



Illegal logging and sustainable development in Ngambé Tikar (Central Cameroon)

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Abstract

Sustainable forest management is a major challenge for sustainable development. Because of their rich biodiversity, tropical rainforests in general and those of the Congo Basin are faced with legal and illegal logging activities that deserve to be discussed in terms of their contribution to sustainable development. The objective of this study is therefore to show the impact of illegal logging activities on sustainable development in Ngambé Tikar. To achieve this objective, the approach adopted was based on the Accelerated Participatory Research Method, combining documentary research on forest exploitation and management in Cameroon, independent community observation of the forests, semi-structured interviews with logging companies and the local administration in charge of forest control, and direct observations in the field. The results indicate that there are industrial loggers who hold exploitation titles, notably forest management units, timber sales and community forests, and artisanal sawyers who are illegal, but who pay royalties to local customary chiefs in exchange for standing trees. Both categories of actors exploit timber illegally by committing environmental, fiscal, administrative and social infractions. On the other hand, although this illegal logging causes a huge loss of revenue to the state and local communities, it is a source of income for the loggers because of the profits they make from the timber trade, as well as for the local authorities and traditional rulers to whom the loggers pay bribes and royalties to operate. The adherence of loggers to forest certification and the eradication of corruption in the forestry sector are measures that can contribute to sustainable forest management in Ngambé Tikar.

Keywords: illegal logging, sustainable development, timber, Ngambé Tikar, Cameroon

Introduction

The sustainable management of tropical rainforests is a major challenge for the conservation of biodiversity and the fight against global warming. Cameroon has a large forest area estimated at about 22 million hectares, which is highly coveted for its rich biodiversity by formal and artisanal loggers operating legally or illegally. In order to improve governance in the forestry sector and promote sustainable forest management, Cameroon, like most countries in the Congo Basin, has embarked on a process of decentralising the management of forest resources to enable local communities and the state to benefit from the revenues generated by the exploitation of forests to ensure development. Community-based forest resource management has emerged as a cornerstone in the process of improving people's participation in the conservation and management of forest resources for the betterment of their lives (WRI, 2012) ^[12]. In the same vein, Lescuyer and Cerutti (2013) ^[7] argue that for the past two decades, forest countries in the Congo Basin have been implementing policies to sustainably manage their forest resources and reduce poverty. Cameroon is committed to promoting and then marketing timber and forest products as a means to revive the national economy. Studies conducted jointly by MINFOF and CIFOR in 2013 reveal that Cameroon's forestry sector is very important to the national economy, having consistently accounted for 2.7% of GDP between 2008 and 2010. However, these forests have long been the focus of concerns about looting and illegal logging, which are causing forest destruction and biodiversity loss. Indeed, Cerruti and Tacconi (2006) cited by Cerutti *et al* (2009) ^[2] estimated that informal logging removes about 540,000 m³ of timber each year without state control or monitoring. In

addition, this causes a huge loss of revenue to the state due to lost tax revenues and keeps local populations in a state of poverty and social insecurity. In economic terms, illegal logging causes a huge financial loss to the state due to the shortfall in the tax base. In 2006, for example, illegal exploitation of community forests caused Cameroon to lose nearly 1.25 billion CFA francs (Cuny, 2011) ^[4]. Moreover, these operators do not always pay the Annual Forestry Royalties (RFA) due to the local populations. It is therefore reasonable to believe that local populations do not always benefit from the revenues generated by this exploitation as supported by Cameroon's 1993 forestry policy (Cerutti and Lescuyer, 2011) ^[3]. Nevertheless, taking the specific case of informal sawing, it also has positive socio-economic aspects. Indeed, Cerutti and Lescuyer, *opcit.* consider that its main source of attractiveness in rural areas is its economic profitability. According to these authors, the informal artisanal sawmilling sector generates a significant level of income, particularly for rural populations, and profits in both rural and urban areas. In addition, according to the authors, the informal wood production sector provides thousands of jobs in Central African countries. In the specific case of Cameroon, about 45,000 people find their main employment in this sector. This is probably what led them to assert that the informal artisanal sawmill sector, which supplies domestic and regional markets, has become the majority in terms of volume of wood produced, as well as employment and income provided.

