



Forests, Illegality, and Livelihoods in Cameroon

Working Paper No. 35

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Printed by SMK Desa Putera, Jakarta

Cover photos by Paolo Omar Cerutti

Published by

Center for International Forestry Research

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Acknowledgements

This paper has been made possible by funding from the government of Italy, which has allowed CIFOR to appoint Paolo Omar Cerutti as Associate Professional Officer. We wish to thank Samuel Assembe, Doris Capistrano, David Kaimowitz, Alain Karsenty, Carol Megevand, René Oyono and Valentina Robiglio for their useful comments. The views expressed in this paper are those of the authors and do not necessarily reflect the views of the organizations with whom they are associated.

Introduction

This paper addresses the state of illegal forest activities (IFAs) in Cameroon, with particular attention to environmental outcomes and implications for livelihoods. We provide suggestions to the government and donor community about priority areas for interventions related to IFAs, sustainability, and livelihoods.

The case of Cameroon has global relevance. The country is among those at the centre of global concern about illegal logging.¹ Cameroon is one of the few countries that are actively preparing for the negotiation of Voluntary Partnership Agreements. These agreements are one of the policy tools of the Action Plan for Forest Law Enforcement, Governance and Trade (FLEGT) of the European Union, the most significant international initiative against illegal logging. The Action Plan notes that in addressing illegal logging the impacts on local rural people need to be considered in terms of their justice and equity. Yet it says little about how that should be done. There is a risk therefore that the implementation of specific initiatives set out in the Action Plan will be carried out without clear understanding of their impacts on equity and justice. For this reason we give particular attention to the implications of forest policy and IFAs for rural livelihoods.

Concern about the environmental impacts of illegal logging has grown considerably over the past decade and brought the issue to global attention, with international environmental NGOs at the forefront in raising awareness about the issue (e.g. Environmental Investigation Agency, 1996). These organizations are still a significant force behind the drive of national governments in developed countries to address

illegal logging and related trade.² Reported to account for more than 50% of annual harvest in several countries (Contreras-Hermosilla 2002; Tacconi *et al.* 2003), illegal logging has been seen as undermining the efforts by donor agencies to support sustainable forest management in the 1980s and 1990s (Tacconi *et al.* 2003). From a social perspective, it has been stressed that illegal logging increases poverty by reducing forest resources available to the poor (Contreras-Hermosilla 2002). From an economic perspective, illegal logging is said to result in significant losses of government revenues in producing countries (World Bank 2002) and to depress the prices of timber products. It has been estimated that if all exports associated with illegally harvested logs were phased out by 2007, international roundwood, lumber, and wood panel prices would rise respectively by 19%, 7%, and 16% (Seneca Creek Associates and Wood Resources International 2004).

Despite widespread concerns about illegal logging, there is still significant uncertainty about the quantitative and qualitative nature of the problem. For instance, in Cameroon it is unclear how much illegal logging is actually taking place, as discussed later in the paper. The actual environmental, social, and economic impacts of illegal logging are also unclear. From an environmental perspective, if illegal logging takes place in forests allocated to conversion it probably does not have direct environmental impacts given that the forest would be converted in any case. If it takes place in a national park, however, it can be expected to have negative environmental impacts. From a social perspective, stopping illegal logging may not necessarily lead to a

reduction in poverty or even to a reduction in negative impacts of logging on local communities if the conflicts generated by the state's longstanding process of appropriation of land from the communities are not resolved and the companies are allowed to continue legal operations on those lands. From an economic perspective, a reduction in illegal logging could increase government revenues, but this is not necessarily the only variable to be considered. For instance, allowing large companies to manage most of the timber operations with the concomitant exclusion of small operators (because they are more difficult to monitor than large-scale operators) could lead to inequitable social and financial impacts.

We do not argue illegal logging should be allowed to continue. Rather, we stress there needs to be a more informed and nuanced consideration of the environmental, social, and economic contexts in which illegal logging takes place, as well as a more detailed assessment of the actual impacts of illegal logging and the proposed reform options. To do this, rather than consider only illegal logging, we need to take a broader look at IFAs, which include all illegal acts related to forest ecosystems, forest-related industries, and timber and non-timber forest products (Tacconi *et al.* 2003). They range from acts related to the establishment of rights to the land, when people's customary rights are simply forgotten or cancelled without consultation, to corrupt activities to acquire forest concessions and activities at all stages of forest management and the forest goods production chain, from the planning stages, e.g. when logging titles are included into protected areas, to harvest and transport of raw material and finished products, e.g. when authorised volumes or minimum cutting diameters are not respected, to non-transparent financial management.

The occurrence of illegal acts does not necessarily imply a need to prevent and repress them. In some instances, a revision of the legislation may be warranted (Tacconi

et al. 2003), for example when legislation results in the marginalization of poor people. In Cameroon, and in several other African countries, this situation is exemplified by the discrimination against small-scale logging activities (World Bank/WWF Alliance 2002). Furthermore, there is a need to consider IFAs in the context of the broader functioning of the forest sector and its supposed contribution to economic development and poverty alleviation. If this is not done, there is the risk that a policy change aimed at reducing IFAs increases poverty. Again, we are not supporting IFAs. We note that it needs to be recognized that some of these activities are not intrinsically bad from an ethical perspective. Often, certain economic activities have been made illegal because they are supposed to be against the interest of the country, e.g. the export of round logs. Yet, the economic situation or public perceptions may change and these activities do not necessarily need to remain illegal.

Poverty reduction has become the focus of development policy, at least of the numerous poverty reduction strategy papers issued (e.g. Republic of Cameroon 2003). The role and contribution of forests to poverty reduction is still unclear (Sunderlin *et al.* 2005). To the extent that there is a potential link between forests and poverty, however, the potential links among IFAs, policy options aimed at addressing them, and poverty need to be considered.

The analysis of IFAs in Cameroon is carried out in the context of the structural changes that have taken place in the forestry sector in recent decades. The discussion of IFAs first considers problems in the process of allocation of forest concessions and other logging titles. Inaccuracies in reporting the volume of illegally harvested timber as compared to exports are then reviewed before we present a quantitative estimate. The relationships between livelihoods and illegality are then addressed.

Structural Changes in the Forest Sector

The period 1970 to 1999 saw important structural changes in the forest sector. These changes had several implications, which we note upfront. First, the large forest domain of the state, derived from the process of appropriation of forest lands previously controlled by local communities (Ascher 1999), was put under more intensive production by the government with the support of international and national donor organizations. In the 1980s, the expansion of the forestry sector certainly brought economic benefits to Cameroon,

by satisfying the growing domestic demand for timber. Second, the introduction of the 1994 forestry law was supposed to benefit the population both through its increased involvement in the sector, by setting up and managing community forests, and through direct redistribution of forest area taxes to rural management committees. To date, both suppositions have hardly benefited the population. On one hand, a relatively insignificant area of forest (often already exploited, being in the agroforestry domain)



Processed timber on its way to Douala from Eastern Cameroon (Photo by Paolo Omar Cerutti)

has been allocated to community forests,³ and the zoning plan has resulted in the further entrenchment of land appropriation by the state by allocating a substantial area to the permanent forest domain. Those who focus on the rights of the local population to the land would probably consider these changes as infringing human rights because they were not based on the consent of the people who claim traditional rights to the land. On the other hand, the forestry revenues that were redistributed to the local level have been mismanaged by the administration and only very weak positive outcomes can be noted on the ground. Third, small-scale logging operations expanded over the period considered. This expansion constitutes an increase in the involvement of the local population in the sector, but unfortunately there are considerable obstacles to the operations of small-scale activities.

