



# **Assessment of Baseline Indicators of the Chainsaw Milling Project in Ghana**

Paul Bosu, Naomi Appiah &  
Emmanuel Marfo



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# TABLE OF CONTENTS

<b>LIST OF TABLES</b>	
<b>LIST OF ACRONYMS</b>	<b>V</b>
<b>EXECUTIVE SUMMARY</b>	<b>VI</b>
<b>1 INTRODUCTION</b>	<b>1</b>
1.1 Background to the project	1
1.2 Objectives of the project	3
<b>2 ASSESSMENT OF INDICATORS</b>	<b>4</b>
2.1 Objectives of the assessment	4
2.2 Terms of reference	4
2.3 Scope of the assessment and limitations	5
<b>3 ASSESSMENT PROCESS AND METHODOLOGY</b>	<b>6</b>
3.1 Development of terms of reference and plan of activities	6
3.2 Collation/ Compilation of project and other relevant documentation	6
3.3 Development of baseline and impact indicators	6
<b>4 ASSESSMENT RESULTS</b>	<b>8</b>
4.1 Project phase I (2007 – 2012)	8
4.2 Project phase II (2012 – 2015)	16
<b>5 CONCLUSIONS</b>	<b>18</b>
<b>ACKNOWLEDGEMENT</b>	<b>19</b>
<b>REFERENCES</b>	<b>20</b>
<b>7 ANNEXES</b>	<b>26</b>

## LIST OF TABLES

Table 1: Results and Impact areas for baseline assessment – Project Phase I. [ <i>“Developing alternatives for illegal chainsaw lumbering through multi-stakeholder dialogue in Ghana and Guyana”</i> (ENV/2007/133-003)]	9
Table 2: Results and Impact areas for baseline assessment – Project Phase II. [ <i>“Supporting the integration of legal and legitimate domestic timber markets into Voluntary Partnership Agreements”</i> (DCI/ENV/2009/4/2)]	17

# LIST OF ACRONYMS

ACP	African Caribbean and Pacific Countries
BSL	Baseline
BUSAC	Business Sector Advocacy Challenge
CFA	Community Forestry Association
CSL	Chainsaw Lumbering
CSM	Chainsaw Milling
CSIR	Council for Scientific and Industrial Research
DOLTA	Domestic Lumber Traders Association
EU	European Commission
FC	Forestry Commission
FAO	Food and Agricultural Organization
FORIG	Forestry Research Institute of Ghana
GNA	Ghana News Agency
IA	Impact Area
M&E	Monitoring and Evaluation
MSD	Multi-stakeholder Dialogue
PI	Principal Investigator
RA	Result Area
SFM	Sustainable Forest Management
TBI	Tropenbos International
TOR	Terms of Reference
VPA	Voluntary Partnership Agreement

# EXECUTIVE SUMMARY

The on-site conversion of logs into boards using chainsaws, popularly referred to as chainsaw lumbering (CSL), offers livelihood opportunities to large rural groups, who are often living in places that offer limited alternative livelihood opportunities. In Ghana illegal chainsaw lumbering (CSL) and/or chainsaw milling (CSM) was banned in 1998 by an Act of Parliament (Act 547/LI 1649). In spite of the ban, however, illegal CSL activities have persisted. Besides the environmental concerns, the existence of this illegal practice stimulates the development of exploitative business relations, eventually leading to low benefits for actors early in the production chain and large benefits for others, usually financiers of operations who are located outside the communities. CSL leads to complaints and conflicts between several stakeholder groups like chainsaw operators, lumber brokers, government, sawmill owners, resource owners, law enforcement agencies and others.

In an attempt to develop alternatives for CSM activities, the European Union in 2007 funded a project which was aimed at designing policy measures to address the negative aspects of CSL while maintaining its positive socio-economic effects. The project was carried out simultaneously in Ghana and another developing tropical country in Latin America, Guyana. The first phase of the Project entitled “**Developing alternatives for illegal chainsaw lumbering through multi-stakeholder dialogue in Ghana and Guyana**” (ENV/2007/133-003) was implemented from 2007 to 2012 under the administration of Tropenbos International and major stakeholders in the forestry sector. Five key results areas were expected and they are as follows:

- Causes and consequences of CSL and its links with illegality understood.
- International best practices determined to address chainsaw lumbering.
- Multi-stakeholder learning forums established to discuss chainsaw lumbering issues.
- National consensus achieved in Ghana about issues regarding chainsaw lumbering using institutionalized mechanism for permanent dialogue between stakeholders.
- Communities dependent on chainsaw lumbering producing timber in a regulated and sustainable way.

This report is the outcome of a baseline assessment carried at the end of the first phase (2007-2012) to determine the extent to which the project achieved its objectives; and provide insight on pertinent issues specific to the CSM project in Ghana and the world at large. It also provides an outline of the baseline indicators for assessment at the end of the second phase of the project, (2012 – 2015).

Assessment of Phase I was largely qualitative. Relevant project documents were obtained from the FORIG Project Principal Investigator (PI) and the National Project Coordinator. Additional literature was obtained from other sources including forestry databases, libraries and the internet. Eight (8) areas of impact were extracted or derived from the project documents and baseline indicators developed for each of them. A comprehensive desk study of the project reports / documents and other related materials was then carried out to evaluate the impact indicators during and after the implementation of the project.

