

TITLE; COMPLETION REPORT OF THE ITTO PROJECT "STRENGTHENING THE CAPACITY OF SMALL-MEDIUM ENTERPRISES IN GHANA TO PRODUCE AND TRADE IN TIMBER PRODUCTS FROM LEGAL AND SUSTAINABLE SOURCES"

HOST GOVERNMENT: GOVERNMENT OF GHANA

EXECUTING AGENCY: KUMASI WOOD CLUSTER ASSOCIATION (KWC)



Project Number:		TFL-SPD 007/09 Rev.1 (M)
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Duration of Project:		24 Months
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Project Type and Number		Project Completion Report - TFL-SPD 007/09 Rev.1 (M)
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Accra- September6, 2013.

Disclaimer: The views expressed in this report are those of the authors and do not necessarily reflect the views of ITTO or the Government of Ghana. The materials contained here are based on the authors' knowledge of the subject and how they can contribute in improving the environment uner which small forest enterprises conduct their business.



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ACRONYMS

CEPS	Customs, Excise and Preventive Service
CIDT	Center for International Development and Training
CoC	Chain of Custody
EA	Executing Agency
ENGO	Environmental Non Government Organization
EU	European Union
EUTR	European Union Timber Regulation
FAWAG	Furniture and Woodworkers Association of Ghana
FC	Forestry Commission
FLEGT	Forest Law Enforcement, Governance and Trade
FSC	Forest Stewardship Council
FSD	Forest Service Division
GTA	Ghana Timber Association
GTMO	Ghana Timber Millers' Organization
ICCO	InterChurch Organization for Development Cooperation
ICT	Information Communication Technology
IRS	Internal Revenue Service
IT	Information Technology
ITTO	International Tropical Timber Organization
IWCS	Internal Wood Tracking System
KWC	Kumasi Wood Cluster Association
LMCC	Log Measurement and Conveyance Certificate
RMSC	Resource Management Service Center
SFM	Sustainable Forest Management
SMFE	Small-Medium Tracking System
TFLET	Thematic Program on Forest Law Enforcement, Governance and Trade
TIDD	Timber Industry Development Division
TLAS	Timber Legality Assurance System
TMC	Technical Management Committee
TT	Timber Tracker
TUC	Timber Utilization Contract
TVD	Timber Validation Department
VPA	Voluntary Partnership Agreement
WG	Working Group on Certification

Executive Summary

The project was formulated based on the need to assist SMFEs comply with recent codes and standards as the EUTR, VPA/FLEGT, Lacey Act and certification which now regulate access to wood products markets. SMFEs have poor understanding of timber market requirements and are unable to demonstrate compliance to legality and SFM that form the basis for enacting the laws. The developmental objective of the project therefore was to Strengthen the Capacity of SMFEs to Produce and Trade in Legal Timber. The Specific Objectives were:

- a. Improve the understanding of stakeholders (SMFEs, Government agencies, Forestry Educational Institutions, Professional Bodies, etc) for IWCS requirements related to legal and sustainable timber trade.
- b. Develop standard guides and brochures for implementing IWCS in SMFEs
- c. Develop computerized wood tracking software for SMFEs
- d. Build the capacity of KWC to further support SMFEs in IWCS and Chain of Custody (CoC).
- e. support 10 SMFEs to obtain WTS/CoC Certificate.

The expected project period was 24 months but had to be extended for six months so that key outputs as the IWCS data capturing templates and software would be based on the technical specification for material flows, critical control points and legality verifications that are inherent in the national WTS. Development and finalization of the national protocols have gone on longer than expected. The extension period went further by six months before the software for tracking wood flows could be designed, developed and made ready for training and application by the SMFEs. The software was developed with local ICT expertise that needed adequate understanding and familiarity with procedures and controls of the timber supply chain before translating into a computer program. The project therefore took 12 months longer that planned.