Whether local communities could have benefited more from a different approach to forest management than that adopted by the government, with donor community support, is a speculative question with limited current policy relevance. However, the fact that the population has not benefited significantly from the forest zoning alerts us to the need to consider the impacts on the population even of well intentioned reforms. Clearly, we need to ask whether policies aimed at reducing illegal logging could have negative impacts on the livelihood of the population, how to minimize those impacts, and how to enable the population to benefit from policy change.

The first significant structural change to be noted is that timber production experienced a steady and substantial growth (132%) over the period 1970-1986, mainly following the development of the oil sector (Ndoye and Kaimowitz 2000; Wunder 2003). The official wood harvest was around 2.1 million cubic metres in 1985 (Ndoye and Kaimowitz 2000; Bigombe 2004).⁴ High-value species were mainly exported but around 75% of the roundwood equivalent of total production was used for domestic consumption (Wunder 2003).

Economic growth came to an abrupt halt in 1986 due to a steep decline in the prices of major exports, and stagnation lasted from 1987 to 1993 (World Bank 2001). Timber production was more or less constant throughout that

period, remaining around 2.0-2.1 million cubic metres (Ndoye and Kaimowitz 2000). There was a change in the structure of the market, however. The domestic market started to collapse after 1986, while exports increased rapidly. The increase in exports was facilitated by an increase in the number of logging concessions supported by the Tropical Forest Action Plan (TFAP), to which the government had submitted its forest policy. The report prepared by FAO and UNDP for the Cameroonian TFAP argued that the unexploited forest resources in south-eastern Cameroon should have been opened up to increase the foreign exchange generated by the export of timber, and proposed that industrial wood production reach 5.5 million cubic metres by 2010 (Winterbottom 1992, cited in Ascher 1999). As a result, the government granted 150 logging concessions in 1989.

The shift towards exports was also partly sustained by the 50% devaluation of the currency (FCFA) in January 1994 (Wunder 2003), which followed a period during which government revenues declined, public investment was cut sharply, and institutional reforms caused many officials to lose their jobs (Ndoye and Kaimowitz 2000). Domestic consumers could no longer fulfil their needs using industrial timber production, which had become too expensive. They were forced to look for timber harvested and sawn by local loggers, whose number had increased as a result of the fall in the price of cash crops (Plouvier *et al.* 2002).

Official timber production rose until fiscal year 1996-97, when it almost reached 3.4 million cubic metres (Table 1), and domestic consumption made up 45% of total production by 1997 (Wunder 2003). The increase in demand for timber products, the currency devaluation and, later, regulatory changes contributed to an expansion of small-scale logging activities. Significant regulatory changes include a new forest law introduced in 1994, with implications for land use planning and allocation of logging concessions, and the introduction in 1999 of a log export ban on several important commercial species. The latter was introduced to foster domestic processing by large industrial groups, which it did, but it also contributed to a decrease in log production. Let us detail these changes.

The reform of the legal framework of the forestry sector was a conditionality of the structural agreement the government had signed with the World Bank and the International Monetary Fund in 1989 (Nguiffo 2003). The forest law was supposedly aimed at improving transparency in the sector, promoting sustainability, and stimulating the participation of the population in the management of forest resources (World Bank/WWF Alliance 2002; DFID 2003). Among other changes, it introduced (1) the requirement to develop a Zoning Plan, (2) an auction system for the attribution of logging concessions, and (3) changes in timber pricing and taxation to allow for an increase in fiscal revenue and the use of market-based incentives to improve forest management (Karsenty 1999, cited in Brunner and Ekoko 2000).

The new forestry law took more than two years to implement and contributed to an initial increase in timber production. In the transition period, the forestry administration tried to keep all logging enterprises active (Eba'a Atyi 1998), mainly by granting sales of standing volumes⁵ and allowing the owners of old licenses to keep logging until the expiration date of the titles. Meanwhile, 27 new Forest Management Units (FMUs)⁶ were allocated in 1996-97 (Global Forest Watch 2005), allowing old and new logging permits to operate simultaneously.

The Zoning Plan divided the national territory into a permanent forest domain and a non-permanent forest domain. Eight phases were initially planned for the national reconnaissance inventory, but to date only four of them have been carried out. Covered domains are located mainly in the southern part of Cameroon, where the highly diverse forests are concentrated (Wunder 2003).

By law, the permanent forest domain must cover at least 30% of the national territory and it represents the ecologic diversity of Cameroon.⁷ Forest should be maintained in the permanent forest domain and local uses of forest resources are restricted. Production forests, including allocated production FMUs, conservation FMUs, other non-FMUs areas, and Council Forests, cover the majority of the permanent forest domain with a planned surface of about 7.9 million hectares (Global Forest Watch 2005). Conservation, protection,

research and recreation forests share the remaining 4.8 million hectares. The law intended for the government to grant definitive logging concessions on the permanent forest domain only after the Ministry of Forests had gazetted the land.⁸ To date, however, the ministry has not been able to complete the task, and only around 2.6 million hectares have been gazetted (MINFOF 2005a). Added to the lengthy delays that occurred in the approval of management plans, this hold-up caused an impasse: as of February 2006 there were still no logging concessions managed on a definitive protocol signed by the administration (Vandehaute and Heuse 2006),⁹ and many logging companies were induced to illegally extend their temporary contracts to more than the legal term of three years and/or to prepare their management plans based on temporary surfaces.¹⁰

The non-permanent forest domain covers the remaining forests, which amount to about five million hectares. This forest area may be converted to non-forest uses.¹¹ The non-permanent forest domain is divided into (1) forest of the national domain, which represent about 80% of the area of the non-permanent forest domain; (2) community forests, which cover an area of about 400,000 hectares (MINFOF 2005b); and (3) private forests, which have never been inventoried but are estimated to cover around 600,000 hectares (Enviro-Protect 1997).

As noted above, the new law introduced an auction system for the allocation of logging concessions. In 1997, due to widespread irregularities of the first call for bids (Global Forest Watch 2000), the World Bank forced the government to halt the allocation of more FMUs and sales of standing volume until transparent rules could be established and an independent observer introduced. Allocations began again in 1999/2000.