The assessment revealed that the project has made an impact in the following areas after five years of implementation of Phase I:

- i. Knowledge base on driving factors of CSL in Ghana has expanded considerably, as a result of the commitment of the project team to effectively publish its findings. Various types of publications were produced (e.g. infosheets, books, technical reports, journal articles), to suite the backgrounds and interests of the diverse stakeholder groups.
- ii. A dedicated multi-stakeholder dialogue (MSD) platform for sharing perspectives among different actors on issues and solutions for CSL activities has been created. This platform has received official recognition.
- iii. Opportunity for national institutions to learn from the experiences of other countries was created, and following that a suite of international best practices for managing CSM activities has been recommended for adoption or application in Ghana.
- iv. Further to the recommendations of stakeholders, the project has proposed two key policy strategies to help regulate the supply of legal timber to the domestic market, namely i) make recommendations to policymakers and financial institutions to assist local communities to adopt viable alternative livelihoods that do not depend on wood and, ii) make recommendations to transform CSL into artisanal milling which is compatible with SFM practices.

- v. The Project was however unable to set up an effective communication mechanism to facilitate information flow among actors and stakeholders. A critical evaluation of the MSD process has revealed that there was some level of dissatisfaction within the ranks of some of the key stakeholder groups, especially at the district level. The issues centered on representation at the MSD platform. These lapses have a tendency to erode some confidence in the outcome of the MSD process, which otherwise has been quite successful.

Implementation of the second phase of the project entitled “**Supporting the integration of legal and legitimate domestic timber markets into Voluntary Partnership Agreements**” (DCI/ENV/2009/4/2) was initiated in 2011 / 2012 and is expected to be completed in 2015. Assessment of baseline indicators of Phase II will involve both qualitative and quantitative measures, and will also consider the medium to long term impacts. Unlike Phase I, identification and/or assessment of baseline indicators for Phase II has been done ahead of implementation of project activities. In order to strengthen the outcome of the assessment of indicators for Phase II, the assessment team proposes that it includes field visits to project communities and encounter with stakeholders to enable proper verification of project results and evaluation impact.

# 1 INTRODUCTION

## 1.1 Background to the project

The on-site conversion of logs into boards using chainsaws popularly referred to as chainsaw lumbering, offers livelihood opportunities to large rural groups, who are often living in places that offer limited alternative livelihood opportunities (EU-CSM Project Document, 2007). The strength of chainsaw lumbering is that it pairs low capital requirements with high labour input. Therefore it represents a cheaper alternative to the typical high capital, low labour intensive conventional logging and milling. As a result, the price of chainsaw lumber is low and therefore within the means of poor sections of the population. The introduction of cheap and reliable chainsaws and the emergence of a finely patterned distribution network for spares and fuel have allowed communities to capitalize on abundance of trees within their reach and availability of cheap labour to access these resources (EU-CSM Project Document, 2007). A highly structured production chain consisting of many actors that carry out specialized functions ensures that benefits are widely distributed within these communities. Besides the clear direct benefits for local communities, in some countries small-scale wood industries cannot access enough sawmill lumber and would have folded up but for the availability of chainsaw lumber on the market (EU-CSM Project Document, 2007).

Often local communities have no or limited access to legal timber sources, while the high portability of chainsaws makes chainsaw lumbering elusive to control by forest authorities. The scope for large profits in chainsaw lumbering is considerable where the traditional sawmill industry is incapable of satisfying domestic markets with cheap timber, for instance if the industry prefers to service the more attractive export markets or if traditional logging is costly due to inefficient practices or high forest charges. Corrupt practices in the regulating systems may exacerbate the problem (EU-CSM Project Document, 2007).

At the same time, the existence of illegal practices stimulates the development of exploitative business relations, eventually leading to low benefits for actors early in the production chain and large benefits for others, usually financiers of operations who are located outside the communities. Illegal activities by a part of the chainsaw lumbering community inevitably lead to complaints

and conflicts with several other stakeholder groups like the Government, traditional sawmill owners, conservationists and other owners of trees and forest resources. These deep and sometimes open conflicts characterize the interactions between forest sector actors in many countries across the world. As the various actors usually belong to different societal strata, these issues easily assume a political or even racial dimension.

The increasing attention on illegal logging will inevitably put pressure on this mode of logging. While international attention focuses on the behaviour and trade of large companies, there is a risk that well-intended measures to regularize the forest industry will lead to a crackdown on small-scale loggers with potentially seriously negative livelihood consequences for poor people. Rather than reducing forest conflict, the consequence may be a hardening of the conflict and increased incidence of poverty and violence.

With funding from the European Commission (EU), the EU's Programme on Tropical Forest and other Forests in Developing Countries, Tropenbos International initiated a project which sought to address some of the challenges of chainsaw milling confronting the governments of Ghana and Guyana (EU-CSM Project Document, 2007). The implementation of the Project was carried out with relevant stakeholder institutions in the two countries. The first phase of the project titled "***Developing alternatives for illegal chainsaw lumbering through multi-stakeholder dialogue in Ghana and Guyana***" (ENV/2007/133-003) was implemented from 2007 to 2010. Key partners of the Project in Ghana included Tropenbos Ghana Programme (TBI-Ghana), Forestry Commission (FC), and the Forestry Research Institute of Ghana of the Council for Scientific and Industrial Research (CSIR-FORIG). Implementation of the second phase of the project titled "***Supporting the integration of legal and legitimate domestic timber markets into Voluntary Partnership Agreements***" (DCI/ENV/2009/4/2) was initiated in 2011 / 2012 and is in progress. This report on the assessment of baseline and impact indicators of the Project Phase I was commissioned by the Project team with the view to increasing understanding into the impact of the project. A second report will be prepared after assessment of the baseline indicators of the second phase which is expected to end in 2015.

## 1.2 Objectives of the project

The overall aim of the project was to design policy measures that address the negative aspects of chainsaw lumbering, while maintaining its positive socio-economic effects. The project was implemented in two countries, Ghana and Guyana, where chainsaw lumbering is widespread, generates frequent conflict and has a high economic and social importance for rural peoples.

