the issuance of felling permits. Currently 250 felling permits are allocated, valid for a period of 25 years. The annual cost of the permit is negligible and it is likely that the permit holders will sub-contract harvesting operations for a much higher rate when the economic and political situation improves. According to the World Bank (2002), the Government may lose between US\$40 million and US\$240 million over the next 25 years as a result of poor permit pricing. Due to the inaccessibility of the resource, and the cost of transport, it is likely to be at the lower end of the range.

#### Community Involvement in Forest Management

Due to the near collapse of administrative structures, and a lack of funds, there is no recent history of community involvement in forest management. Indeed, the situation is so dire that the state forest enterprises are typically not engaged in forest sector development at all, but rather in the basic maintenance of roads, buildings and other infrastructure. Where harvesting operations do occur, should conflicts arise between the loggers and local people, the 'chefs de terre' act as arbitrators.

The new forest legislation supported by the World Bank will make provision for local co-operatives to manage forest concessions and distribute 30% of the royalty from concessions locally. The legislation

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<sup>10</sup> SIFORCO holds 2.9 million ha — one quarter of the country's concessions (Forests Monitor, 2001).

does not appear to clarify the proportion of the revenue collected to be allocated to local communities or local government (if any).

Although there are many NGOs in DRC, there is a significant lack of capacity in the NGO sector and this is likely to be a major constraint to effective participation of local people in forest management.

## STAKEHOLDER ANALYSIS

**Table 49 DRC - Forest sector stakeholders**

Category	National level
Government	MINAFFET/MINEFI/ONATRA (Responsible for transportation)
Private Sector	SODEFOR, SOFORMA, SOCOFOR, FEC (professional association)
Local communities	Traditional Chiefs
Civil Society	Many NGOs including CNONGD PROFA/AREC/OSEAHC
International community	WB/WRI/FAO/USAID/ACDI/GTZ

Private sector involvement in the forest industry is very limited, with only four companies engaged in timber production. Although there are many NGOs in DRC, most are not very active and many have been set up simply to solicit funds with little intention to engage in serious development activities. Donors have also encouraged the establishment of NGOs in order to provide a mechanism for implementing their objectives. The national NGO, CNONGD, has taken on the task of co-ordinating activities amongst the NGO community.

Donor supported activities have encouraged stakeholders to participate in discussions on forest reform. FAO have been engaged with key stakeholders (mainly government and some private sector representatives) to review options for development of the sector, including legal, institutional and fiscal reform.

## LEGISLATION AND POLICY

### The Land and Forest Laws

The current forest legislation derives from a decree issued by the Belgian king in 1949. In 1979 a new forest code was developed and subsequently amended in 1989. The national forest policy was developed in 1999. The main objective of policy was to increase timber production and support the development of a profitable processing sector. Specifically, the policy mentions increasing timber production to 6 million m<sup>3</sup> per annum (this was subsequently revised to 1.2 million m<sup>3</sup>). The policy also focuses on infrastructure development, particularly investment in transportation routes. Emphasis is placed on the development of favourable conditions for investment in the domestic processing sector. The policy addresses the serious lack of technical capacity in the sector, particularly in relation to inventory, management planning and reforestation. Conservation of the forest resource is supported through the establishment of protected areas. Reinforcing institutional capacity in research and training is also referred to (FOSA, 2001).

Development of forest legislation to support the new policy framework is nearing completion. The process was supported through an FAO funded forum and several consultations with key stakeholders.

The draft law seeks to support the sustainable management and development of all productive forests. It refers to the management of productive forest through a concession system (allocated by auction). The law also incorporates measures to simplify the complex tax regime. Participation of local populations in forest management is encouraged through revenue sharing. Perhaps most importantly, management planning is a requirement in the draft law and is to be enforced in all productive forests.

## INSTITUTIONS

The structure of the forest sector administration is complex, with a separation of functions between several agencies. In 1982, the entire administrative structure was reviewed, however, there was no

provision made for forest guards. In consequence, there has been no field level capacity to enforce regulations. Institutional arrangements for taxation of the sector are particularly cumbersome. There are eight separate entities responsible for 60-80 taxes affecting the forest sector (World Bank, 2002).

## STATISTICS

### NATIONAL –OFFICIAL

#### Revenue

Several taxes are applied to the forestry sector in DRC. The Surface Area Tax is applied annually; the charge is nominal, at less than one US \$ cent per ha (US\$ 0.0015). A tax is also applied annually for every felling permit issued; this charge is set at US\$ 2/ha. Other taxes include: a charge on non-timber products, including charcoal and fuelwood; an export tax, the rate of which appears to be used as a disincentive to exporting logs<sup>11</sup>; and a tax on processed wood (passed on to the purchaser).

**Table 50 DRC – Forest taxation revenue 1996– 2000**

Tax	Revenue by year (US\$)				
	1996	1997	1998	1999	2000
Surface area tax					
Tax on felling permits	40,415	40415	40415	40415	40415
Non Timber Forest Products	807	232	240	1741	1120
Downstream taxes	1,222,777	1,330,499	1,385,933	1,399,600	1,330,000
Total	1,263,999	1,371,146	1,426,588	1,441,756	1,371,535

Revenue flows from the forest sector have averaged around 1.4 million US\$ between 1996 and 2000. There are several organisations involved in collecting this revenue from the forest sector. It seems likely that the relatively complex arrangements for tax collection reduce the level of transparency.

#### Wood Production

**Table 51 DRC – Timber production 1989 to 1998**

Total official timber production ('000 m <sup>3</sup> )									
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
394.5	446.8	295.6	330.3	287.5	272.2	225.7	308.9	257.6	244

Source: Direction de la gestion des forêts et de la chasse - Ministère de l'Environnement.

**Table 52 DRC – Wood exports 1991 to 2000**

Wood exports (all products volume in m <sup>3</sup> )									
1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
149,228	115,586	107,134	137,110	152,006	173,455	137,973	132,950	52,833	48,599

Source: Office Congolais de Contrôle.

Compared to other countries in the region, forest sector production is low, and exports are limited to less than half of total production.

#### Estimates of illegal logging

Tshikala (2001) estimates that the informal sector is two to three times larger than the formal sector. FAO give an even higher estimate at around 90% of total production (FAO, 2001). In 1998, official production was around 244,000 m<sup>3</sup>, using Tshikala's figure for the size of the informal sector implies a total production of between 488,000 and 732,000 m<sup>3</sup>. Although most operators in the informal sector

<sup>11</sup> The "ad valorem" tax on log exports is 4%, 2% for sawn wood and 1.5 % for veneer sheets (Forests Monitor, 2001)

apply for felling permits, their harvesting operations are entirely unregulated and escape any form of taxation.

Differences in the estimation of commercial logging are rendered insignificant in comparison to subsistence consumption of wood, which dwarfs industrial production, and is estimated at around 50 million m<sup>3</sup> per annum (FAO, 2001).

### Enforcement

Low forestry taxes, combined with weak monitoring and enforcement, and irregularities in concession allocation imply poor regulation of the sector (WRM, 2001).

During early 1999, the Government banned log exports in an attempt to control corruption in the sector. Corrupt practices are believed to include tax avoidance and irregularities in setting up timber companies (Tropical Timber, 1999). On instituting the ban, according to industry sources, the Government requisitioned all timber and sold it on the international market (ibid.). The ban was relaxed after three months following heavy lobbying from industry.

Unofficial payments to obtain harvesting rights appear to be significantly greater than official payments. According to Forests Monitor (2001), logging companies are also reported to give around 10% of profits as unofficial payments to local officials and the military.

Legally, companies are required to spend one year evaluating the forest area allocated, and three years building infrastructure prior to securing guaranteed access to timber. Logging companies report weak security of tenure as the Government has been known to revoke harvesting rights at short notice without apparent due cause.

## INTERNATIONAL – CONSUMER COUNTRIES

### Overview

80% of logs exported from DRC are transported overland to Congo-Brazzaville and subsequently exported to the European market (Global Witness, 2002). The main species exported are Sapelli, Sipo, Tola and Iroko. An indication of the scale of DRC's exports is provided by the FEC (a private sector business federation). During the Government's ban on forest exports in 1999<sup>12</sup>, the FEC estimated that US\$2 million in foreign revenue was lost every month (Tropical Timber, 1999).

The civil war in DRC severely disrupted timber exports. Between 1995 and 2000, exports to the EU and China declined by 63% (Table 53). Portugal remains the dominant importer of timber products from DRC. The vast majority of timber exported to the EU and China is in log form (Table 53).

**Table 53 DRC - Total imports from DRC**

Year	Total Timber imports (sawn+logs+veneer+plywood) from DRC ' 000 m <sup>3</sup>										Total
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	
1995	6	0	19	20	0	21	1	99	2	13	179
2000	3	0	14	7	0	1	0	40	1	0	67

Source: based on Eurostat data.

**Table 54 DRC - Log imports from DRC**

Year	log imports from DRC ' 000 m <sup>3</sup>										Total
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	
1995	1	0	19	14	0	13	0	93	1	1	142
2000	2	0	12	6	0	1	0	38	0	0	59

Source: based on Eurostat data.

The DRC exported 32,000m<sup>3</sup> of sawn timber in 1995, representing 18% by volume of all timber exports (Table 54). By 2000 this had collapsed to 7,000 m<sup>3</sup> (10% by volume of total

<sup>12</sup> The ban was not complete as the Government issued a sole export license to Congo based Maliba-a largely unknown company.



exports). Over the period studied, the DRC exported negligible volumes of plywood. In 1995, veneer sheets were exported in modest quantities, by 2000 exports were negligible (Table 56).

**Table 55 DRC - Sawn wood imports**

Year	Sawn wood imports from DRC ' 000 m <sup>3</sup>										Total
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	
1995	4	0	0	4	0	7	1	6	1	10	32
2000	2	0	2	1	0	0	0	2	1	0	7

Source: based on Eurostat data.

**Table 56 DRC - Veneer sheet imports**

Year	Veneer sheet imports from DRC ' 000 m <sup>3</sup>										Total
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	
1995	1	0	0	2	0	0	0	0	0	2	5
2000	0	0	0	0	0	0	0	0	0	0	0

Source: based on Eurostat data.

## INTERNATIONAL – OTHER SOURCES

### Estimates of Illegal Logging

**Table 57** compares the DRC's official export statistics with the total volumes imported from selected importing countries.

**Table 57 DRC – Comparison of official export statistics with import statistics for selected countries**

Year	Product			Total	Total (Importers)	Difference	% Difference
	Logs	Sawn wood	Veneer				
1992	72,431	34,688	6,361	113,480	396,000	282,520	349
1993	75,575	39,161	6,186	120,922	286,000	165,078	237
1994	118,160	40,590	7,532	166,282	296,000	129,718	178
1995	111,273	44,613	7,867	163,753	261,000	97,247	159
1996	121,551	55,013	7,718	184,282	258,000	73,718	140
1997	103,111	31,553	5,637	140,301	289,000	148,699	206
1998	105,248	38,210	5,702	149,160	308,000	158,840	206
1999	40,133	20,263	1,022	61,418	213,000	151,582	347
2000	16,478	8,215	233	24,926	226,000	201,074	907

Sources: Office Congolais de Contrôle et Banque Centrale du Congo & Eurostat.

From the table, it is clear that importing country statistics are invariably substantially greater than official export statistics. Recently the discrepancy has become significantly larger.

### Qualitative data on illegal logging

There is clear evidence that logging has been highly selective and unsustainable, particularly in Bas-DRC province. The planning of extraction routes is poor, and the improved access to the forest provided by logging roads has resulted in extensive deforestation.

There are some reports of logging in disputed areas. For example, it is reported that there has been a recent increase in logging activity in the Kivu region, with production increasing from 10 000 or 15 000m<sup>3</sup> to more than 50 000 m<sup>3</sup> per annum (FAO, 2001). However, given the scale of the forest resource in the region, this is a relatively small harvesting rate.

According to the UN Security Council of Experts there has been extensive illegal logging in DRC. The case of a Ugandan-Thai company, DARA-Forest, operating in Oriental Province between 1998 and 2000 is described. Satellite imagery has demonstrated widespread deforestation in the concession logged by DARA-forest, suggesting contravention of minimum dimension regulations (UN Security Council, 2001).

Probably of much greater significance is the Global Witness report describing a joint logging partnership between the Zimbabwean Government, senior figures in the Zimbabwean military, and the Kinshasha based Comiex-Congo (Global Witness, 2002). The partnership, termed the 'Congolese Society for the Exploitation of Timber' (SOCEBO), has allegedly created the world's largest concession, amounting to some 33 million ha. The intention is to split the concession into four smaller areas (located in Katanga, Kasai, Bandundu and Bas -Congo Provinces), from each of which SOCEBO hopes to produce over 150,000 m<sup>3</sup> of timber annually at full capacity. However, it is doubtful whether the partnership can secure the funds to invest in the capital equipment and infrastructure required to realise this level of production. Expertise to manage the concession efficiently is probably also lacking. Consequentially, although the production potential is huge, there has been limited log output to date. In November 2001, a UN expert panel reported that the Zimbabwean military were already assisting with logging operations in southern DRC. The log production is being exported to South Africa and, via Dar Es Salaam, to the rest of the world (Global Witness, 2002).

## ANALYSIS

The structure of the forest sector administration is complex with a separation of functions between several agencies. There are particularly complex arrangements for the collection of tax that are unlikely to inspire confidence in the effectiveness of the system. The currently proposed reforms recommend broad ranging institutional change to create a Directorate General for Forestry that may eventually become a ministry. Given the scale and potential economic importance of DRC's forest resource, and its international importance for biodiversity conservation, the creation of a Ministry would seem to be a proportionate measure.

Institutional reforms must be associated with a more rational deployment of human resources to ensure cost effective administration and enforcement at field level. Given the extremely dilapidated state of the forest administration, funds and considerable technical assistance will be required for several years to support the government in developing capacity to generate sustainable returns from the forest sector sufficient to cover the costs of administration.

The lack of transportation routes in DRC is a considerable obstacle for productive management of the forest resource and results in logging activities being concentrated in the most accessible areas, particularly the province of Bas-Congo, which is located between Kinshasa and the coast. The rehabilitation of road and rail networks is clearly critical for improved management of forests in DRC. However, given the country's extensive river system, greater use could be made of river transport. An integrated approach to the transportation problem should help to minimise the population influx into logged areas.

Deforestation around the biggest cities for provision of fuelwood and agricultural products is a growing problem in DRC. Poor law enforcement has allowed powerful, politically connected individuals to force poor farmers off their land. The displaced population often moves into the forest to clear land for cultivation. Political instability and population movements resulting from localised fighting has also contributed to the problem of deforestation (Forests Monitor, 2001). Improved regulation of logging activity will be of little consequence without commitment from government to combat wider land use problems.

## WINNERS AND LOSERS

### Losers

- ♦ The Government, for whom, due to a lack of investment in the forest sector, tax revenue is minimal.
- ♦ The private sector who are unwilling to invest in building processing capacity due to the lack of infrastructure and the high level of risk due to political instability.
- ♦ Local communities who do not benefit from the employment and tax revenue generated by a dynamic forest industry.

### Winners

- ♦ Corrupt officials.
- ♦ Disreputable logging companies taking advantage of weak control and enforcement in the forestry sector.

## COMMENTARY – POLICY BRIEFING NOTE

The Democratic Republic of Congo has tremendous forest resources with the potential to significantly increase production in an environmentally sustainable, socially equitable and economically viable manner. Due to the civil war, there has been a lack of investment and maintenance of both the administration and forest infrastructure. A new forest policy was developed in 1999 and this highlights the need for increased production, development of infrastructure, the lack of technical management capacity, local processing and conservation (through protected areas). The development of legislation to support policy is nearing completion.

There are however a number of key issues that still need to be addressed:

- ♦ The necessary forest regulations following the enactment of legislation are required urgently to prevent more delay in implementation.
- ♦ The review and modernisation of the forest taxation system is essential to enable the collection of significantly increased but fair revenues:
  - there are 60 to 80 different taxes affecting the forest sector;
  - the taxes are generally very low: e.g. surface area tax of US\$0.0015 /ha/year; and
  - the total tax for collected for 1998 was just US\$1.4 million, which amounted to less than US\$6/m<sup>3</sup>.

- The existing administration of forestry in the country requires urgent review and structural change (there is little or no field capacity to supervise or enforce regulations and there are eight separate agencies involved in the collection of the 60-80 taxes).
- The existing forest administration has very little capacity to supervise and monitor the field operations; it is estimated that the informal forest sector ranges from two or three times the size of the formal sector. If it were assumed that the total production is three times the official production, then in 1998 the production would have been around 720,000 m<sup>3</sup>. If a fair level of total forest taxation was applied of US\$15/m<sup>3</sup> for example, then this would raise US\$10.8 million or nearly ten times the actual level of revenue capture.

The Democratic Republic of Congo has the potential to sustainably produce between 6 and 10 million m<sup>3</sup> per annum. At a fair level of taxation of US \$15/m<sup>3</sup>, this would yield between US\$90 and US\$150 million per year. The DRC, therefore, has potential to earn significant revenue from the sustainable management of its forests.

As stability gradually returns to the DRC, it is important that the enactment of the new legislation and the supporting regulations for its application proceed quickly. Government will need substantial financial and technical assistance for several years to effectively implement and enforce the new legislation. A major effort will be required to establish effective structures at field level for monitoring logging operations. Investment will be required in transport, information technology, basic forestry equipment and administrative structures.

Most stakeholders, particularly in the private sector, argue that the current status and structure of the forest administration does not reflect the political and economic role that the forestry sector could play in the DRC's development. Centralisation of the structures responsible for forestry under a general direction of forests, as part of a ministry is widely supported.

The lack of human capital is at least as significant as the lack of capital equipment and infrastructure. Due to a freeze on recruitment several years ago, there is a huge problem with an ageing population of forestry professionals. Training facilities covering all levels of technical ability are required to resolve this problem.

Most Government staff are very poorly paid and consequently lack motivation and professionalism. Most officials by necessity find alternative gainful employment and some engage in petty corruption. Field staff will be particularly vulnerable to corrupting influences given the relative wealth of logging companies.

Within the forest administration, information flow is extremely limited due to deficient communication/reporting systems and related activities. Even the most basic statistics on the forest sector are unavailable, or are of dubious origin. Addressing these internal problems will be essential before the administration can turn its attention to dealing with the problems of the wider forest sector.

There is no monitoring of forest sector activity except the monitoring of exports at the main ports but the effectiveness of this limited level of monitoring is doubtful. There have been some attempts to improve the technical effectiveness of monitoring, principally through training provided by SGS two years ago.