Meanwhile, in 1999, the government enforced a log export ban, as well as the obligation to have a production unit in order to bid for a forest concession. This decision caused a major increase in domestic industrial processing capacity, which reached 2.5 million cubic metres in 1999/2000 (CIRAD-I&D 2000). The ban on the export of logs was supposed to apply to the entire national production, according to the 1994 law (art. 71), but it

was enforced as a species-dependent ban, which excluded important species like ayous (*Triplochyton scleroxylon*) and azobé (*Lophira alata*). As a result of the ban, the volume of log exports decreased by 50% between 1997 and 1999 (Wunder 2003). The suspension of FMUs, the allocation of sales of standing volume permits and the log export ban put further pressure on an industrial sector that was just on its way out of the transition period between the old logging licensing system and the new one introduced by the 1994 forestry law. The industrial sector was forced to look for new timber sources. As a result, large and

small-scale loggers became more and more intertwined (CIRAD-I&D 2000). Some large forestry companies subcontracted operations to small local enterprises to avoid increasingly difficult relations with the local population and administrative red tape, a process still going on today. This practice decreased their harvesting costs in the permanent forest domain. Some companies also subcontracted small local operators because the latter were out of government control and could more easily obtain valuable wood in the non-permanent forest domain by dealing directly with the local population.



Logs entering
Cameroon from
the Republic of Congo
(Photo by Paolo Omar Cerutti)

Illegality in the Forest Sector

In the previous section we noted that the 1994 forestry law introduced significant changes to the process of allocation of forest concessions. In that context we consider apparent illegalities associated with awarding logging permits to large and small-scale operations. The environmental concerns driving global interest in illegal logging in Cameroon at the end of the 1990s have led several organizations to focus on the volume of logs harvested and exported illegally. A review of the literature shows that in the case of Cameroon the most recent concerns about the illegally harvested and exported volumes of timber have not been based on sound data. Therefore, we estimate the quantity of timber illegally harvested and exported.

Illegalities in the Allocation of Forest Concessions and Other Logging Titles

We consider whether the changes in the allocation process introduced by the 1994 forestry law have been successfully implemented. This is relevant for three reasons. First, irregularities in the allocation process constitute IFAs which, from a legal perspective, need to be redressed. Second, these irregularities could lead to unsustainable practices if the companies selected do not have the appropriate technical pre-requisites and/or are simply interested in the rapid exploitation of timber. Third, these irregularities may have negative economic effects if they lead to reduced government revenues, with potential negative implications for livelihoods.

The new auction system to allocate logging

concessions and sales of standing volume introduced technical and financial scores assigned to bidders, which are then ranked before logging permits are granted. The ministry assesses the score to rank the bids after evaluation by an inter-ministerial commission. The rankings are later submitted for approval to the prime minister. Illegalities have continued despite the introduction of the new procedure.

In May 1996, the government illegally allocated seven FMUs through the old discretionary process: four of them are still being harvested by the same company, and two have been officially transferred to another company in 2005 without a new call for bids. In 1997, 20 FMUs were auctioned and all of them were allocated (MINEF 2004). Only six were awarded to bidders recommended by the commission and with the highest financial offer (Global Forest Watch 2000). After these irregularities, the World Bank recommended changes and pushed them through with conditions included in the third phase of the structural adjustment program. These changes included the appointment of an independent observer of the allocation process.

The independent observer reported of the auction of July 2000 that 'a great number of the bidders did not enclose a report of their financial situation' as required by the law, and that 'a great number of those who enclosed it presented incoherent, conflicting, and/or false information' (Behle 2000 p. 5). Overall, the independent observer noted that the data submitted for the selection procedure were 'not sufficient', missing information about applied sanctions, mills' condition, surfaces and titles

previously granted (Behle 2000). Moreover, the independent observer highlighted the 'paradoxical' situation of those concessions for which only one company was running: the prices submitted were all very close to the minimum bidding price, raising concerns about the lack of confidentiality in the auction procedure (Behle 2000). Nevertheless, all 23 FMUs up for auction were allocated (MINEF 2004).

The independent observer made similar remarks in the report for the 2001 granting procedure, with a clear statement addressing the actors involved in the process: supposedly, none of them fully understood the meaning of the transparency principle (Behle 2001). One of the most evident problems was the commissioners' refusal to sign the declaration stating that they did not have personal interests in any of the bidding companies. This behaviour would seem to indicate, however, that they did understand the concept of transparency, but the more important problem is that some may have had personal interests in the bidding companies. Some notaries public, accountants, bankers, and officials working at the ministry were all fingered as lacking an ethical code of conduct, as false documents provided by them were 'largely used' to get access to the resource (Behle 2001). All 15 FMUs being auctioned were allocated. The independent observer noted similar problems again in the report sent to the minister of forests after the auction process held in January 2002, when seven FMUs were granted.

Illegality in the auction process has continued to the time of writing this paper. In relation to the 2005 granting procedure, the president of the Interministerial Commission reportedly complained in one of the last working sessions about the lack of confidentiality in the auction process (Bloch-Kölle 2005a). Moreover, the independent observer reported that rules had changed after the procedure had already started, and in its final statement closing the 2005 attribution, the observer called for a 'global reform to harmonise procedures and to provide all candidates with the same chances of equity and transparency' (Bloch-Kölle 2005a). Nevertheless, all 14 FMUs auctioned were granted.

Transparency has also been lacking in the attribution of sales of standing volume. In

the case of this type of permit there are also concerns related to the lack of exact specification of the boundaries of the areas being granted and because these titles are used to harvest in the non-permanent forest domain, where the rural population has the right of pre-emption to claim a Community Forest over planned sales of standing volume.¹² In fact, one of the most recent independent observer reports (Bloch-Kölle 2005b p. 5) states that the government 'ignores what it is selling and does not carry out a serious inventory' before putting sales of standing volume up for bidding. It is thus difficult for local communities to use the pre-emption right if the government does not know where the boundaries of the sales of standing volume are and usually does not consult with the population. Moreover, the non-permanent forest domain has recently seen an increase in the granting of small-scale logging titles (often named 'special permits'). They generally authorise the logging of limited amounts of timber, to small, medium, and large companies, which mainly sell on the export market. These are granted according to the old discretionary practices, thus making impossible any evaluation of their transparency (Resource Extraction Monitoring 2006). These attributions are outside any legal framework. Furthermore, local communities do not receive financial benefits from these special permits, unlike logging carried out in forest concessions and sales of standing volume, which are subject to an annual area tax that is in part transferred to local communities and local councils.

According to the 1994 forestry law, concessions were to be allocated through auction on the ground that auctions are less susceptible to political pressure and more efficient from an economic perspective than the previous discretionary practices (Brunner and Ekoko, 2000). It is unclear to which extent these benefits have eventuated. There is indeed more information on the lack of transparency in the allocation process, as demonstrated by independent observer reports, which is clearly influenced by public officials who appear to have personal interests in the companies involved in the process.

From a financial perspective, the forestry tax reform has actually reduced government revenues.¹³ The auction process and the reformed fiscal system did directly influence

public revenues through the collection of the annual area tax, which increased from about US\$13 million in 2000 to about US\$24 million in 2005 (MINEFI 2006), but to date it has not counterbalanced the total amount collected in 1998 through the log export tax, i.e. about US\$50 million, which decreased drastically after the log export ban was enforced in 1999.