Furthermore, these authors note that local people are not the only actors to derive significant income from artisanal sawing, as around 9% of the costs borne by artisanal sawyers represent payments to the various forms of public authority present either at the place of exploitation or

installed on the timber transport routes. For the same reason, Lescuyer and Cerutti, opcit. argue that informal logging is also a source of income for actors outside the villages, who are representatives of the administrations and urban elites. This study is based on the theory of the tragedy of the commons, according to which a resource that is freely accessible without a regulatory authority is doomed to degradation, especially since corruption in the forestry sector leads to laxity and impunity on the part of forest control and hunting personnel in the face of forest infractions committed by rogue loggers. Underlying the hypothesis is the idea that logging as practiced in Ngambé Tikar is not sustainable. Documentary research and field investigations have enabled an analysis of the impact of logging on sustainable development in Ngambé-Tikar.

Materials and methods

1. Geographical framework of the study

Ngambé Tikar is a Subdivision located in the Mbam and Kim Division, Central Region of Cameroon. It covers an area of 6902 km² and extends geographically between

5°18'45"N and 5°56'15"N, then between 11°9'20"E and 11°54'40"E. It is bounded

- To the north by Bankim Subdivision
- To the south by Ngoro Subdivision
- To the east by Yoko Subdivision
- To the west by Malantouen Subdivision (Fig.1).

This territory is located in the large area of the Tikar plain covering the entire upper Mbam valley. Phytogeographically, it is located in the equatorial Guinean climate zone (2 rainy seasons and 2 dry seasons) with annual rainfall of between 1500 and 2000 mm. It is covered by a forest-savannah mosaic dominated by a dense semi-deciduous humid forest with sterculiaceae and ulmaceae (Letouzey, 1985). Its population was 12,489 according to the last RGPH of 2005 and population densities are very low (about 2 inhabitants/km²). Logging is a prosperous activity in the locality with the installation of the logging company SMK (Scierie du Mbam et Kim) which employs several young people and the presence of several artisanal sawyers who operate clandestinely