The project provided awareness raising and sensitization training to major stakeholders on timber tracking, chain of custody certification and all other internal wood control systems and their implications for international timber market requirements. It developed paper and computer based templates to capture, record, process data collected from the forest and in the factories that can be submitted to support award of FLEGT license. Information and educational material on legality and SFM were published and used to train staff and operators of small and medium size companies. Two companies have FSC Controlled Wood and Chain of Custody certificates. The technical capabilities KWC staff and selected future trainers have been improved which make them able to complement FC/TIDD/TVD to manage the FLEGT WTS system by assisting and monitoring implementation by SMFEs and coaching those willing to comply with existing and new regulations. SMFEs received basic computer application skills so they can apply the IWCS tools as well as those to be introduced under the national WTS.

All planned activities were covered, although some were delayed or extent of coverage reduced. The extent, ability and efficiency with which project tools were being applied could not be conclusively measured. The wood tracking software now covers sawmill activities; it is yet to be expanded to cover veneer and plywood production as well as builder' wood work and carperntry items most SMFEs are engaged in. Judicious use was made of resources provided by ITTO and EA to cover activity cost, albeit budgets were tight for the size of project. EA and project beneficiaries are thankful to ITTO for the funds provided to undertake the project. For sustainability, EA has incorporated the project as one of its flagship programs and will continue earnestly to assist SMFEs meet legality criteria for VPA/FLEGT licenses.

The will be need for successor project to finish development of additional IWCS tools and conduct training with lessons from this project to guide them as well as agencies that will engage in similar projects in future.

1. PROJECT IDENTIFICATION

1.1 Context

The Government of Ghana entered into a voluntary partnership agreement (VPA) with the European Community on Forest Law Enforcement, Governance and Trade (FLEGT) under the Voluntary Partnership Agreement in September 2008 that will set a new culture of control and responsibility in the private sector and provide a legal framework for practising legal and sustainable harvesting and trade in timber products. Wood tracking is a major component of the VPA/FLEGT which the FC of Ghana is gearing up to carry out in fulfillment of its new policy directives. It is therefore important to ensure that relevant stakeholders in forestry have the necessary knowledge, capacity and skills required in ensuring that the timber they intend to put on the EU markets complies with VPA/FLEGT requirements.

1.2 Origin and Problem

The project idea is essentially derived from the ITTO Thematic Programme on Forest Law Enforcement, Governance and Trade (TFLET) that recognises the importance of capacity building for forest industries and enterprises, particularly SMFEs to institute the changes and improvements that will eliminate illegal operations and also promote sustainability. This project was also built on the initiative of the ICCO/KWC Group Certification Project which has been running since 2005. The Cluster which is made up of small and medium timber processing enterprises has been vigorously pursuing group forest management and chain of custody certification (CoC) in order to continuously access the growing market for certified timber. In the course of implementation of the certification project, it became apparent that most SMFEs in Ghana lack the technical capacity to implement efficient and reliable WTS/SFM. It was observed that SMFEs have poor understanding of timber market requirements and are unable to demonstrate compliance to legality and SFM requirements that are vital for future access to wood products market. Capacity building in this respect is therefore seen as key to the business survival of these SMFEs, particularly on WTS, SFM and certification.

2. PROJECT OBJECTIVES AND IMPLEMENTATION STRATEGY

2.1 Project Rational

International timber markets are increasingly asking for legally licensed or sustainably certified wood products. The pressure on producers to demonstrate compliance to these requirements is now very obvious. The introduction of voluntary certification schemes, the EU FLEGT, EUTR, Lacey Act of the USA and other regional and national initiatives such as procurement policies for publicly utilized wood products, makes more important now for producers to adhere to these requirements. Whereas the government of Ghana's effort to respond to the varying demands is reflected in the signing of the VPA, industry still sees the need to develop their own capacity to meet these requirements. Most SMFEs in Ghana, however, lack the technical capacity to develop and implement the reporting, risk control and mitigation systems that are inherent with legal timber trade requirements. The problem is compounded for SMFEs by the different and varying requirements for verification of legal origin, weak understanding of traceability requirements, low adoption of ICT and advanced technologies, limited access to information on wood tracking and also cost of implementing acceptable internal wood control system that would demonstrate compliance with the various regulations and schemes. The general belief therefore is that much more efforts need to be directed towards improving the operations of timber enterprises to enable them retain their market shares.