As with the old discretionary attribution system, the lack of transparency in the allocation process raises concerns about the technical suitability of the concessionaires to implement sustainable forest management. Apart from technical constraints that need to be corrected through changes in the law—like the small size of many concessions, which makes them economically unviable for large companies—evidence shows that it will be difficult to respect the legally established minimum cutting cycle of 30 years¹⁴ in many allocated concessions, both because of mismanagement and because many FMUs have already been heavily logged in recent years (Auzel and Halford 2002).

Inaccuracies in Reporting Illegal Logging in Cameroon

Since the 1990s, the volume of illegally harvested timber in Cameroon has been reported to be around 50% of total harvest. A recent study assessing Europe's illegal timber trade (WWF 2005) still reports the same percentage for Cameroon. An impact assessment of the action plan for FLEGT, commissioned by the European Union, assumed that 50% of timber was illegally harvested (INDUFOR 2004). It took that estimate from WWF International (2004), which in turn referred to a document published two years earlier (Toyne *et al.* 2002). Data used by the latter report are from a document that had appeared on the Internet during the previous year and which stated that 'over half of the logging taking place was estimated to be illegal' (CED 2001 p. 2) but failed to quote any source or methods used to obtain those estimates.

FERN (2003) reported that illegal logging in Cameroon accounted for 50% of all timber harvested. This statement, however, cannot be found anywhere in the report by Global Forest Watch (2000) quoted by FERN. Global Forest

Watch (2000 p. 28) had actually reported that '56% of logging licenses were still operating in 1997/1998 even though the duration of their logging rights had expired'.¹⁵

The audit of the forestry sector carried out at the end of 1990s (CIRAD-I&D 2000) is another source that has been distorted. In estimating the rate of IFAs, the audit considered only the permits called 'sales of standing volumes'. Valid titles covered a surface of about 190,000 hectares in 1998/1999 (CIRAD-I&D 2000; Fochivé 2005),¹⁶ but only about 20% of that surface was officially exploited (CIRAD-I&D 2000).¹⁷ The audit reported that at least half of the 'total cases' (among sales of standing volume) seemed to record some kind of illegality, mainly exploitation outside the boundary (CIRAD-I&D 2000, Annexe VI, p. 12). The audit's words have been stretched to refer to illegal extraction (Hardwoodmarkets.com 2000) and illegal logging and trade (Forest Monitor 2001) in all titles used in the major logging region of eastern Cameroon.

It is obvious that despite the concern about IFAs, there remains significant uncertainty about their real extent in Cameroon.

Estimating the Illegal Log Harvest

The volume of illegally harvested logs cannot be measured directly. It can only be inferred by comparing official data on volumes of harvested logs with data on the roundwood equivalent required in the production of a known or estimated volume of timber products.

We assess total log harvest by using data from the government of Cameroon because (1) it is the main source used in the past to obtain estimates of illegal harvest, and (2) these data appear to be relatively reliable, as discussed below.

We compiled government log harvest data as follows. For the period 1991-2000 we use data recorded by the ministry,¹⁸ and for 2001-2004 period data from the Enhanced Forestry Revenue Program, based at the Ministry of Finance, which records data relating to harvested volumes for which payments were obtained.¹⁹ Estimates of logs harvested in community forests are available since

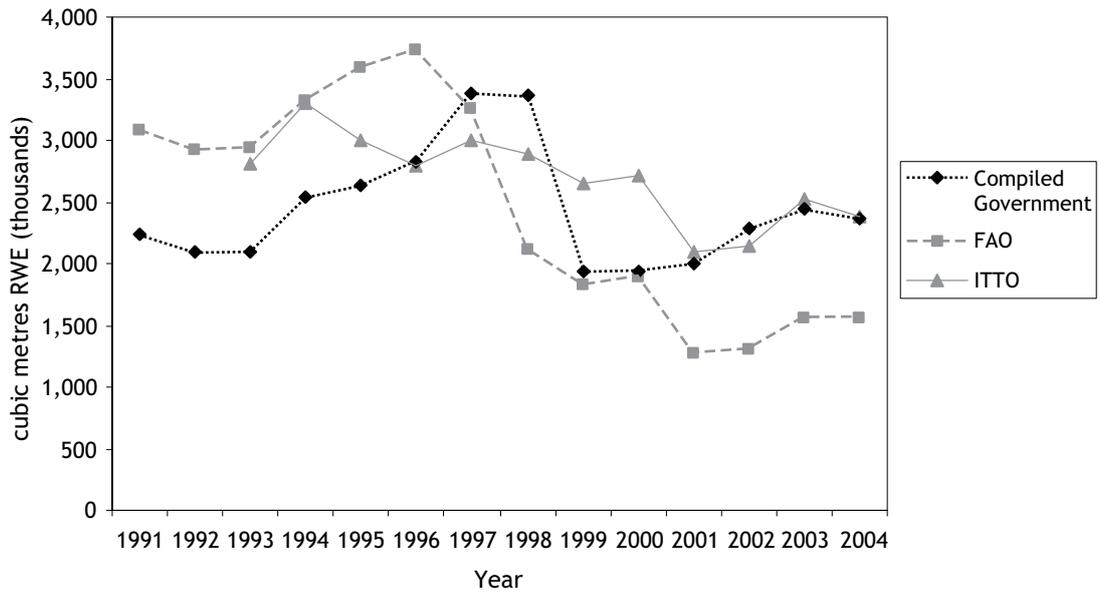


Figure 1. Estimates of log harvest

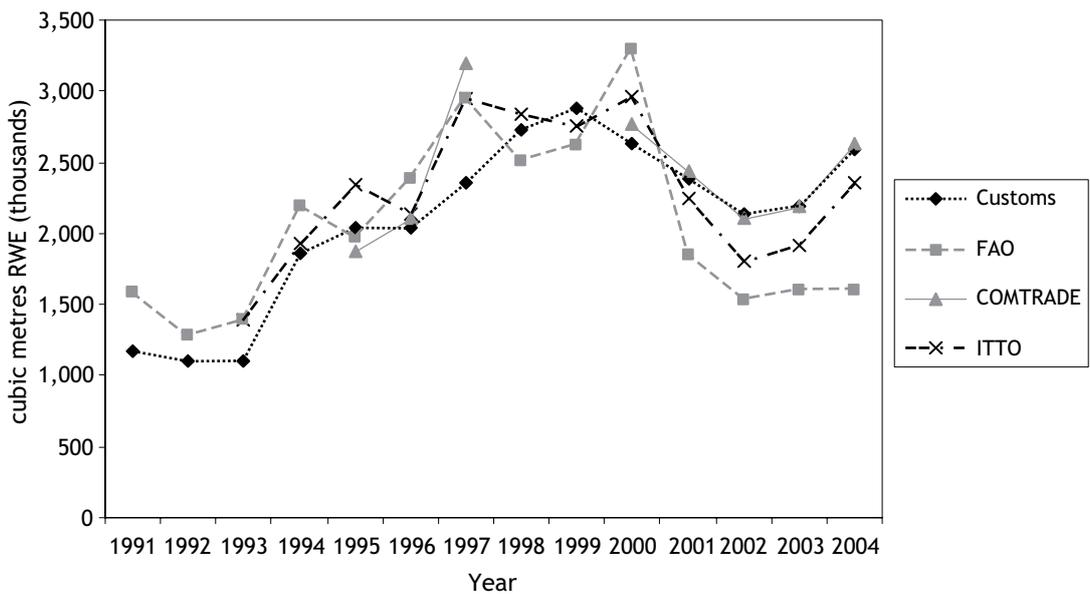


Figure 2. Export of timber products from Cameroon

2002/2003 (MINEF 2004) and we have added them to the data from the Enhanced Forestry Revenue Program for 2003 and 2004.