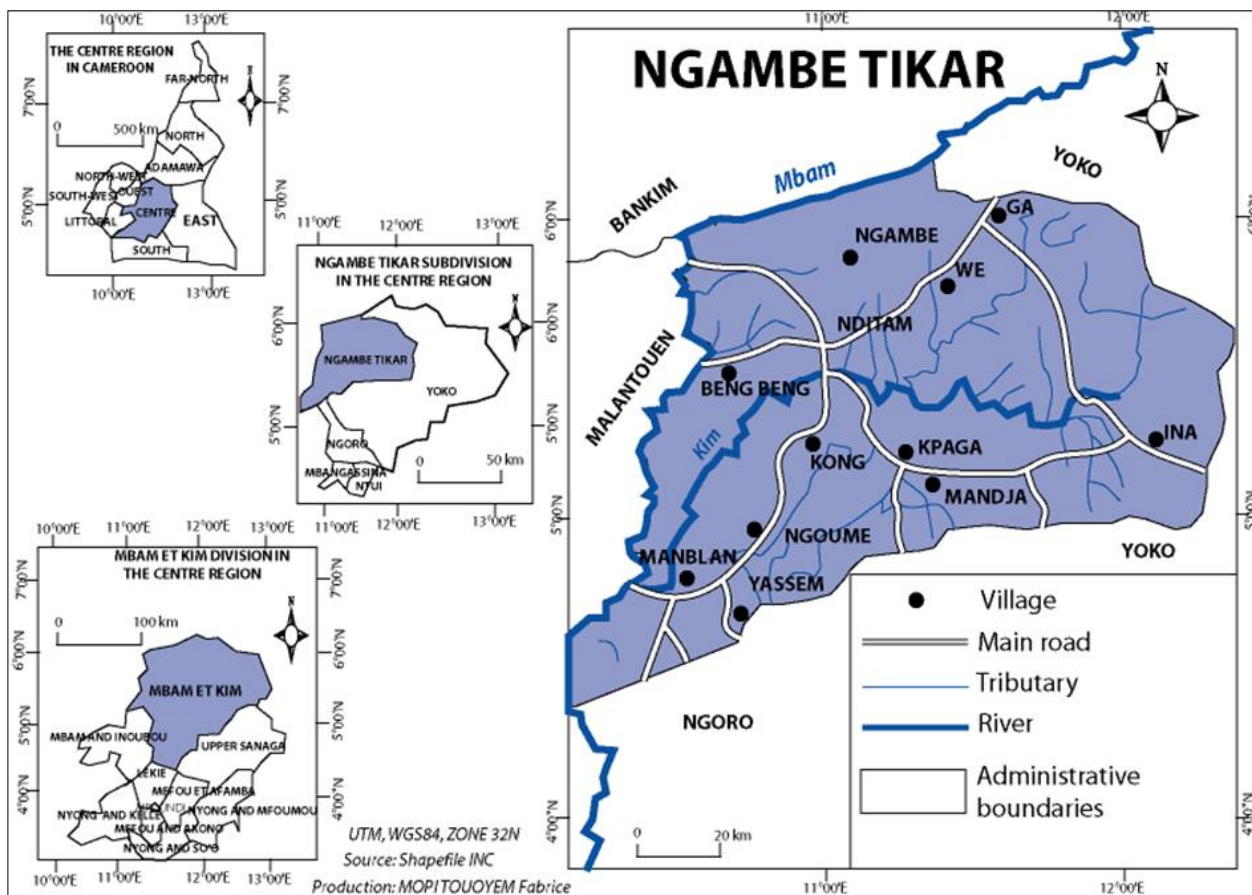


Fig 1: Location of Ngambé-Tikar Subdivision in Cameroon

Methodology

The method used for this study was based on the Accelerated Participatory Research Method (APRM) which combines various techniques for collecting and analysing information. This methodological approach combined documentary research on forest exploitation and management in Cameroon with independent community observation of forests, which is a participatory approach involving local populations in the monitoring of timber exploitation operations in their communities. These

populations are first trained in the identification of observed forest infractions, which they note on a form. Subsequently, semi-structured interviews with logging companies and the local administration in charge of forest control and direct observations in logging sites allowed for a better understanding of the functioning mechanism of the forestry activity and the issues at stake. The data collected was subjected to statistical and content analysis. Frequency graphs were drawn up in the Excel spreadsheet to express the level of infractions noted in each type of logging permit.

Results

1. Timber exploitation and forest crimes

1.1 Illegal artisanal sawing of timber

Clandestine sawing of timber is a common activity in the forestry sector of the Ngambé Tikar district. The sawn timber is then sold on the market in urban centres for use as building material, timber and the residues are used as fuelwood in households.

Given the prosperity of this market, several illegal sawyers come to exploit wood without any logging permit. They do

so on the basis of informal contracts with traditional authorities to whom they pay bribes for logging rights. In return, the village chiefs grant them plots of forest in the national domain through the intermediary of some local residents who act as negotiators. Part of the income from the clandestine sale of these forest plots, called 'royalties', is then redistributed to the community in the form of material donations. Huge quantities of wood are regularly sawn illegally from the forests in Ngambé Tikar (Fig. 2).



Fig 2 : Illegally sawn timber piled up in a wood yard in the forest in Ngambé-Tikar

1.2. Industrial logging

Industrial logging is also practised in Ngambé-Tikar by logging companies that hold logging permits issued by the Ministry of Forestry and Wildlife (MINFOF). The forestry entities identified in Ngambé-Tikar include.

a. Forest Management Units (FMU)