2.2 Development and Specific Objectives

The main objective of the project is to strengthen the capacity of SMFEs to produce and trade in legal timber in Ghana. The Specific Objectives were:

- a. Improve the understanding of stakeholders (SMFEs, Government agencies, Forestry Educational Institutions, Professional Bodies, etc) for IWCS requirements related to legal and sustainable timber trade.
- b. Develop standard guides and brochures for implementing IWCS in SMFEs
- c. Develop computerized wood tracking software for SMFEs
- d. Build the capacity of KWC to further support SMFEs in IWCS and Chain of Custody (CoC).
- e. Support 10 SMFEs to obtain WTS/CoC Certificate

2.3 Implementation Strategy

The project adopted collaborative and participatory approaches involving SMFEs and stakeholders. Essentially, the strategic approach and methods used included the following:

2.3.1 Stakeholder involvement

Consultations were held with relevant stakeholder institutions to discuss the goals and objectives of the project and to establish areas of common interests for collaboration. The capacity of stakeholder institutions were assessed to identify skills and expertise that supports the objectives of the project.

Suitable individuals within these institutions were enlisted as future trainers, and to serve as the links between the project office and project beneficiaries.

2.3.2 SMFEs Participation

A preliminary workshop was held with SMFEs to assess their level of awareness, interests and motivation to meet the requirements of legal timber trade. Their strategies and plans to meet these requirements was also sought and how the project will help them to meet some of their plans were made known to them. Participation of SMFEs in the project was voluntary, however, some obligations and commitments were demanded from those that continued to apply the knowledge gained from the project.

2.3.3 Training and Capacity Building

Training and capacity building took two forms:

- Awareness creation, sensitization and information sharing.
- Classroom type training and practical training sessions. The latter emphasized on hands-on practice and subsequently factory coaching and system set up support.

Training materials were developed to facilitate training sessions and subsequently serve as reference guide to trainees, enterprises and organizations.

2.3.4 Project Site Selection

The project covered selected SMFEs in the forest area of Ghana .They are Ashanti, Brong Ahafo, Eastern and Western regions of Ghana. These regions were selected because they host majority of the wood processing facilities and activities in Ghana.



Assumptions and Risks

- 1. The lack of interest or apathy of enterprises to keep records, beyond statutory demands from state institutions such as CEPS, IRS, etc.
- 2. How to mobilize members of small enterprises to adapt to what may seem complicated procedures with an anticipated higher cost in production.
- 3. Management not responsible & competent to accept change and apply new ideas
- 4. Poor demonstration of awareness & competence by operators
- 5. Retaining trained staff.
- 6. Lack of plans, roles, records, mixed up documents
- 7. Availability of local expertise when needed to carry out components of the project.

3. PROJECT PERFORMANCE

Expected outputs and target objectives were satisfactorily attained. However, this required reordering of activities within the original work plan and a further extension on the original duration of the project implementation. The TMC second meeting envisaged delays arising from factors external to the project and by consequence the EA requested for and was allowed an extension of the project implementation period. The project therefore was covered in a three year period, instead of two years (July 2010 – June 2012), at no additional cost.

Factors External to the Project

The project was implemented concurrently with the designing, development and implementation of the Ghana WTS. One of the goals of the project was to support the Ghana WTS process by offering practical and useful training to SMFEs to gain export FLEGT licenses under the VPA and meet regulations that will be applied to regulate domestic trading in legal timber and timber products. The development of information gathering templates and manuals in the project was to be synchronized with the national WTS program.

The initial project work plan was carefully designed such that key outputs as the IWCS data capturing templates and software would be based on the technical specification for material flows, critical control points and legality verifications that were to be inherent in the national WTS. Unfortunately however, the national WTS which was anticipated to be functional and the first FLEGT license issued end of 2011 was no where being concluded as of September 2011 when the 2nd TCM was held. By June 2011 however, only the draft verification protocols for the national WTS had been published. On the great probability that no major changes in the draft verification protocols would happen, the project in the 4th quarter of 2011 developed hard copy templates for data capturing based on the draft protocols which were tested in the 1st quarter of 2012. A computerized software for IWCS management was commissioned in the 3rd quarter of 2012 but its development protracted to the 1st quarter of 2013. The testing and validation of the software brought the project to closure to June 2013.