**APPENDIX 1: STATISTICS FOR DRC 1991-2000****Log imports from DRC for selected countries 1991-2000 ('000 m<sup>3</sup>)**

Country	Democratic Republic of Congo - logs									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	2	1	2	3	1	2	3	2	0	2
China	0	0	0	0	0	0	0	0	0	0
France	8	11	12	21	19	16	26	22	9	12
Germany	16	10	8	13	14	10	7	6	3	6
Greece	0	0	0	4	0	0	0	0	0	0
Italy	35	15	7	14	13	10	5	4	3	1
Netherlands	0	0	0	0	0	2	1	3	0	0
Portugal	48	47	48	66	93	81	77	57	29	38
Spain	2	2	3	1	1	1	0	0	0	0
UK	0	1	2	3	1	2	0	0	0	0

**Sawn wood imports from DRC for selected countries 1991-2000 ('000 m<sup>3</sup>)**

Country	Democratic Republic of Congo - sawn wood									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	1	1	2	5	4	8	8	5	4	2
China	0	0	0	0	0	0	0	0	0	0
France	0	1	1	2	0	1	1	1	0	2
Germany	3	2	4	3	4	3	2	1	1	1
Greece	0	0	0	0	0	0	0	0	0	0
Italy	9	10	10	6	7	8	4	1	0	0
Netherlands	2	1	0	0	1	3	2	0	0	0
Portugal	2	7	4	6	6	7	7	10	3	2
Spain	2	4	4	1	1	1	2	0	1	1
UK	5	4	7	10	10	15	5	0	0	0

**Veneer sheet imports from DRC for selected countries 1991-2000 ('000 m<sup>3</sup>)**

Country	Democratic Republic of Congo - veneer sheet									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	1	1	1	1	1	1	1	2	0	0
China	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0
Germany	3	2	1	2	2	1	1	1	0	0
Greece	0	0	0	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	1	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0
UK	1	1	2	2	2	1	2	1	1	0

Statistics for DRC 1991-2000 ('000 m<sup>3</sup>) - Continued

**Total wood product imports from CAR for selected countries (sawn-wood+logs+veneer+plywood) 1991-2000 ('000 m<sup>3</sup>)**

Country	Democratic Republic of Congo - total									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Belgium</b>	4	4	5	9	6	11	12	9	4	3
<b>China</b>	0	0	0	0	0	0	0	0	0	0
<b>France</b>	8	12	13	23	19	17	26	23	9	14
<b>Germany</b>	21	14	12	18	20	13	11	8	4	7
<b>Greece</b>	0	0	0	4	0	0	0	0	0	0
<b>Italy</b>	44	25	17	20	21	17	9	6	3	1
<b>Netherlands</b>	2	1	0	0	1	5	3	3	0	0
<b>Portugal</b>	50	54	53	72	99	87	84	67	31	40
<b>Spain</b>	4	6	7	2	2	2	2	0	1	1
<b>UK</b>	6	6	11	16	13	18	7	1	1	0

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## GABON

### 5 OVERVIEW

Gabon's economy is dominated by the oil industry, which accounts for the majority of export earnings and Government revenue. Although Gabon's GNP is high by regional standards (US\$ 4,230 per person per year in 1997) health, education and other indicators of general well being remain relatively low. Government debt is growing and is likely to increase significantly as oil revenues are predicted to decline.

The IMF and the World Bank are pushing macro-economic reform, which includes measures to support the development of the non-oil sector. Privatisation and civil service reforms are also being encouraged.

Gabon is the least densely populated country in Central Africa. The population of 1.2 million is highly urbanised (73%) with a significant proportion residing in the capital city.

#### THE FOREST SECTOR

##### The Economics of the Forest Sector

Forests cover 22 million ha representing 85% of total land area. Forest products are the second largest export, generating around 13% of foreign exchange earnings (Economist Intelligence Unit, 2001). Gabon is Africa's leading log exporter with only relatively small quantities of semi-processed products exported. Log production in 2000 was 2.9 million m<sup>3</sup> (République Gabonaise, 2001), 15% of this was processed. This is expected to reach 50% in 4-5 years (the government's objective is to reach 60% in this period). DIARF (Direction des inventaires, des aménagements et reboisement forestier) anticipates that by 2010, veneer production capacity will increase from 75,000 m<sup>3</sup> to 1.5 million m<sup>3</sup> and sawmilling capacity from 130,000 m<sup>3</sup> to 2 million m<sup>3</sup> (Ministère des Eaux Forêts, 1999).

Gabon's potential timber production has not been accurately determined (if productivity is comparable to Cameroon, the sustainable annual yield is likely to be around 5 million m<sup>3</sup>). The government estimates that production should reach 5 million m<sup>3</sup> in the next 10 years. Clearly, there will be considerable pressure to maximise returns from the forest sector; the Government will have to make a choice between continuing to supply logs to the growing Asian markets, or to supply the domestic industry.

A particular characteristic of the forest sector in Gabon is its heavy reliance on a small number of species. More than 70% of log production and exports comprises Okoumé and Ozigo (*Dacryodes* spp.). The Okoumé zone will be totally logged for the first time over the next 10 years.

Asian markets are particularly important to Gabon. Gabon is the leading supplier of tropical timber to China<sup>13</sup> (1.146 million m<sup>3</sup> of timber was exported in 2000). Asian firms have sought to improve the reliability of their supplies by acquiring concessions. By mid 1997, Asian firms controlled more than 1.5 million ha of forest (WWF, 1998).

##### Forest Management

Several donors are working to improve forest management in Gabon. France's AFD provided funding to enable French forestry companies to develop management plans. In 1999, it suspended funding of all projects in Gabon until further notice, linking its decision to Gabon's failure to service its debts. The EU's ECOFAC project continues to operate in the Lopé Reserve. A new multi donor supported cross-sectoral programme PSFE (Programme Sectoriel Forêts & Environnement) is being developed to improve co-ordination in implementing the National Forestry Plan (developed in 1999). The programme will facilitate the development of a more productive and sustainable forest sector through support to local industry and improvements in management planning and the promotion of certification. Specifically, support will be given to improve management planning; this will take particular account of the need to control the exploitation of Okoumé. Under the programme, small permit holders will prepare simplified management plans. Clearly, this will require support and incentives for implementation.

<sup>13</sup> The Vicwood group based in Hong Kong is the major Asian importer of logs from Gabon.



The Government appears to appreciate the importance of forest conservation having commenced the process of setting aside 3.6 million ha of forest (13% of the total land area) as protected areas. There are, however, significant inconsistencies in the implementation of these measures. For example, concessions have been granted in areas scheduled for protection.

### Community Involvement in Forest Management

Although the recent legislation makes provision for the establishment of community forests, experience of community participation in forest management is limited. Unlike most other countries with a significant forest resource, there is a relatively small proportion of the population using the forest for subsistence.

### Forest Certification

There is a national working group (established in 1997) to develop national standards for forest certification. Certification Principles and associated Criteria and Indicators have been developed and field-tested. The working group now intends to promote the new certification scheme to the private sector. The certification scheme is based on the ATO/ITTO standards for SFM. According to the President of the National Working Group, the scheme is compatible with FSC standards (Ondo, *pers. comm.*) although the FSC have not yet formally evaluated it.

## STAKEHOLDER ANALYSIS

Most major stakeholders were consulted during the preliminary stages of developing the new forest policy and associated legislation (FRM, 2001).

**Table 58 Gabon - Forest sector stakeholders**

Category	National level
Government	SNBG, Ministry, Ministry of Finance
Private Sector	Logging companies
Local communities	
Civil Society	Les Amis du Pangolin, National NGOs (e.g. CIAJE)
International community	WWF/ITTO/ATO/EU/WB/AFD/ ECOFAC

In recent years stakeholder dialogue has improved. Government has sought to establish a dialogue with the private sector, NGOs and civil society. Partnerships between Government, NGOs and companies have increased. For example ECOFAC, WWF, WCS and the Rougier and Leroy-Gabon forestry companies have reached an agreement on redefining the limits of the Lope Reserve. Some collaboration has also occurred in efforts to control the bush-meat trade. Following a workshop attended by most stakeholders, the CEB-Thany Group adopted several new harvesting methodologies to improve biodiversity conservation.

Despite some positive developments, overall stakeholder involvement in forest sector development is low, particularly at regional and local level. Although Government has engaged with the private sector, this has not been sufficient to clearly define roles and responsibilities for sector development.

## LEGISLATION AND POLICY

### The Land and Forest Laws

In 2001, a new forest policy and associated legislation was eventually introduced following several years of deliberation. The new legislation replaces the old forestry code developed in the early 1980's, which emphasised the promotion of commercial logging and inward investment in the sector<sup>14</sup>. The new policy is promoting greater participation in forest management and more rational management of the forest resource. The associated legislation makes provision for the establishment of community

<sup>14</sup> Many of the articles in the old law were never implemented because the decrees defining the required procedures were never drawn up

forests adjacent to villages and transportation routes. The legislation also makes forest management plans compulsory for new concessions.

Under the former law, 12 million ha of forest was allocated to loggers under a variety of permit systems. The new legislation seeks to improve management of the resource by establishing a concession management system termed 'Concession Forestière sous Aménagement Durable' (CFAD). The new concession period will vary from 20 to 40 years and the maximum size of the concession will be increased from 200,000 to 600,000 ha (GFW, 2000).

Under the new system, all concession holders must prepare a management plan. By the end of 2001, management plans for four concessions had been approved by Government, management plans were being developed for five concessions and preparations were being made for developing plans in a further 18 concessions. In total, 6 million ha of forest have or are actively being brought under management plans under the new CFAD system (FRM, 2001). The remaining forest area, covering smaller units previously managed under the PTE (Permit Temporaire d'Exploitation), will be combined into larger units in order to enable effective management planning. Historically, the use of *fermage*<sup>15</sup> has been a disincentive for SFM. It seems likely that the *Fermage* system, though illegal, will continue to operate even after widespread adoption of the new system.

The Government has been considering possible reforms of the fiscal regime affecting forestry. A workshop was held during 2000 to discuss possible reforms with key stakeholders. The major thrust of the reform process is to simplify the tax regime. As of February 2002, it is not clear what decisions have been made regarding tax reforms (FRM, 2001).

Implementation of the new forest law has barely begun as the necessary regulations to enable implementation are yet to be completed by the Ministry of Forests in association with the Ministry of Finance.

## INSTITUTIONS

The Ministry of Forestry (Ministère de l'Economie Forestière) is responsible for forest policy and enforcement. There are three divisions under the Minister covering Forest Inventory and Management Planning, Forest Management and Forest Industry. The central structure of the Ministry has recently been reformed to reintegrate it with the environmental sector. A system for planning, monitoring and evaluation is currently being developed for the new ministry. Government has indicated its intention to continue to decentralise the administration of the forest sector that began under a previous World Bank supported project (PFE).

The *Société Nationale des Bois du Gabon* (SNBG) is a partially privatised former state agency that still retains a partial monopoly on the sale of Okoumé and Ozigo onto the international market. The private sector is permitted to market other species directly (ITTO, 2000). SNBG fulfils a dual role, as it is also responsible for collecting export taxes for government. SNBG undertakes some controlling activities by making sure suppliers respect quotas and diameter limits although no field operations are inspected.

## STATISTICS

In-country data collection is poor. Two state agencies, Direction Générale de la Statistique et des Etudes Economiques (DGSE) and the Société Nationale des Bois Gabonais (SNBG) are responsible for the collection of production data. Their estimate of log production for 1995 differed from the ITTO estimate by 16% (WRI, 2000).

## NATIONAL – OFFICIAL

Table 59 Gabon - Log export statistics

Log export statistics (' 000 m <sup>3</sup> )										
Year	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1998	N/A.	457	436	20	63	84	29	114	39	N/A.
1999	N/A.	906	521	21	58	63	33	99	22	N/A.
2000	N/A.	1,087	504	22	72	58	41	116	20	N/A.

<sup>15</sup> Under *Fermage* permit holders sub contract management of the forest to a third party. This often results in poorer management practices in part due to the short-term nature of the *fermage* agreement.

Source: ATIBT/SEPBG

Table 59 demonstrates the importance of China as the major market for Gabon's log exports.

## REVENUE

Most government revenue from the forestry sector is obtained from downstream taxes - primarily the export tax. The level of taxation is infrequently revised to take account of inflation or real rises in product value. Consequently taxes, particularly those applied to the raw material supply, are a fraction of what they should be. Most forest taxes have not changed for 25 years (GFW, 2000).

**Table 60 Gabon - Distribution and recovery of tax revenue**

Description	Tax Recovery (US \$ millions)		% recovered
	Theoretical	Actual	
Area tax	0.13	0.09	75
Allocation	10.70	3.50	32
Transformation	0.06	0.02	29
Export	26.30	27.20	103
<b>Total</b>	<b>37.19</b>	<b>30.81</b>	<b>83</b>

Source: Ernst & Young, 1998; quoted in GFW, 2000.

71% of forest revenue is generated from the export tax. Although the allocation tax<sup>16</sup> could provide a substantial contribution to Government revenue, enforcement has been poor. In contrast, recovery of the area tax is reasonable, but the tax itself has almost no value, as it has not been updated for many years (in 1998 the area tax was 3 US cents per ha per year). Under the new forest legislation, the area tax will be increased, although the level has not yet been finalised.

## NATIONAL - OTHER

### Estimates of illegal logging

It is difficult estimating the level of illegal logging as records of production are difficult to obtain and inconsistent (GFW, 2000). As the majority of log exports are channelled through SNBG, it is thought that the export statistics are quite reliable. In 1995, SNBG and the Direction Générale de la Statistique et des Economiques estimated Gabon's log exports at 2.2 million m<sup>3</sup>, whilst the ITTO estimated the export production to be less at 1.9 million m<sup>3</sup>.

The absence of an estimate of the level of illegal logging, however, should not necessarily be seen as an indication that it does not occur. It is more a reflection of the lack of corroborating data.

Fermage, a practice of selling on logging rights, is widely accepted as illegal, but is nevertheless extensively tolerated (GFW, 2000). Fermage has a number of disadvantages:

- ♦ As rights can be sold on, it implies that the level of forest rent is too low and that the state is not receiving the full economic value for its resource. In turn, an undervalued resource has a number of negative impacts:
  - Users of the resource receive windfall profits at the expense of the rest of society;
  - It creates opportunities for corruption;
  - It does not encourage efficient utilisation of the resource; and,
  - It can cause inappropriate allocation of scarce investment funds.
- ♦ Fermage rights are frequently for short periods that will prevent even the best harvesting operations from investing in the forest management planning and infrastructure required for sustainable forest management.

A spot check by a WWF team in 1997 of a concession owned by the Malaysian company, Rimbunan Hijau, inspected 8,000 m<sup>3</sup> of timber awaiting export in the company's log yard. The logs were a mixture of species and were all marked with codes in accordance with the forest law. Minimum diameter requirements for the logs were being adhered to (WWF, 1998).

<sup>16</sup> Allocation Tax is a royalty charged as a percentage of the 'beach' price. The beach price includes the costs of harvesting and transport but excludes the costs of storing at the port, export duties, and any influence that the market may have.

## Enforcement

According to GFW (2000), only 40% of Ministry staff are assigned to enforcement duties in the field. On average Ministry officials responsible for enforcement oversee a huge concession area of 864 km<sup>2</sup>. The mobility of enforcement staff is also limited, as many do not have regular access to reliable means of transport.

The majority of Okoumé and Ozigo logs to be exported must be sold to SNBG. SNBG checks log diameter before purchasing to ensure that diameter limits are respected. According to industry sources diameter regulations are well enforced. However, as other species grow in importance and the supply of logs to the domestic industry increases the problem of regulation will also increase.

## Hunting

Uncontrolled hunting is a problem in Gabon, but the total harvest per unit area compared to other countries in the region is low (Wilkie & Carpenter, 1998). Although there is no quantitative data on the level of harvesting, there have been numerous anecdotal reports of hunting activities and the use of logging trucks in the transport of illegally harvested meat. Global Forest Watch report that 80 tonnes of meat was illegally harvested and consumed in one logging camp near the Lopé reserve in Central Cameroon (GFW, 2000). It has been calculated that approximately 40% of a logging company employee's earnings derive from illegal hunting. On a national scale, this amounts to US\$50 million. Although transport of bush-meat by road is a significant issue in Gabon, a substantial proportion of the trade is also transported by rail to Libreville (Kumba, *pers. comm.*)

## INTERNATIONAL – CONSUMER COUNTRIES

### Overview

Most of Gabon's timber is exported to China and France. Over the five years from 1995 to 2000, China's imports from Gabon have more than trebled, while France's imports have remained constant at around 500,000 m<sup>3</sup>.

**Table 61 Gabon - Total timber imported from Gabon in roundwood equivalent volume**

Year	Timber imports (sawn+logs+veneer+plywood) from Gabon ' 000 m <sup>3</sup>									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	12	318	510	27	82	63	19	54	24	7
2000	8	1,146	543	31	77	88	27	114	39	4

Source: based on Eurostat data.

Examination of Table 62 demonstrates that Gabon primarily exports logs China and France.

**Table 62 Gabon - Log imports from Gabon**

Year	Log imports from Gabon ' 000 m <sup>3</sup>									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	11	318	490	27	82	62	16	53	24	6
2000	6	1,144	497	29	77	63	26	105	34	4

Source: based on Eurostat data.

Since 1995 Gabon has established sawmilling facilities, however, exports of sawn-wood are relatively modest and are directed primarily to the Italian market ( Table 63).

**Table 63 Gabon - Sawnwood imports from Gabon**

Year	Sawnwood imports from Gabon ' 000 m <sup>3</sup>									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	0	0	1	0	0	0	0	2	0	1
2000	3	1	6	0	0	17	0	4	5	0

Source: based on Eurostat data.

Since 1995 Gabon has developed veneer production facilities, though the quantities exported remain modest, the principal market being France (Table 64).

**Table 64 Gabon - Veneer sheets imported from Gabon**

Year	Veneer sheet imports from Gabon ' 000 m <sup>3</sup>									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	0	0	0	0	0	0	0	0	0	0
2000	0	0	31	2	0	3	1	4	0	0

Source: based on Eurostat data.

Plywood, like other semi-processed products, is exported in modest quantities. In contrast to veneer and sawn wood exports, the quantity exported between 1995 and 2000 has decreased (Table 65).

**Table 65 Gabon - Plywood imported from Gabon**

Year	Plywood imports from Gabon ' 000 m <sup>3</sup>									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
95	1	0	19	0	0	1	3	0	0	0
2000	0	0	9	0	0	6	0	0	0	0

Source: based on Eurostat data.

## INTERNATIONAL – OTHER SOURCES

### Estimates of Illegal Logging

Table 65 is based on a comparison of log import (ATIBT/SEPBG) and export statistics (Eurostat). The data indicates that trade with Spain and China is underreported by 21% and 11% respectively. However, the wide variation in the level of unaccounted trade, from 72% for Spain during 2000 to 37% for the Netherlands during the same year suggests discrepancies in data collation or measurement between the exporter and importer. Indeed, even for the same country, the level of variation is considerable. In the case of Spain in 1998, the exporter's reported volume was 12% more than the importer's; by 2000 the importer's figure was 72% more than the exporter's. A comparison of the

average may be more reliable than a country to country comparison. The average level of unreported trade over the three year period from 98-00 for all importing countries is surprisingly low at 2%.

**Table 66 Gabon - Percentage of trade unaccounted for**

Year	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	Average
1998	N/A.	30%	11%	-1%	22%	-12%	-12%	-8%	-12%	N/A.	2%
1999	N/A.	-1%	-9%	-17%	-29%	0%	8%	2%	4%	N/A.	-5%
2000	N/A.	5%	-1%	31%	6%	8%	-37%	-9%	72%	N/A.	9%
<b>Average</b>		11%	0%	4%	0%	-1%	-14%	-5%	21%		2%

Source: based on Eurostat / ATIBT/SEPBG data.

A similar analysis of bilateral trade (for 1999), undertaken by ITTO (see Table 64), also displays high variation, with both negative and positive values. The overall discrepancy for 1999 is similar for both sets of data.