The specific objective was to reduce the level of conflict and illegality related to chainsaw lumbering by local communities namely:

- To reduce poverty and promote viable livelihoods in forest-dependent communities;
- To reduce the occurrence of illegal logging;
- To promote the conservation and sustainable management of tropical forests in developing countries.

## **2 ASSESSMENT OF INDICATORS**

### **2.1 Objectives of the assessment**

The main aim of this assessment was to determine the extent to which the project achieved the objectives for which it was designed and implemented. The objective was to ascertain the existing situation or condition at the start of the project using data and records available in the year 2007 as the reference point (baseline) and compare existing situation or potential change due directly or indirectly to the implementation of the Project.

### **2.2 Terms of reference**

The terms of reference (TOR) of the Project as agreed by the Assessment Team and Project Management Team were as follows:

- i. Study all project documents, which include project proposal, progress reports, technical reports, brochures and peer reviewed articles to gain a full understanding of the project.
- ii. Study the proposal document and identify the key results areas for which the proponent planned to make an impact on the chainsaw milling sector in Ghana.
- iii. Through a review and assessment of relevant data and literature on chainsaw milling in Ghana, develop critical baseline indicators for the results areas (impact areas) contained in the proposal document with 2007 as the reference year.
- iv. Conduct a comprehensive desk study of all relevant project reports (outputs) and outline the impact made (Impact Indicators) by the project at its completion in year 2010.
- v. Conduct a comprehensive assessment of the impact indicators with reference to the baseline indicators.
- vi. Submit a report.

## **2.3 Scope of the assessment and limitations**

The assessment was largely qualitative in nature, being largely a desktop review and syntheses of the outcomes of the Ghana component of the EU Chainsaw Project (Phase I ENV/2007/133-003) against the existing situation (baseline) prior to the implementation of the project interventions. The Guyana component of the project is not reported here, in view of the TORs of the assessment, even though project implementation was carried out simultaneously in the two countries. The assessment of the impact indicators was based primarily on information available in the project reports and to a lesser extent information obtained orally from project PI and team members. No field verification of the reports or any of the information we received orally was done. The baseline indicators were obtained from information available in the literature. This included literature from various reports and publications on chainsaw milling as well as information from the internet. We recognize that there could be several other sources of information on CSM activities on or before 2007 which may be scattered in various other documents but which, unfortunately, was not available or accessible to us.

## **3 ASSESSMENT PROCESS AND METHODOLOGY**

### **3.1 Development of terms of reference and plan of activities**

The Terms of Reference of this Assessment were discussed and agreed on by the Assessment and Project team members during a pre-project (project initiation) workshop held at the Bobiri Guest House for all categories of researchers working on various aspects of the Project. The TORs and Activity plan as agreed are attached as Annex I.

### **3.2 Collation/ Compilation of project and other relevant documentation**

Relevant project documents (proposal, reports, brochures, journal articles, etc) were obtained from the CSIR-FORIG Project PI and the National Project Coordinator. In addition, relevant forestry literature, in particular those on CSM or that addressed relevant CSM issues were obtained from other sources including forestry databases, libraries, and the Internet.

### **3.3 Development of baseline and impact indicators**

In order to outline the key indicator areas for which the assessment could be carried out, the team studied the proposal document and listed the areas for which the project proponents had planned to impact on CSM activities in Ghana. Determining the list of key areas was quite a straightforward exercise as the proponents had clearly outlined six areas (Expected Results), five of which were considered relevant for assessment. Baseline indicators were then developed for each of the five Impact Areas, using as much as possible the information outlined in the proposal document. Sub-indicators were developed for each Impact Area as appropriate. Again, following the proposal document, each result area (Impact Area) was further subdivided into sub indicators. The list of indicators and sub-Indicators was then submitted to

CSIR-FORIG PI Research Coordinator for verification and comments. Several meetings of the Assessment team and CSIR-FORIG Research Coordinator were then carried out until a final list of indicators and sub-indicators was obtained.

A comprehensive desk study of the project reports / documents was then carried out by the Assessment Team to determine the results / impact reported during and after the project implementation. Unlike the baseline indicators, the compilation of the impact indicators was done independently by the Assessment Team without consultation or inputs from CSIR-FORIG Research Coordinator or any project team member. The final list of Baseline and Impact Indicators is attached as Annex II.

## 4 ASSESSMENT RESULTS

### 4.1 Project phase I (2007 – 2012)

Annex A is a summary of the baseline indicators of chainsaw milling operations in Ghana before (BSL 2007) and after (BSL 2011) the implementation of the EU-Chainsaw milling Project Phase I entitled ‘***Developing alternatives for illegal chainsaw lumbering through multi-stakeholder dialogue in Ghana and Guyana***’ (ENV/2007/133-003). The discussion has been organized under five **results areas** culled from the project document, each of which has at least one **impact area**.

#### **Impact Area 1.1: Generation of knowledge revealing the driving factors of chainsaw lumbering in Ghana**

Assessment of baseline indicators (BSL 2007) showed that the factors that drive illegal chainsaw lumbering (CSL) in Ghana have been variously reported following short term studies or as a result of anecdotal pieces of evidence. Analyses of available data showed that the key driving factors of CSL in Ghana included unemployment, widespread corruption among actors, weak institutional governance, undue political interference and unclear legal framework (Birikorang 2001; Agyeman, 2003; 2004; Marfo, 2004; Odoom, 2005; Adam 2007a, b, c). Since one of the key results areas of the project was to understand the causes and consequences of CSL and its links with illegality, it is safe to assume that the driving factors previously reported were either unclear or incomprehensive. In assessing the impact of this component of the project, we sought to know whether or not the project activities had resulted in an increase in knowledge and understanding of the factors that drive CSL in Ghana.