4. PROJECT OUTCOME

The following discussions describe the extent by which the specific objectives were met:

OUTPUT 1: EFFICIENT MANAGEMENT OF WOOD FLOW INFORMATION ADOPTED BY STAKEHOLDER INSTITUTIONS

A consultant carried out a tracking study to assess the existing traceability and CoC process. In order to propose a new tracking system to address the shortfalls noticed in the existing system the consultant and KWC consulted with FC and its consultants developing the new national WTS on the tracking procedures to be applied under Ghana's VPA process. It was necessary to verify how any recommendations of this project can synchronize with the national WTS. FC's draft legal verification manuals was used as a reference to develop a matrix for analyzing the flows of material within company systems with critical control points where records need to be kept

Templates in excel for recording and reconciling the flow of material at the critical points were subsequently developed. Before finalizing the excel templates, they were tested with 40 forest agency officials and the private sector in three timber processing centers, viz. Takoradi (14), Nkawkaw (9) and



Kumasi (17) whose comments were solicited changes they would recommend to make the tracking steps easy for data capturing and usable in management processes. The templates are for 1.TUC details and yield summary; 2. Harvesting and log production; 3. Transport of logs; 4. Logyard and storage; 5. Log Transfer; 6. Mill input; 7. Mill output; 6. Export packaging and documentation.

Twenty (20) trainees from industry, forestry commission, working group on certification, including five from KWC were given classroom

training that simulated data collection to track timber from harvesting, transport and milling. A repeat training for 22 in year was on coaching in the use of the templates. They will act as trainers in their companies, organizations and associations.

OUTPUT 2: IMPROVE HUMAN CAPACITY TO IMPLEMENT IWCS AND ADOPT ICT TOOLS

Create awareness on the use of IWCS tools

Three workshops at Sunyani, Berekum and Goaso at which 59 owners and operators of small enterprises who supply logs to millers or process lumber and carpentry products for the domestic markets were platforms used to raise awareness on legal supply of timber and timber products. The focus of discussions were aimed at improving transparency and accountability by ensuring that timber or timber products have been legally sourced, harvested, transported and exported in compliance with the legal requirements in Ghana. The use of information and data was stressed as necessary and thus the need for establishing credible IWCS in organization.

Train SMFEs on the use of ICT in IWCS

Capacity building training in basic IT skills was conducted for 65 participants from SMFEs to prepare them apply basic computer skills necessary for efficient and effective IWCS application and the national WTS. Areas covered were Basic Computer, Introduction to MS Office, MS Word, MS Excel, MS Access and Internet.

Train SMFEs on how to implement IWCS

Seventeen operators and managers of 10 companies in Sefwi Wiawso, Nkawkaw and Kumasi have been introduced to the use of paper based data collection, storing and analysisng the data with the excel templates.

Development of IWCS software: The KWC Tim Tracker (TT).

The KWC TimTracker (TT) is a wood tracking software developed to the intensity and scale of SMFE operations for efficient capture, processing and storage of data collected in the field or submitted to FC. It is designed to provide cost effective information for managing the timber supply chain - meeting



contractual obligations for wood supply chain a filecting contractual obligations for wood supply and timber sales, supporting management decision making in compliance with legality and certification standards and procedures. TT is a web based system that enables timber companies to keep proper records of their operations and also to produce accurate reports for submission to Forestry Commission for issuance of FLEGT legality license. Source documents (soft or paper based) collected from source of origin of the timber or following critical control points provide data for entering harvesting, landing,

crosscutting, transportation, mill sites, mill processing (input/output recovery rates) and other key characteristics of the log as well as material reconciliation of batches of products, storage, bundling, and their exit from the mill site.

