

## SOCIO-POLITICAL CONSTRAINTS TO THE ENFORCEMENT OF FOREST LAWS: A CASE STUDY OF CHAINSAW OPERATIONS IN GHANA

E. Nutakor<sup>1</sup>, E. Marfo<sup>1</sup> and P. O. Tutu<sup>2</sup>

<sup>1</sup> CSIR-Forestry Research Institute of Ghana, University Post Office Box 63, KNUST, Kumasi Ghana  
Email: [enutakor@csir-forig.org.gh](mailto:enutakor@csir-forig.org.gh)

<sup>2</sup>Tropenbos International – Ghana Programme

### ABSTRACT

*Forest law enforcement is difficult in weak nations like Ghana in the face of conflicting interests and competing claims to forest resources. One area of interest in Ghana is the enforcement of a ban on chainsaw operation. Since 1998, chainsaw milling is legally prohibited in Ghana. However, today, there is enormous evidence to show that the practice is on the increase, exploiting about 2.5 million cubic meters of trees annually and employing about 100,000 people. This high level of illegality presents a big challenge to implementation of Ghana's Voluntary Partnership Agreement with the European Union (EU) and also to Ghana's REDD (Reducing Emissions from Deforestation and Forest Degradation)-plus agenda. The paper explores the socio-political constraints facing law enforcement agencies in enforcing the ban. It observes that high levels of rural unemployment, corruption among law enforcement agencies including the Forest Services Division (FSD) and the police, low political motivation and high elite influence in the forestry sector are some of the socio-political factors constraining effective enforcement. Notwithstanding, the practice seems to be well accepted and more than half of forestry officials at the operational level feel that the ban should be reviewed.*

**Keywords:** Forest governance, corruption, law enforcement, chainsaw milling, Ghana

### INTRODUCTION

Illegal exploitation of forest resources, by means of encroachment through extension of admitted farms and timber harvesting by means of chainsaw milling is quite high in Ghana and are reported to play important roles in forest management activities (Kotey *et al.*, 1998; Ohene-Gyan, 2004). Even though it is not clear exactly which illegal activities cost the forest more, illegal chain saw activities have caught the attention of forest managers and policy makers in terms of its contribution to forest destruction, lost revenue to the state and the amount of conflict that it generates (Marfo, 2004, 2006; Adam *et al.*, 2007c).

As in many parts of the world it is an important source of livelihood for the rural poor (Adam *et al.*, 2007b) and in some cases even serves as a means to fund armed conflicts (Tacconi, 2007; DFID, 2007; Williams, 2008). In Ghana the practice, which has been described as a “necessary evil” (Nketiah *et al.*, 2003), provides a cheaper alternative to saw mill lumber. This cheaper lumber is sold on the open market where it is patronized by a broad spectrum of the society even though it is the product of an illegal business. It is recognized that in many countries such as Ghana, local communities are increasingly collaborating with the illegal operators and are benefiting from the business (Hiller, 2004). Other reports indicate that the collaboration is due to

poverty (DFID, 2007). These factors thus make it difficult for governments to control the sector.

Several recent studies (e.g. Marfo, 2004; Odoom, 2005; Adam *et al.*, 2007; Marfo and Nutakor, 2009) have pointed out that the enforcement of the law banning chainsaw milling in Ghana has not been effective. This was also a conclusion drawn at a national expert consultation meeting in 2004 (see Nketiah *et al.*, 2004). The situation is problematic because without effective enforcement of the ban, chainsaw milling operations will continue to pose a real threat to the sustainability of timber resources in Ghana. Though officially labelled an illegal activity, it has been difficult to control it due to ineffective enforcement of the ban. Chainsaw lumbering accounts for as high as 80% of domestic lumber supply (Nketiah *et al.*, 2004). In addition to constituting a threat to forest sustainability and loss of potential forestry revenues, the situation poses a big challenge to implementation of Ghana's Voluntary Partnership Agreement (VPA) with the European Union. Though VPA is primarily concerned with legality of timber being exported to Europe, a component seeks to promote legality of domestic lumber supply. This is because if legality of domestic lumber is not ensured, illegally sourced lumber for the domestic market could find its way as legal lumber for export. Besides, leaving out legality of domestic lumber supply would constitute a threat to forest sustainability, the ultimate goal the VPA seeks to contribute to. Illegal chainsaw lumbering also constitutes a threat to Ghana's REDD plus agenda by which Ghana seeks to reduce the loss and degradation of her forests.