We compared the compiled government data on log harvest and exports with other sources to verify their reliability (Figure 1 and Figure 2). This comparison may seem irrelevant given that government data should be the only source for any other international source. In fact,

it reveals that differences do exist between government data and other international sources and also among international sources. The literature explains why such discrepancies may occur (e.g. Goetzl 2005). We note that government data on production do not show large differences when compared to other international sources, and thus can be reliably compared to exports to estimate the rate of export related IFAs.

We estimate the actual log harvest by adding the exports of roundwood to the roundwood equivalent (RWE) of processed and exported products at the main port of Douala.²⁰ Production data presented in Figure 1 are likely to underestimate the total demand for Cameroonian timber products, given that medium and small-scale loggers' production is mostly unaccounted for. However, the latter is largely used to feed the domestic market (Plouvier *et al.* 2002; JMN Consultant 2005), minimally affecting export-related IFAs. The contribution of this sector to IFAs will be discussed in a later section.

The data used for this purpose are produced by the Customs division of the Ministry of Finance, and they have minimal differences (4% and 9% respectively for 2003 and 2004) from data reported independently by the Ministry of Forests at the port of Douala, assisted by an ITTO project to collect, manage, and distribute export statistics (MINFOF, 2005c). Moreover, Customs' data are similar to those presented both by a recent study carried out by the *Groupeement de la Filiere Bois au Cameroun* (GFBC 2006), the union representing almost all the largest industrial groups, and to those collected by the private company managing the port of Douala (SEPBC 2004, 2005, 2006). For these reasons, we regard Customs' data as reliable.

Customs' data are also consistent with those from international sources (Figure 2). The total volumes estimated by ITTO and COMTRADE²¹ over the whole period differ on average only by 2.0% and 3.6%, respectively, from the volume recorded by Customs, with the FAO time series showing differences of 3.4%. In recent years, however, FAO's data are much lower than those from the other sources.

Timber exports from Cameroon were also compared with timber imports recorded by the various trading partners (Figure 3). Consistency among international sources is not as good as for export data, with discrepancies on the same year reaching up to 47 percent. Yet, Cameroonian export data never show the lowest value in the whole time series, as one would expect as a clear sign of illegal declarations. We present our estimates of illegal logging in Table 1.

For the periods 1990-1998 and 2001-2003, a comparison of declared harvest data with export data indicates that timber products were not exported in excess of the declared harvest (Table 1 column D). The presence of some illegalities, however, is indicated by the data for the period 1998-2001 and 2004. In this respect, it is worth noting the following issues. First, we do find evidence of industrial illegal harvesting, i.e. exports in excess of official production, but the rate neared 50%

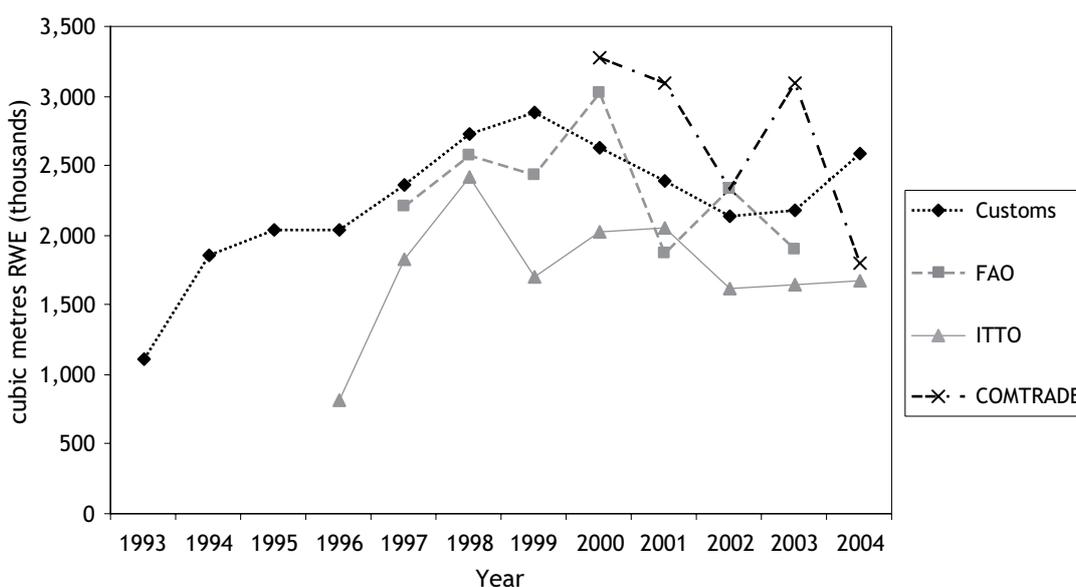


Figure 3. Import of timber products from Cameroon vs Exports

Table 1. Estimates of export-related illegal logging

Year	A* Declared harvest (m ³)	B# Exports (m ³)	C Difference (B-A) (m ³)	D Export-related illegal logging rate (%)
1990/91	2,232,000	1,171,000	-1,061,000	—
1991/92	2,096,000	1,099,000	-997,000	—
1992/93	2,100,000	1,107,000	-993,000	—
1993/94	2,542,000	1,856,000	-686,000	—
1994/95	2,628,000	2,035,000	-593,000	—
1995/96	2,820,000	2,039,000	-781,000	—
1996/97	3,378,000	2,362,022	-1,015,978	—
1997/98	3,358,000	2,732,000	-626,000	—
1998/99	1,937,778	2,877,629	939,851	48.5
1999/00	1,931,515	2,627,499	695,984	36.0
2000/01	2,004,028	2,386,423	382,395	19.1
2001/02	2,278,371	2,135,961	-142,410	—
2002/03	2,448,147	2,185,349	-262,798	—
2004	2,366,144	2,586,088	219,944	9.3

* Data source: 1990/91-1997/98 CIRAD-IF&D (2000, Annexe 2); 1998/99-1999/00 SIGIF data; 2000/01-2001/02 PSRF data; 2002/03-2004 PSRF data, includes official Community Forests production.

Data source: Customs division of the Ministry of Finance.

‘—’ means no export of timber products in excess of the declared harvest

only in 1998/1999. The 1998/1999 data has been used as reference in the literature to date, as shown in a previous section, even though the data show that, using the same evaluation criteria, the average rate in recent years is well below the oft-cited 50%. Second, illegal harvesting has decreased since the first year in which we detect it. This reduction may be an indication that industrial operations, the major source of exports, were affected by the regulatory changes that occurred in the late 1990s, and as legal access to logs increased illegal harvesting decreased. This means that industrial illegal harvesting over that period may have been caused, at least in part, by a bureaucratic bottleneck. The 2004 reappearance of discrepancies between export and production figures is likely to be caused by the ministry itself. As documented by a recent independent observer's report (Resource Extraction Monitoring 2006), the ministry has recently been delivering a large number of 'special logging permits', to both industrial and small-scale loggers, that are not

registered in the official production data but that are eventually exported, thus registered by Customs. As reported by the independent observer, the vast majority of those special permits are illegal.