Scope

The present scope of the software covers trees and logs from on-reserve concessions and lumber products from a saw mill.

Specifications

TT has four Modules

- Settings and Security
- Utilities
- Wood Tracking Manager
- Reports.

a. Settings and Security.

End users of TT create/edit User Accounts, Roles and Access Rights to have access to enter certain aspects of the software. It includes controls to allow access to different functions and data only to individuals in an organization authorized for such access.

b. Utilities

The Utilities Module has sub modules for company set up and parameters including registration, product types, mills categorization, location of the processing facilities and forest sources for timber, tree species and particulars of buyers.

c. The Wood Tracking Manager

The Module is used to manage an entire area allocated to a timber company or contractor (TUC). Its sub module describe the type of timber allocation (on-reserve for now, but can be expanded to cover Salvage permit, imported timber etc.) assigned to registered companies and has the functionality to also register and assign the various compartments allocated to the company within the entire allocated area. There is a sub module for document archiving which enable companies to upload copies of the stock map, yield map and operational map for an allocated area. Information on trees allocated to a contractor in an allocated area or compartment, called 'harvest yield' is uploaded in a sub module.

Log Management Sub Module

The log management module is used to manage the primary log and secondary logs as well as the output of the secondary logs called bolts. This module captures details of trees such as the timber allocation area

information, the estimated number of secondary logs to be produced from the tree, the length, average diameter and the volume in cubic meters. The

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Company		
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secondary log sub-module is used to manage the secondary logs produced from a primary log. TT has the functionality to capture measurements of all secondary logs and maintains enough information about the primary

(TUC) name, the TUC compartment where the tree was harvested, the contractor or company that harvested the tree, tree species

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log from which the secondary logs are produced for future reference. There is a module for Log Measurement & Conveyance Certificate (LMCC) and the Waybill that enables contractors to keep detail information of all necessary legal documents obtained to transport the secondary logs from the forest location to their log yards. The logs cut to milling dimensions, otherwise called Bolts have a module that enables timber companies to keep information about each bolt produces from all secondary logs before they are entered into contracts.

Production Management Sub Module

This module handles contract information and accounts for materials (logs or bolts) assigned to a job and the output of jobs. The module has functions to compute material input (volume) of jobs that make up a job, batch or contract. The volumes of corresponding products are recorded and computed. A code or number link between products output and material input is maintained and the product YIELD from the material used in a job, batch or contract is also computed as the material CONVERSION factor.

d. Reports

The range of reports to be generated at specified control points as well as data to submit to the Timber Validation Department (TVD) for issuance of FLEGT export license were identified and listed to build the REPORTING Module of the TT. The reports will include:

1. Compartment Yield Allocation and Summary

- 2. Compartment Yield Balance.
- 3. Primary Log Details from a compartment
- 4. Secondary Log Details from a compartment
- 5. Periodic Log yard Stock
- 6. Register of Logs Received Within a Period7. Periodic Milling Logs (Bolt) Register
- 8. Mill Input-Output/Lumber Input-Output Register, by Jobs.
- 9. Kiln Input Output Register
- 10. Contract Completion Register.

11. Products Accounting Register

User Acceptance Testing

Seventeen (17) senior staff drawn from FC divisions (head office, TIDD, FSD, RMSC, IT, TVD) were introduced to the draft software as a test of its ability to be used for the collection and analyzing relevant data to track material flow for chain of custody or legality control. Feed backs received from the test were used to update the system so as to get a complete system that would suite the operations of industry players.

Four (4) KWC staff and three (3) Certification Managers of two (2) companies were trained for two days by the software consultant to run the software and serve as first line of trainers.

Users Training and roll out

TT is a web based system and so could be deployed over the internet as a hosted service or installed in the premises of the companies.

Eighteen (18) SMFEs have been trained over a two days period to use the software. The training was a classroom type introductory application of the software to log in and upload data. Three companies have registered to have the software installed on their computers and be trained at their premises.