Other estimates of the level of unaccounted trade are considerably higher than the estimates based on a comparison of bilateral trade data. This casts doubt on the reliability of this method of analysing unaccounted trade for Gabon.

**Table 67 Gabon - Log imports m<sup>3</sup> (1999) for selected countries importing from Gabon**

	China	France	Italy	Portugal	Spain	Total
<b>Exporter</b>	924175	521432	63135	98947	22125	1629814
<b>Importer</b>	895378	441996	68827	119184	24715	1550100
<b>Unaccounted</b>	-28797	-79436	5692	20237	2590	-79714
<b>% unaccounted</b>	-3%	-15%	9%	20%	12%	-5%

Source: based on ITTO, 2000.

According to the Ministry of Water and Forests (quoted in Forests Monitor 2000), the sustainable annual harvest is 2 million m<sup>3</sup>. In 1996 total exports amounted to 2.3 million m<sup>3</sup>, increasing to 2.7 million m<sup>3</sup> in 1997. Following the Asian economic crisis in 1998, log exports dropped to 1.7 million m<sup>3</sup>. However, the following year exports increased to 2.3 million m<sup>3</sup>.

## ANALYSIS

Gabon is currently undergoing a period of transition as new legislation has been developed, but supporting regulations have yet to be finalised. Many stakeholders, particularly in the private sector, are unsure of their current status and this uncertainty may have unpredictable consequences.

The Government appears to be aware of the important role the private sector can play in fostering further sustainable development of the forest sector. Indications are that there is sufficient political will to carry through many of the required measures to support the new policy framework that is broadly supportive of SFM.

Following the expiry of existing permits for the logging of Okoumé rich forests in the country's western region, many of the larger companies in Gabon have been concerned to ensure the long term security of their timber supplies. This has encouraged companies to improve forest management standards in an effort to persuade the Government to extend their permits and allocate additional harvesting rights in the remainder of the forest resource. Once companies have secured long-term access rights to forest resources, the Government must ensure that they continue to improve management practices. This is likely to require increased monitoring, as the incentive factor will have disappeared.

There are fewer issues regarding the participation of local stakeholders in forest management in Gabon compared to most other countries in the region, as the population density near many concessions is low. This should speed the process of preparing management plans as there may be no other user rights that need to be considered.

Although decentralisation is an important issue for effective forest management in other parts of central Africa, this is not a key issue due to Gabon's small size and the predominately-urbanised population. The World Bank PTE project has already assisted enforcement efforts by investing in transportation and equipment for the provincial administration.

Most data on the forest sector in Gabon is provided by SNBG (Société Nationale des Bois du Gabon) and SEPBG (Société d'Exploitation des Parcs à Bois du Gabon). This may result in a conflict of interest, as private companies administer SNBG and SEPBG.

## WINNERS AND LOSERS

Winners:

- ♦ Private sector through low cost of accessing and harvesting the forest resource.
- ♦ SNBG who retain their dominant position in the market for higher value timber.

Losers:

- ♦ Government and Gabonese society as a whole who do not obtain a sufficient share of revenue from the forest resource.
- ♦ Government who have inadequate sources of data for effective policy development and sector regulation.

## COMMENTARY – POLICY BRIEFING NOTE

This policy-briefing note has been made in the context of a review of regional policies on forest law enforcement in Africa. The aim is to assess common problems and to devise a common approach, rather than undertake a review in detail for each individual country. This note therefore summarises the country issues described and develops some key ideas that may be regionally relevant in the context of addressing the issues of poor forest governance.

Gabon has extensive forest resources and in comparison with the region as a whole has a low population density concentrated in urban centres. Forests cover 85% of the land and forest products are the second largest export, generating 13% of the foreign exchange.

The official estimate of the sustainable level of timber production is 2 million m<sup>3</sup>, although corroborating research data is lacking. If the forests are assumed to be as productive as they are in Cameroon, sustainable forest production could be as high as 5 million m<sup>3</sup>. Government estimates that production should reach this level within the next ten years.

Gabon is Africa's largest log exporter with only 15% of the log production being processed in country. This is expected to grow to 50% within 5 years. Gabon relies heavily on one main species (Okoumé) and one additional species (Ozigo) for 70% of its exports. The Okoumé zone will have been completely logged at least once within the next 10 years.

The Government has commenced the process of creating 3.6 million ha (13% of the land area) as protected areas although there may be some inconsistencies, as some areas scheduled for protection have been granted as timber concessions.

In 2001, a new forest policy and accompanying legislation was introduced. The legislation makes provision for the establishment of community forests adjacent to villages and transportation routes. Forest management plans for concessions are compulsory. By the end of 2001, there were four concession management plans approved, five plans being developed and preparations being made in a further 18 concessions which in total will cover an area of 6 million ha.

From the above it is clear that Gabon's forest sector is an important part of the economy and is progressing towards improvements in forest management. However, there are some issues that still need to be addressed:

- ♦ The Ministry of Forestry (Ministère de l'Economie Forestière) is responsible for forest policy, forest management and planning and enforcement. The Ministry has severe manpower and resource constraints to properly oversee and monitor the sector.
- ♦ A partially privatised former state agency, Société Nationale des Bois du Gabon (SNBG), has a compulsory, near monopoly on international sales of Okoumé and Ozigo. SNBG also collects export taxes for government, checks minimum diameters and compiles export statistics. This monopoly, whilst providing some control on the sector, will not enhance free trade and permit businesses to obtain the best markets for their products. With the increased emphasis on other species that will occur in the coming years, the relevance of such an organisation must be

- questioned – creation of complete or even partial monopolies provides more opportunities for corruption and price fixing.
- ♦ The forest taxation system in Gabon is complicated as there are as many as 12 different types of tax. It would appear that the overall level of rent/tax/royalty is set too low. Data on rent capture is poor.
  - ♦ Uncontrolled hunting in Gabon is a problem, although not on the scale of other countries in the region. It does, however, require management and control.
  - ♦ Currently it is not possible to make a reliable estimate of illegal logging occurring in Gabon, as there are insufficient comparable datasets.
  - ♦ Although the forestry legislation has been recently revised, supporting and subsidiary legislation is still urgently required.
  - ♦ There is currently a system (fermage) which although apparently illegal is widespread and tolerated. Fergage permits the selling on of forest rights from the owner to third parties. This allows the appropriation of timber rights by well-connected and influential people who then sell on the rights to genuine timber producers. This has the following disadvantages:
    - As rights can be sold on, it implies that the level of forest rent is too low and that the state is not receiving the full economic value for its resource. An undervalued resource in turn has a number of negative impacts:
      - users of the resource receive windfall profits at the expense of the rest of society;
      - it creates opportunities for corruption;
      - it does not encourage efficient utilisation of the resource; and,
      - it can cause inappropriate allocation of scarce investment funds.
    - Fergage rights are frequently for short periods that will prevent even the best harvesting operations from investing in the forest management planning and infrastructure required for sustainable forest management.
    - If the level of rent/taxation/royalties were set at the correct level there would be considerably less incentive for this practice to occur.

Based on these issues the following course of action is suggested:

- ♦ Review the current taxation system and set up a simpler system that:
  - provides a fair return to society for the use of its timber;
  - is fair to producers;
  - is easy to implement, collect and audit;
  - is independently monitored; and
  - is transparent with the results published.
- ♦ Implement a more robust system for recording production and transport of timber throughout the country. There should preferably be independent third party verification with results summaries regularly published and posted on the Internet. Computerised databases with invoices, accounts and statements for each producer should be established and the data generated used to ensure efficient collection of forest revenues. Again, this system should be subject to independent audit. The investment required for these systems would be covered through the improved collection of forest revenues.
- ♦ Once the basic log tracking system described above has been instituted, certificates of legal origin could be issued by an independent, internationally recognised certification organisation to accompany exports. This is increasingly required by importers (see the accompanying report on the Legal Origin of Timber) particularly for the supply to high value markets in Europe and the United States.
- ♦ Systems for managing the sustainable production of game meat needs urgent research and attention. Once sustainable estimates of production have been set, a system for monitoring and control needs to be devised. This must be closely connected to any community forestry programme with significant awareness raising and education campaigns. Protected areas need to be respected by the local populations. There must be benefit sharing of the forest resources but at the same time an understanding of sustainability.



- ♦ The system of fermage should be reviewed and the practice ceased, although increased rent could render this system obsolete.

## APPENDIX 1: STATISTICS FOR GABON 1991-2000

Log imports from Gabon for selected countries 1991-2000 ('000 m<sup>3</sup>)

Country	Gabon - logs									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	6	4	7	9	11	9	9	9	4	6
China	0	36	110	175	318	695	1,024	593	895	1,144
France	447	466	428	442	490	402	425	482	473	497
Germany	21	25	19	18	27	11	16	20	17	29
Greece	77	68	78	92	82	65	71	77	41	77
Italy	54	54	45	43	62	36	45	74	63	63
Netherlands	20	23	12	12	16	17	28	26	36	26
Portugal	127	102	67	59	53	52	74	105	101	105
Spain	28	13	10	21	24	14	22	34	23	34
UK	6	4	4	4	6	5	7	4	4	4

Sawnwood imports from Gabon for selected countries 1991 -2000 ('000 m<sup>3</sup>)

Country	Gabon - sawn wood									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	0	0	0	0	0	1	1	3	3	3
China	0	0	27	0	0	0	0	3	0	1
France	0	0	0	0	1	2	3	3	4	6
Germany	0	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	1	4	6	17
Netherlands	0	1	0	0	0	0	0	0	1	0
Portugal	0	2	0	0	2	1	3	4	3	4
Spain	0	0	0	0	0	1	3	5	3	5
UK	0	1	1	0	1	2	3	0	0	0

Veneer sheet imports from Gabon for selected countries 1991-2000 ('000 m<sup>3</sup>)

Country	Gabon - veneer sheet									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	0	0	0	0	0	0	0	0	0	0
China	0	0	0	0	0	0	0	0	0	0
France	0	0	1	0	0	1	11	11	15	31
Germany	0	0	0	0	0	0	0	0	1	2
Greece	0	0	0	0	0	0	0	0	0	0
Italy	0	0	0	0	0	0	0	0	1	3
Netherlands	0	0	0	0	0	0	0	0	1	1
Portugal	0	0	0	0	0	0	0	0	0	4
Spain	0	0	0	0	0	0	0	0	0	0
UK	0	0	0	0	0	0	0	0	0	0

Plywood imports from Gabon for selected countries 1991-2000 ('000 m<sup>3</sup>)

Country	Gabon - plywood									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000

<b>Belgium</b>	0	0	0	0	1	1	1	0	0	0
<b>China</b>	0	0	0	0	0	0	0	0	0	0
<b>France</b>	20	18	17	17	19	20	17	16	23	9
<b>Germany</b>	1	0	0	0	0	0	0	0	0	0
<b>Greece</b>	0	0	0	0	0	0	0	0	0	0
<b>Italy</b>	2	2	1	1	1	2	2	3	5	6
<b>Netherlands</b>	0	0	0	1	3	1	0	0	0	0
<b>Portugal</b>	0	0	0	0	0	0	0	0	0	0
<b>Spain</b>	1	1	0	0	0	0	0	0	1	0
<b>UK</b>	0	0	0	0	0	0	0	0	0	0

**Total wood product imports from Gabon for selected countries (sawn  
wood+logs+veneer+plywood) 1991-2000 ('000 m<sup>3</sup>)**

Country	Gabon - total									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Belgium</b>	6	4	7	9	12	11	12	11	7	8
<b>China</b>	0	36	137	175	318	695	1,024	596	895	1,146
<b>France</b>	467	483	446	458	510	426	455	513	515	543
<b>Germany</b>	22	25	19	18	27	11	16	20	19	31
<b>Greece</b>	77	68	78	92	82	65	71	77	41	77
<b>Italy</b>	56	56	46	44	63	38	48	80	75	88
<b>Netherlands</b>	20	24	12	13	19	19	28	26	38	27
<b>Portugal</b>	127	103	67	59	54	54	77	110	104	114
<b>Spain</b>	28	14	10	21	24	16	25	39	26	39
<b>UK</b>	6	5	5	4	7	7	9	4	4	4

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## GHANA

### 6 BACKGROUND

#### GENERAL

The forest sector of Ghana is well studied and of substantial size, officially contributing 470 billion cedis (US\$180 million) out of a total GDP of 20,580 billion cedis (US\$7.8 billion), i.e. 2.3% of the GDP in 1999. In the same year, logging made up about 20% of this contribution: primary and secondary processing activities (sawing, veneer and plywood manufacturing) accounted for about 50%, and the various tertiary operations 30%. These estimates exclude illegal chainsaw activities, which are substantial, as discussed below.

Exports of wood products in 1999 contributed US\$ 179 million (8%) to Ghana's foreign exchange earnings of US\$ 2,117 million. In 1999 the industry employed approximately 104,000 people.

The government emphasis on building democratic institutions and the anti-corruption policy of zero tolerance are regarded as welcome signs in implementing good governance.

#### THE FOREST SECTOR

##### The Economics of the Forest Sector

An economic study, entitled "Ghana Wood Industry and Log Export Ban study" was carried out in 2001 for the Forestry Commission by a team headed by G. Birikorang. It surveyed the economics of the forest sector as a whole and analysed the potential effects of major policy changes, such as the possible removal of the current log export ban, imposed in 1995, and the ban on producing sawn wood with chainsaws. This study uniquely presented a detailed survey of a whole range of forestry statistics for one particular year, namely 1999. No work of similar breadth and detail has since been carried out. It has been assumed that the economic structure of the wood industry has not changed significantly over the past two years, although updated statistics for 2000 and 2001 have been presented where appropriate.

Numerous studies covering human resources, support for the poor, management guidelines, conflict management and codes of conduct have been carried out within the context of FRMP (Forest Resource Management Project) and NRMP (Natural Resource Management Project). Such studies need to be followed up with the implementation of guidelines and best practice at the appropriate level. Conservation groups have called for the use of Environmental Impact Assessments (EIAs) to record the effects of logging, together with the use post-harvest surveys to guard against environmental damage.

##### Forest Management

Timber Utilisation Contracts (TUCs – i.e. concessions) are allocated centrally to companies wishing to exploit the forest resource. Concessionaires pay stumpage for the timber volume they fell, and an annual rent per hectare. There are plans to change this system to an auction process, so that the selection of concessionaires is more transparent, based on an overall payment package. This would improve the present situation of discretionary awards of concessions by the Forestry Commission. It would also avoid the problem of continual depreciation of stumpage fees due to slippage of the cedi against the dollar.

##### Community Involvement in Forest Management

At district level, Community Forest Management Committees (CFMCs) form the link between the Forestry Commission, the timber industry and local landowners. Their purpose is to provide a forum to discuss forest management, both inside and outside Forest Reserves. The CFMCs are intended to promote sustainable management of the resource at local level.

Recent well-publicised grass-roots initiatives, for example the encouragement of forest nurseries to provide seedlings for plantation establishment, have raised awareness of sustainable forest management issues.

NGOs often work co-operatively with local communities, sometimes more easily than with government agents, particularly since the recent change of government, as NGOs are not seen as a political threat. For example, the NGO, Conservation International, has been contracted by Government to carry out certain functions in Globally Significant Biodiversity Areas (GSBAs), including forest inventory, strategy development for eco-tourism and the development of forest-based livelihoods.

Birikorang (2001) carried out an analysis of how money is actually allocated in the timber industry from the value of the tree (the "potential stumpage"). This potential stumpage figure includes not only concession rent and stumpage payments, but also Social Responsibility Agreement payments (social contributions to communities by concession holders), and money paid informally both to and by local people in the illegal logging sector. Arriving at a national total of 34.2 billion cedis (US\$ 12.2 million in 1999), Birikorang calculated that only 11% of the officially paid amount (i.e. excluding informal payments) went to the resource owners (traditional councils and chiefs). When informal payments (for illegally cut logs) are included, a total of 42% is estimated to have gone to individuals and/or resource owners.

Birikorang concluded that too much of the total value of the standing tree is claimed by the processing industry, and that other stakeholders are insufficiently rewarded by the current system, particularly the resource owners (i.e. the rural communities themselves). This situation contributes to illegal harvesting by reducing the value that local communities receive from the standing timber resource, encouraging liquidation of their assets as opposed to sustainable management.

It can therefore be seen that it is only through the workings of the illegal sector that local communities, the owners of the resource, receive an appreciable proportion of the tree value. This represents a strong inducement for local communities to collude in illegal logging. There is thus a need to ensure that better benefits go to farmers to secure protection of the standing tree resource; together with an improved awareness of the environmental values of forest: water quality, wildlife etc.

Local communities are not always aware of their rights, and in particular the value of timber and the mechanism of the Community Forest Management Committees is expected to lead to improvements in this area. A mass communication/awareness campaign would be one way to try to transform the perception of local people towards a more stewardship-based approach. This could go alongside increased payments to local communities for the use of their natural resources. Community-based organisations (i.e. local NGOs) would have a role to play in extension and dissemination of these messages.

### **Forest Certification**

A national certification scheme is in course of development. A Technical Committee of stakeholders was set up in 1999/2000 as part of the EU-funded certification project, and numerous workshops were held, in which work was done on, among other things, developing Principles & Criteria and piloting a log-tracking scheme. However, the project is not actively proceeding because funding is not available, despite hopes that the initiative will re-start in the near future. The certification project was intended to build capacity in sustainable forest management and log tracking. If certification catches on, independent auditing and verification capacity will be required to verify adherence to the Principles and Criteria, and to enable logs to be tracked from the forest to the sawmill.

### **STAKEHOLDER ANALYSIS**

Stakeholder groups have been studied in numerous papers sponsored through the Forest Sector Development Project – Phase 2 (FSDP2). Five groups have been recognised:

**Table 68 Ghana - Major forest sector stakeholders**

Government	Ministry of Lands and Forestry, the Forestry Commission and its divisions (TIDD, FSD, WD); district assemblies
Timber industry	Ghana Timber Association (GTA), Ghana Timber Millers Organisation (GTMO). There are many 'vertically-integrated' companies that carry out logging operations as well as processing.
Resource owners	Chiefs, who own the land of the Forest Reserves as well as OFR areas. Local assemblies advise them.
Local communities	Farmers (with long-term rights to communal land) Tenant farmers: no long-term rights to land;
Civil society	Trades Unions, NGOs, and universities. Civil society is often poorly represented, or given a token representation

Major NGOs involved in the forest sector include: Conservation International, Friends of the Earth, WWF, IUCN, the Institute of Cultural Affairs (ICA), ISODEC and many others. NGO involvement and roles have been the subject of a study under the FRMP. Other NGOs, particularly the Ghanaian CBOs are generally not well funded.

Under procedures introduced during the institution-building projects, the FRMP and the current NRMP, mechanisms exist to involve stakeholders at many levels. There are national & local participation systems, with committees and working groups at national and local levels, from the Parliamentary Subcommittee on Lands and Forestry, through national and sectoral fora to Community Forestry Management Committees at district level. For example, the Collaborative Forest Management Unit, based in Kumasi, is a forum for stakeholders to debate policy issues. At a higher level, NRMP has its own Programme Co-ordinating Committee, where inter-sectoral issues are discussed.

There are also sectoral committees for specialists in different environments, for example for Savannah Management in Tamale, and for High Forest in Kumasi, where representatives of different land-use interests are brought together, including representatives from other parts of the government sector. Within the public sector, a broad vision of shared responsibilities exists, although traditional mistrust between ministries and departments is still a problem.