In concluding this section we note that monitoring activities carried out by Global Witness, acting as independent observer of forest activities from 2001 to 2005, seem to corroborate our findings. It has reported on several occasions the existence of illegalities concerning harvesting activities (Global Witness 2003, 2004, 2005), and even if its localised findings have never been used to estimate the volumes of timber illegally harvested at national level, during its mandate the independent observer registered 'a trend ... towards decreasing infractions in the forest sector' (Global Witness 2005 p. 6).

We now consider the relationships between livelihoods and illegality.

Livelihoods and Logging

In this section we discuss IFAs and decisions taken by the public administration that probably have significant negative impacts on livelihoods.

Small-scale Logging Titles

The number of Cameroonians involved in logging activities had already grown significantly during the period of economic depression (Bubinga 1999), and was further boosted by the delay in the attribution of concessions and the consequent lack of timber for large-scale operators in the second half of the 1990s. The number of national accredited loggers grew from 296 in 1987 (Eba'a Atyi 1998) to 519 in fiscal year 1997/98. The amount of wood harvested by individuals or small enterprises grew from 250,000 m³ in 1996 (Enviro-Protect 1997) to 500,000 m³ in 2000 (CIRAD-I&D, 2000). More recent estimates put the production by small-scale loggers at around 1 million cubic metres (Plouvier *et al.* 2002), 90% of which is traded on the local market.²² Considering that 40% of this timber is sourced from industrial scraps (Plouvier *et al.* 2002; ONF *et al.* 2002; Lescuyer forthcoming),²³ the total harvest for domestic consumption can be estimated at about 540,000 m³.

At the end of the 1990s, according to the government, small-scale activities were mainly carried out illegally. As the ministry was unable to take control of what was happening on the ground, the donor community backed the government, if not pushed it, to suspend the titles used by small-scale loggers in 1999 (Brunner and Ekoko 2000; Plouvier *et al.* 2002). It is worth noting that, after the suspension,

the above mentioned 540,000 m³, which represented about 24% of the official declared production each year in the period 2000-2004 (Table 1 column A), were to be considered as illegally harvested. They are not included in Table 1 (column D), because they do not pertain to export-related illegal harvest, but it is striking that, while both the ministry and the donor community kept focusing on industrial illegal logging and trade, e.g. FLEGT, no steps were taken to deal with this type of logging even when the situation kept rapidly deteriorating.

The aims of the suspension were to improve sustainability and to decrease corruption. These aims may seem worthwhile, but the ministerial decision to suspend small-scale logging was an illicit act because it was against the hierarchical order of norms in place in Cameroon, which does not authorise an administrative act, like the ministerial decision, to modify a higher level act, like the 1994 forestry law, providing for the use of those permits (Cuny *et al.* 2004). The ministerial decision could be considered as a measure taken to improve management in the forestry sector, as it has been regarded by officials for many years, but it should have at best been a temporary measure. Instead, it remained in place until 2006, when another administrative act annulled it, allowing small-scale logging titles. The 2006 decision,²⁴ however, was published together with a Circular Letter²⁵ banning all exports of timber harvested using small-scale logging titles or sourced from community forests that subcontract harvesting operation to someone external to the community, once again modifying the forest law.

Given the negative impacts resulting from the 1999 decision, its rationale needs to be scrutinized. First, as documented above, most small-scale operations harvest in the non-permanent forest estate. It is unclear, therefore, why the ministry was concerned about the sustainability of their operations. By definition, the non-permanent forest estate can be converted to other uses. Furthermore, as noted by Jeanmart (2005, cited in Vandenhoute and Heuse 2006), the current management rules set by the ministry allow the non-sustainable use of the permanent forest estate by large companies.²⁶ This seems at odds with the ministry concern for the non-sustainable use of the non-permanent forest estate.

In relation to corruption, the decision fostered a widespread network of rent-seeking activities, 'the true beneficiaries being administrative authorities and controllers' (JMN Consultant 2005 p. 58). In fact, the ministry (1) kept issuing logging agreements, and in 2004 there were some 672 national loggers (Fochivé 2005), about 150 more than at the time of the ministerial decision; and (2) increased the number of suspended or special logging permits issued over the entire period 1999-2005, most of them without respecting the law (Resource Extraction Monitoring, 2006). This brings us to the impacts of the 1999 ministerial decision on livelihoods.

The latter can be gauged by considering the number of people employed in the sector. Plouvier *et al.* (2002) estimate the number of jobs directly in the small-scale logging sector at about 6,300, which likely is an underestimate. Even at that level, however, it constitutes about half of the direct employment in the forestry sector, which is estimated at around 12,400 (Fochivé 2005).²⁷ Also significant is that the vast majority of industrial workers receive relatively low wages (Eba'a Atyi 1998), which range between US\$47 and US\$280 per month (ONF *et al.* 2002). On the contrary, small-scale timber production appears to be a highly profitable business showing essentially positive impacts on rural livelihoods (Plouvier *et al.* 2002; Lescuyer forthcoming). Unfortunately, detailed nationwide data on the economics of small-scale logging are still missing. For instance, a recent report estimated at about US\$12 million the revenues of the informal market considering only the capital, Yaoundé (JMN Consultant 2005), but the distribution of

benefits between businessmen and labourers is not known in detail. We can expect, however, that the banning of these activities has resulted in increased costs of operations, e.g. higher bribes to be paid and lower market opportunities. Indeed, as Koffi (2005) found, and as confirmed by the preliminary results of the audit of the forestry sector ongoing at the time of writing, the most important constraint for the legal development of the small-scale sector is represented by government officials who constantly ask small-scale loggers for bribes (CIRAD 2006).

The 1999 ministerial decision did not stop the activities it intended to halt, it fostered corruption, and it has negatively affected livelihoods. Therefore, past experience indicates that the 2006 decision is unlikely to solve existing problems if the ministry will not actively seek to (1) integrate small-scale loggers into the formal market, possibly adopting appropriate financial measures,²⁸ and (2) address the problem of corruption.

Community Forests

After the 1999 suspension of all small-scale logging titles, community forests remained the only legal harvesting areas available to small-scale loggers. Similarly to FMUs, community forests must be managed according to an approved management plan based on a 25-year rotation period. Unlike FMUs, however, community forests can only be located in the non-permanent forest domain. Since the latter does not need to be managed sustainably, there is no environmental logic in requiring community forests to have a relatively expensive management plan, with obvious implications for livelihoods. Communities should be allowed to decide whether to manage their community forests sustainably (possibly with the preparation of a simple management plan) or to convert them to other uses. Alternatively, if the establishment of community forests is regarded as a possible way to manage forests on a sustainable basis, the law should provide for the establishment of community forests in the permanent forest domain. In that case, there should be a requirement for a simple management plan.