SYSTEM REQUIRMENT

a. Software Requirement

Operating System: Windows Server 2008 Web Server: Internet Information Service (IIS 7) RDBMS: MS SQL Server 2008 Standard edition End Users: Any browser but latest version of Firefox recommended.

b. Hardware

KWC will host and in-house DELL SERVER T710 / R710/6-8 GB/RAM, 1TB, Intel i3-i5 processor with the operating system as recommended (table above) by the ICT specialist to store and analyze data for small enterprises that may not own computers.

c. Application

Testing and roll out in the use of the TimTracker started with two companies, Bibiani Logging and Lumber Company Limited and Susntex Company Limited. These are the first medium/small sized companies in Ghana to be assessed by Rainforest Alliance for FSC Controlled Wood and Chain of Custody Certification. KWC while preparing the companies rallied on the use of the TimTraker to demonstrate supply chain data collection and reporting prior to the introduction of the national Wood Tracking based on VPA legality standards. Next is the installation of the TT at seven more SMFEs; Logs Court Limited, Bafour Investments, Asuo Bomosadu Timbers and Sawmill, Boisson Limited, T. Andrews, Ayipah Wood Processing, Broadwater Company.

Difficulties/obstacles encountered

The software development process has been very slow. The specialist even though very competent was developing other products, such as banking software and servicing existing customers at the same time as developing the TTS. Between August 2012 and March 2013, the Project Leader from KWC had about 15 sessions with the ICT specialist reviewing the software content at each module to ensure the respond to the its functional specifications.

Some Screen shots of the software interface are shown below.

Compartment	
Registered Compartments Add/E TUC Details	dit Compartment
Reserve/ Off Reserve Name	ASUKESE FOREST RESERVE
Reserve Code	8523696
Reserve No.	5856
Company	SUNSTEX COMPANY LIMITED COM100
MLNR Approval Reference	GH/MIT/89/09877
Add/Edit Compartment	
Compartment No.	700
Compartment Size	128
Compartment Classification	•
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Compartment ID	C107
Year Of Yield Allocation	Tuesday , June 04, 2013 👻
Date Opened for Harvesting	Tuesday , February 08, 2011
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OUPUT 3: Develop standard guides and brochures for implementing IWCS in SMFEs

KWC staff with two external consultants from SSC-Forestry of Sweden carried out log harvesting, transportation and factory inspection of a medium-size wood processing company (Bibiani Logging and Lumber Company)to ascertain the practices of Chain and Custody and Wood Tracking and made recommendations as to how existing methods could be improved. A report on the "Wood Tracking System Implementation (Project) in Ghana" – Annex 5was issued with the purpose of improving existing tracking of wood flow in Ghana.

Out of the recommendations for improving wood flow system iin Ghana, Five hundred (500) copies of a "Wood Tracking Manual of Procedure for Small-Medium Enterprises" and 2,000 easy to understand brochures and implementation guides that adequately explain the wood tracking requirements associated with various forestry assessment schemes that SMFEs have to deal with were developed and used at IWCS implementation trainings. The brochures on chain of custody schemes and Wood Tracking Systems were produced for awareness raising, information sharing and education on legal and sustainable forestry practices. The schemes include the VPA/FLEGT Licensing, Forest and CoC Certification and the Lacey Amendment Act.

OUTPUT 4: STRENGTHEN KWC CAPACITY IN WTS, CoC AND ICT

An updated website for KWC is hosted at kwcgh.org.

KWC has five staff who are trained in forestry, forest industry and social science. All the staff have participated in all training provided by external consultants on certification and CoC principles and implementation. Two staff of KWC (Gustav Adu & Aristotle Boaitey) participated fully and gained knowledge in the development of the TimTracker software for capturing and reporting wood tracking data. They provided CoC specifications used to develop software and led in testing and training in the application of the software. Both persons have received "Trainers' Training" under the CIDT-University of Wolverhampton "Strengthening African Forest Governance Project" in Timber Legality Assurance Systems (TLAS) controls, monitoring, auditing and assessments. Out of the training KWC has partnered CIDT, Forest Watch Ghana and the Forest Legality Alliance (coordinated by World Resources Institute and Environmental Investigation Agency of the USA) to organize and train private sector, public and Civil Society Organizations from Ghana, Cameroon and Liberia on the implementation of VPA/FLEGT TLAS, EUTR and Lacey Act requirements. The two staff are highly qualified to maintain the KWC website and provide information for its continuous updating, as well conduct effective training in the application of the paper and electronic modules of the IWCS. Three other staff members handle social and social and environmental related issues of legality and certification.