**Table 1: Results and Impact areas for baseline assessment –  
Project Phase I. [“Developing alternatives for illegal  
chainsaw lumbering through multi-stakeholder dialogue  
in Ghana and Guyana” (ENV/2007/133-003)]**

<b>Results Area</b>	<b>Impact Area</b>
<b>Causes and consequences of CSL and its links with illegality understood</b>	Generation of knowledge revealing the driving factors and impacts of CSM in Ghana
<b>International best practices determined to address chainsaw lumbering</b>	2.1 Better understanding of factors that promote CSL activities in Tropical Regions
	2.2 Identification of international best practices to address CSL for possible adoption and application in Ghana
<b>Multi-stakeholder learning forums established to discuss chainsaw lumbering issues</b>	3.1 Creation of stakeholders’ platforms using appropriate institutional arrangements
<b>National consensus achieved in Ghana about issues regarding chainsaw lumbering using institutionalized mechanism for permanent dialogue between stakeholders</b>	4.1 Communities dependent on chainsaw lumbering producing timber in a regulated and sustainable way
	4.2 Creation of an effective mechanism for dealing with CSM issues
<b>Communities dependent on chainsaw lumbering producing timber in a regulated and sustainable way</b>	5.1 Transform and support 8 CSL communities in line with sustainable forest management (SFM)
	5.2 Create community-based associations

A combination of desk literature reviews and empirical research activities were designed to answer questions on the policy, legal, institutional, socioeconomic and environmental factors that drive chainsaw milling in Ghana, and how chainsaw milling compares with other ‘improved’ techniques in terms of their investment cost, milling efficiencies, contribution to local livelihoods and supply of timber for domestic consumption (Marfo, 2009).

Our assessment of the indicators (BSL 2012) showed that knowledge base on the driving factors of chainsaw milling has been greatly increased. Since the implementation of project phase I, additional studies conducted by Marfo (2010); Obiri and Damnyag (2011); and Marfo and Acheampong (2011) extensively considered socio-economic issues such as the benefits of CSM to the rural economy (provision of community infrastructure, etc) and the domestic market that need to be addressed in order to curb the CSM menace. Particularly noteworthy is the considerable expansion of the knowledge base on CSL as a result of commitment of the project team to effectively publish its findings. We do also note the diversity of the publications (see Bibliography), which we believe will endear to the diverse backgrounds and interests of the stakeholders. The publications include a case study report on CSM in Ghana (Marfo, 2009); a book detailing the context, drivers and impacts of CSM in Ghana (Marfo, 2010); a number of refereed journal articles published in a special edition of the (GJF 2011. Vol. 27); and a number of information sheets and flyers (Info sheets) (Table 1). The immediate impact of this component of the project, as expounded above, is largely academic; however, the medium to long term impacts are not far-fetched. The policy recommendations on the future of CSM in Ghana have been based largely on facts acquired through the studies.

### **Impact Area 2.1: Better understanding of factors that promote chainsaw lumbering activities in tropical regions**

Increased understanding of world-wide factors that promote illegality in chainsaw lumbering, coupled with lessons about policies that mitigate its negative aspects and maintain or enhance its socio-economic benefits was considered necessary to manage illegal chainsaw lumbering activities (EU-CSM Project Document, 2007). Prior to the implementation of the Project, the problem associated with CSM in Ghana had not been properly placed in the regional (tropical African region) or global context (BSL 2007). Thus, there was not only a lack of understanding of the issues at the national level, but little attempt was made to link them to offshore influences. As a result,

policy decisions were conveniently targeted to conventional sawmills and production of lumber for the export market, as in for example the Forest and Wildlife Policy of 1994. This was against the backdrop of a wealth of information and strategic actions being implemented in other countries to contain the CSL menace and the potential for Ghana to learn or adopt some of those strategies.

The Project organized two regional workshops with the view to learning from the experiences of other countries on CSM, and how that might inform the application of best practices in Ghana. A synthesis report outlining the issues and options of CSL was produced at the end of the workshops. Two infosheets on '**Recommendations to control illegal CSM in Ghana**' and '**Best practices addressing illegal CSM**' were also published.

The workshops were useful in putting the chainsaw milling issue in Ghana into regional and international perspectives. It afforded the Project Management the opportunity to understand the situation as pertained in especially other African countries, the policy environment in those countries, regulatory frameworks, and enforcements and challenges associated with the management of CSM. The recommendations of the workshops helped to strengthen the outcome of the multi-stakeholder dialogue (MSD) process in Ghana.

## **Impact Area 2.2: Identification of international best practices to address CSL for possible adoption and application in Ghana**

The chainsaw lumber problem is not limited to Ghana, Guyana, or even Africa. However in some countries, the problem is less drastic as a result of the policy environment. The baseline assessment (BSL 2007) indicated that Ghana had not explored the opportunities offered by existing international best practices for adoption. A report on the regional workshop on chainsaw organized by the Project indicates that policies to address CSM differ from country to country (Parker, 2009). For example, CSM is legal, but controlled and supported in countries such as Kenya, Uganda, Cameroon, DR Congo and Guyana. Chainsaw milling is illegal in Ghana and some states in Nigeria. In Liberia, the policy is silent on CSM. It has been observed that effective policy implementation is rare. Where legal, it's associated with widespread

abuse and illegalities. Where illegal, regulation is difficult and compromised (Parker, 2009).