Forest management units were created by law No. 94/01 of 20 January 1994 on the regime of forests, wildlife and fisheries. They are allocated by tender within the permanent forest estate for a period of 15 years and require a management plan approved by the administration in charge of forests for their exploitation. These are production forests with a surface area of less than or equal to 200,000 ha, and managed by a single operator. There are three (3) FMUs in Ngambé Tikar, namely FMU 08003 (53460 hectares) belonging to the forestry company SMK, FMU 08004 (88050 hectares) belonging to the forestry company EFJK and FMU 08005.

b. Timber Sales (TS)

A Timber Sale in a national forest domain is, according to the 1994 law, an authorisation to exploit an area that cannot exceed 2,500 ha or a specific volume of timber sold on the ground. A management plan is not required for the operation of a timber sale (WRI, 2012)^[12]. The allocation of a timber sale on a state forest is preceded by a public tender. Sales of timber are awarded after the opinion of a competent commission for a maximum period of three years, which cannot be renewed. A total of six (6) Timber Sales have been allocated to Ngambé-Tikar, namely: TS 0804421, 0804422, 0804423, 0804424, 0804369, and 0804920.

c. Community Forests (CF)

Community forests were established by the 1994 Forestry Law with the aim of decentralising forest management and involving local communities in the management of their forest resources in order to enable them to improve their

income and living conditions. A community forest is defined as a forest in the non-permanent forest estate (DFNP) that is the subject of a management agreement between a village community and the forestry administration. The area of this forest must not exceed 5,000 ha and its management is the responsibility of the village community concerned, with the support or technical assistance of the forestry administration. Community forests are exploited on behalf of the community, either by sale of cuttings or by personal authorisation to cut, or by permit, in accordance with a simple management plan approved by the forestry administration.

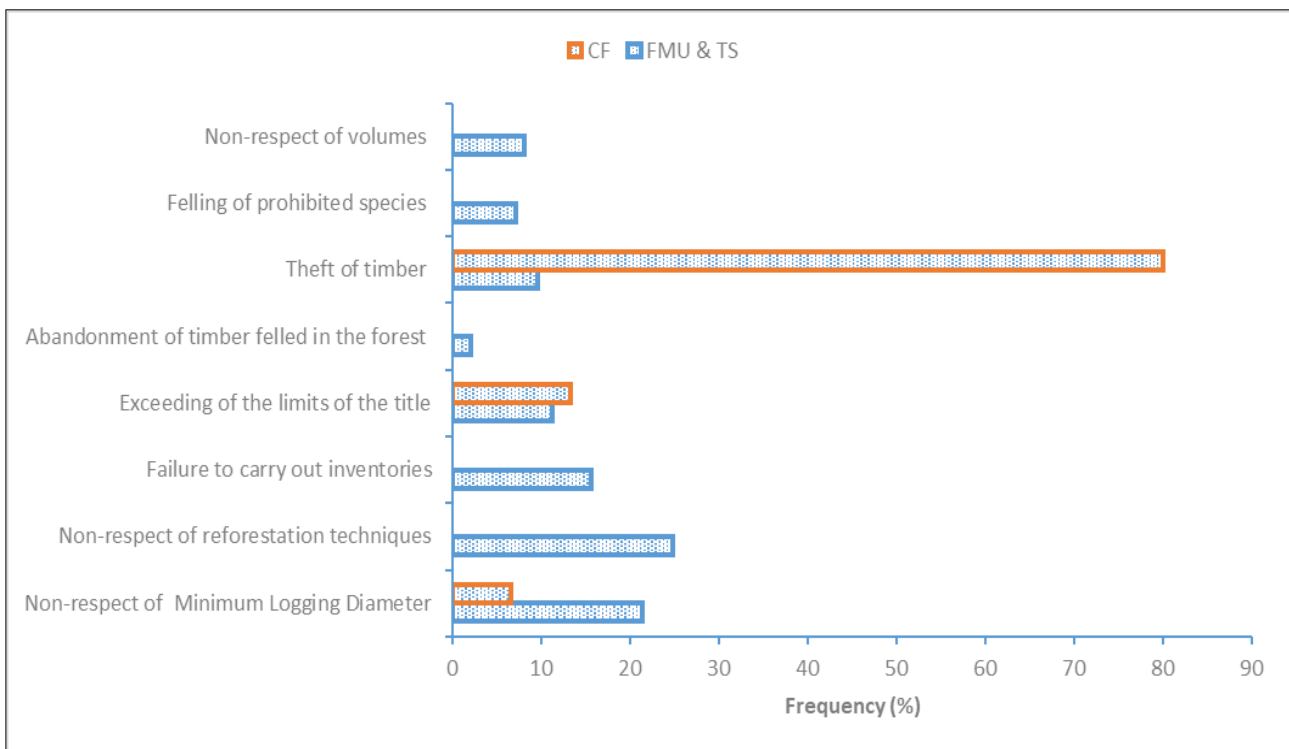
The management agreement for a community forest is established for a period of 25 years and the revenues generated by the sustainable exploitation of these forests are intended to finance community development projects (WRI, 2012) [12]. There are 21 community forests established in Ngambé-Tikar.