In spite of these structures, stakeholders can still become sidelined as a result of policy-makers only paying lip service to their participation. The worst represented stakeholders are the farmers, especially tenant farmers, who have no long-term land rights, and who have no co-ordinated voice even at local levels.

Involvement with other government sectors is addressed by the NRMP: other related ministries, such as Agriculture, Mines, Energy, Environment and other bodies such as FORIG (the Forest Research Institute), are involved in the NRMP Project Co-ordination Committee. The Ministry of Lands and Forestry (MLF) is the lead ministry. MLF is currently reviewing land policy, although there is reported to be little consensus with the Ministry of Agriculture.

Wildlife Management has been moved into the Forestry Commission (with FSD and TIDD) as the Wildlife Division, a step intended to increase the priority and resources it receives.

Progress in arranging collaboration and partnerships has been made under NRMP. Working groups have been assembled for numerous initiatives, e.g. for the Ghana Wood Industry and Log Ban Study, or the Technical Committee on Certification. Much more attention to capacity building, especially at the levels of policy implementation, was called for by all those interviewed.

There is no shortage of timber industry investment, since sawmill capacity is several times the legal harvest, thanks in part to the log export ban.

A gradual change to more market-based instruments is envisaged, with the proviso that sufficient resource protection is in place to stop over-exploitation of the resource, for example:

- ♦ More transparent bidding for concessions. Details of the mechanisms for bidding are still to be finalised, for example, the basis on which companies will pay;
- ♦ Possible removal of the log export ban (imposed 1995 after the introduction of the export tax in 1994) and the chainsaw ban (both recommended by Birikorang); and

- ◆ Introduction of certification, a market-based incentive to improve forest management.

Birikorang (2001) concluded that the government is losing money by continuing the log export ban, because domestic prices for logs are lower than international prices; however, the government fears overexploitation of the resource if market forces are allowed free rein.

## LEGISLATION AND POLICY

### The Land and Forest Laws

The recent change of government in Ghana has brought a new emphasis on plantation development, and a more market-based approach to the allocation of concessions.

The Timber Resources Management Act (Act 547) is the main piece of legislation that governs the use of forest resources. Forest policy dates from 1994 but is still regarded as broadly valid. However, strategies to deliver policy are being changed: progress continues to be made in legislation, for example to allow more transparent bidding for timber concessions. The formalisation of systems to implement and improve forest policy and standards has been addressed under NRMP, but there are still areas where measures are contradictory. Methods for setting priorities within policy are a difficult area that continues to be addressed under the NRMP decision-making processes.

There can be tensions between the Forest Services Division and district assemblies at local level. Strategic planning at the district level is being brought in under the FSDP2 programme of the NRMP.

### Land Tenure and Forest Ownership

Chiefs, who are advised by their traditional councils, own most of the land in Ghana. There is a network of Forest Reserves, dating from colonial times, managed on the chief's behalf by the Forestry Commission. Timber is harvested from both inside and outside forest reserves. Outside the forest reserves, the chiefs control the allocation of trees for harvesting, and although an inventory process is required of the trees to be cut, it is often rudimentary. Inside the forest reserves, harvesting is better controlled, and trees are individually marked for harvest after a stock inventory process controlled by the Forestry Commission.

### Enforcement

Enforcement of forest regulations is the responsibility of the Forestry Commission, through the Forest Services Division (FSD) and the Timber Industry Development Division (TIDD). FSD are responsible for management, inventory and harvesting of the resource, including measuring trees after they have been felled, and monitoring how much royalty should be paid. Royalties are calculated on the whole volume of the harvested trees, irrespective of how much is actually extracted. TIDD monitor the transport and utilisation of logs and other wood products, and exports of processed wood. They man road checkpoints and send teams into log yards to check that logs are correctly marked and have not been transported illegally.

## INSTITUTIONS

The public sector of the forest industry has undergone considerable reform in the past three years. The Ministry of Lands and Forestry is responsible for policy development, while the executive agency is the Forestry Commission. The latter comprises three divisions: the Forestry Services Division (FSD), the Timber Industry Development Division (TIDD) (formerly comprising the Forest Products Inspection Division (FPID) and the Timber Export Development Division (TEDD)) and the Wildlife Division (WD). Institutional development has been taking place for many years with donor support, and a range of institutional structures are in place.

The Divisions of the Forestry Commission are funded largely by royalty payments, and a 2% levy on the value of exports.

Donor finance for institutional strengthening is well developed: a wide range of donors (including the WB, DFID, JICA and DANIDA) fund the NRMP. There remains the need to ensure that institutions and structures persist and continue to be effective after donor funding ends. Private investment is set to play a role in large-scale commercial plantation development.



There have been many reviews and phases of policy development in the last few years within the framework of the Forest Resources Management Project (FRMP), and, currently the NRMP. Within the NRMP, institutional reform is being carried out through the Forest Sector Development Project, Phase 2 (FSDP2). Over the years, these projects have commissioned reports and strategy reviews in a whole range of topics related to the forestry sector; from community involvement at village level to major policy directions.

## STATISTICS

### National – Official

#### *Production*

Forest sector information is collected in large quantities but is not always held in easily accessible and usable formats. Information systems used by FSD and TIDD are improving, although they still rely on copying log measurements by hand from one form to another. Management Information Systems at the Forestry Commission have been significantly improved under FSDP2. Information can usually be found, but may be difficult to track down and collate, especially at local level.

The master version of the forestry database is at Kumasi (Ashanti Region), but there are versions in the other five regions involved in timber production; Western (Takoradi), Eastern, Central, Volta, and Brong Ahafo Regions. Data from these regions is transferred to the main database at Kumasi on a monthly basis.

The Annual Allowable Cut is set annually by the FSD as a target for national forestry production. It has had a nominal value of 1,000,000 m<sup>3</sup> for the past few years until 2002 when it was raised to 1,400,000 m<sup>3</sup> to accommodate a higher demand for logs. The AAC is divided between the regions of the country and thence between individual concession holders at district level.

**Table 69 Ghana - Production of logs 1999 - 2001**

Production volumes (m <sup>3</sup> )	1999	2000	2001	2002
Annual Allowable Cut FSD pers. comm.	1,000,000	1,000,000	1,000,000	1,400,000
Volume of whole trees cut TIF forms (FSD)	1,470,000	*1,450,000	*1,245,000	
Volume of logs recorded LMC forms (TIDD)	1,102,000	964,000	**1,048,000	
Legal logs from Forest Reserves	589,000	515,000	N/A	
Legal logs from "Off Reserve"	513,000	449,000	N/A	

\*Birikorang, 2001; estimate based on Birikorang's study, updated for 2000 and 2001.

\*\* Annual total estimated from January-September figures.

TIF forms record the results of measuring the whole felled tree, and are the basis for royalty calculations. LMC (Log Measurement Certificate) forms record individual logs harvested, and are monitored at road checkpoints and sawmill log yards. It can be seen that 20-30% of the timber volume of trees is not utilised as logs, but normally left in the forest.

#### *Revenue*

Overall revenues for the forest sector in 1999 were recorded as follows by Awudi & Davies (2001).

Table 70 Ghana – Forest sector revenue in 1999

	Revenue	'000s of 1999 cedis	US\$ equivalent
Reserves	Compensation payments	2,180	824
	Fines	76,821	29,022
	Grants in aid	7,024	2,654
	Misc. (inspections, sale of abandoned logs)	952,126	359,700
	Permits: major forest produce	107,271	40,526
	Permits: minor forest produce	22,122	8,357
	Concession rent	840,138	317,393
	Royalties from concessions/TUCs	9,979,318	3,770,048
	Sale of minor forest produce	9,722	3,673
	Sale of major forest produce	279,483	105,585
	Silvicultural fees	3,973	1,501
	Taungya fees (agroforestry)	28	11
Off-reserves	Royalties from concessions/TUCs	6,007,581	2,269,581
	Sale of minor forest produce	4,387	1,657
	Sale of major forest produce	183,495	69,322
	M/bike and bike refunds	1,557	588
	Misc.	1,030,954	389,480
	Processing fees	250	94
	Registration fees (property mark)	155,869	58,885
Others	Export levy (FPIB)	8,729,668	3,297,948
	Export levy (TEDB)	4,272,878	1,614,234
	Exporters' registration fees	20,037	7,570
	Retailers' registration fees	3,370	1,273
TOTAL		32,690,252	12,349,925

The major sources of revenue are the stumpage fee royalties (US\$ 6 million – see below) and the 3% levy charged on the value of all exported products (US\$ 4 million). Data on the collection rates of other forest fees is poor, but amounts are generally not significant.

#### *Wildlife*

Bush meat is a popular form of protein in Ghana, but increasingly hard to obtain as pressure on the resource is threatening the existence of many remaining species. The annual volume of bush meat harvested in Ghana in 1998 was estimated at 385,000 tons, a very high figure compared to the volume

of meat production from domestic animals (38,500 tons). The value of bush meat consumed was estimated to be US \$350 million, however, only a small proportion (92,000 tons) was traded in markets, the majority of the harvest being consumed by the hunter and his family and friends, given away, or bartered. Some bush meat is exported to neighbouring countries, Europe or America.

The numbers and sizes of animals caught have suffered rapid decline in the last 30 years as hunting pressure has intensified. The most popular species are grass cutters, duikers, bushbuck and porcupine. The report estimates that there may be 270,000 hunters operating in the country and clearly this situation cannot be regarded as sustainable. There are no controls on the hunting of wildlife, except in protected areas, but even here, observance is regarded as minimal and there is no mechanism for reporting what hunters actually catch as a result of their permit. Permits are required in order to trade bush meat, but district assemblies raise very little money in this way, as the law is widely ignored. Around 1,000,000 cedis (US\$ 600) were raised per annum in the whole country during the period 1991 – 1996.

Revenue from visitors to National Parks and other conservation areas in 1999 was 220 million cedis (Awudi & Davies, 2001), equivalent to around \$85,000.

The contribution of the wildlife resource to the formal national economy is thus negligible, and in any case, unlikely to last much longer even at this level, unless strenuous efforts to achieve sustainable management of bush meat are undertaken. However, problems associated with effective enforcement of even the current lax regulations are so severe, that it is difficult to see how the situation can be improved within any reasonable budget.

### *Enforcement*

A database of cases brought to court in 2001 for breaches of the forest regulations is held at the FSD. Records had been assembled from data sent in from the regions.

A total of 115 cases were recorded, broken down by region (see Table 70).

**Table 71 Ghana – Documented contraventions of the forestry regulations**

<b>Region</b>	<b>No. of cases</b>	<b>Outcomes</b>
Ashanti Region	40	2 prison sentences, 28 fines recorded totalling 32.8 million cedis
Western Region	1	
Eastern Region	15	13 fines recorded, totalling 25.5 million cedis
Greater Accra	44	47 fines recorded, totalling 117 million cedis
Central Region	15	15 fines recorded, totalling 32.5 million cedis

Some cases involved more than one defendant; hence the number of fines may exceed the number of cases. Note also that in some cases no details of the outcome were available.

Over the year, total fines recorded amounted to 207.8 million cedis (approximately \$28,000 at current exchange rates), although this list is not exhaustive. Typical fines were of 2 million cedis, and may have also included compensation payments to the FSD, or payments in lieu of confiscation of vehicles.

The lumber being cut or transported was usually confiscated by the authorities, and sold off. In Greater Accra, the likely market for the lumber, typical values quoted for lumber loads were around 400,000 cedis (US\$ 60), although in Ashanti Region the values were larger, around 2 million cedis (\$300), reflecting larger loads of timber intercepted nearer the source.

Prison sentences of nine months to one year were imposed in cases where defendants defaulted on their fines.

### **National – Other**

### **Domestic consumption 1999**

Mill production and domestic consumption is not recorded by official government agencies but was estimated from the figures in the survey conducted by Birikorang et al. (2001).

**Table 72 Ghana – Domestic processing and consumption of wood products, 1999**

	Logs used (m <sup>3</sup> )	Product recovery and distribution			% exported	Recovery rate (%)
		Domestic sale (m <sup>3</sup> )	Export (m <sup>3</sup> )	Total (m <sup>3</sup> )		
Conversion to lumber	1,300,000	196,286	249,903	446,189	60	34
Processed lumber (mouldings)			19,110			
Rotary veneer manufacture	545,000	60,774	67,367	128,141	53	51
Plywood manufacture		123,760	25,001	148,761	17	
Sliced veneer manufacture	178,000	36,959	33,477	70,436	48	40
<b>Total primary &amp; secondary</b>	<b>2,024,000</b>	<b>398,670</b>	<b>394,858</b>	<b>793,527</b>	<b>55</b>	<b>39</b>
ILLEGAL Production of chainsaw lumber	1,696,000	457,920		457,920		27
Tertiary production	337,000	293,606	3,400	297,006	1	
Miscellaneous exports			34,881		100	
<b>Total wood processing</b>	<b>3,720,000</b>	<b>*856,590</b>	<b>433,139</b>	<b>1,251,447</b>	<b>55</b>	

\* Total lumber production.

The recovery rate of timber from logs supplied to sawmills is around 34%. Higher figures have been claimed in the past (e.g. >50% in 1995), but it is likely that this was a reflection of the volume of illegal logs entering sawmills (and not declared) rather than any decline in recovery since that time.

It is assumed that all the illegally produced chainsaw timber went to the domestic market; recovery rates there, as would be expected, are even lower.

### International – Consumer Countries

Germany is Ghana's main wood product trading partner in the EU. The total volume of wood product trade between Ghana and the EU has declined substantially between 1995 and 2000, from 335,000 m<sup>3</sup> to 242,000 m<sup>3</sup>. Only France and Italy have increased their imports over this period.

**Table 73 Ghana – Selected countries total timber imports from Ghana in 1995 and 2000**

Year	Timber imports (sawn wood+logs+veneer+plywood) from Ghana ' 000 m <sup>3</sup>										
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	Total
1995	5	24	32	149	0	39	16	6	27	37	335
2000	21	1	45	73	2	49	9	1	15	25	242

The reduction in the volume of logs imported between 1995 and 2000 is a consequence of the log export suspension in 1995.

**Table 74 Ghana – Selected countries log imports from Ghana in 1995 and 2000**

Year	Log imports from Ghana ' 000 m <sup>3</sup>										
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	Total
1995	0	24	2	9	0	0	0	2	10	3	49
2000	5	1	0	0	0	0	0	0	0	1	8

Excepting France and Italy, sawn wood imports declined substantially for most countries between 1995 and 2000.

**Table 75 Ghana – Selected countries sawnwood imports from Ghana in 1995**

Year	Sawn wood imports from Ghana ' 000 m <sup>3</sup>										
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	Total
1995	3	0	30	133	0	28	16	4	16	31	<b>260</b>
2000	9	0	42	63	0	30	8	1	8	19	<b>179</b>

Total veneer sheet imports for all selected importing countries increased by 54% between 1995 and 2000.

**Table 76 Ghana – Selected countries veneer sheet imports from Ghana in 1995 and 2000**

Year	Veneer sheet imports from Ghana ' 000 m <sup>3</sup>										
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	Total
1995	3	0	0	8	0	12	0	0	1	3	<b>26</b>
2000	3	0	2	8	1	17	0	0	7	3	<b>40</b>

Ghana's plywood production was negligible in 1995. By 2000, small quantities were being exported to several European countries.

Table 77 Ghana – Selected country's plywood imports from Ghana in 1995 and 2000

Year	Plywood imports from Ghana ' 000 m <sup>3</sup>										
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	Total
1995	0	0	0	0	0	0	0	0	0	0	0
2000	4	0	1	2	1	2	1	0	1	2	14

### International – Other Sources

Export statistics are gathered by TIDD and published in detail at quarterly intervals.

Table 78 Ghana – Main exports of wood products from Ghana, 1999– 2001

Product	2001			2000			1999		
	Volume (m <sup>3</sup> )	Value (\$ 000s)	\$/ m <sup>3</sup>	Volume (m <sup>3</sup> )	Value (\$ 000s)	\$/ m <sup>3</sup>	Volume (m <sup>3</sup> )	Value (\$ 000s)	\$/ m <sup>3</sup>
Lumber kiln-dried	142316	45373	319	143749	46522	324	124240	45870	369
Lumber air-dried	94185	29657	315	93280	29041	311	117137	42548	363
Sliced veneer	35402	29805	842	35560	28981	815	33198	29589	891
Rotary veneer	78311	18497	236	75059	18338	244	67368	18536	275
Boules air-dried	24411	6946	285	57117	17017	298	20477	5295	259
Boules kiln-dried	4145	1064	257	11514	2489	216	9906	2640	267
Plywood	53268	13498	253	46791	12085	258	25002	7495	300
Mouldings	33043	11489	348	22123	8552	387	17225	7631	443
Parquet flooring	2607	1899	728	2218	1567	706	2098	1779	848
Furniture parts	3399	7138	2100	2499	6464	2587	2720	7144	2626
<b>TOTAL</b>	<b>473975</b>	<b>165726</b>		<b>495397</b>	<b>172101</b>		<b>427897</b>	<b>169443</b>	

Due to the close co-operation between TIDD (formerly TEDD) and the customs department, and the fact that all wood exports are processed, it is unlikely that these figures are significantly inaccurate.

## ANALYSIS

### COMPARISON OF STATISTICS

Subtracting the volume figure in Table 79 from the figure in Table 78 gives an indication of the volume of logs exported that are unaccounted for in the official export statistics. This figure is expressed as a percentage of the import volume in Table 80.

Table 79 Ghana – Sawn wood exports 1999-2001 from Ghana to selected countries

Year	Sawn wood (kiln & air dried) from Ghana ' 000 m <sup>3</sup>										
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	Total

1999	9	2	34	42	1	19	9	4	12	17	<b>149</b>
2000	11	1	35	39	0	25	8	1	8	18	<b>146</b>
2001	12	2	25	46	0	24	6	0	7	16	<b>139</b>

Source: Timber Export Development Board.

**Table 80 Ghana – Sawwood imports 1999-2001 for selected countries from Ghana**

Year	Sawn wood Imports from Ghana ' 000 m3										
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	Total
1999	11	0	36	73	0	25	6	4	11	16	<b>182</b>
2000	9	0	42	63	0	30	8	1	8	19	<b>180</b>

Source: Eurostat .

**Table 81 Ghana - Difference between importer and exporter statistics for sawn wood (%)**

Year	Difference between importer and exporter statistics for Sawn wood										
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.	Total
1999	17%	N/A.	5%	42%	N/A.	25%	-55%	6%	-5%	-7%	18%
2000	-23%	N/A.	17%	38%	N/A.	17%	-5%	44%	1%	6%	19%

Source: Timber Export Development Board & Eurostat.

Overall, there is a discrepancy of 19% between importer and exporter figures, which suggests a significant level of illegal trade. However, the statistics for trade in sawn wood display a high level of variation between countries and years. This suggests that there are errors in the compilation of the figures. A more reliable indication of the extent of illegal logging comes from Birikorang's study. The following table includes estimates of illegal logging based on Birikorang's study (Birikorang, 2001).