Apparently a number of social and political factors account for the present situation. But without a clearer understanding of why enforcement has been ineffective, it would be difficult to inform on-going policy dialogue on the subject and hence to develop innovative alternative options to supply

legal lumber to the domestic market.

Therefore, the objective of the study was to identify the constraints and explain why the enforcement of the chainsaw lumbering ban has been ineffective. Building on the leads provided by Adam *et al.* (2007b), the following questions were formulated in order to gain more empirical information about the situation in Ghana:

- What are the drivers of the business that make it thrive in spite of the fact that it is an illegal activity?
- What are the social and political forces that prevent effective enforcement of the ban?

## METHODOLOGY

Reconnaissance visits were made to the study forest districts for informal consultations with a pre-determined list of chainsaw stakeholders to identify economic and other factors promoting chainsaw lumbering. Contacts with the stakeholders were made through the district level platform forums institutionalized by the EU-Chainsaw Project with the aid of the project frontline staff of the FSD. A coded structured questionnaire was then designed from issues arising from discussions with the range of stakeholders. The questionnaire was pre-tested and administered on 102 chainsaw lumber stakeholders in the 8 forest districts identified by the project. The questionnaire was designed to cover various themes including drivers of chainsaw lumber mainly, financial and other factors promoting chainsaw lumber production, emergence of community based enterprises and perceived effects of a total eradication of chainsaw on these enterprises. Other issues included stakeholder perceptions of the responsibilities of the chainsaw operator and financier in a regularized state of operations as well as incentives that need to be considered to encourage

regular sawmills to increase lumber supplies to the domestic market. The data was collected through face-to-face interview of these stakeholders. The respondents were purposively sampled. They were categorized to cover the major primary chainsaw stakeholders and identifiable groups in the chainsaw lumbering commodity chain (Sarfo-Mensah, 2005; Adam *et al.*, 2007 and Hansen *et al.*, 2008). These included chainsaw lumber sponsors, chainsaw machine owners, chainsaw operators, lumber carriers/head porters; transporters of chainsaw lumber, small scale saw millers, village/community chiefs, unit committee members and lumber dealers. Table 1 shows the distribution of chainsaw lumber stakeholders surveyed across the 8 study forest districts.

The respondents included chainsaw operators, farmers, chiefs and other government officials. In addition to stakeholder assessment studies at the 8 forest districts, a supplementary national survey targeting all the 36 District Forest Offices in the High Forest Zone of Ghana was conducted. This was done in collaboration with the office of the Operations Director of the FSD in order to have a national overview of the chainsaw situation. Twenty two District offices responded to the survey giving a 60% response rate.

Table 1: Number of stakeholders interviewed by categories

Category of stakeholder interviewed	Number
District officials (DCE, judicial service, NADMO, Fire service, military, police, District environmental officers, )	64
District Forest Managers	8
Community durbar (chiefs, Assemblymen, farmers etc)	148
Chainsaw operators	50
Timber retailers and wood workers	42 +

The 8 District managers in the study were asked specific questions relating to their daily operations and their opinions about the effectiveness of the chainsaw milling ban. Even though their number is small they are considered as very significant because they have direct jurisdiction to determine whatever goes on in their districts as forest managers. Table 2 shows the number of the 22 forest management districts in the various regions that participated in the study.

Data was collected using two main questionnaires, one for all the stakeholders in the 8 project areas and one for District Managers in the national FSD survey. The data was analysed using SPSS and results presented in pure narratives, tables and graphs.

Reflecting back on the methodology, it can be said that allowing for respondents to respond in a narrative manner allowed them to open up and share more information. It was observed that even though there were difficulties at the beginning, the illegal operators' confidence increased over time and thus responses became quite spontaneous and factual. This is especially so when it could be reasoned out that a better understanding of their situation might open doors for better alternatives to the status quo.