To favour the shift of small-scale loggers from suspended logging titles to community forests,

in 2001 the government issued a circular letter that suspended the option provided by the 1994 law for community forests to be exploited with industrial means.²⁹ Since then, only mobile saws and chainsaws may be used in community forests, largely restricting the powers, and accrued responsibilities and gains, that the 1994 law intended to give them (Oyono 2004). To date, community forests have not achieved any of their initially expected results (Cuny *et al.* 2004), which included an increase in local employment and revenues and better livelihoods for the entire community. This shortfall is partly a result of the management burdens the government placed on community forests. Moreover, as noted above, a recent circular letter suspended the possibility for timber sourced in community forests to be exported. Again, this seems at odds with the initial focus of the 1994 law which introduced community forests as a way to increase local livelihoods. This export ban imposed on small-scale timber producers has potential negative impacts because timber attracts higher prices on the international market than on the domestic market.

In some way, the decision to favour small-scale loggers to harvest community forests would seem a positive one from the perspective of small-scale loggers. Official data show, however, that this is not an issue on the ministry's agenda. In fact, on one hand, surfaces granted to community forests since their inception can provide less than 10 percent of the timber actually needed (and logged) by local loggers (MINEF 2004). On the other hand, sales of standing volume, which should have been decreasing to allow for more surfaces logged in community forests, followed that path only initially, going from 192,500 ha allocated in 2000/2001 to 47,500 ha in 2002/2003, but increased again in 2004 and 2005 (reaching 100,000 ha and 95,000 ha respectively), highlighting the weak priority given by the government to community forests and local livelihoods, even when officially legislating at the end of 2001 for the pre-emption right by communities over sales of standing volume.

The Annual Area Tax

Livelihoods have also been negatively affected by IFAs of a financial nature. Art. 68 of the

1994 forestry law provided for the population living on the borders of forest concessions to obtain part of the annual area tax payable by concessionaires. The government is supposed to redistribute the area tax according to a 50-40-10 ratio respectively among the state, the local councils, and the local population. The latter should set up management committees (presided by the municipal mayor) to administer the funds. The intention of the law was that the local population benefit directly from logging activities in the permanent forest domain by receiving a share of the tax and indirectly from the services provided by the local councils. Unfortunately, this is not yet happening. Misuse of the area tax has been well documented (Bigombe and Dabire Atamana 2002; Bigombe 2004; Oyono 2004, 2005; Assembe Mvondo 2005).

Two audits have assessed the tax redistribution system (Nzoyem *et al.* 2003; Ndjanyou and Majerowicz 2004). The conclusion concerning the area tax and poverty was that 'one must lament on the low efficiency of the income generated from the forest in the fight against poverty' (Ndjanyou and Majerowicz 2004 p. 7). In the period 2000-2005, about US\$67 million have been redistributed to local municipalities and management committees (MINEFI 2006). Their use up to date has been 'made too often outside the management rules set out for public funds' (Ndjanyou and Majerowicz 2004 p. 6). Oyono (2005) acknowledges the economic failure of the redistribution system and highlights new social problems caused by that same system: among others, the emergence of a new local 'forestry elite' constituted by the few people managing the area tax and the marginalisation of traditional leaders, which contribute to generating new unresolved internal conflicts in the local population.

The 2003 audit (Nzoyem *et al.* 2003) called for stronger political will to engage in the redistribution process, especially the need for improved collaboration among different ministries. Unfortunately, few of the recommendations were implemented (Ndjanyou and Majerowicz 2004), highlighting once more the low priority given in the ministry's agenda to addressing IFAs and to increasing the benefits rural people derive from logging.

Conclusion

During the past decade the international community has increasingly focused on illegal logging and its potential negative impacts. Illegal logging has been perceived to be widespread, to cause significant environmental damage, and to impoverish rural communities that depend on forests (Contreras-Hermosilla 2002; European Commission 2004). Our study of Cameroon shows that the reality of illegal logging is much more nuanced and there is a need to focus on a set of IFAs wider than illegal harvest.

We have documented how the quantitative estimates of illegally harvested timber in Cameroon had distorted the original sources and were not based on sound estimates. There is evidence of illegal industrial log harvest only during the period 1998-2001 and in 2004, and at decreasing levels well below the widely reported level of 50% of total harvest.

We have shown that small-scale logging operations have provided the largest contribution to the illegal log harvest, particularly in recent years. However, had the government not acted illegally by suspending all small-scale logging activities in the period 1999-2006, the supposedly illegal log harvest would obviously have been much smaller. This point highlights the need to consider issues wider than the illegal log harvest to address the problems faced by the forest sector. The whole forest sector and the related IFAs need to be addressed.

We have shown that in the Cameroonian forest sector there has been a historical pattern of marginalization of the local population, the recent thread of which goes through the illicit

banning of small-scale logging activities, the extremely limited and poorly stocked areas allocated to community forests, and the misuse of revenues from the area tax that was supposed to benefit local people. It is only by redressing this marginalization that the forest can contribute to the improvement of livelihoods in Cameroon.

Whether it is actually possible to change forest use patterns to reduce local people's marginalization remains to be seen. The data and documentation indicate a pattern of illicit activities associated with the public administration as well as a lack of action to redress some of the problems highlighted. The allocation of forest concessions is affected by continued lack of transparency, personal interests on the part of some commissioners in companies participating in auctions for forest concessions, and lack of action on the independent observer's recommendations to improve the auction system. There is also evident lack of action by the government to assess the impact of its decisions on small-scale loggers and to address the misuse of the area tax.

The government has also in effect undermined the sustainable management of the permanent forest estate by allowing forest concessionaires to log for years without an approved management plan as mandated by law and by issuing management rules that allow for valuable species to be harvested unsustainably. These actions impact on the environment to a greater degree than the illegal log harvesting currently carried out by small-scale operators. We do not imply that there are different degrees of sustainability

criteria to be applied to small-scale logging as compared to industrial logging, but these two activities operate under very different legal frameworks. Small-scale loggers mainly harvest in the non-permanent forest domain (Plouvier *et al.* 2002), which can be legally converted to non-forest uses, while industrial logging takes place in the permanent forest domain. Only the latter is mandated by law to represent the ecological diversity of the Country. Thus, the ministry's priorities on sustainability issues should be arranged accordingly. As well, organizations concerned by the environmental impacts of illegal logging should consider these in deciding their priorities for actions aimed at supporting sustainable environmental management.

International initiatives such as the Action Plan on Forest Law Enforcement, Governance and Trade of the European Union focus on increasing the capacity of developing countries to control illegal logging and eliminating trade in illegal timber products between exporter and importer countries. These initiatives need to take into account

the nuanced nature of illegal logging in order to avoid negative impacts on livelihoods. For instance, a Voluntary Partnership Agreement (see European Commission 2005), aimed at reducing the import into the European Union of logs harvested illegally in Cameroon, is unlikely to have much impact on IFAs that 'impoverish rural communities that depend on forest products for a living' (European Commission 2004 p. 1) if those IFAs are unrelated to the export market. It could even result in negative impacts on livelihoods if it led to the exclusion of timber harvested by small-scale operators, as it is already happening in Cameroon.