Through consultations and interactions with various actors and stakeholders from around the world, the project has identified a suite of international best practices that can be applied to the situation in Ghana (Project Infosheet 2, 2010). The results show that best practices are generally few. Examples include license from state, payment of stumpage, direct negotiation with tree owners, formation of associations, self regulation, and the use of chainsaw attachments. Other practices identified include a log tagging system and a multi-stakeholder dialogue (MSD) platform, which has now been experimented in Ghana. It remains to be seen whether or not the other best practices will be applied in Ghana. However, the project has done well bringing these alternative practices to the forefront for the benefit of relevant state institutions.

### **Impact Area 3.1: Creation of Stakeholders' platforms using appropriate institutional arrangements**

An institutionalised mechanism for permanent stakeholder dialogue that would allow stakeholders of chainsaw lumbering to achieve consensus on critical issues and create appropriate measures facing chainsaw lumbering was one of the key project interventions (EU CSM Project Document, 2007). The multi-stakeholder dialogue (MSD) platform was to allow for social learning by all stakeholders, partly through direct interaction and exchange of viewpoints and partly through executing a mutually agreed agenda of information collection and analysis. It was intended to provide for participatory analysis of the principal conflicts, the social, economic and environmental costs and benefits of chainsaw lumbering and help create a shared conceptual basis and viable strategies for addressing these conflicts (EU CSM Project Document, 2007). Key stakeholders of the MSD process included the Government, the formal logging industry (millers and concessionaires), chainsaw lumber producers and communities where they operated.

Before the implementation of the Project (BSL 2007), there was no formal dedicated platform in Ghana to discuss chainsaw milling issues among key players and actors. Attempts had been made in the past that involved Tropenbos International – Ghana, CSIR-Forestry Research Institute of Ghana and the Forestry Commission, with support from the European Union in 2007 to initiate a process towards alternatives to chainsaw lumbering; however

not much was achieved (GNA, 2007; Project Reports). Although a task force to guide the MSD process was formed, it did not achieve its objectives because of low capacity to facilitate the process. For example, skills of local facilitators in systems approaches, negotiation, conflict management, communication and management of stakeholder processes were very low. The capacity of various stakeholder groups in negotiation, conflict management techniques, and communication with other stakeholder constituencies was also low (EU-Chainsaw Project, 2007).

One of the areas in which the project has made a major contribution is the creation and operationalisation of an MSD platform. There is currently a vibrant and recognized MSD platform dedicated to chainsaw milling in Ghana (GNA, 2010; EU-Chainsaw Project Report, 2011). The creation of the platform involved consultations at national, district and community levels. It also included the formation of taskforces, technical-level committees, and training of facilitators. Project staff was also trained to develop M&E framework to help track change the MSD process (EU-Chainsaw Project Updates Issue 2, 2010). Thus, the development of an effective M&E framework for Ghana is one of the immediate impacts of the MSD process. At the community level, the project has led to the creation of new Community Forestry Associations (CFA's) and the revival of existing ones (EU-Chainsaw Project Updates Issue 3, 2011). As a result of the capacity building process and stakeholder sensitization activities made possible by the MSD platform, the Domestic Lumber Traders Association of Ghana has been revived and is in the process of mobilizing its 25,000 members to engage government on CSM issues (James Parker, personal communication).

#### **Impact Area 4.1: Development of strategies to address chainsaw milling activities through consensus**

With the increase in knowledge and understanding of the CSM problem, identification of international best practices, and the creation of an MSD platform, the conditions were set for stakeholders to identify strategies to manage CSM activities in Ghana. Key strategies identified by the MSD platform include:

- i. Provision of alternative livelihood options that do not depend on timber
- ii. Access to markets and credit facilities
- iii. Formation of associations

- iv. Collaboration with government institutions and other stakeholders to curb the CSL menace, and
- v. Implementation of a massive tree planting programme to help save the forest

Further to the recommendations of stakeholders, the project has proposed three policy options to regulate the supply of legal timber to the domestic market. If any of the policy recommendations are adopted, and considering the supply of timber to the domestic market as one of the underlying factors of CSM, the project would have achieved a major objective. One of the immediate impacts of the project is that DOLTA, with support of the EU Chainsaw Milling Project, has sourced funding from BUSAC Fund and is currently undertaking capacity building and advocacy activities aimed at regularizing the domestic market to ensure sustainable supply of legal lumber on the domestic market and undertake forestation programmes to sustain the timber resource.

#### **Impact Area 4.2: Creation of an effective communication mechanism for dealing with chainsaw lumbering issues**

A communication mechanism that documents and disseminates findings of the stakeholder consultation processes was envisaged by the Project (EU-Chainsaw Project, 2007). It was intended to foster continuous flow of information from delegates who participated directly in the discussions to their constituents. Regular top-to-down and down-to-top flow of accurate information is of utmost importance to achieve consensus. Such a situation did not exist prior to project implementation (BSL 2007) since there was no dedicated stakeholder platform for CSM issues. Indeed, the situation did not change much, if at all, at the end of the Project as no effective channels or mechanisms of communication were developed by the Project. An evaluation of the MSD process (Obeng, 2013) revealed that there was some level of dissatisfaction within the ranks of some of the stakeholder groups, especially at the district level. The issues centered on representation at the MSD platform. There were grievances about fairness in the nomination or appointment of representatives to the MSD platform; and issues concerning representatives pursuing their own agenda and interests instead of the group's they represent. There were also issues about irregular attendance to the meetings or forums, especially by key or powerful stakeholders. All these lapses have a tendency to erode some of the confidence in the outcome of the MSD process, which otherwise has been very successful.