## RESULTS AND DISCUSSION

### Reasons for the Persistence of Chainsaw Milling in Ghana

Despite the fact that chainsaw milling (CSM) is illegal, there appears to be strong economic incentive to keep it in place. Ease of access to timber and opportunity for jobs in several areas of endeavor for many people in rural areas seems to sustain the business. For this reason, there are strong social and political/administrative influences that constrain the effective enforcement of the ban.

Most stakeholders interviewed, including chainsaw operators and dealers in the various market agree that CSM provides jobs for the unemployed (Figure 1) and think (even being insistent) that the operations should be legalized and regulated (Figure 2). 60% of the respondents said they strongly agree to regularization while 26% agreed and 10% said they were not sure what position to take.

Table 2: Summary of number of Forest Districts in the various regions that responded to the survey

Region	Frequency
Central	4
Western	4
Ashanti	1
Volta	2
Eastern	3
Greater Accra	2
Brong Ahafo	6
Total	22

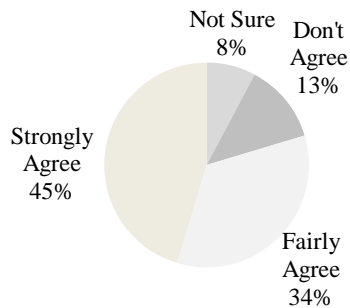


Figure 1: Does chainsawing provide livelihoods?

Respondents were asked to mention the most important factors influencing CSM. Their responses are shown in Table 3. Unemployment and competitive price of CSM lumber on the domestic market were identified as the main drivers of the business. On the employment side it provides employment for the youth who serve as chainsaw operators, carrier boys, vehicle drivers and traders among others. Unemployment (mentioned by 24% of respondents as the second most important reason for persistence of the trade) could be considered as the main driver. The relatively cheaper price of the commodity (mentioned by 8% of respondents) which encourages the general public to patronize it openly also enhances its persistence. For this reason Nketiah *et al.*, 2003 have described the business as a necessary evil because even though it is illegal, CSM is about the only source of affordable (but poor quality) lumber to the vast majority of Ghanaians. Thus despite the illegality of the CSM, the forest stakeholders interviewed generally agree that the business serves as the major source of lumber supply to the domestic market. This is also reported by Sarfo-Mensah (2005) and Adam *et al.* (2007a).

Adam *et al.* 2006 pointed out that the relative ease with which chainsaw operations could be under-

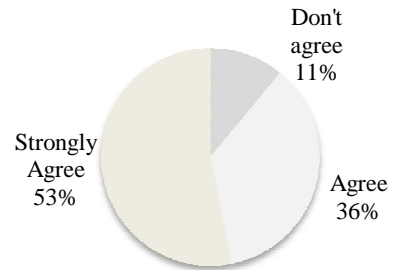


Figure 2: Should chainsawing be regularized?

taken in terms of financial commitment makes it attractive to the operators and their financiers. Table 3 presents additional constraints to enforcement of the CSM ban. On top of that list is corruption by both forestry and law enforcement officials.

### Constraints to Enforcing the Ban

The most important constraints identified by stakeholders were corruption, as a whole, on the part of district forestry and law enforcement officials, lack of political will and lack of extensive consultation with key stakeholders before instituting the ban.

### *Interference with Handling of CSM Cases*

The study asked district managers about problems encountered in their daily activities in maintaining the ban. In the course of dealing with CSM offences, forest managers said they are faced with interference from influential persons in the community who make the management of offences difficult for the forestry staffs. The majority of forest managers in the districts (over 60%) strongly agreed that they experience political interference (PI) in 5 out of 10 cases relating to chainsaw operations (see Figure 3).