OUTPUT 5: CAPACITY OF SMFEs TO PURSUE WTS AND COC CERTIFICATE IMPROVED

KWC besides this project ran parallel projects that assisted SMFEs preparation towards certification. Two companies, Bibiani Logging and Lumber Company Limited, BLLC and Sunstex Company Limited, SCL went through Rainforest Alliance (Smartwood) final audit for Forest Management-Controlled Wood and Chain of Custody certifications in 2012. BLLC passed for award of the CW certificate while SCL for the CoC certificate. They had three months to address few major Corrective Action Requests for award of the certificates (BLLC for CoC and SCL for CW) they missed at first audits. Key to preparing the companies

towards certification was the application of the paper and electronic templates developed under this project to record and store information.

KWC in a project carried out in 2010/11 together with Form International and WWF-Ghana developed a training curriculum for Legality Assurance and Reduced Impact Logging training and a business plan to site the training at the Wood Industries Training Center (WITC). KWC has MoUs with the Forestry Commission, Ghana Timber Millers' organization and the Working Group on Certification to work towards raising awareness, carrying out training and implementing WTS and CoC in Ghana.

KWC has liaised with TVD and TIDD to test one out of five modules for the FLEGT-WTS. The test was also to assess TIDD's readiness to implement the Wood Tracking System being developed. KWC has assured FC its readiness collaborate with it to expedite piloting of modules and roll out of the WTS to pave the way for Ghana to implement FLEGT licensing. Completion of the implementation modules and processes will enable the project develop the IWCS that SMFEs will use in compliance with the FLEGT licensing requirements.

KWC maintained contact with FC divisions including TVD, FSD and TIDD to develop and test both the paper and electronic templates underpinning the IWCS modules for data recording and analysis to support legal determination of timber and timber products that are placed on the market. In building the national WTS within the TLAS of the VPA/FLEGT systems, clear legality standards, critical control points, verification protocols (in particular roles of industry and the forestry agencies) were outlined by the TVD. These were the basis for developing the IWCS modules. However the profound outcome of this project was a study of the wood control systems currently practiced. The study recommended ,

"the new system for legality assurance [be] based on a simplified and less bureaucratic system. Two principal control systems will be required. Firstly complete stock surveys will be carried out immediately before harvesting and secondly immediately after the closure of the compartment.....

The principal control points for volumes [be] situated at the forest and mill gates. A duly authorised person will be located at every mill and will be responsible for measuring all incoming timber volumes of whatever origin. They will also be responsible for verifying the waybills and/or any timber conveyance certificate (vide L.I. 1649, 24.1.2.3) in whatever form approved by the FC, in order to confirm origin etc. Once incoming logs are confirmed as legal accounting for the legality of products they yield would have been simplified. The challenge would be tracking timber that are sold to mills within cities".

(Ref.: WOOD TRACKING SYSTEM IMPLEMENTATION PROJECT IN GHANA: Tomas Bennet & H. J. van Hensbergen)

OUPUT 6: PROJECT STRUCTURE AND GOVERNANCE

Project organization

Besides the staff of KWC as the EA, execution of the project comprised of external consultants in forestry, wood processing and Information and Communication Technology.

Project Governing Council

A Project Steering Committee (SC) was constituted of the Project Leader of KWC, Chief Executive Officer of the Ghana Timber Milling Organisation (GTMO), Director of Timber Validation Department (TVD) of Forestry Commission (FC), and Chairman of Working Group on Forest Certification (WG), with their roles and functions specified in a Memorandum of Understanding (MOU) as follows:

KWC – Implementing agency.