## **Impact Area 5.1: Transformation and support of chainsaw lumbering communities in line with Sustainable Forest Management (SFM) practices**

As CSL activities are illegal in Ghana, actors usually execute their operations very quickly to avoid arrests or confrontation with law enforcement officials. Thus, CSL operations are crudely executed without regard to sustainable forest management principles. Through the multi-stakeholder platform, it was envisaged that action plans that conform to SFM practices would be recommended and pilot projects would have to be carried out to support the implementation of those adopted by the multi-stakeholder platform. The activities would be geared towards supporting communities in which chainsaw lumbering occurs, in transforming their operations into regular and legal operations in keeping with principles of sustainable forest management (EU-Chainsaw Project, 2007).

Steps were taken to facilitate the application of SFM practices in local communities by reviving at least eight dormant community forestry associations in Akim Oda, Sunyani and Begoro districts. The Project recommended two approaches for dealing with this problem by, i) making recommendations to policymakers and financial institutions to provide support to local communities to adopt viable alternative livelihoods that do not depend on wood and, ii) making recommendations to transform CSL into artisanal milling which is compatible with SFM practices. Already some models of artisanal milling are being piloted in selected communities in the Ashanti Region, with promising outlook (EU CSL Report, 2011).

## **Impact Area 5.2: Creation of community forestry associations**

One important condition for the successful implementation of agreements achieved at the multi-stakeholder platform would be the ability of chainsaw lumbering dependent communities to adapt. This implies that they need to be organized and possess internal mechanisms to involve and influence all members of these communities. Therefore a main result in this component would be to set up new and building capacity and support of existing community-level chainsaw lumbering associations (EU CSL 2011 Report). Although several attempts have been made by the FC to involve local communities in forest management, as was with the introduction of the Community Forest Committees in 1994 and similar approaches, not much progress was made. The project took steps to revive and build the capacity

of dormant community forestry associations and created new ones to ensure effective participation in the MSD process. A typical example is the revival of DOLTA and subsequent efforts made to assist the group access bank credit; a big plus.

## **4.2 Project phase II (2012 – 2015)**

We identified nine impact areas from three results areas of the project document (Table 2). Baseline indicators (BSL 2012) were identified for each impact area as shown in the matrix in Annex II. Assessment of the indicators will be different from that of Phase I in many respects. Firstly, identification and / or assessment of the baseline indicators (BSL 2012) is preceding the implementation of the project activities (ex-ante) compared to the first phase which was done at the end of the project (ex-post). Secondly, the assessment will include both qualitative and quantitative approaches. While the methodology will still include desk assessment of reports and publications, as well as interviews and discussion sessions with the project team members and stakeholders, the analysis of the results will be as quantitative as possible. In addition to collecting empirical data, we will rank or rate qualitative data whenever possible. The assessment will also involve field visits to project communities and encounter with stakeholders to verify information and evaluate project impacts.

**Table 2: Results and Impact areas for baseline assessment – Project Phase II.**  
**[“Supporting the integration of legal and legitimate domestic timber**  
**markets into Voluntary Partnership Agreements” (DCI/ENV/2009/4/2)]**

<b>Results Areas</b>	<b>Impact Area</b>
<b>Broad-based agreement achieved in Ghana about domestic market issues between stakeholders</b>	1.1 Ensure a shared understanding of domestic market issues
	1.2 Formulate a clear legal framework on chainsaw milling in Ghana
	1.3 Create a communication and feedback mechanism for information sharing
<b>Communities dependent on chainsaw milling produce timber in a regulated and sustainable way</b>	2.1 Provide alternative / sustainable livelihood options for illegal chainsaw operators
	2.2 Clarify rights and responsibilities of timber producing communities
	2.3 Build capacities of illegal chainsaw millers in artisanal milling
	2.4 Build capacities of illegal chainsaw millers in sustainable forest management practices
<b>Fair, transparent and equitable framework for legal and sustainable domestic timber market supply in place</b>	3.1 Develop policies to ensure continuous supply of legal timber to the domestic market
	3.2 Ensure an inclusive representation of small scale loggers on forest related bodies

## 5 CONCLUSIONS

Assessment of baseline indicators (2007 – 2012) of the EU Chainsaw (Ghana component) was carried out using a qualitative approach, with no opportunity to undertake field verification due largely to time constraints and the fact that the assessment was done at the end of the project (ex-post) rather than the onset (ex-ante). Since the assessment was done after the Project was completed (Phase I), it can also be described as an ex-post evaluation. That notwithstanding, the assessment has succeeded in bringing out some pertinent issues specific to the CSM project in Ghana, and chainsaw lumbering menace in general. With the exception of weaknesses associated with communication along the stakeholder hierarchy, all the project objectives were achieved with a reasonable degree of success. After five years of project implementation, we note the following changes in the baseline status:

- The knowledge base on chainsaw lumbering has considerably expanded following a series of empirical research and syntheses of existing literature.
- There is now a dedicated and officially recognized multi-stakeholder dialogue (MSD) platform for discussing chainsaw lumbering issues in Ghana. In September 2010, stakeholders reached consensus on the option to share the domestic market between artisanal millers (small scale milling with improved techniques) and sawmillers. Since then, policy proposal for the supply of legal timber to the domestic market has been submitted to Government. Another recommendation to transform illegal chainsaw millers to artisanal millers is currently being piloted by the Project.
- There has been an increase in understanding of the CSM issue by stakeholders at all levels. This has been the result of the MSD platform at the national level and increased interaction with broader stakeholder groups at regional and international scale, and
- The project has created an opportunity for national institutions to learn from the experiences of other countries. Through these, a suite of internationally best known practices has been recommended for adoption or application in Ghana.