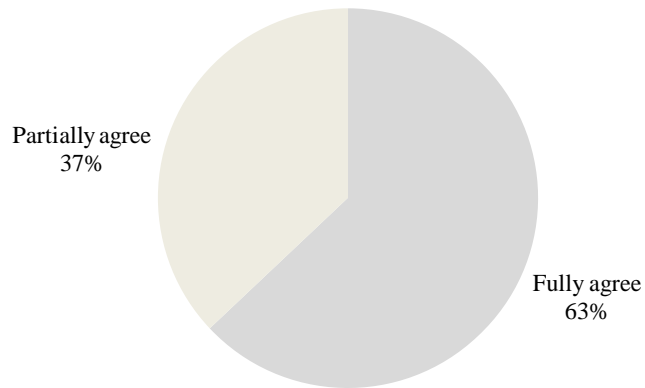


Figure 3: District Managers' opinion on political interference

Table 3: First factor that has contributed to the ineffectiveness of the ban of chainsaw operation

Drivers and constraints to CSM	Frequency	Percent
Drivers		
Unemployment	76	24.7
Competitive price of chainsaw lumber	21	6.8
Constraints		
Corruption by FSD official and interferences	91	29.5
Corruption by law enforcement agencies	44	14.3
Lack of political will	26	8.4
Lack of extensive consultation	22	7.1
Ineffectiveness of the court	7	2.3
Low capacity of FSD to mobilize evidence in court	6	1.9
Lack of authorization of chiefs	6	1.9
Other reasons	9	2.9
<b>Total</b>	<b>308</b>	<b>100.0</b>

At the operational levels of law enforcement and management, official corruption allows the business to flourish. This is evidenced by the different category of persons who have ever benefited from financial influence offered by those involved in the business. Marfo (2004) and Adam *et al.* (2007b) elaborated on this connivance and gave specific empirical evidence of corrupt behaviour among forestry officials, the police and the Task Force in particular. In those studies it was reported that apart from compensation to farmers (4%) and non-payments of any kind (78%), about 4% of the chainsaw operators made payments to law enforcement officers, 10% said to chiefs and community leaders and 4% said payments were made to other personalities in the districts. About 96% of operators claimed they paid monies to farmers before felling trees. This can be considered as contributing to corruption since trees are not supposed to be sold by farmers.

### *FSD Staff Involvement in Offences*

Administrative corruption is manifested in the involvement of a few forestry officials in illegal chainsaw activities. The data show that at least in 2 Districts, about 4 FSD staff had been involved in chainsaw related offences. Even though this does not suggest a high rate of official involvement, compared to claims in chainsaw discourse (Adam *et al.*, 2007b; Project district stakeholder meeting reports, 2008). It is clear that officials agree that some of their colleagues get involve in or condone illegal chainsaw operations for personal gain. If those who are supposed to prevent the illegal activity are condoning or conniving in the acts, this could be seen as a serious constraint to enforcement of the ban. Adding on to the problem is the fact that financing the task forces (a combined team of police/military cum forestry officials) to check illegal activities costs a lot of time and money to the FSD and the state when the desired results are not achieved.

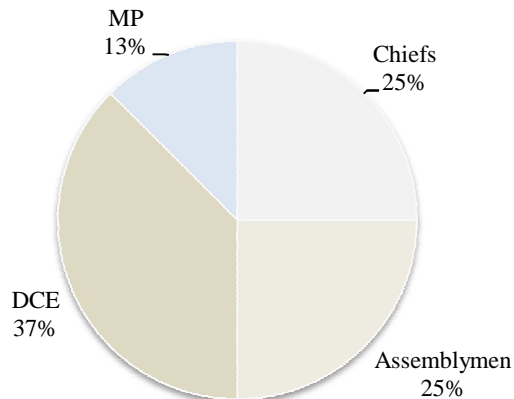


Figure 4: Who interfere most in chainsaw offences?