**Table 82 Ghana - Production of logs 1999 - 2001**

Production volumes (m <sup>3</sup> )	1999	2000	2001
Volume of logs recorded LMC forms (TIDD)	1,102,000	964,000	**1,048,000
Estimated illegal industrial harvest (assumed to be from "Off Reserve" areas)	*922,000	†807,000	†876,000
Estimated illegal chainsaw harvest (assumed to be from "Off Reserve" areas)	*1,696,000	†1,484,000	†1,612,000
<b>Estimated total</b>	<b>*3,720,000</b>	<b>†3,255,000</b>	<b>†3,536,000</b>

(\*Birikorang, 2001; estimate based on Birikorang's study, updated for 2000 and 2001)

\*\* annual total estimated from Jan-September figures

Illegal logging in the formal (i.e. industrial sector) was estimated from the results of a wide survey of the industry in 1999, reported in Birikorang et al. (2001). Secondary and tertiary processors were asked to quantify their log and processed wood inputs, and their secondary and tertiary output volumes, from which it was possible to calculate their declared recovery rates. This allowed estimation of the volumes of illegal logs and illegal chainsaw lumber that they were using.

The bulk of the illegal operations are assumed to occur in off-reserve areas (i.e. outside Forest Reserves) because controls are much less well enforced there.

Illegal activity takes two forms: either logs that are supplied illegally to industrial sawmills (922,000 m<sup>3</sup> in 1999), or logs cut in the forest with chainsaws (contrary to the current ban on chainsaw operations) and supplied directly to the domestic market for tertiary processing (1,696,000 m<sup>3</sup> in 1999).

It can be seen that Birikorang's estimates for 1999 put the illegal log harvest (both that supplied to industry and that cut up by chainsaw) at around 2.6 million m<sup>3</sup>, more than twice the legal cut. The numbers have been scaled against the legally reported log harvest to give comparable total volume estimations for 2000 and 2001.

Other informal estimates have put the total sawmill capacity (and by implication overall production) even higher, at 5 million m<sup>3</sup> per year.

Birikorang et al. (2001) argue that the current log export ban, by protecting the domestic wood processing industry, encourages over-investment in the processing industry and therefore contributes to illegal harvesting by artificially boosting demand as owners try to keep their mills busy. One can see the effect of this in the raising of the Annual Allowable Cut in 2002 to 1.4 million m<sup>3</sup>.

## CONCLUSIONS

With an estimated annual turnover of more than US\$ 5 million, it is clear that the illegal logging sector provides many thousands of livelihoods in rural areas, which would be threatened by any effective crackdown on illegal activity. However as noted below, more than US\$ 30 million is being lost per annum as the national forest resource is squandered. In the long term, the money gained by more effective control of the industry could be used to encourage resource owners and local people to value their timber resources more highly, thus providing not only long-term employment in the industry but also other benefits such as opportunities for eco-tourism, more wildlife and better water quality. There is little chance of curbing the illegal cutting without reinvesting the extra money earned back into the rural economy.

## POTENTIAL LOST REVENUE

### Non-collection of royalties

Royalty (concession rent and stumpage fees) collection has been poor over the last 10 years.

Between 1990 and 1999, royalty collection was between 20% and 70% of the total expected from the official log production, typically around 50%, except in 1998 when it reached 160%, assumed to be a time when some of the backlog of payments was cleared.

Low stumpage collection rates are due partly to inadequate information systems, and partly to a climate of deference to the timber industry on the part of government agents. The deferment of stumpage payments, and a reluctance to chase non-payers, led to significant debts by the mid-1990s, since which time the situation has improved, partly through the involvement of a government debt collection agency.

### Royalty levels

Current average royalties, set in 1999, are shown in Table 82.

**Table 83 Ghana - Current Average Royalties**

Category	Charge US\$/ m <sup>3</sup>
Scarlet red star	\$24.63
Normal red star	\$8.62
Pink red star	\$3.94

The weighted average royalty per m<sup>3</sup> in 1999 was calculated to be 34378 cedis / m<sup>3</sup> (\$13.00).



A related problem is the lack of an effective mechanism to update stumpage rates in line with the falling exchange rate of the cedi against the US dollar. The US\$ was worth 326 cedi in 1990, 2647 cedi in 1999, and 7500 cedi in 2002, but stumpage rates have been updated only three times since 1990, the last time being in 1999. As the cedi is now (in 2002) worth less than half its 1999 value, this represents a huge loss of revenue to the state.

It is hoped that plans to “auction” concessions to the highest bidder, whereby concessionaires will undertake pay in constant currency units, will overcome this problem, but exact mechanisms of payment have yet to be established and the implementation of this new system is not imminent.

### Losses

Royalties due in 1999 for the logs legally harvested were 37.7 billion cedis, of which only 42% was collected, a total of 15.8 billion cedis (US\$ 6.0 million). Assuming similar royalty collection rates in 2002, at current exchange rates this is worth only US\$ 2.1 million.

If revenue had been collected for all logs harvested (legally and illegally) in 1999, stumpage would have been as shown below in Table 84. It is assumed that chainsaw loggers exploit mainly the low-value species (average stumpage due assumed to be half of the weighted average).

**Table 84 Ghana – Potential revenue production for all logs harvested 1999 – 2001**

Description	Volume m <sup>3</sup> x 10 <sup>6</sup>	Stumpage (\$/m <sup>3</sup> )	Total Value US\$ x 10 <sup>6</sup>
Logs legally harvested	1.10	13.00	14.3
Logs illegally harvested and processed industrially	0.93	13.00	12.1
Illegally harvested by chainsaw, processed locally	1.70	6.50	11.1
Total			<b>37.5</b>

A combination of illegal logging, poor royalty collection and uncompensated exchange rate changes have cost the country more than US\$37 million per annum.

### WINNERS AND LOSERS

#### Winners

- ♦ Processing companies are benefiting from the log export ban because it holds the log price down. They also benefit from obtaining cheap logs from illegal loggers, and tertiary processors obtain cheap lumber from chainsaw operators.

#### Losers

- ♦ Local communities, owners of the resource, are not receiving a fair return from the potential stumpage.
- ♦ The government is losing large sums of money from ineffective recovery of stumpage payments and from failing to keep the value constant in US\$ terms.

### THE GAP BETWEEN LEGISLATION AND REALITY

Ghana has a good policy and institutional framework under which a wide range of instruments have been set up. In general there are good structures to enable dialogue and debate between stakeholders at many levels, and many of the gaps in the system noted above are well known and being addressed. A programme to develop certification was set up in the late 1990s and may shortly be restarted.

- ◆ Policy and institutional development are well catered for; implementation of policy and the enforcement of regulations in the forest is problematic;
- ◆ The chainsaw ban does not work; rural communities continue to take short-term returns from their assets;
- ◆ Use of illegal logs by the industrial sector is not controlled;
- ◆ Rates of royalty collection are extremely poor; and
- ◆ There is insufficient capacity to enforce regulations in the face of corruption: forest officers have low salaries and are poorly trained and supported.

## COMMENTARY – POLICY BRIEFING NOTE

The forest sector of Ghana is of substantial size and officially made up 2.3% of GDP in 1999. Exports of wood products in 1999 made a contribution of 8% to Ghana's foreign exchange earnings, and the industry employed approximately 104,000 people. Despite this, Ghana may be losing as much as US\$37 million per annum in public revenue due to a combination of uncontrolled illegal logging, poor performance in royalty collection and outdated fees which have not kept pace with inflation.

Increased royalty and fee collection could be used to:

- ♦ Ensure the sustainability of the wood supply from natural forests by effective control of the logging industry, for example through a proposed log tracking project.
- ♦ Fund much-needed plantation development to reduce the pressure on natural forests as sources of fuelwood, building materials and charcoal, as well as industrial timber. Plantation development would also help to address other environmental problems such as soil erosion and falling water tables.
- ♦ Combat rural poverty by funding the start-up of alternative employment opportunities in rural areas.

To improve on the current situation, the following steps are suggested:

- ♦ Implement effective control systems such as log tracking to increase the capacity of forest officers to uncover and demonstrate illegal log flows
- ♦ Recover royalties more effectively from concessionaires, and establish better institutional arrangements to avoid the situation where fees are overtaken by inflation.
- ♦ Renew efforts, e.g. through institutional change, to reduce the level of corruption in the public services, which contributes to illegal activity.
- ♦ Renew efforts to bring in certification for timber exports; either certification of sustainable production (e.g. FSC or equivalent), or certification of legal origin.
- ♦ Develop a massive public awareness campaign, in concert with national and local NGOs, to make illegal logging less acceptable in rural communities, and promote the sustainable use of forests. Forests will only be effectively conserved where local communities have come to appreciate their value, and are prepared to defend them themselves rather than leaving the job to over-stretched government agencies.

Any effective clamp-down on illegal logging will have an adverse effect on those who make a living by it. Investment in alternative rural livelihoods, funded by the additional income that will be generated by better control of the sector, must be a high priority. These could include:

- ♦ Ecotourism initiatives. Ghana has many advantages in attracting a higher level of tourists from Europe: it is English-speaking, has generally good level of infrastructure and is one of the nearest countries to Europe that still has appreciable areas of tropical forest, much of which is still well preserved. Its rich cultural heritage and history are a further attraction for visitors.
- ♦ Initiatives to promote forest livelihoods, for example, small industries appropriate to rural settings, perhaps craft-based
- ♦ Plantation development. As already noted, a drive towards plantation development has the potential to provide alternative livelihoods to those who currently make a living out of illegal logging, while providing a sustainable source of wood products of all kinds.

## APPENDIX 1: SFM DIAGNOSTIC AND PLANNING TABLE

Element of good sustainable forest management practice		What's working?	What's missing?	Score (red, amber, green)	What needs to be done?
1. ROLES. Stakeholder roles and institutions negotiated and developed	1.1 Recognition among policy makers of multiple stakeholder groups	Government policy framework well developed		Green	
	1.2 Stakeholder representatives ready to negotiate	Strong multiple representations at many levels		Green	
	1.3 Organised national & local systems for stakeholder participation	Community consultation mechanisms exist		Green	
	1.4 Forest information generated and accessible by all	Information is collected and collated	Not widely accessible	Amber	
	1.5 Forest policy developed and shared	Forest policy developed	Further political commitment to implementation of policy required	Amber	
	1.6 Stakeholder roles developed	Broad public sector vision of shared responsibilities	Specific roles undeveloped. Private sector capacity required	Green	
	1.7 Basic forest institutional structures in place	Institutions well developed over the years	Strategic Planning at District Level currently being addressed under FSDP2 project	Green	
	1.8 Mechanisms for capacity building amongst all stakeholders in place	Nothing working	More effective capacity building initiatives	Amber	

Element of good sustainable forest management practice		What's working?	What's missing?	Score (red, amber, green)	What needs to be done?
	1.9 Sources of finance identified & engaged	Identified but not engaged	Better co-operation required with international donors	Amber	
	1.10 Collaboration and partnerships arranged	Progress made under NRMP project		Green	
	1.11 International agencies supportive of national forest policy	Yes		Green	
2. POLICIES. Forest policies, standards for SFM & legislation in place	2.1 Policies and laws recognise forest vision, roles and institutions	Progress continues to be made in legislation		Green	
	2.2 Priority-setting methods/criteria agreed & adopted	Institutional arrangements and consultation addressed under NRMP and FSDP		Green	
	2.3 Permanent forest designated under various forms of ownership	Land owned by Local chiefs. Forest Reserves managed by Forestry Commission		Green	
	2.4 Clear equitable & legally defensible rights in place (e.g. to manage and extract forest resources)	Rights are in place (not always enforced properly)		Green	
	2.5 Stakeholders aware of rights		Stakeholders lack information about their rights, and markets for their products	Amber	Communication campaign to inform stakeholders
	2.6 Formalisation of systems to define,	Being taken forward		Green	

Element of good sustainable forest management practice		What's working?	What's missing?	Score (red, amber, green)	What needs to be done?
	implement and improve forest policy & standards in place	under NRMP			
	2.7 Forest legislation in place to support the above	Yes. Improvements to legislation continuing.		Green	
3. INSTRUMENTS. Coherent set of 'carrots and sticks' for implementation in place	3.1 Coherent set of instruments striven for at national level	Currently little rationalisation	Currently being discussed	Amber	Areas where regulations contradict each other must be addressed
	3.2 Rules & sanctions in place covering forest tenure rights, protection of interests, investment, market access, anti-corruption and revenue system	Very little	Currently being discussed	Amber	Further development of rules and sanctions at appropriate levels
	3.3 Market instruments in place covering property rights-based approaches (concessions, licences & permits), incentives, finance	New method of allocating concessions being introduced to reflect market values		Green	
	3.4 Information systems in place	Progress is being made		Green	Further development of information systems needed
	3.5 Institutional /contractual structures in place covering human resources, support for the poor, management guidelines, conflict management, codes of conduct, finance, partnerships	Very little		Red	Much more work required to back up regulatory framework with guidelines, codes of conduct etc
4. EXTENSION. Promotion of SFM to stakeholders undertaken	4.1 Forest producers are involved in mechanisms to share and receive information relating to SFM	Technical Committee on Forest certification addressed these issues	Initiative now halted. Needs further attention.	Amber	Forum for producers to exchange views and information
	4.2 Consumers of forest products & general public have information on SFM	Community Forest Management	Much more involvement from consumers and	Amber	

Element of good sustainable forest management practice		What's working?	What's missing?	Score (red, amber, green)	What needs to be done?
	and SFM products	Committees address this	general public needed		
	4.3 Forest authorities have access to information on SFM	Generally, yes; though not widespread at grass roots level		Green	
5. CERTIFICATION/ VERIFICATION on SFM undertaken	4.4 Forest authorities regularly conduct stakeholder needs assessment on SFM	Being developed through NRMP		Green	
	5.1 Feasibility of certification has been assessed	Yes. Work has been done		Green	
	5.2 Forest producers and consumers have access to a certification scheme which is internationally recognised	Standards developed in 2001 but little progress since		Red	Need to reinstate certification as a national priority
	5.3 Multi-stakeholder national/local groups exist to oversee scheme establishment and operations	National group existed for a while but now non-functional		Red	Need to reinstate certification as a national priority
	5.4 Local auditor/assessor capability exists to carry out certification at competitive cost	Need does not yet exist		Amber	
	5.5 Information is generated on progress in certification and its impacts	Information generated previously		Amber	
	5.6 Information on progress with certification communicated to policy makers	Information generated previously		Amber	

## APPENDIX 2: STATISTICS FOR GHANA 1991-2000 ('000 m<sup>3</sup>)

### Log imports from Ghana for selected countries 1991-2000 ('000 m<sup>3</sup>)

Country	Ghana - logs									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	0	0	0	0	0	0	0	0	0	5
China	0	0	39	136	24	21	6	0	0	1
France	11	9	4	4	2	0	0	0	0	0
Germany	125	97	72	19	9	0	0	0	0	0
Greece	1	0	0	3	0	0	0	0	0	0
Italy	26	46	20	11	0	0	0	0	0	0
Netherlands	8	10	4	2	0	0	0	0	0	0
Portugal	9	3	2	4	2	0	0	0	0	0
Spain	3	1	9	2	10	0	0	0	0	0
UK	1	0	2	0	3	0	1	0	1	1

### Sawn wood imports from Ghana for selected countries 1991-2000 ('000 m<sup>3</sup>)

Country	Ghana - sawn wood									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	5	3	4	6	3	5	5	9	11	9
China	0	0	0	0	0	0	0	1	0	0
France	4	12	12	14	30	29	48	45	36	42
Germany	46	16	67	96	133	60	69	78	73	63
Greece	0	0	3	0	0	0	1	0	0	0
Italy	4	10	17	23	28	19	21	24	25	30
Netherlands	12	19	25	27	16	14	18	12	6	8
Portugal	1	1	1	1	4	5	5	4	4	1
Spain	10	20	6	6	16	9	7	5	11	8
UK	24	29	34	41	31	15	26	26	16	19

### Veneer sheet imports from Ghana for selected countries 1991-2000 ('000 m<sup>3</sup>)

Country	Ghana - veneer sheet									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Belgium	1	0	0	0	3	1	2	1	7	3
China	0	0	0	0	0	0	0	0	0	0
France	1	1	2	1	0	0	2	2	0	2
Germany	8	8	9	10	8	5	9	7	7	8
Greece	0	0	0	0	0	0	1	0	0	1
Italy	4	6	4	5	12	12	16	15	13	17
Netherlands	0	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	1	1	3	3	7	7
UK	2	1	1	3	3	9	6	3	5	3

### Plywood imports from Ghana for selected countries 1991-2000 ('000 m<sup>3</sup>)

Country	Ghana - plywood									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000



<b>Belgium</b>	0	0	0	0	0	2	5	2	4	4
<b>China</b>	0	0	0	0	0	0	0	0	0	0
<b>France</b>	0	0	0	0	0	0	0	0	0	1
<b>Germany</b>	0	0	0	0	0	0	2	0	0	2
<b>Greece</b>	0	0	0	0	0	0	0	0	0	1
<b>Italy</b>	0	0	0	0	0	0	0	0	0	2
<b>Netherlands</b>	0	0	0	0	0	0	0	0	0	1
<b>Portugal</b>	0	0	0	0	0	0	0	0	0	0
<b>Spain</b>	0	0	0	0	0	0	0	0	1	1
<b>UK</b>	0	0	0	0	0	3	2	0	0	2

**Total wood product imports from Ghana for selected countries (sawn  
wood+logs+veneer+plywood) 1991-2000 ('000 m<sup>3</sup>)**

Country	Ghana – total									
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Belgium</b>	6	3	4	6	5	8	12	12	22	21
<b>China</b>	0	0	39	136	24	21	6	1	0	1
<b>France</b>	16	22	18	19	32	29	50	46	36	45
<b>Germany</b>	179	122	148	124	149	65	79	85	79	73
<b>Greece</b>	1	0	3	3	0	0	2	0	0	2
<b>Italy</b>	34	62	42	40	39	31	37	39	38	49
<b>Netherlands</b>	20	29	30	30	16	14	18	12	6	9
<b>Portugal</b>	9	4	3	4	6	5	5	4	4	1
<b>Spain</b>	13	21	16	7	27	11	10	9	18	15
<b>UK</b>	26	30	37	44	37	28	35	29	22	25
<b>Total</b>	<b>304</b>	<b>292</b>	<b>339</b>	<b>413</b>	<b>335</b>	<b>211</b>	<b>255</b>	<b>237</b>	<b>225</b>	<b>242</b>

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## MOZAMBIQUE

### 7 BACKGROUND

#### GENERAL

Mozambique has a population of 19 million (1999), a population growth rate of 2.5% per annum, and a population density of around 25 people per km<sup>2</sup>. Sixty-one percent of the population lives in rural areas. The population, even by African standards, is very young, with more than 65% less than 25 years old (CEIKA, undated). Per capita GDP in 1999 was US\$ 220, representing an increase of 29% from 1990.

Since coming to power in 1994 the government has achieved many of the reforms it has set itself, and continues to promote a program of privatisation and decentralisation. For example, more than 900 state enterprises have been privatised in the last eight years (CIA undated) and the government has adopted a "red tape reform" agenda in order to stimulate inward investment (USAID cited in IRN, 2002). The Government's reforms have assisted the country in achieving an average annual growth rate of 8.7% between 1993-99. This has been accompanied by relative currency stability and low inflation. However, weaknesses remain: although domestic revenues are increasing, there is a considerable shortage of funds required to undertake the massive infrastructure investments urgently needed for development.