To move from avoiding negative impacts to actually having *positive* environmental and social impacts on the forest sector, international initiatives focused on Cameroon would have to give priority to the integration of small-scale operators in a transparent and well-structured domestic and international market, address the misuse of the area tax, and ensure that the forest in permanent forest domain is managed sustainably.

Endnotes

¹ Illegal logging is a subset of IFAs. It takes place when timber is harvested, transported, bought, or sold in violation of national laws. The harvesting procedure itself may be illegal, including corrupt means to gain access to forests, extraction without permission or from a protected area, cutting of protected species, or extraction of timber in excess of agreed limits. Illegalities may also occur during transport, including illegal processing and export, misdeclaration to customs, and avoidance of taxes and other monies (Brack and Hayman 2001).

² This view was expressed, for example, by the representative of a trade federation at a workshop on illegal logging organized in Indonesia (August 2004) by the Association of South East Asian Nations and the Swedish International Development Agency.

³ The proposed classification remains a draft until the land is gazetted (Lescuyer forthcoming). This gives the local population the opportunity to negotiate with government officials about the final boundaries of the forest domain surrounding their villages. An analysis of the 39 forest management units attributed between 1996 and 2002, which are registered as having a definitive surface, reveals, however, that the latter decreased only by 2% compared to the originally proposed surfaces. This minute decrease in surface area indicates that the consultation process with the local population has limited influence on the forest allocation process.

⁴ FAO data report a production of about 2.7 million cubic metres for 1985 (<http://faostat.fao.org>).

⁵ The minister in charge of forestry grants sales of standing volume through a public invitation to tender, on state production

forests and on forests of the national domain. Sales of standing volume granted on the latter cannot exceed 2,500 hectares and do not need management plans.

⁶ The minister in charge of forestry awards a provisional, non-renewable three-year contract through a public tender, during which the company should prepare a management plan. The prime minister is the competent authority for signing the final contract, which may be granted only on state production forests. The area allocated to a single subsidiary must not be more than 200,000 hectares and must be logged according to an approved management plan. The final contract is for a duration of 15 years and is renewable.

⁷ Art. 22 of the 1994 forest law.

⁸ After the last elections, the Ministry of Environment and Forests changed its name to Ministry of Forests and Fauna. It will be referred to as 'the ministry' in this paper.

⁹ *Convention définitive*. For a definitive protocol to be signed, the two most important things are an approved management plan and gazetted surfaces.

¹⁰ Lately, the ministry seems to have increased the performance of the management plans approval process. As of January 2006, 43 concessions had approved management plans, covering some 3.4 million hectares, or about 60% of the already granted permanent forest domain. However, since no concession is yet managed under a definitive protocol, all management plans, even if approved, are still to be considered as based on temporary surfaces.

¹¹ Art. 20(3) of the 1994 forest law.

¹² Decree 518/MINEF/CAB of 13 December 2001.

¹³ Forestry taxes include the annual area tax, the felling tax, the sawmill entry tax, and the log export tax.

¹⁴ From a silvicultural standpoint, a management plan should divide an FMU into 30 units (*assiettes de coupe*), and thus it is conceived to last for a period of 30 years. Please refer to Durrieu De Madron and Forni (1999) for a silvicultural analysis in Eastern Cameroon.

¹⁵ These licenses were all phased out by 2000/01.

¹⁶ The figures are 189,220 ha in Fochivé (2005) and 191,720 ha in CIRAD-I&D (2000); both cite the ministry as the source.

¹⁷ Sales of standing volumes decreased even more later on, and covered 47,500 ha in fiscal year 2002/2003 (MINEF 2004b; Fochivé 2005). In 2004, they increased again, up to 87,500 ha (MINFOF 2005a).

¹⁸ A computerized system, the Système Informatique de Gestion des Informations Forestières (SIGIF), started recording timber production in 1998/1999. Before that date, data were collected and pre-processed manually by the ministry's provincial services and then delivered to the central level.

¹⁹ Log harvest data from EFRP are higher than the SIGIF data mainly because titles not included in the SIGIF actually pay the felling tax and are thus registered by the Ministry of Finance. According to the law, the two ministries must operate together, but this has never eventuated.

²⁰ The conversion factors applied to derive roundwood equivalents are 3.0 for sawnwood and 2.2 for other processed products (veneer and plywood), as suggested by the Ministry of Finance and reported by other authors (CIRAD-I&D 2000; Wunder 2003). It should be noted, however, that a recent analysis of the industrial sector (Fochivé 2005) and interviewed officials at Ministry of Finance (Mbok personal communication, April

2005) seem to indicate that conversion rates are increasing (i.e. above 30% for sawnwood) for some companies. In this case, differences in column C of Table 1 would be even greater for 2002/2003 and 2004, i.e. larger negative figures.

²¹ SITC Rev.3 classes 247, 248, and 634 have been used for roundwood, sawnwood, and veneer and plywood, respectively. HS92 used classes are 4403, 4407, 4407, and 4412 for roundwood, sawnwood, veneer, and plywood respectively. Conversion factors kg:cum were derived from EUROSTAT data, which reports exports both in kilogrammes and cubic metres for the same classes.

²² The government estimates it at 1.5 million cubic meters (MINEF 2004b), but it does not provide any reference to the methodology used to calculate that figure.

²³ ONF *et al.* (2002) indicate rates of 10-20% for sawmills in urban areas (mainly Douala) and 40-50% for those based in rural areas.

²⁴ Decision No. 0124/D/MINFOF/SG/DF/SDAFF/SAG of 16 March 2006.

²⁵ Circular Letter No. 0131/LC/MINFOF/SG/DF/SDAFF/SN of 26 March 2006.

²⁶ Current management rules, regulated by Arrêté 0222/A/MINEF of 25 May 2002, allow companies to leave some of the most valuable and harvested species out of the list of managed species to be included into the management plan. This means that those species' regeneration rates may be well below the minimum legally accepted sustainable rate of 50%. For more details, see Vandenhoute and Heuse (2006).

²⁷ Wunder (2003) reports direct forest employment to be 33,000.

²⁸ Some financial measures were recommended by the first audit of the forestry sector (CIRAD-I&D 2000), and will probably be proposed again by the new Audit (CIRAD 2006).

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Concern about illegal logging has grown considerably over the past decade due to the interest in its environmental impacts, and more recently as a result of its perceived impacts on livelihoods. We find that the reality of illegal logging is much more nuanced than has been depicted and that there is a need to focus on illegal forest activities (IFAs) beyond just illegal harvest. We show that the illegal log harvest in Cameroon is smaller than previously thought and that, in recent years, small-scale operators forced to operate illegally by an illicit ministerial decision contributed a significant share. We provide suggestions to the government and donor community about priority areas for interventions related to IFAs, sustainability, and livelihoods. These include allowing small-scale logging operations as a way to reverse the historical marginalization of rural people and reducing the misuse of the forest area tax, which is supposed to benefit rural communities.