### Limited Consultation before the Ban

Compared to reasons that were identified in the national expert consultation for the ineffectiveness of the ban (Table 3), the ones that are surprising are the lack of consultation with stakeholders prior to instituting the ban and lack of involvement of chiefs in arriving at the decision. District-level stakeholders maintained that the ban was short-sighted, contending that if effective consultation had been carried out, it would have been clearer that it was going to be extremely difficult to stop chainsaw milling in the communities. Moreover, it was pointed out, especially at community durbars, that it is surprising for anyone to think that chainsaw milling can be controlled without the involvement of chiefs. Indeed this study observed that chiefs and assembly men interfere a lot when chainsaw milling offenders are arrested (Figure 4). It must be noted that the chiefs and assembly men work together on many issues within the community and therefore this should not be

surprising. The chiefs interviewed mentioned that the enforcement effort has alienated them even though they could play crucial roles. They explained that if the necessary recognition and incentives (such as those provided for Task Forces) had been given to them, the enforcement would have been more effective.

In order to test whether stakeholder groups differ in their perception about the most important factor influencing the ineffectiveness of the ban, a chi-square test (to ascertain statistical significance of differences) was conducted using cross tabulation of the variable of stakeholder categories and rankings of most important factors using SPSS software. The output in Table 4 shows that there is no significant difference among stakeholder types with respect to their rankings of the most important factor contributing to ineffective enforcement of the ban since the Pearson chi-square value is greater than the significance value.

Table 4: Chi-Square Test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.252E2 <sup>a</sup>	45	.000
Likelihood Ratio	111.634	45	.000
No. of Valid Cases	308		

45 cells (75.0%) have expected count less than 5. The minimum expected count is .16.



### Ways Forestry Officers deal with Chainsaw Lumbering Offences

When the forestry managers were asked about the most effective methods they have adopted in dealing with chainsaw cases, they mentioned direct confiscation and sale of the illegal lumber in over 70% of the cases as against the use of the courts (13%) and mobilizing the Task Force against the operators (13%). The results have been illustrated in Figure 5. Out of the reported number of chainsaw offences at the District offices, 15% of them were not reported to the police (was not verified from the District Police Records).

Forty five percent of district managers indicated that they have not sent any case to court for prosecution. 15% of them have sent one case to court and 25% have sent two cases. 5% have sent between 3 and 6 cases to court. The results suggest that most managers have no incentive or encouragement to prosecute offences in the law courts. The situation is probably due to the fact that only few of the court cases are successfully prosecuted and offenders convicted.

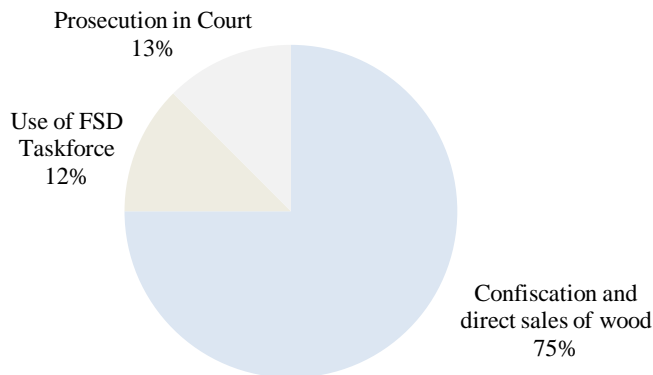


Figure 5: Most effective methods adopted by forest managers in illegal chainsaw cases

Table 5: The number of chainsaw offences

Offence	Frequency	Valid Percent
0	9	45.0
1	3	15.0
2	5	25.0
3	1	5.0
4	1	5.0
6	1	5.0
Total	20	100.0

Table 6: The number of chainsaw offences/cases prosecuted at the court per district  
Managing cases and effectiveness (in the past year)

	N	Minimum	Maximum	Mean	Std. Deviation
Number of cases reported to the police in a year	8	2.00	15.00	8.3750	4.92624
Number of cases prosecuted in court in a year	8	.00	6.00	2.6250	1.92261
Number of court cases won by FSD in a year?	8	.00	4.00	1.8750	1.45774
Valid N (listwise)	8				

### Community Demands for Lumber

The study identified those who frequently make demands for lumber at the community level from the district forestry offices. Figure 6 shows the results. Chiefs dominate the category of people who go to District office to request permit to fell trees for domestic purposes. This is followed by churches/towns (15% of cases) and individual community members (15% of cases). Lumber dealers and Assemblymen form the smallest group of individuals who approach the FSD for licence to exploit timber. Not surprisingly, the chiefs were mentioned by the District Managers as being the personalities who mostly interfere in cases involving chainsaw offences at all levels of engagement.