Donors have recently expressed satisfaction at the way the Government is handling the country's development, not only at the legal and regulatory reforms made, but also in relation to the level of transparency and low level of institutional corruption in government (IRIN News, 2002). According to the World Bank (2001), the favourable institutional and regulatory conditions have encouraged international donors to pledge US \$700 million to assist Mozambique in its development efforts. However, outside municipal areas the level of understanding of democracy is very poor (Wiley 2000). Tensions also remain between the ruling party and the main opposition party, the National Resistance for Mozambique, Renamo.

#### THE FOREST SECTOR

##### The Forest Resource

Forest cover in Mozambique is estimated at 39%<sup>17</sup>, representing a forest area of 30.6 million ha (FRA, 2000). *Brachystegia* spp. dominate the open broad-leaved forests in Mozambique. There are significant areas of savannah (dominated by *Colophospermum mopane*) and scrub forest throughout the country. Approximately 7% of the total forest area is officially protected in conservation reserves. Cruz (2001) estimates that the total forest area will decline by around 4% by 2020, mainly due to conversion of land to agriculture and infrastructure development.

According to the National Directorate of Forestry and Wildlife (DNFFB), over 19 million ha of natural forest have been identified as being suitable for timber production, Saket (1994).

Mozambique has a small plantation sector, with 23,000 ha of productive plantations, including *Pinus*, *Eucalyptus* and *Casuarina* species, many of which are in a poor state of maintenance after years of neglect (Eureka 2001). A new emphasis on plantation research and development is now under way, and private investment in plantations is being sought.

##### Forest Management

Management of natural forests suffers from severely limited institutional capacity due to the low standard of education and expertise in the country. The lack of capacity for management planning of productive natural forest is recognised as a major problem (Saket, 1994; quoted in FRA, 2000).

GERFFA, the Forest and Wildlife Resources Management Project, funded by the African Development Bank, works in association with the DNFFB and SPFFBs (Provincial Forest and Wildlife Services) in

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<sup>17</sup> The FRA 2000 assessment revised the definition of tropical forest from 20% canopy cover to 10%. Hence other estimates, such as that given on the FAO website (Country section), provide a more conservative figure of 22% for forest cover.

Manica, Sofala and Cabo Delgado Provinces. The project has conducted a forest inventory of 1.3 million hectares and prepared forest management plans for considerable areas. GERFFA is undertaking a similar exercise in Cabo Delgado Province, starting with an inventory of 1.4 million hectares (EFI, 2000). The FINNIDA-funded Sustained Forest Resources Management Project is carrying out similar inventory and capacity-building work in Inhambane and Zambezia Provinces.

Allocation of concessions to companies with their own processing facilities started in 2001, and now 24 concessions have been allocated, but, since none of them has agreed a management plan with the forestry authorities, none are officially allowed to start exploitation (DNFFB, *pers. comm.*). Negotiations are continuing to overcome this impasse, meanwhile, another 21 concessions are at the application stage, and the forestry regulations, which are to control their operation have not yet been passed by parliament.

### **Community Involvement in Forest Management**

Mozambique's Land Reform Law (1997) recognises customary land rights including rights over forests (Wiley, 2000). However, customary ownership and user rights are often difficult to determine. Communities are currently delimiting their land to enable them to claim their rights under the law. Collection of forest products for subsistence use is free for local communities, but commercial use for onward sale requires a permit from the SPFFB.

According to Kloeck-Jenson 1999 (quoted in Wiley, 2000), the recent allocation of forest concessions has taken place with almost no consultation with the local communities affected. Although some have argued that this appears to contradict the 1997 Land Law (Wiley, 2000) there is, according to Kloeck-Jenson (2000), no legal requirement to consult local communities when allocating timber extraction licenses and concessions. This is because the Land Law only requires full consultation where there is a request for full and exclusive land use rights, which is not the case with the allocation of forest harvesting and concession contracts. These legal provisions will be increasingly tested as concessions begin to be allocated in areas that conflict with community use.

In general, government officials appear supportive of greater community involvement in forest management. However, when Kloeck-Jenson (2000) sought, in a series of interviews with concessionaires, to ascertain the extent to which local people participate in the management of concessions, participation was found to be minimal, being restricted to employment for clearing paths and assisting with the transport of logs.

In order to better co-ordinate stakeholder participation in forest sector development at the local level, the Forestry and Wildlife Law includes a regulation requiring the formation of Natural Resources Management Committees/Councils at local (sub-district) level. These committees should include, apart from community representatives, the private sector, and associations of farmers and local government (Nhantumbo, 2000).

### **Forest Certification**

Notwithstanding the current poor standard of forest management, indications are that the potential for forest certification in Mozambique is reasonably high (GTZ, 2000). There is a high level of interest in FSC and other certification schemes, and the legal framework for forestry is considered conducive for certification (EFI, 2000). Current initiatives exist within DNFFB to set up a technical working group at a national level to prepare the way for companies to approach certification.

Some initiatives relating to forest certification have already commenced. In Manica Province, the DNFFB, the Ford Foundation and the World Bank have looked at the certification option in association with local people; and in Gaza Province the Dutch-funded FAO Community Forestry project (CBNRM) is working with the DNFFB and the local community to investigate the possibility of certifying charcoal for export to South Africa (EFI, 2000).

Mozambique, as a SADC member state, is participating in the Dry-Zone Africa Process, which includes regional discussions on Criteria and Indicators for Sustainable Forest Management for SADC countries. Potential constraints to certification in Mozambique include the fact that two of Mozambique's principal commercial species *Dalbergia melanoxylon* (pau preto / blackwood) and *Khaya nyassica* (umbaua / African mahogany) have been recommended for inclusion in CITES. This may entail either a complete trade ban, or the monitoring of trade in the species concerned.

## STAKEHOLDER ANALYSIS

Until the development of the Forest Law in 1999 there had been little stakeholder consultation in forest management, except on an ad-hoc basis.

A Policy Working Group ("Forum de Consulta") has recently been set up (February 2002) under the DFID-funded Policy Support Programme, with a core group containing representatives from DNFFB, the private sector, NGOs and the University. Each member of the core group heads a technical working group. These groups cover issues relating to legislation, investment, communities and concessions. A wider stakeholder group of 80 – 100 people, including many representing community interests, will meet quarterly to discuss policy issues. NGO involvement is through national and international bodies such as ORAM (a Mozambican NGO), IUCN, Alisei (Italy), Worldvision (US). It is intended that the group will continue to develop policy and standards after DFID funding ends next year (although funding may be extended). It is hoped that this group will foster a consensus approach, and for the first time allow all stakeholders to debate and consider forest policy developments.

Similar initiatives at a local level are generally not in existence, although there have been some interdepartmental commissions within provincial governments, e.g. in Zambezia Province.

DNFFB statistics on forest exploitation are published annually, and their quality and completeness have increased markedly in the last two years, although there is still much room for improvement. Often data from one or more provinces are not available to go into the overall statistics. Other forest sector data for example, results from forest inventories, is not readily available except to forest sector professionals. Inventories of certain provinces have been carried out in the past four years, but there has been no national forestry inventory update since 1994.

Donor projects, such as GERFFA, the more recent Sustained Forest Resources Management Project and FAO's Community-Based Natural Resource Management Project (CBNRM), have been active in capacity building at national and provincial levels. However, skill levels are generally low since much of the present generation of managers and technicians grew up during the civil war when education was severely disrupted.

DNFFB receives funding through the PROAGRI funding mechanism (multi-lateral aid given to the Ministry of Agriculture and Rural Development). This five-year programme attempts to better co-ordinate development activities in the forestry and agricultural sectors and to reform, decentralise and modernise the agricultural and forestry sectors (Berger, 2001). The forest sector component includes a US\$ 40 million plan to improve resource management and to police illegal operations (WildNet Africa, 1999). DFID is moving towards general budgetary support within PROAGRI, rather than the provision of aid targeted to specific projects.

There is a low level of private investment in the forest industry, arising from the very low level of development and education in the country as a whole. In the last ten years the industry has invested only US\$ 16 million in plant and equipment (Eureka 2001).

There is minimal consumer awareness of Sustainable Forest Management (SFM), and timber companies are not involved in mechanisms to share and receive information relating to SFM. There is no private trade association specifically for timber companies, although the CTA, the national co-ordinating body for private companies, is now involved in the Policy Working Group. Codes of conduct and other guidelines for the timber industry have not been developed. There have been calls for government assistance in marketing Mozambican sawn wood overseas, to reduce the level of log exports and add value domestically.

As noted in Eureka's report, direct employment in the forest sector amounts to just under 10,000 people. Levels of education and training are very low, especially in the log production (as opposed to processing) sector.

## LEGISLATION AND POLICY

### The Land and Forest Laws

The major recent changes to forest legislation are encapsulated in the Land Law of 1997 and the Law of Forestry and Wildlife of 1999. Development of forest policy and legislation in 1998-99 involved widespread participation and is regarded as having been well managed, with workshops for a wide range of stakeholders. Provisions in the law include a degree of consultation with communities when allocating concessions and timber licences (although the practical application of this is in doubt) and

the allocation of a proportion of the benefits from concessions to communities. The Forest Law defines roles for stakeholders, for example in the consultation of local communities before concession allocation, but these are not being put into practice because regulations to enforce the law have not been passed.

The Forest Policy should, in theory, guide the process of setting priorities, but it remains to be seen whether the implementation of policy will be substantially different from the rather non-consultative approach seen hitherto.

Devolving power to the local level appears to be an important element of the new forest sector legislation. For example, concessions under 10,000 hectares can be approved by provincial authorities (EFI, 2000). There is also provision for community management of concessions. In theory communities can obtain concessions for up to 50 years. Although the state maintains its role in the allocation of forest resources, the role of other stakeholders is well recognised.

### **Land Tenure and Forest Ownership**

In Mozambique all land is retained by the State. There is recognition of traditional user rights, and long-term tenure is possible for both the private sector and local communities.

Under the Land Law, communities need to delimit their land to ensure their rights, a process that is proceeding slowly. Extraction of forest products for a community's own use is free, but licences are necessary for commercial extraction and sale. The interface between communities and forest concession holders is a possible problem area in the future, in terms of the negotiation of rights and benefits for each side. There is said to be some confusion among operators as to what rights a timber concession, such as those now being allocated, bestows.

There is little local participation in sustainable forest management at present. The FAO CBNRM programme has initiated small-scale projects whereby communities have received licences to market their local forest products, but these are very localised. There is no specific forest extension service interfacing with forest communities, although the general agricultural extension service does receive training in forestry issues.

Both the Land Law and the Forest Law are regarded as good and forward-looking, but implementation remains problematic. Regulations to carry out the provisions of the Forest Law have not yet been ratified in the National Assembly.

In the past there has been little application of market instruments to encourage sustainable harvesting. Timber extraction is authorised by means of a "simple licence", which allows an operator to extract a specified volume of timber from a particular area, with no provision for long-term management. However, the increasing allocation of concessions, with their requirements to carry out inventories and develop management plans, should improve this situation if carried out sensitively.

### **Enforcement**

Forest Law is enforced by the provincial SPFFBs, who employ "fiscais" (forest guards) to monitor timber extraction, transport and end-use. Forest products may only be transported when listed on a "guia de transito". The amounts shown on the guia are deducted from the volume that the operator has left to extract. Fiscais checkpoints are located on the main roads used by timber lorries to take their goods to market, but there is widespread abuse of the system, with trucks passing at night to avoid detection. Corruption in the forest service, fuelled by very low wage rates and an overall lack of administrative control, is widely regarded as a problem.

Fiscais are also posted to licence areas, ports and sawmills to oversee and monitor timber extraction, processing and export.

Differences in procedures between provinces are significant in some areas of administration, with some provinces such as Manica and Sofala, having historically been better organised to control timber production. Sawmills in most provinces must declare a monthly total volume of logs received and sawn wood produced, as a check against the receipt of illicit logs.

Fiscais are also responsible for controlling and monitoring wildlife harvesting, except in national parks and certain designated hunting areas ("coutadas"), where control was recently (2001) moved to the Ministry of Tourism.

## INSTITUTIONS

At the national level, the National Directorate of Forestry and Wildlife (DNFFB) is responsible for implementing forest sector policies. At the local level, this responsibility rests with the Provincial Forestry and Wildlife Services (SPFFB), who report to their respective Provincial Directorates of Agriculture and Rural Development (DPADRs). The fact that SPFFBs are not responsible directly to the DNFFB can be a cause of some friction, especially in the development of the annual budget when provincial priorities can override national ones.

In 1997 DNFFB reported at least 26 donor-funded projects in the forestry sector. Many of these donors were asked to co-ordinate their efforts in 1999 through a Ministry of Agriculture and Rural Development (MADER) administered national agricultural sector investment programme, known as PROAGRI.

The Eduardo Mondlane University in Maputo runs degree courses in Forestry. A training centre for fiscals in Gorongoza National Park provides technical training.

## STATISTICS

### National – Official

#### *Production*

Large scale commercial logging activity in Mozambique has been limited due largely to the lack of investment in upgrading forest harvesting operations and processing facilities – a result of the long-running civil war. The annual allowable cut for commercial timber has been set at 350,000 m<sup>3</sup> (Eureka 2001), a nominal 70% of the total estimated annual increment of 500,000 m<sup>3</sup> (Saket 1994).

Production figures are collated each year by DNFFB from statistics sent in from the provincial authorities (Table 85).

**Table 85 Mozambique - DNFFB figures for production 1996–2001**

Product and Units	Production by Year					
	1996	1997	1998	1999 <sup>18</sup>	2000	2001
Logs (m <sup>3</sup> )	85,000	121,000	120,000	61,000	85,000	91,000
Sawnwood (m <sup>3</sup> )	43,000	33,000	28,000	15,000	19,000	30,000
Parquet (m <sup>2</sup> )	3,700	9,400	16,400	6,400	9,300	3,900
Veneer (m <sup>3</sup> )	1,800	2,500	2,800	1,000	800	900
Plywood (m <sup>3</sup> )	700	960	660	660	760	660

Eureka Ltd. (2001) carried out a survey of timber companies in 2001 that involved all the large and medium-sized wood processors. It found that in both the log production and log processing sectors there was considerable over-capacity, and that operators had difficulties in securing adequate supplies of raw material.

The wood processing industry in Mozambique is small and focuses on primary processing. According to Eureka (2001), there are 100 sawmills in the country, and 22 secondary processors of significant size.

Much of the equipment used by the processing companies was imported second-hand from Portugal before independence, and is therefore in poor condition. The sawmilling sector currently utilises only 35% of its total installed capacity (AFWC 2002). In addition to sawmills, there is a board mill and a mill processing recycled paper (AFWC 2002).

**Table 86 Mozambique – National results from Eureka study**

No of logging enterprises	226
Logging capacity (m <sup>3</sup> )	179,211
No of factories	133
Sawn wood production capacity (m <sup>3</sup> )	62,280
Carpentry production (m <sup>3</sup> )	25,542
Plantations (ha)	16,701
No. of workers	9,689

Source: Eureka 2001

Sawmill capacity was estimated by Eureka (2001) at 120,000 m<sup>3</sup> of sawn wood per year, although only 20,000 - 30,000 m<sup>3</sup> are produced. The report concludes that companies are continuing to suffer from obsolete processing technology, insecurity of access to primary materials, competition for logs also demanded by exporters, and limited capital. Production is limited to a small number of commercial species, which are only available in commercial quantities in certain parts of the country, such as Sofala, Zambezia and Cabo Delgado provinces.

The forest continues to provide a critical source of fuel wood, charcoal and building poles for the largely impoverished rural population. The fuelwood output from Mozambique's forests is considerable. This is indicated by the national fuelwood consumption figure of 31 million m<sup>3</sup> for the year 2000, which is significantly greater than any other country in the southern Africa region (FAO 2001). As a result of the civil war and the ensuing internal displacement of the population, pressure on the forest resource, largely for fuelwood, tends to be concentrated in certain parts of the country where the displaced population settled. This problem is

<sup>18</sup> 1999 had anomalously low production because it was the year of the disastrous flooding in the country.



particularly acute in the Beira Corridor region of the country (AFWC 2002). Demand for fuel wood and poles is also high in the south of the country, particularly Maputo Province.

### *Revenue*

Forest sector revenues as recorded by DNFFB for 2001 were as follows:

**Table 87 Forest sector revenues as recorded by DNFFB for 2001**

	<b>Millions of meticals</b>	<b>US\$ equivalent</b>
Forest licensing	11,900	496,000
Forest fines	1,800	75,000
Sale of confiscated products	1,400	58,000
Wildlife licences	3,300	138,000
Wildlife fines	600	25,000
Sales of confiscated wildlife products	7	300
Others	76	3,000
<b>Total</b>	<b>19,100</b>	<b>796,000</b>

It is estimated that 80% of the forest licensing revenue comes from logs, and 20% from firewood, charcoal and building poles.

Receipts have risen markedly over recent years, from 3.4 billion MT in 1998, to 6.2 billion in 1999, to 13.2 billion in 2000 and 19.1 billion in 2001. This is attributed to better control of the sector, as well as a rise in licence applications. Operators pay “up-front” for the volume they intend to extract, and if they still have some of their quota left over at the end of the year, they may (in most provinces) carry it forward.

The rise in revenue far outweighs the loss of value of the Mozambique currency, the metical, against the US\$. In 1997 there were 11,000 MT (meticals) to the US\$, while in 2002 there are 24,000 MT.

### *Enforcement*

Fines of 2,000,000 – 100,000,000 MT can be levied for exploitation or export of forest products without a licence, while fines of 1,000,000 – 20,000,000 MT can be levied for transport, sale or purchase of forest products without the correct authorisation.

In addition to timber products licences, the DNFFB issued a total of 249 wildlife licences in 2001. There are quotas for the harvesting of different species for sport by Mozambican nationals. Most of these quotas were under-utilised, for example, only 19 crocodiles were recorded as having been killed in 2001 out of a quota of 99. However, this recorded harvest is unlikely to represent reality. As in other countries, there is widespread and virtually uncontrolled hunting of bush meat for consumption, but no estimates of the scale of this are available. Local people do not require a licence to hunt for their own consumption.

### **National – Other**

Most of Mozambique's wood product exports are in the form of logs. Most timber is exported in log form to the Far East (mainly China) and South Africa. Wood exports between 1994 and 1998 show an increase in volume and, in 1998, a significant increase in the proportion of sawn timber exported. Available official statistics for the years 1996 – 2001 are presented in the table below.

**Table 88 Mozambique – Exports of wood products 1996 – 2000**

Product and Units	Production by Year					
	1996	1997	1998	1999	2000	2001
Logs (m <sup>3</sup> )	27,000	52,000	25,000	24,000	13,000	33,000
Sawnwood (m <sup>3</sup> )	2,200	700	9,400	9,400	70	2,000
Parquet (m <sup>2</sup> )				3,800	76,000	1,000
Veneer (m <sup>3</sup> )				100	20	20
Sleepers (m <sup>3</sup> )				1,100	660	240
Posts (DNFFB)				16,800	500	

Most exports of logs are of a limited range of species such as pau preto (*Dalbergia melanoxylon*), pau ferro (*Swartzia madagascariensis*) and monzo (*Combretum imberbe*) for the South East Asian market. In recent years processed wood has gone mainly to South Africa, Germany, Italy and Portugal.