2. The challenges of logging in Ngambé-Tikar

The issues related to forest exploitation in Ngambé Tikar are normative, ecological, socio-economic and related to forest governance.

2.1. Normative issues

The normative problems are those relating to the forest exploitation standards prescribed by the forestry intervention standards and the operators' specifications. These problems differ depending on whether one is in Forest Management Units (FMUs) where timber exploitation is conditional on the elaboration of a management plan and Timber Sales (TSs) or in Community Forests (CFs) where timber exploitation is subject to the elaboration of a simple management plan in accordance with forestry regulations. Among the normative problems noted in Forest Management Units and Timber Sales, we distinguish non-respect of the Minimum Logging Diameter (MLD) (21.39%), non-respect of reforestation techniques (24.80%), failure to carry out inventories (15.70%), exceeding the limits of the title (11.20%), non-respect of volumes (8.12%), felling of prohibited species (7.13%), abandonment of timber felled in the forest (2.08%) and theft of timber (9.58%). On the other hand, in the community forests, the problems noted were mainly theft of timber (80.06%), logging outside the limits (13.34%) and failure to respect the Minimum Logging Diameter (6.6%) (Fig 3).



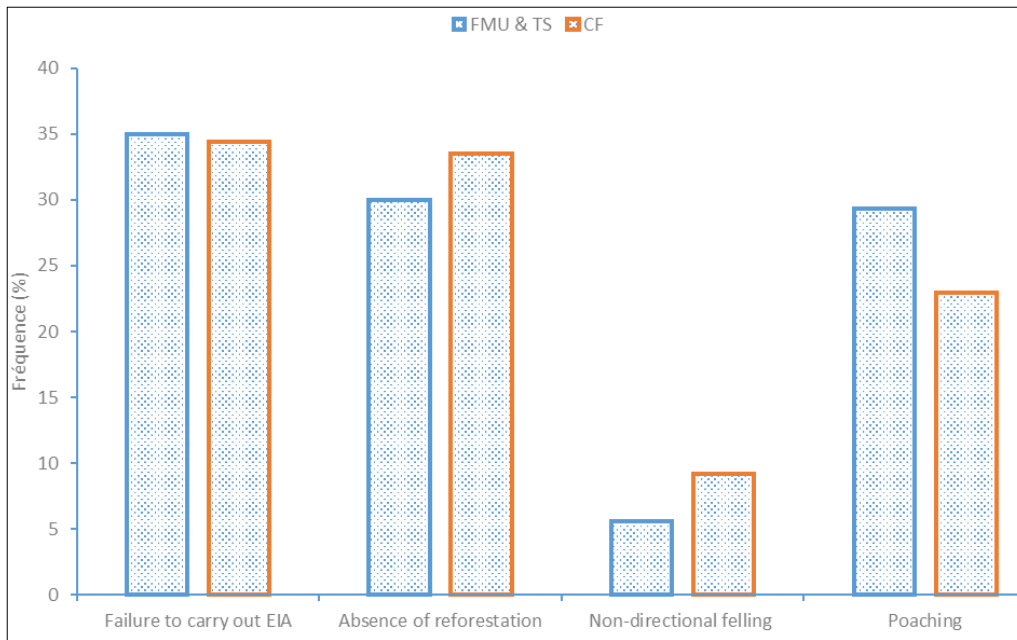
Source : Fieldwork, 2022

Fig 3: Nature of normative problems related to logging

2.2. Environmental or ecological issues

The environmental responsibility of loggers is not always observed during their activities, which have significant negative impacts on the environment. Logging operations cause environmental infractions that pose a serious threat to the environment and the conservation of forest biodiversity to the detriment of low impact logging procedures. Whether in Forest Management Units (FMUs) and Timber Sales (TSs), or in Community Forests (CFs), these environmental