As much as 50% of chainsaw lumbering cases are influenced by chiefs and District Chief Executives (DCEs). Assemblymen do not significantly interfere with the handling of chainsaw lumbering offences. This observation shows the extent to which chiefs use power within their communities in determining access to the resource. Within this context, it could be suggested that traditional influence may well overshadow any official corruption and influence in determining the effectiveness of forest law enforcement at the local level. This observation agrees with observations by Nketiah *et al.* (2004) and Adam *et al.* (2007b) that, political interference is a significant constraint to enforcing the ban and serves as a driving influence behind chainsaw milling in Ghana.

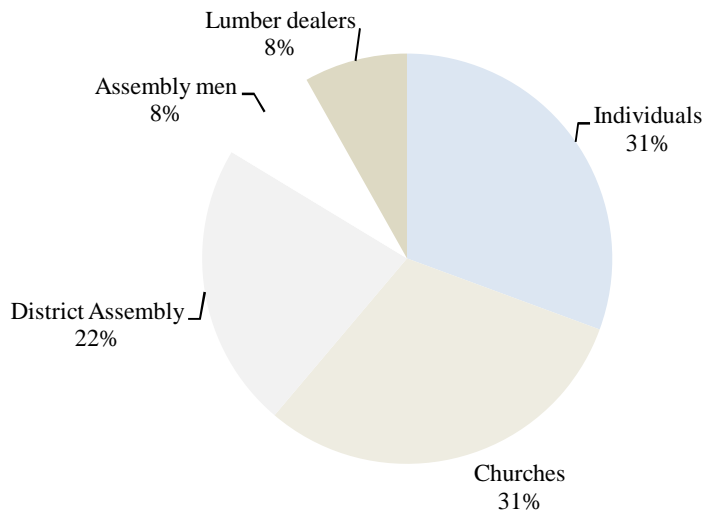


Figure 6: Stakeholders who mostly request for chainsaw lumber

## CONCLUSIONS

There seem to be real and legitimate drivers of the chainsaw operations in Ghana; shortfalls in domestic demand for lumber by a broad spectrum of the society and the sheer social pressure of unemployment and poverty serve as “legitimate” drivers for the youth to engage in illegal chainsaw operations making enforcing the ban difficult.

From the results of this study, it is evident that there are problems with the law banning CSM and its enforcement. The law appears to be ambiguous in what it seeks to achieve. Consequently, some actors have taken advantage of the lapses in the legal and regulatory process and CSM continues to be the main source of domestic lumber. The implementation of the CSM ban has been hampered by a combination of social, economic and political factors. Corruption by the FSD and law enforcement agencies, high rate of rural unemployment, high domestic demand for CSM lumber and lack of political will are the most important underlying factors explaining ineffective enforcement of the ban. Thus the suggestion by district forestry officials and other stakeholders for review of the ban needs to be given serious consideration, considering Ghana’s quest for a legal and sustainable forestry sector under the Voluntary Partnership Agreement and the emerging REDD plus initiative.

## ACKNOWLEDGEMENT

The authors are grateful to the European Union for funding the Tropenbos International project on illegal chainsaw milling project. We are also grateful to Paul Sarfo Mensah and Daniel Inkoom, both of Kwame Nkrumah University of Science and Technology for reviewing the technical report of the study.