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## 7 ANNEXES

### Annex I – Assessment Of Baseline Indicators For EU-Chainsaw Project Phase I (2007 – 2011)

RESULT 1: CAUSES AND CONSEQUENCES OF CHAINSAW LUMBERING AND ITS LINKS WITH ILLEGALITY UNDERSTOOD		
IMPACT AREA	BASELINE INDICATOR (2007)	IMPACT INDICATOR (2010 / 2011)
1. Generation of knowledge, revealing the driving factors that drive chainsaw milling (CSM) in Ghana	Nine studies on drivers of CSM in Ghana are scattered and inadequate (Birikorang 2001; Agyeman, 2003; 2004; Marfo, 2004; Odoom, 2005; Adam 2007a, b and c)	A synthesis report on all available studies on CSM published (Marfo, 2010; 2011 Project Report)
	Knowledge about causes and consequences inadequate	Additional studies have been conducted to fill gaps  Marfo, 2010; Obiri and Damnyag, 2011 and Marfo and Acheampong, 2011 extensively considered socio-economic issues and the domestic market in addressing CSM

<b>RESULT 2: INTERNATIONAL BEST PRACTICE DETERMINED TO ADDRESS CHAINSAW LUMBERING</b>		
<b>IMPACT AREA</b>	<b>BASELINE INDICATOR (2007)</b>	<b>IMPACT INDICATOR (2010 / 2011)</b>
2. Better understanding of factors that promote CSL activities in tropical regions	Limited knowledge and understanding of factors promoting CSL in tropical regions (EU Chainsaw Project Document, 2007; Adam, 2007)	Two regional workshops held; increased understanding of CSM menace (EU Chainsaw 2010 Project Report)
3. Identification of international best practices to address CSL for possible adoption and application in Ghana	No internationally known best practices had been piloted in Ghana (EU Chainsaw Project Document, 2007)	Lessons learnt influenced preparation of working document for policy working group  A suite of best practices has been published (EU Chainsaw Milling Project Infosheet 3, 2011)

<b>RESULT 3: MULTI-STAKEHOLDER LEARNING FORUMS ESTABLISHED TO DISCUSS CHAINSAW LUMBERING ISSUES</b>		
<b>IMPACT AREA</b>	<b>BASELINE INDICATOR (2007)</b>	<b>IMPACT INDICATOR (2010 / 2011)</b>
4. Creation of stakeholders' platforms using appropriate institutional arrangements	No dedicated formal MSD dialogue platform to discuss illegal CSM existed (EU Chainsaw Project Document, 2007)	<p>The project has created an MSD platform dedicated to CSM (GNA Report, 2010, EU Chainsaw 2011 Project Report</p> <p>Established MSD platform now recognised by government (Chainsaw Milling Project Updates, Issue 2, 2010)</p>

<b>RESULT 4: NATIONAL CONSENSUS ACHIEVED IN GHANA ABOUT ISSUES REGARDING CHAINSAW LUMBERING USING AN INSTITUTIONALISED MECHANISM FOR PERMANENT DIALOGUE BETWEEN STAKEHOLDERS</b>		
<b>IMPACT AREA</b>	<b>BASELINE INDICATOR (2007)</b>	<b>IMPACT INDICATOR (2010 / 2011)</b>
5. Development of strategies to address CSM activities through consensus	MSD idea was only theoretical, not practical (EU Chainsaw Project Document, 2007)  No national strategy formulated by MSD existed (EU Chainsaw Project Document, 2007)	MSD has recommended several strategies to address CSM  A consensus action plan on developed strategies was prepared using MSD platform (EU Chainsaw 2011 Project Report)  Identified stakeholders participate effectively in national and district level MSD meetings (National and District Level Meetings Report, 2010; 2011)
6. Creation of an effective communication mechanism for dealing with CSM issues	No communication mechanism existed (EU Chainsaw Project Document, 2007)	Not much progress has been made

<b>RESULT 5: COMMUNITIES DEPENDENT ON CHAINSAW LUMBERING PRODUCING TIMBER IN A REGULATED AND SUSTAINABLE WAY</b>		
<b>IMPACT AREA</b>	<b>BASELINE INDICATOR (2007)</b>	<b>IMPACT INDICATOR (2010 / 2011)</b>
7. Transform and support CSL communities in line with sustainable forest management (SFM)	<p>CSL operations were crude and inconsistent with SFM (Oduro and Gyan, 2007; EU Chainsaw Project Document, 2007)</p> <p>CSL activities were illegal and attempts were made to transform and support communities who engaged in it</p>	<p>Project recommends actions to transform CSL into artisanal milling which is compatible with SFM ((EU Chainsaw Project Updates, Issue 2, 2010).</p> <p>Some models of artisanal milling are being piloted (EU Chainsaw 2011 Project Report)</p>
8. Creation of community associations	No dedicated community associations existed for chainsaw milling (EU Chainsaw Project Document, 2007; Osei-Tutu, 2007)	Identity of chainsaw associations more pronounced (EU Chainsaw 2010 Project Report)

## Annex II – Baseline Indicators For EU-Chainsaw Project Phase II (2011/2012 – 2015)

RESULT 1: BROAD-BASED AGREEMENT ACHIEVED IN GHANA ABOUT DOMESTIC MARKET ISSUES BETWEEN STAKEHOLDERS		
IMPACT AREA	BASELINE INDICATOR (2011 / 2012)	IMPACT INDICATOR (2015)
1. Ensure a shared understanding of domestic market issues	<p>Domestic market issues fully understood among key actors but not widespread:</p> <p>80% of timber on domestic market is chainsaw lumber (Marfo, 2010; Obiri and Damnyag, 2011; ghananewsagency.org, 2013)</p>	Increased awareness of domestic market issues among general public
2. Formulate a clear legal framework on chainsaw milling in Ghana	<p>Inadequate regulation of timber trade (Oduro, 2011; Hansen and Lund, 2011; <a href="http://www.fcghana.org">www.fcghana.org</a>, 2013)</p> <p>Complexities / barriers regarding forest law (Act 547/L1 1649 of 1968) and its enforcement (Marfo I., 2009; Marfo, 2010; TBI – Ghana, 2011)</p>	<p>Effective regulation / monitoring of domestic timber trade</p> <p>Proposal / recommendations regarding forest law complexities and its enforcement submitted to government for revision and or clarification</p>