problems relate to the failure to carry out environmental impact assessments (EIA) prior to exploitation (35% in FMUs and TSs; against 34.38% in CFs), the absence of reforestation (30% in FMUs and TSs compared to 33.52% in CFs), non-directional felling (5.63% in FMUs and TSs, compared to 9.17% in CFs) which destroys future species, and poaching (29.37% in FMUs and TSs compared to 22.93% in CFs) (Fig. 4).



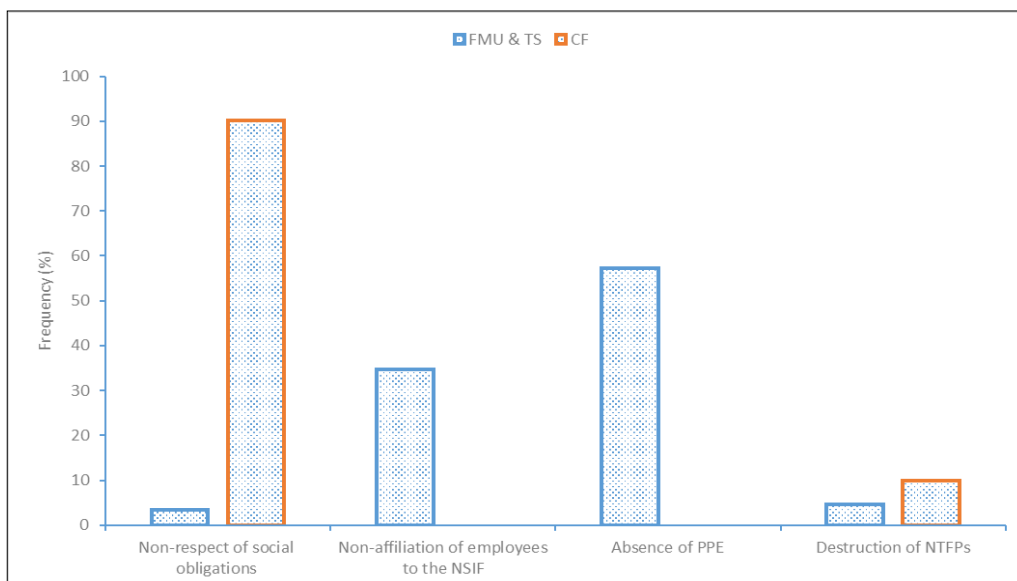
Source : Fieldwork, 2022

Fig 4 : Nature of environmental infractions related to logging

2.3. Socio-economic issues

Timber exploitation is a source of enrichment, whether legal or illegal, for local and foreign loggers through income from the timber trade, as well as for customary chiefs who receive royalties for giving up their customary property rights over forest land, and for local forestry administration officials who receive bribes from loggers for corruption. It is also a source of employment for local people who provide labour for logging companies. However, even though the state records tax revenues from the forestry and timber sector, which is the second largest contributor to GDP, the lack of tax revenue is a major problem. However, even if the state records tax revenues from the forestry and timber sector, which is the second largest contributor to GDP, the loss of income caused by illegal logging remains enormous for the state and for the people living in the vicinity of the logging areas because of the excessive capitalism of the logging companies.