## REFERENCES

- Adam, K. A., Pinard, M. A., Cobbinah, J. R., Damnyag, L., Nutakor, E., Nketiah, K. S., Kyere, B., Nyarko, C. and Marfo, E.** (2007a) Corruption in the Chainsaw milling and lumber trade in Ghana. Chainsaw milling and lumber trade in West Africa Report No.2. Forest Research Institute of Ghana / Tropenbos International Ghana/ University of Aberdeen.
- Adam, K. A., Pinard, M. A., Cobbinah, J. R., Damnyag, L., Nutakor, E., Nketiah, K. S., Kyere, B., and Nyarko, C.** (2007b) Socio-economic impact of chainsaw milling and lumber trade in Ghana. Chainsaw milling and lumber trade in West Africa Report No.1. Forest Research Institute of Ghana / Tropenbos International Ghana/ University of Aberdeen.
- Adam, K. A., Pinard, M. A., Cobbinah, J. R., Damnyag, L., Nutakor, E., Nketiah, K. S., Kyere, B., and Nyarko, C.** (2007c) Decision support for chandaw milling and lumber trace in Ghana. Chainsaw milling and lumber trade in West Africa Report No.3. Forest Research Institute of Ghana / Tropenbos International Ghana/ University of Aberdeen.
- Bryaman, A. and Cramer, D.** (1999) Quantitative Data Analysis with SPSS Release 8 for windows. A guide for social scientists. Routledge, London.
- DFID** (2007) Illegal logging. Tackling crime, improving livelihoods Crime and Persuasion: Tackling Illegal Logging, Improving Forest Governance
- Hiller, M. A.** (2004) Recent Trends in Illegal Logging and a Brief Discussion of Their Causes: A Case Study from Gunung Palung National Park Indonesia <http://books.google.com/books?id=VZ3>

oG6uIyxcC&printsec=frontcover&source=gbs\_suummary\_r&cad=0 downloaded 2008.

**Kotey, E. N. A., Francois, J., Owusu, J. G. K., Yeboah, R., Amanor, K. S. and Antwi, L.** (1998) *Falling into place; Policy that works for forest and people*, Series No. 4. International Institute for Environment and Development, London. Pp. 80-94.

**Marfo, E.** (2006) *Powerful relations: the role of actor-empowerment in the management of natural resource conflicts. A case of forest conflicts in Ghana*. PhD thesis (published), Wageningen University.

**Marfo, E.** (2004) *Coping with illegality: Conflicts over chainsaw lumbering and coping strategies*. In: K.S Nketiah, K.S., A. Wieman and K. O Asubonteng (eds). 2004. 'Chainsaw lumber production, a necessary evil? Tropenbos International, Workshop Proceedings 2. Pp. 22-30.

**Marfo, E. and Nutakor, E.** (2009) *The social and political environment for the enforcement of the chainsaw milling ban*. In Marfo, E., K.A. Adam and B.D. Obiri (eds). *Ghana case study of illegal chainsaw milling. Developing alternatives to illegal chainsaw milling through multi-stakeholder dialogue in Ghana and Guyana project*. FORIG Research Report (CSIR-FORIG/TR/EM;KAA;BDO/2009/18).

**Nketiah, K. S., Wieman, A. and Asubonteng, K. O.** (2003) *Chainsaw lumber production: a necessary evil? (Eds)*. Workshop Proceedings 2. Tropenbos International, Wageningen, the Netherlands.

**Nketiah, K. S., Wieman, A. and Asubonteng, K. O.** (2004) *Chainsaw lumber production: a necessary evil? (Eds)*. Workshop Proceedings 2. Tropenbos International, Wageningen, the Netherlands.

**Odoom, F. K.** (2005) *Chainsawing in the natural forests of Ghana. An assessment of the socio-economic impacts of this practice*. Food and Agricultural Organization of the United Nations, Rome. Italy

**Ohene-Djan, G.** (2004) *Conflicts in forest management and land use: Assessment on land reform policies on forest establishments towards sustainable land use development in Ghana-case study: Desire Forest Reserves*. M A Thesis, Bandies University.

**Tacconi, L.** (2007) *Illegal Logging: Law Enforcement, Livelihoods and the Timber Trade*. TEDB (Timber Export Development Board) (1995) *The Ghana Timber Industry-Basic Information- Facts and Figures*, TEDB, Ghana.

**DFID** (2007) *Illegal logging. Tackling crime, improving livelihoods*. Crime and Persuasion: Tackling Illegal Logging, Improving Forest Governance.

**Sarfo-Mensah, P.** (2005) *Exportation of Timber in Ghana: The Menace of Illegal Logging Operations*. Nota Di Lavoro 29.