Export figures from the office of national statistics are usually very different from the DNFFB figures due to poor co-ordination between the two arms of government. It is not easy to say whether, for the most part, the differences in the figures are due to illegal log exports not declared to DNFFB (but declared to customs), differences in the way the data is recorded and reported, or simple errors. For example, in 2001 the statistics office recorded exports as including:

**Table 89 Mozambique – Export of wood products 2001**

Product	Volume m <sup>3</sup>
Logs (coniferous)	8,006
Logs (hardwood)	2,531,000
Sleepers	530
Sawn wood (total of 3 categories)	553,000
Plywood	31,600

Source: Statistics from Directorate of Customs.

Comparison of Table 88 and Table 89 shows clear discrepancies. Similar divergence has been observed for previous years' data, suggesting that exports were much higher than reported by DNFFB. However, it is hard to imagine how the figure for the export of 2.5 million cubic meters of hardwood logs was arrived at. In any case, DNFFB recognise that the differences between these two sets of statistics must be investigated and rectified through co-operation between the DNFFB and customs officials.

### International – Consumer Countries

**Table 90 Timber imports (sawn + logs + veneer + plywood) from Mozambique**

Year	Importing countries (volumes in '000 m <sup>3</sup> )									
	Belgium	China	France	Germany	Greece	Italy	Netherlands	Portugal	Spain	U.K.
1995	0	2	0	1	0	0	0	0	0	0
2000	0	33	0	2	0	4	0	2	0	1

Source Eurostat and China Customs Statistics Yearbook

Most importing countries import timber almost exclusively in the form of logs. Small quantities of sawn wood are imported, mainly by Italy<sup>19</sup> (4,000 m<sup>3</sup> was imported during 2000). China is Mozambique's major market for timber. In 1995 official imports were 2,000 m<sup>3</sup>, by 2000, imports had risen steeply to 33,000 m<sup>3</sup>.

<sup>19</sup> Germany and the UK were the only other countries registering imports of sawnwood, both imported around 1000m<sup>3</sup> in 2000.

## ANALYSIS

### COMPARISON OF STATISTICS

All official statistics must be regarded as being of poor quality, although the general opinion is that their reliability has increased in the last few years. Studies of the real level of logging and exports are few and far between, however, where objective comparisons of log consumption with sawnwood production have been carried out, the DNFFB figures have been shown to be too low.

Anecdotal evidence exists of illegal logging activities. For example, the Zambezia provincial agriculture and fisheries director, Gabriel Papeseco, has claimed that extensive illegal logging is occurring in state forest land and reserves. According to Papeseco much of the logging activity is undertaken by local people, paid and organised by foreigners. Papeseco stated that staffing capacity problems and a lack of proper inspection facilities on the borders meant that illegal logs could easily leave the country undetected (WildNet Africa, 1999).

According to the Eureka (2001) survey, log consumption reported by the major sawmills totalled 180,000 m<sup>3</sup>, approximately double the DNFFB total. Log processing capacity was put at 230,000 m<sup>3</sup>. This may partly be a result of companies overstating their production for commercial reasons, but is nevertheless significant, since sawmills might be expected to try to conceal such high log volumes.

Brouwer (2001), although principally concerned with the pricing of concessions and timber licences, analysed log and sawnwood production figures obtained for Sofala Province (one of the main wood-producing provinces) in 1996 and 1997. He demonstrated that the volume of logs claimed as produced in the province was too small (by a factor of two) to account for the amount of sawnwood produced by sawmills. This calculation ignored the levels of log exports from the port of Beira, and the flow of logs from the province for processing in centres, such as Maputo.

The sum of the wood products produced in the province, given in cubic metres for 1996 and 1997, were respectively 16,109 and 18,502 m<sup>3</sup>. Assuming an efficiency of conversion of 35 – 45% this means that between 35,756 and 46,026 m<sup>3</sup> of logs were sawn in 1997 and between 41,116 and 52,862 m<sup>3</sup> in 1998, double the extracted volume recorded by the SPFFB. He pointed out that the volume of wood cut was probably even larger because of the exports of logs from the province, both overseas, and to other major markets in Mozambique such as Maputo.

Similarly, taking the official log production and export figures on a national basis, and comparing them with actual sawnwood production, it can be seen that in some years production of sawnwood exceeded the level that could reasonably be expected from the domestic log supply. Log processors are now required to give monthly returns of logs received and sawn wood produced in order for the conversion rate to be calculated, but this system is still open to abuse.

**Table 91 Mozambique – Log production, exports and domestic processing, 1996 - 2001**

<b>Product and Units</b>	<b>Production by Year</b>					
	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
Logs produced (m <sup>3</sup> )	85,000	121,000	120,000	61,000	85,000	91,000
Logs exported (m <sup>3</sup> )	27,000	52,000	25,000	24,000	13,000	33,000
Logs processed domestically (m <sup>3</sup> )	58,000	69,000	95,000	37,000	72,000	58,000
Expected domestic wood production (m <sup>3</sup> ) (assuming 40% conversion)	23,200	27,600	38,000	14,800	28,800	23,200
Total processed wood (estimated from actual records) (m <sup>3</sup> )	45,600	36,600	31,800	16,800	20,700	31,600
Excess of actual over expected (m <sup>3</sup> )	22,400	9,000		2,000		8,400

Source DNFFB figures.

Anecdotally it is reported that many of the logs exported are not controlled either by the forestry or the customs authorities. As logs are short, many are exported in containers that are not inspected at the port.

## CONCLUSIONS

### POTENTIAL LOST REVENUE

Royalties are paid on the volume of timber extracted from the forest, rather than the volume actually cut, a practice that encourages wastage of the resource, as operators tend to leave second-quality logs behind. Royalty rates vary with the species, as follows:

**Table 92 Mozambique – Royalty rates**

Type of product	Licence fee (Meticais/m <sup>3</sup> )	Licence fee (US\$/m <sup>3</sup> )
<b>1. Logs</b>		
“Preciosas” (the 9 most valuable species)	105,000	4.20
1 <sup>st</sup> class (20 species)	65,000	2.70
2 <sup>nd</sup> class	45,000	2.00
3 <sup>d</sup> class	30,000	1.25
4 <sup>th</sup> class	20,000	0.80
<b>2. Building materials (poles)</b>		
3 <sup>d</sup> class	50,000	2.00
4 <sup>th</sup> class	30,000	1.20
Diameter < 20cm	20,500 per ester (1 m <sup>3</sup> )	0.80
<b>3. Firewood</b>	2,500 per ester	0.10

The current exchange rate (April 2002) is approximately 1 US\$ = 24,000 MT. The royalty level for the most valuable species is therefore very low, at around US\$ 4 per m<sup>3</sup>. Export prices, however, at US\$ 200 per m<sup>3</sup>, are comparable with other species on the world market.

Prices of timber vary with location within the country and are given in Table 93.

**Table 93 Mozambique – Timber prices**

Product and Location	Millions of meticaís	US\$
Logs (northern provinces)	1.2 – 1.3	50 - 55
Logs (Maputo)	3.5	150
Logs (at export)		200 - 350
Sawnwood (northern provinces)	3.0 – 3.5	125 - 150
Sawnwood (Maputo)	6.5	275
Sawnwood (at export)		250 - 400

Source: Eureka 2001

If, as Brouwer found, and is suggested by the findings of the Eureka survey, only 50% of logs are being cut and sawn legally, then the state should be receiving twice as much in licence fees as it currently does; i.e. it is losing nearly US\$ 500,000 per year. Clearly the revenue could be much larger if the royalty levels were kept up to international levels (c.f. in Ghana royalty levels averaged US\$ 13 / m<sup>3</sup> in 1999).

## WINNERS AND LOSERS

Winners are

- ♦ Foreign companies who obtain cheap, high-quality logs of pau preto and pau-ferro etc. Eureka (2001) reports export prices of US\$ 200 per m<sup>3</sup> of logs, and US\$ 250 per m<sup>3</sup> of sawnwood;
- ♦ Sawmills and the processing sector who obtain cheap logs;
- ♦ Corrupt officials in the forest service and police;

Losers are

- ♦ The state for not charging a realistic royalty rate, or effectively controlling log supplies to sawmills;
- ♦ The communities who live in and around the forest, who currently obtain no benefit from the harvesting of their local assets. This is due to be addressed by the forestry regulations, whereby a percentage (10-20%) of the royalties for the timber extracted will be paid to local communities. However, the setting up of legal entities to receive and manage this money will be a huge challenge.

## THE GAP BETWEEN LEGISLATION AND REALITY

Mozambique is in a state of transition with the new law and new concession allocations, both of which should help to bring a long-term focus to the management of the forest resource. However, it is reported that timber companies are pressing the government for concessions so that they can set them up before the regulations come into force. It is clearly important that concessions are allocated in a spirit of consultation with local communities.

The new Forest Law has not yet been put into practice. It is intended that its provisions for local people to benefit from their own resources will help to generate a sense of ownership and responsibility on their part. However, it will be a long and complex process to organise communities to receive this compensation, as slow progress has been made historically in community-based natural resource management programmes.

## COMMENTARY – POLICY BRIEFING NOTE

The combination of the size of the country, the fact that commercial timber reserves are thinly spread, the lack of infrastructure and administrative control in rural areas and the low rates of pay for forest guards and police mean that it is impossible for provincial governments to effectively control timber harvests. For these reasons Government should consider involving local people in guarding their own resources.

### **Situation:**

- ♦ Mozambique has a relatively small and dispersed forest sector, dependent on a few native species that occur in several parts of the country in moderate or small volumes;
- ♦ Concessions are currently being allocated to timber companies amid concerns that local community participation is not being adequately sought;
- ♦ Regulations to enforce the new Forest Law are currently making no progress through parliament;
- ♦ Lack of “value added” production has been identified as a problem, especially as regards a few particularly valuable species that are exported after minimal processing in Mozambique;
- ♦ The extent of illegal logging is suspected to be significant, perhaps 50% of the national cut. Local communities do not feel “ownership” of their timber resources;
- ♦ A recently-formed Policy Group within the national forestry authority (DNFFB) is committed to wide ranging consultations with a diverse and representative group of stakeholders

### **Possible policy avenues:**

Assistance to the private sector by:

- ♦ Helping investment in modern saw milling and processing capacity to improve the quality of processed products, especially those for export;

- ♦ Taxing exports more highly to promote domestic processing;
- ♦ Subsidies for plantations and conversion of industry to use plantation rather than natural forest timber;
- ♦ Assistance with marketing processed wood products overseas;
- ♦ Better training of staff at all levels: technical, managerial, financial etc;
- ♦ Technical advice for the preparation of management plans and promoting greater community involvement in forest management.

**Other initiatives:**

- ♦ Speedy enactment of regulations to bring the Forest Law into force;
- ♦ Awareness-raising to demonstrate to local communities what they are currently losing in terms of uncompensated natural resource use;
- ♦ Systems such as log tracking may help to increase accountability by helping to identify individual logs reliably, and thus reduce illegal activity;
- ♦ Keeping royalty payments up to a reasonable level by international standards, in the face of continual devaluation of the currency;
- ♦ Encouragement of concessions provided that this is done with community involvement and proper management planning.

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## APPENDIX 1: SFM DIAGNOSTIC AND PLANNING TABLE

Element of good sustainable forest management practice		What's working?	What's missing?	Score (red, amber, green)	What needs to be done?
1. ROLES. Stakeholder roles and institutions negotiated and developed	1.1 Recognition among policy makers of multiple stakeholder groups	Yes. Policy Working Group has recently been set up		Green	
	1.2 Stakeholder representatives ready to negotiate	Yes. Core Policy Group is supplemented by wide ranging Stakeholder Group including NGOs		Green	
	1.3 Organised national & local participation system	National – Yes (see above).	Local level: little effective participation	Amber	Better discussion of issues at Provincial level.
	1.4 Forest information generated and accessible by all	Inventory information is available	Information is not readily available to all stakeholders	Amber	Better dissemination of information
	1.5 Forest policy developed and shared	Policy developed recently after widespread participation		Green	
	1.6 Stakeholder roles developed	Will emerge from Policy Working Group		Green	
	1.7 Basic forest institutional structures in place	DNFFB national authority. SPFFBs Provincial authorities		Green	
	1.8 Mechanisms for capacity building amongst all stakeholders in place	Very little. Forest guards receive only very basic training	More training for all stakeholders would be desirable	Amber	More emphasis on capacity-building
	1.9 Sources of finance identified & engaged	PRO-AGRI funding mechanism at Ministry Level. Supportive.	Lack of clarity in budgeting as forestry budgets are set provincially not nationally	Green	

Element of good sustainable forest management practice		What's working?	What's missing?	Score (red, amber, green)	What needs to be done?
	1.10 Collaboration and partnerships arranged	Policy development process has led to ongoing partnerships	Private forestry companies have no specific trade body	Green	
	1.11 International agencies supportive of national forest policy	Yes. PROAGRI funding mechanism		Green	
2. POLICIES. Forest policies, standards for SFM & legislation in place	2.1 Policies and laws recognise forest vision, roles and institutions	Yes		Green	
	2.2 Priority-setting methods/criteria agreed & adopted	No	This will most likely emerge from Policy Group	Green	
	2.3 Permanent forest designated under various forms of ownership	Land is owned by state but controlled by local communities	Land must be defined by communities for them to receive their rights; proceeding very slowly	Green	
	2.4 Clear equitable & legally defensible rights in place (e.g. to manage and extract forest resources)	Concessions being allocated in several provinces	Intersection of concessionaires rights and community rights unclear	Red	Concerns exist over lack of consultation during allocation of concessions
	2.5 Stakeholders aware of rights	Frequently unaware	See above. Poor level of education and awareness among rural stakeholders	Red	Awareness campaigns
	2.6 Formalisation of systems to define, implement and improve forest policy & standards in place	Yes: Policy Group will act in this way		Green	
	2.7 Forest legislation in place to support the above	Legislation in place but not yet operative	Regulations that enforce the law have still not been passed by parliament	Amber	Need to finalise and enact Forest Regulations
3. INSTRUMENTS. Coherent set of 'carrots and sticks' for implementation in place	3.1 Coherent set of instruments striven for at national level	Yes.	Regulations that enforce the law have still not been passed by parliament	Amber	Need to finalise and enact Forest Regulations

Element of good sustainable forest management practice		What's working?	What's missing?	Score (red, amber, green)	What needs to be done?
	3.2 Rules & sanctions in place covering forest tenure rights, protection of interests, investment, market access, anti-corruption and revenue system	Forest Law and Land Law are regarded as ground-breaking	Many rules and sanctions not yet in place	Amber	
	3.3 Market instruments in place covering property rights-based approaches (concessions, licences & permits), incentives, finance	Licensing system in place but not very efficient. Concessions now being awarded	Process of allocating concessions not transparent	Amber	Need more clarity in the way concessions are allocated
	3.4 Information systems in place	Situation is improving	Generally poor mechanisms for collating information from the provinces	Green	
	3.5 Institutional /contractual structures in place covering human resources, support for the poor, management guidelines, conflict management, codes of conduct, finance, partnerships	Very little in this area. Moves are afoot to create a marketing agency to help companies market timber overseas		Amber	More assistance required from government or donors
4. EXTENSION. Promotion of SFM to stakeholders undertaken	4.1 Forest producers are involved in mechanisms to share and receive information relating to SFM	To some extent. Concessionaires should in theory do a management plan before cutting starts	In practice exploitation has often gone ahead without management plan	Amber	Tighter control of management operations required
	4.2 Consumers of forest products & general public have information on SFM and SFM products	Very little awareness in this area		Amber	More awareness needed among general public
	4.3 Forest authorities have access to information on SFM	Principles of SFM are known and appreciated		Green	
	4.4 Forest authorities regularly conduct stakeholder needs assessment on SFM	Policy Group should be active in this role		Green	
5. CERTIFICATION/ VERIFICATION on SFM undertaken	5.1 Feasibility of certification has been assessed	Seminars have been run. Proposal exists to create a task force		Green	

Elements of good sustainable forest management practice		What's working?	What's missing?	Score (red, amber, green)	What needs to be done?
	5.2 Forest producers and consumers have access to a certification scheme which is internationally recognised	Some small-scale enterprises are undergoing certification		Green	
	5.3 Multi-stakeholder national/local group exists to oversee scheme set up and operations	Proposed		Green	
	5.4 Local auditor/assessor capability exists to carry out certification at competitive cost	No. Capability comes from South Africa or Zimbabwe		Amber	
	5.5 Information is generated on progress in certification and its impacts 5.6 Information on progress with certification communicated to policy makers	Task force should address this (see 5.1) Not much to report currently		Amber Green	

## TANZANIA

### 8 OVERVIEW

Tanzania has a population of 36 million people (CIA) growing at 2.61% per year (2001). 47% of the population is under 15 years of age. In 1999, 60% of the population lived in rural areas (MNRT 2000). Tanzania is one of the world's poorest countries, with a GDP per capita of only US\$710. The economy is largely dependent on the agricultural sector, which provides most of the employment and foreign exchange.

Recent banking reforms have helped to increase private sector growth and investment. It is expected that donor support, along with the new economic policies pursued by the Government, will result in real GDP growth of 6% in 2001 and 2002 (CIA).

#### THE FOREST SECTOR

##### The economics of the forest sector

The contribution of the forest sector, including hunting, to GDP in 1998 was 3.3%. Forestry contributes around 10% of exports and 3% of paid employment (MNRT 2000).

Tanzania's forests are particularly important for the rural poor. According to Monela *et al*, 1999 (quoted in World Bank 2002), up to 40% of total household consumption in rural areas derives from forests. The products consumed include firewood, honey and construction materials.

Unlike most of the other countries studied, Tanzania has a substantial plantation resource contributing around half of total forest sector revenue (Kobb 2001). The plantation resource comprises industrial pine and cypress species, and is largely managed by Government.

##### Forest Management

Much of the country's forest resource consists of dry *Miombo* woodlands. Mountain and coastal forests account for around 5% of the total forest area and contain most of the biodiversity value. There is also a small area of tropical moist forest (World Bank 2002a).

In 2000, forest cover was estimated at 38.8 million ha (FAO 2001). This represents the highest forest cover per capita in the Southern and Eastern regions of Africa (1.2 ha per person (AFWC 2002)). 29% of the forest resource is protected, much of which, being located on steep slopes, is retained to control soil and water erosion. The remaining productive forest is managed mainly for fuel and timber production. It is estimated that more than 90% of the population in Tanzania use fuelwood and charcoal for energy (MNRT 2000).

Two-thirds of the country's forest resource stands on publicly owned land. Thirteen million hectares of this area is forest reserve (MNRT, 1998). There are 80,000 ha of plantation, primarily of *Pinus patula* and *Cupressus lusitanica*. The forest reserves also include 1.6 million ha managed as catchment forests. National Parks comprise around 6% of the total forest area.

According to AFWC (2002), production forests are estimated to cover 23.8 million ha. However, there is minimal data on the annual area harvested, the allowable cut, or the management systems applied.

As a result of new legislation, forest planning is to be given much greater emphasis in future. Plans will have to include measures to conserve biodiversity, and local communities must be consulted in the preparation process.

##### Community Involvement in Forest Management

There is growing pressure to identify new mechanisms for ensuring more reliable and sustainable management of Tanzania's forest resource. Local community management of forest resources is regarded as having a key role. There are some limitations to this approach, including lack of capacity among many government agencies. The Government has therefore focused on building partnerships between its agencies, the private sector, NGOs and CBOs.