Furthermore, loggers do not always respect their terms of reference with regard to the local populations who live in the forests and even the social responsibility of the companies. Social and occupational health and safety is not always guaranteed for people working in logging sites and timber processing plants. Amongst the social offences committed by forestry companies in areas close to logging sites, we note the non-respect of social obligations (3.36%), the non-affiliation of employees to the National Social Insurance Fund (NSIF) (34.73%), the absence of Personal Protective Equipment (PPE) for employees (57.25%), and the destruction of crops and non-timber forest products (NTFPs) which constitute the livelihood of local populations (4.66%). In the community forests, the infractions noted only concern the non-implementation of social works (90.1%) which are the main objectives assigned to the creation of community forests and the destruction of crops and non-timber forest products (9.9%) (Fig 5).



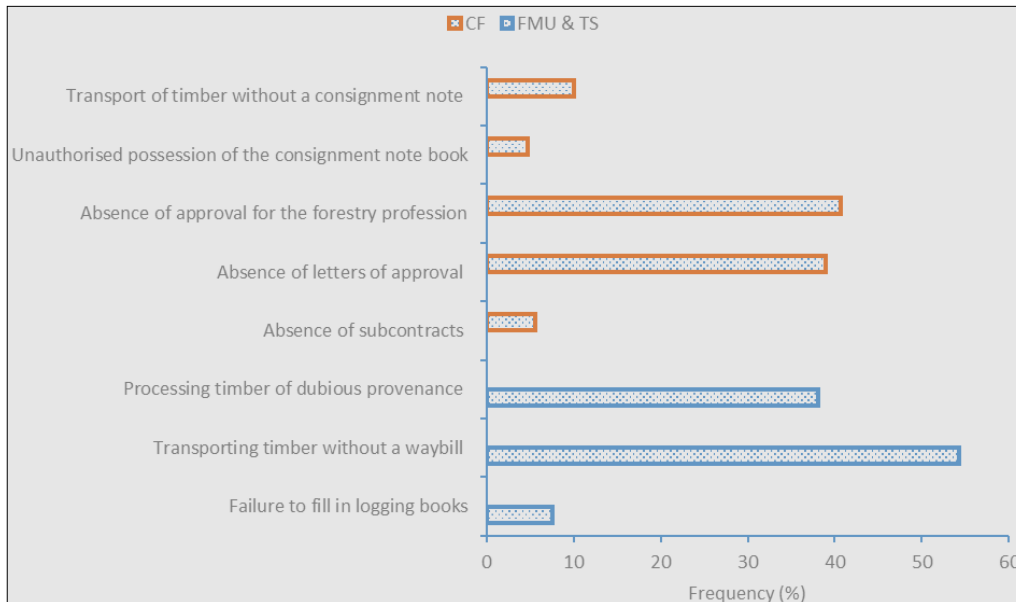
Source : Fieldwork, June 2022

Fig 5 : Nature of social infractions related to logging

2.4. Governance issues

These relate mainly to the schemes developed by loggers to transport and fraudulently dispose of illegally harvested timber on the market. Timber trafficking and looting are a living reality in Ngambé-Tikar. The illegal exploitation, transport and trade of timber sold on the local and international markets take place without any respect for the administrative procedures governing this sector of activity. Various infractions and frauds perpetrated by logging companies who have been awarded FMUs and Cutting Sales are noted, including: failure to fill in logging books (DF10)

which declare the number of species felled and their volumes (7.61%), transporting timber without a waybill (54.34%) and processing timber of dubious provenance (38.05%). In the case of community forests, the infractions perpetrated by owners concern the absence of subcontracts (5.56%), the absence of letters of approval (38.96%), the absence of approval for the forestry profession (40.71%), the unauthorised possession of the consignment note book (4.76%) and the transport of timber without a consignment note (10.01%) (Fig 6).