<p>3. Create a communication and feedback mechanism for information sharing</p>	<p>Effective feedback mechanisms at the national level; lack of institutionalised feedback mechanisms at district / stakeholder group level (Interviews of experts on EU Chainsaw Project, 2012; Obeng, 2013)</p>	<p>Effective feedback mechanisms in operation at all levels</p>
	<p>Draft communication plan strategy already prepared (TBI – Ghana, 2013)</p>	<p>Communication plan / strategy completed and operational</p>

<b>RESULT 2: COMMUNITIES DEPENDENT ON CHAINSAW MILLING PRODUCE TIMBER IN A REGULATED AND SUSTAINABLE WAY</b>		
<b>IMPACT AREA</b>	<b>BASELINE INDICATOR (2011 / 2012)</b>	<b>IMPACT INDICATOR (2015)</b>
4. Provide alternative/ sustainable livelihood options for illegal chainsaw operators	Several promising alternative livelihoods identified and to be pursued in pilot communities (Sampene, 2011; Fosu, 2011)	Alternative livelihood options provided and operational in project communities
5. Clarify rights and responsibilities of timber producing communities	Forest law prohibits small operators using chainsaws from logging its forests (Pearce, 2012; EU Chainsaw Project Document, 2012)	Improved logging practices in timber producing communities, which also includes acquisition of necessary legal permits
	Small and medium sized forest enterprises receive very little attention in national forest policies, legislation and programmes (Asante, 2011)	Recognition of all relevant small and medium sized forest enterprises
	EU Chainsaw Project and FLEGT VPA promotes equity and social justice of all actors including timber producing communities (Adeleke, 2011)	Workable and equitable legal system that ensures sustainability of resources

<p>6. Build capacities of illegal chainsaw millers in artisanal milling</p>	<p>Lessons on artisanal milling have not been up scaled; one hundred and eighty chainsaw operators have so far been trained in artisanal milling (EU Chainsaw Project Document, 2011, TBI, 2012; <a href="http://www.tropenbos.org">www.tropenbos.org</a>, Amonoo, 2013)</p>	<p>Improved capacity of artisanal millers Access to artisanal milling equipments facilitated</p>
	<p>ACP / FAO Project has created a platform which seeks to link local communities to forest concession holders to produce legal timber for the domestic market (Alhassan, 2012)</p>	<p>Increase in the number of chainsaw operators shifting or adopting artisanal milling techniques</p>
<p>7. Build capacities of illegal chainsaw millers in sustainable forest management practices</p>	<p>Project has identified areas for training chainsaw operators in SFM practices (Opoku and Mckeown, 2011) Initial training in Group Dynamics and Business Management already provided for 551 chainsaw operators (Amonoo and Sampene, 2012)</p>	<p>Increased number of communities trained in SFM practices Increased total number of operators trained in Group Dynamics, Business Management and other relevant skills</p>

<b>RESULT 3: FAIR, TRANSPARENT AND EQUITABLE FRAMEWORK FOR LEGAL AND SUSTAINABLE DOMESTIC TIMBER MARKET SUPPLY IN PLACE</b>		
<b>IMPACT AREA</b>	<b>BASELINE INDICATOR (2011 / 2012)</b>	<b>IMPACT INDICATOR (2015)</b>
<p>Develop policies to ensure continuous supply of legal timber to the domestic market</p> <p>Ensure an inclusive representation of small scale loggers on forest related bodies</p>	<p>Policy proposal for the supply of legal timber to the domestic market submitted to government (FC/TBI-Ghana, 2011)</p> <p>Draft Procurement Policy to ensure sustainable supply of legal timber and compliance with timber regulation has been prepared and submitted to government (Tamakloe, 2012; Dartey, 2013)</p> <p>Small scale loggers have no representation on formal forest sector bodies (EU Chainsaw Project Document, II)</p>	<p>Action taken by government on policy proposal</p> <p>Action taken by government on policy proposal</p> <p>Small scale loggers represented on formal forest sector bodies</p> <p>Improved democratic representation of small scale loggers on various sector bodies</p>

<b>RESULT 4: INTERNATIONAL AND REGIONAL STAKEHOLDERS PROMOTE INCLUSION OF DOMESTIC TIMBER MARKET ISSUES INTO VPAs AND REDD+ AGREEMENTS</b>		
<b>IMPACT AREA</b>	<b>BASELINE INDICATOR (2011 / 2012)</b>	<b>IMPACT INDICATOR (2015)</b>
Broaden scope of VPA and REDD+ agreements to include domestic market issues	Government of Ghana and the EU reaffirmed their commitment to address domestic market issues under the FLEGT VPA Project	Domestic market issues into VPA and REDD+ implementation programme fully integrated

This report was produced within the framework of the EU Chainsaw Milling Project “Supporting the integration of legal and legitimate domestic timber markets into Voluntary Partnership Agreements”. The project aims to find sustainable solutions to the problems associated with the production of lumber for local timber markets by involving all stakeholders in dialogue, information gathering and the development of alternatives to unsustainable chainsaw milling practices. In Ghana, the project is being carried out by Tropenbos International (TBI) in collaboration with the Forestry Research Institute of Ghana (FORIG) and the Forestry Commission (FC).