In spite of these problems, Tanzania is considered to have made the most progress in the whole East African region in promoting participation in forest management. According to Wily (2000), village and community-based forest management was widespread even before supportive legislation came into

force. Around 300,000 ha of forest in several hundred locations are managed by communities. Participation has taken several forms, including Joint Forest Management Agreements (JFMA). These apply to government forest reserves and are developed through negotiations between Government and local communities (AFWC 2002).

Developments in the field are now supported by a national strategy and associated programs for participatory forest management (World Bank 2002a). Under the FCMP, support will be given to the establishment of Village Forest Reserves under the management of local Village Councils. Local participation in the management and administration of forest resources is now a principal objective of forest policy.

### Forest Certification

According to GTZ (2000) forest certification is at an early stage with only preliminary discussions having taken place. The potential for forest certification is considered to be medium to high.

### Hunting

Historically, Tanzania has made substantial provisions for the conservation of wildlife. A quarter of its land area is designated as national parks or game reserves (LEAT 2001a). Tanzania, unlike some of its neighbours, has sought to utilise its wildlife resource through tourism and traditional hunting, but there are significant problems in achieving adequate returns from the hunting sector. The current system invests considerable authority and discretionary power in the Minister, and lacks transparency, while benefit sharing with local communities has been poor. The Government is aware of the problem and, in 1998, developed a new policy to direct the allocation of hunting blocks - the main mechanism for regulating the hunting industry. A consultative process was begun to discuss possible means of implementation, but there has been substantial resistance to change from the private sector and the Wildlife Division. As of late 2001 the necessary reforms had yet to be made.

## STAKEHOLDER ANALYSIS

Table 94 Tanzania – Forest sector stakeholders

Category	National level
Government	FBD, MNRT, DFO, Ministry of Regional Administration and Local Government, Ministry of Finance, Tanzania Natural Resources Information Centre
Private Sector	Small scale loggers and charcoal traders, Hunting operators
Local communities	Village administrations, CBOs
Civil Society	Sokoine University of Agriculture, CARE Tanzania, WWF Tanzania, LEAT, TANGO
International community	World Bank, DIDC, NORAD, Danida, UNDP, IUCN, AWF

Under the various donor-funded projects stakeholder participation is a key component. The FCMP, as the major mechanism for implementing forest policy, also has clear provisions for ensuring stakeholder participation in forest management planning.

## LEGISLATION AND POLICY

### Forest Ownership

Much of the 13 million ha of gazetted forest reserves are owned by central government through the Forestry and Beekeeping Division (FBD) of the Ministry of Natural Resources and Tourism (MNRT). Another 600,000 ha are owned and managed by local government.

A large part of the non-gazetted forest land is not under any formal ownership or management and is vulnerable to deforestation. The new forest policy targets non-gazetted forests for the establishment of village forest reserves.

### **Forest Policy**

Forest sector policy must be seen in the context of the national macro-economic framework that emphasises reform of the public sector and a greater role for the private sector in the nation's development. The national framework seeks to create an 'enabling environment for a strong private sector; to reduce public sector involvement in direct productive activities; and to improve efficiency in the use of public resources (Mbonde, undated).

In March 1998 the government approved a new forest policy. Many now consider Tanzania's forest policy framework to be one of the most forward-looking in the region (World Bank 2002). The overall objective of the policy is twofold; to increase the contribution of the forestry sector to the national economy, and to conserve and manage the country's forest resources for future generations. The National Forestry Programme is an important mechanism intended to facilitate co-ordination of effort in implementing the new forest policy.

### **National Forestry Programme (NFP)**

The Government recognises that the implementation of forestry programmes has been fragmented and poorly co-ordinated. Institutional capacity-building and cross-sectoral co-operation, particularly at the local level, has been poor. The National Forestry Programme (NFP) seeks to address these issues and implement the forest policy (Mbonde, undated).

The NFP adequately addresses many of the key elements for effective development of the forest sector. Of particular note are the following:

- ♦ The NFP emphasises a transparent and participatory approach to sector development, seeking to include local communities, NGOs and the private sector in decision-making processes and implementation;
- ♦ In addition to developing the implementation capacity of the public sector, Government policy also addresses the need to improve the capacity of CBOs and NGOs;
- ♦ Development of the NFP is recognised as an inherently iterative process, responding to changing circumstances and knowledge;
- ♦ Strong, long-term 'political commitment at the highest level' is understood to be critical for effective implementation of the NFP;
- ♦ The NFP recognises the importance of wide-ranging institutional reform, including the need to continue to decentralise forest management.

### **Forest Legislation**

In colonial times, forestry was regulated under the Forest Ordinance (CAP 389) of 1957 and the Forestry Rules of 1959. The main forest-related legislation is now the Forest Act of 1998 and the Village Land Act of 1999. A new draft Forestry Bill was developed in 2001 for presentation to parliament (Kobb 2001).

### **INSTITUTIONS**

The Forestry and Beekeeping Division (FBD) of the Ministry of Natural Resources and Tourism (MNRT) is responsible for administering the forest sector at a national level. The Ministry has devolved significant management and protection responsibilities to local government and is now focusing on providing policy and regulatory support to the forest sector. Devolution to local government is empowering local authorities to exercise a high degree of autonomy in managing forest resources (World Bank 2002). The privatisation process is also enabling a range of non-public sector agencies to take over management responsibilities. Provision has been made in the legislation for specialised 'executive agencies' to be formed and to take over responsibility for the management of some forests.

A key element contributing to the development of Tanzania's forest sector is the World Bank/GEF-supported Forest Conservation and Management Project (FCMP). The project, which will commence shortly, has three main components:

- ♦ Supporting institutional change and improving service delivery: the Tanzania Forest Service (TFS) will be established as an executive agency that will take over responsibility for protecting and

managing the forest resource, leaving the Ministry with responsibility for policy and legislative matters;

- ♦ Improving support to participatory forest management: this will focus on supporting the extension of Village Forest Reserves and Joint Forest Management Agreements;
- ♦ Improving revenue collection from forests and woodlands: the objective is to turn the TFS into a self-financing agency and to ensure that a fair proportion of the revenue raised is reinvested in local institutions charged with the sustainable management of the forest resource.

## FOREST INDUSTRY

In 1992 the total installed wood processing capacity in Tanzania was around 900,000 m<sup>3</sup>/year of roundwood. By 1998, this had declined by 21% to 710,000 m<sup>3</sup> (Ngaga *et al* 1998 quoted in MNRT 2000). The processing sector is dominated by small, often mobile, private sawmills (with a capacity of up to 10 m<sup>3</sup>/day), which can handle mid-sized logs (20-35 cm diameter). These sawmills obtain most of their timber from plantations. Many of the larger mills use obsolete technology, and investment levels are low and market development poor. The Government has sought to privatise much of the country's processing sector. By 1998, 78% of the available capacity had been privatised. However, inward investment in the sector is very limited. For example, there were no buyers for the Southern Paper Mill when the Government attempted to privatise it in 1998.

## STATISTICS

### NATIONAL –OFFICIAL

The average growing stock for the entire forest resource is estimated at 41m<sup>3</sup>/ha. Assuming a forest area of 31.7 million ha, this equates to a total standing volume of approximately 1.3 billion m<sup>3</sup>. The potential sustained yield from the productive forest area (estimated at 23.9 million ha) is approximately 16.7 million m<sup>3</sup>/yr (0.7 m<sup>3</sup>/ha/yr) (MNRT 2000).

**Table 95 Tanzania – Capacity and Production in 1998 (MNRT, 1999)**

Product	Capacity ('000s m <sup>3</sup> )	Production ('000s m <sup>3</sup> )
Hardwood	105	94
Softwood	316	162
Wood panels	22	13
Paper & paperboard	94	30
Charcoal	887	585

**Table 96 Tanzania – Production and consumption of wood products in 2000**

Product	Production (000's m <sup>3</sup> )	Consumption (000's m <sup>3</sup> )
Roundwood	1,658	1,653
Sawn wood	31	18
Wood-based panels	5	7

Source: AFWC, 2002.

## REVENUE

In Tanzania forest revenues derive from three main sources:

- ♦ Royalties and other fees paid for the extraction of timber and other forest products from natural forests;
- ♦ Royalties from plantations;



- ◆ Charges on exported products.

According to Lyimo (2001), forestry fees and royalties for forest products and services bear no relationship to their value. His study, based on extrapolating data from Tabora and Mwanza regions, indicates that the Government has the potential to generate US\$ 68 million per year from the forest sector. As a consequence of the under-valuation of the forest resource and the poor implementation of revenue collection systems, total revenue accruing to Government was only US\$4.3 million<sup>20</sup> in 1999/2000, just over 6% of the potential value. In 1999, Government revenue from industrial roundwood was only US\$1.23 million (FAO 2001a).

In addition to central government charges, local government may charge for the collection of forest produce, in accordance with Local Government Act No.9, (1982) local authority charges range from 10 to 100% of the central government royalties.

District Forest Officers (DFOs) are appointed by FBD to collect revenue and monitor forest operations. Lyimo (2001) identifies several problems with revenue collection:

- ◆ District Officers are not accountable to FBD;
- ◆ District government is responsible for collecting revenue, but does not obtain a fair share of the proceeds;
- ◆ District Offices are often a considerable distance from the forest resource, thereby reducing the extent to which they can supervise operations.

### Non-Wood Forest Products (NWFPs)

The principal NWFPs are wildlife, gums, resins, tannin, latex, natural dyes, fruits and beekeeping. Beekeeping, though generating revenues of just over US\$ 2 million in 2000, is said to be operating at only 3.5% of its potential.

## NATIONAL-OTHER

### Estimates of illegal logging

The projected estimate of revenue collection in Table 97 (4,238 million Sh) is based on the observation of wood products (mainly timber) being transported by road and rail between September and December 1997 in Tabora District. From this study, it was estimated that revenue officially collected by Government is less than 1% of the revenue that should have been collected, assuming that all the wood products being transported were harvested in Tabora District. This implies an extremely high level of unregulated logging in a district that contains a nationally significant resource of productive *Miombowoodland*.

**Table 97 Tanzania – Projected and actual annual royalty (000's of Sh) in Tabora District**

Item	Rail	Road	Total
Timber	3,790	488	3,790
Charcoal	17	45	45
Fuelwood		5	403
<b>Total</b>	<b>3,807</b>	<b>538</b>	<b>4,238</b>
<b>Actual</b>			<b>35</b>

source: Kobb 2001

A similar study was undertaken in Tanga District. The data in Table 98 is based on observing several checkpoints. During the 'observation period' the volume of charcoal being transported was estimated and the amount paid was determined from receipts presented. Both figures were then multiplied up to give an annual estimate. The 'actual data' column in Table 98 represents the annual total actually received by the District Forest Office. The data indicates a high degree of tax evasion, implying considerable unrecorded trade in charcoal. In fact, only 18% of the estimated revenues were collected. Comparing the total amount paid during the observation period with the actual amount paid

<sup>20</sup> According to Kobb (2001), the figure is even lower at about US\$2.6 Million. This lower estimate may exclude revenues collected by provincial and local government.

over the year, it is interesting to note that the presence of observers clearly increased compliance among the charcoal traders.

**Table 98 Tanzania – Annual Charcoal Royalties in Tanga District (Millions of Shillings)**

Checkpoint	Observation period		Actual data
	Amount Due	Amount Paid	Amount Paid
Amboni	119	71	25
Mizani	33	12	4
Manga	17	0	0
Others	8	0	2
<b>Total</b>	<b>177</b>	<b>83</b>	<b>31</b>

Source: Kobb 2001

## Enforcement

The DFO is responsible for enforcing timber-harvesting regulations. Once an application for felling has been made, and the trees felled, the DFO measures and stamps the felled trees with his hammer. In theory, therefore, the hammer marks the trees as having been legally felled. When the timber reaches the sawmill, the sawmiller is required to maintain a stock register, which should enable production of sawn timber to be reconciled with timber volumes allocated through licensing. In practice, this reconciliation is rarely undertaken.

In general, penalties are inadequate to deter repeat offenders from continuing to exploit the forest (LEAT 2001). Most legislation is outdated, with penalty provisions dating from the 1960s, and the levels of fines are now insignificant.

Complex bureaucratic procedures can greatly hinder enforcement efforts. Endagwe village near Lake Babati is a case in point. The village authorities decided to draft a bylaw to protect a forest managed by the village. When an individual from another village burned and cleared part of the forest, the village claimed against him in the District Court. Unfortunately, the bylaw passed by the village authorities had not been approved by the Prime Minister's office. Consequently, the case was dismissed and the village ordered to return the land to the defendant, who continued to degrade it (LEAT 2001).

## INTERNATIONAL – CONSUMER COUNTRIES

### Overview

Exports of wood products from Tanzania are minimal. In 1998 and 1999 log and sawn wood exports were 3,897 m<sup>3</sup> and 8,066 m<sup>3</sup>, respectively (World Bank 2002a). With the exception of hardwood flooring strips, blackwood and carvings (MNRT 2000), the quality of much of the current production is poor, and there is little scope for capturing a significant share of the international market. Importer country statistics were not available due to the low quantities of timber exported by Tanzania.

## INTERNATIONAL – OTHER SOURCES

**Table 99 Tanzania – FAO data on forest sector production (million m<sup>3</sup>)**

Production	Years				
	1996	1997	1998	1999	2000
Non Ind. Roundwood	20.6	20.7	20.6	20.7	20.8
Ind. Roundwood	2.2	2.2	2.3	2.3	2.3
Saw & veneer logs	0.3	0.3	0.3	0.3	0.3
Sawnwood	0.02	0.02	0.02	0.02	0.02
Wood Fuel	20.5	20.7	20.7	20.7	20.8
Pulpwood			0.15	0.15	0.15
<b>Total</b>	<b>43.62</b>	<b>43.92</b>	<b>44.07</b>	<b>44.17</b>	<b>44.37</b>

Source: FAO, 2001.

**Table 100 Tanzania – FAO data on forest sector exports ('000 m<sup>3</sup>)**

Exports	Years				
	1996	1997	1998	1999	2000
Ind. Roundwood	7.8	5.6	2.3	14.9	12.1
Sawnwood	4.4	9.4	6.4	3.2	2.9
<b>Total</b>	<b>12.2</b>	<b>15</b>	<b>8.7</b>	<b>18.1</b>	<b>15</b>

Source: FAO, 2001.

Comparing Table 99 and Table 100 it is clear that the vast majority of industrial timber production is consumed domestically. Exports of processed products are negligible, and even the primary processing sector is poorly developed.

## ANALYSIS

The World Bank-supported FCMP is a broad-ranging and ambitious national project, intended to help the government improve its management of the forest resource. The success of this project will largely determine whether Tanzania achieves its forest policy objectives and moves to more sustainable management. The project is highly complex, requiring the active participation of many Government agencies at all levels. Wide-ranging institutional reforms will be essential if the project is to achieve its objectives.

According to Kobb (2001), there is minimal accountability amongst those responsible for tax collection. He suggests that revenue collection rates would improve significantly if those collecting revenue were to be made directly accountable to the Forestry and Beekeeping Division (FBD). This measure is likely to encounter some resistance from local government but is probably the simplest and quickest means to improve the rate of tax recovery.

It is essential that the revenue collection system should be transparent. To this end, outsourcing the monitoring of revenue collection, together with the publication of findings, should encourage the local and national authorities to improve their performance. However, unless the complex tax collection system is simplified, the various agencies might simply resort to blaming each other for any inadequacies in implementation.

The decentralisation of administrative structures in recent years has not been accompanied by improved monitoring of technical and managerial systems. Performance has therefore failed to meet expectations and continued institutional reform is needed in this regard.

## CONCLUSIONS

Clearly any meaningful attempt to establish Sustainable Forest Management in Tanzania will require a greatly improved understanding of the existing resource, and considerable improvement in the regulation and monitoring of forest management activities.

Improved regulation, and the resulting increased revenue from timber and other forest products, will provide the financial basis for improving forest management. However, it is essential that the revenue collected is fairly distributed amongst government and local people, and that the mechanism for doing this is transparent.

The government cannot improve regulation of the forest sector on its own. With limited resources and a huge area to cover, the government must continue to promote and encourage partnerships with local people. Many donors are currently supporting participatory forest management in Tanzania and there are several examples of successful community involvement in forest management to build on. Given this context, the prospects for widespread community collaboration in forest management seem better than in most other countries in the region. However, without well-defined and legally respected customary rights and benefit-sharing mechanisms, increased community participation in sustainable resource management will be difficult to achieve.

Although the legislative framework generally provides the necessary incentives for community participation, government staff at local level need to be convinced of the value of the new approach, if it is to be successfully implemented. This will require a substantial change in mindset for many District Forest Officers and will take time to achieve. Changes in forestry education to emphasise the development of negotiation and conflict resolution skills can help in the longer term, and greater collaboration with NGOs and CBOs can improve performance in the shorter term.

## WINNERS AND LOSERS

### Losers:

- ♦ All levels of government, through failing to capture more than a tiny proportion of the revenue generated from forest use;
- ♦ Local people, who are unable to secure effective long-term use of the forest resource;
- ♦ Local communities and local government, who are failing to obtain a fair share of hunting revenues;
- ♦ The current logging ban is depriving government of much needed revenue for investment in the sector.

### Winners:

- ♦ Officials who obtain payments for facilitating the harvest and transport of illegally-felled timber;
- ♦ Small-scale traders in timber and charcoal who avoid making most of their formal payments to government for use of the forest.

## COMMENTARY – POLICY BRIEFING NOTE

Studies have shown that Tanzanian government agencies may be failing to collect more than a tiny fraction of the forest revenues that are due under current legislation. In addition, levels of fees and taxes for forest exploitation are long out of date and bear no relationship to current timber values.

A recent study showed that the government receives only around US\$ 4.3 million per year, when potentially it could be receiving US\$ 68 million if enforcement was properly conducted.

This money could be used to:

- ♦ Ensure the sustainability of a high-quality wood supply from natural forests by effective control of the logging industry by contributing to the funding of the proposed Tanzania Forest Service;
- ♦ Fund further plantation development to reduce the pressure on natural forests as sources of fuelwood, building materials and charcoal, as well as industrial timber. Plantation development can also help to address other environmental problems such as soil erosion and falling water tables;
- ♦ Encourage investment by the private sector to raise the quantity and quality of timber produced in plantations, thus promoting exports of high-quality timber and adding value to 'raw' produce by domestic processing;
- ♦ Combat rural poverty by funding the start-up of alternative employment opportunities in rural areas.

To turn the situation around, the following steps are needed:

- ♦ Implementation of effective control systems, to increase the capacity of forest officers to uncover and stop illegal log flows;
- ♦ Renewed efforts, including institutional change, to reduce the level of corruption in the public services which contributes to illegal activity;
- ♦ Support, in concert with national and local NGOs, for local participation in the management of forests, to make illegal logging less acceptable in rural communities, and promote the sustainable use of forests;
- ♦ Development of management plans for forest areas, in co-operation with local communities.

Any effective clampdown on illegal logging will have an adverse effect on those, who currently make a living by it. Investment in alternative rural livelihoods, funded by the additional income that will be generated by better control of the sector, must be a high priority. These could include:

- ♦ Ecotourism initiatives. Tanzania has good potential for attracting a higher level of tourists: it is English-speaking and has large areas of largely undeveloped wilderness. Its cultural heritage and history are a further attraction for visitors;
- ♦ Initiatives to promote forest livelihoods, for example small industries appropriate to rural settings, perhaps craft-based.



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