Source : Fielwork, June, 2022

Fig 6: Administrative infractions perpetrated by loggers

Discussion

Logging is a major economic activity in the Ngambé-Tikar District. Although it generates employment and income for the population, and contributes to the state's tax revenues, it is nevertheless true that illegal logging is out of step with sustainable development because of the loss of revenue it causes to the state and the environmental, social and political problems it poses. In support of this, Cuny (2010) shows that illegal logging of community forests in 2008 resulted in a loss of nearly 1.25 billion CFA francs to communities with community forests. Donnias' (2001) [5] studies also confirm this point of view when he shows that loggers in the southern and eastern zones of the Tikar plain are content to plunder the forests without any concern for local social development ; thus causing a drastic impoverishment of the forest massifs in the long term. The author notes that the mafia-like practices of loggers in the region include the non-respect of cutting limits and insufficient compensation, which very often degenerate into conflict with the local population. On the social level, respect for the social specifications and the social responsibility of companies is not always the case. These loggers degrade the habitat of the pygmies, who are forest dwellers, forcing them to move outside their comfort zone. In addition, in the course of their activities, they destroy non-timber forest products (NTFPs), which constitute food resources and sources of income for local people and which they use to improve their livelihoods. This leads to regular conflicts between local communities and loggers.

This is why it is not uncommon for local communities to rise up to express their frustration by erecting barricades on the public roads in protest against the looting of forest resources in their villages and the degradation of the road network by logging trucks transporting timber ; this is to the detriment of their well-being, as they are condemned to live in poverty and precariousness, despite the wealth of natural resources they have. These looting operations are very often carried out in complicity with the local forestry administration officials to whom they pay bribes.

The Global Forest Watch (2000) [6], Verbelen (1999) [11] and the 2012 report of the Independent Monitor of Forest Law Enforcement and Governance (IMFLEG) also report on the overrunning of boundaries, the non-respect of inventory standards or fictitious inventories, the exploitation of protected species, the non-respect of volumes, abandonment of undeclared timber on DF10, lack of reforestation, transport of timber without a car permit, unauthorised exploitation of the national domain, lack of a subcontracting contract and non-respect of forestry intervention norms are recurrent infractions in the forestry sector in Cameroon.

Nevertheless, several other infractions have been noted by the Independent Monitor (2013), the Global Forest Watch (2000) [6] and the various summaries of infractions. They concern, in particular, the non-marking of stumps, abutments and logs, the non-respect of marking norms, the non-opening and/or materialisation of the limits of the title, fraud on the consignment note, poor record keeping,

unauthorised transformation, unauthorised export of logs, and the absence of proof of payment of taxes, logging beyond the period of validity, forgery of the forestry hammer, false declarations on the consignment note, use of consignment notes from one title to another, failure to present logging documents, failure to notify the start of activities, and failure to revise the management plan.

In addition, studies by Cuny (2011) ^[4] identified the following illegalities as the most common in logging titles: non-payment of taxes, geographical relocation of logging titles, logging under the guise of fictitious development projects, off-limit logging and laundering of illegal timber using transport documents (especially those from community forests) and during timber processing. These actions by loggers are therefore likely to undermine sustainable development.

Conclusion

This study, which aimed to show the impact of illegal logging on sustainable development in Ngambé-Tikar in Central Cameroon, revealed that the richness of the forest in this locality is at the origin of the convergence and/or establishment of loggers in the area, attracted by the harvesting and marketing of timber. These include industrial loggers or forestry companies with logging titles such as Forest Management Units and Timber sales ; illegal artisanal sawyers; and local people with community forests. These operators operate illegally because of the many infractions they commit in terms of respect for exploitation standards, environmental protection, social protection and safety of workers, corporate social responsibility and good governance.

On the environmental front, once logging titles have been granted, loggers on the ground overstep the limits of the title and harvest timber from plots beyond their logging titles. Other infractions concern the felling of protected species and those that have not reached their minimum exploitation diameter, the absence of reforestation and the abandonment of wood in the forest. On the social level, social works are not always carried out. These loggers degrade the habitat of the pygmies, forcing them to settle outside their comfort zone. In addition, in the course of logging, they destroy Non-Timber Forest Products (NTFPs), which constitute food resources and sources of income for the local population. This plundering of the forests is at the root of regular conflicts between local communities and loggers.

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