FC

- Provided consent and support to interface the project's IWCS software to be developed for use by SMFEs.
- Support technical capacity building for SMFEs on WTS and IWCS
- Relevant technical data for KWC to develop reliable IWCS for SMFEs.

GTMO

- Contributed to the identification of members to participate in the project
- Collaborated to assess IWCS training needs of SMFEs
- Helped to gain and retain interest of management of members of the various SMFEs in the activities of the project.

WG

- Interpreted, elaborated and advised on FSC certification standards and regulations applicable to IWCS
- Shared with the project ideas for complying with FSC Chain of Custody

. Two Project Technical Committee meetings were attended by the SC, the ITTO Project Manager, the Donor Liaison Manager of the FC and an ITTO donor country represented by an officer of its embassy at which the project work plan was reviewed and its activities and financial implementation assessed to ensure that schedules were adhered to and that it met ITTO and national objectives. *Project Management*

The project management team comprised of the KWC Project Leader, three (3) staff of KWC and three (3) Certification Managers from member companies. The Project Leader was responsible for the general management (planning and execution), development of project work plan and assignment of responsibilities to project assistants. The Project Assistants were in charge of project developments, execution of field activities and extension, administration and office support. The Certification Managers and extension trainers that were trained will in future spearhead implementation of IWCS at the SMFEs level.

Roles and Composition of External Consultants

External consultants were used for Outputs 1, 2, 3 and 4. The table below summarizes consultants' responsibilities and qualifications:

	Field/	Responsibilities
	Specialization	
Consultant 1 SSC Forestry Group, Sweden	WTS/CoC Trainer	 Conducted a research into COC practices in Ghana and made recommendation on its improvement to meet Ghana's VPA/FLEGT Licensing Led in the development of templates for wood data capturing Trained 20 future trainers on information management
Consultant 2 SSC Forestry Group, Sweden	WTS/CoC Standard and manual developer	 Assisted KWC to develop harmonized brochures on WTS and CoC Assisted KWC to develop WTS and CoC implementation Guide
Consultant3	IWCS software programmer	 Developed the IWCS TimTracker software Trained KWC staff and SMFEs on installation and use of the software Supported KWC staff to train SMFEs on the use of ICT and IWCS
Consultant 4 Danetasoft Computers and GilbertAsante.com	Web designer	 Upgraded the KWCs website Trained KWC staff in web administration.

Project Inception

An Inception Report outlining project startup date; project EA profile, office facilities, staff and bank accounts; collaborating agencies; consultants; work plan were submitted to ITTO and approval gained to commence the project received on June 30, 2010. At the second Technical Committee meetings, note was taken of the fact that due to delays in implementing Ghana's WTS under the EU-Ghana VPA, the project could not be completed in the specified two years period. No cost extension was granted for its implementation as was feasible under the Ghana VPA implementation. The project workplans were therefore revised in August 2011 and March 2012.

Stakeholders Meeting

A meeting of stakeholders attended by forty-four (44) persons, representing Civil Society, Industry, Government, Research and Training institutions was the first activity of the project that validated the

project concept and methodology. Issues on existing and new data gathering systems deliberated upon to inform EA in the project implementation.

Issue One

On current data gathering systems for Small-Medium Forest Enterprises (SMFEs), awareness and knowledge of the VPA and its implementation schedules and existing challenges in data collection, analysis, application and reporting the outcome of stakeholder discussions was that;

1. Awareness and knowledge on VPA was inadequate and should be based on practiced instruction. SMFEs had not received much information on VPA and much seriousness had not been attached to the little information that has reached industry. Industry was advised to treat FLEGT implementation with a little urgency.

Increased use of the media, internet, trade associations (TUC, GTA, Wood Workers Association and GTMO) could be used as a platforms to create and disseminate information even at the planning stage.
 Current Data collection system is not regularized, paper based with no internal controls.
 Documentation is basically done to satisfy external demands to acquire permits or to meet buyers' request (CEPS clearance, TIDD export Permits and Customer packing specifications) not for internal record purposes. Industry has not seen the need to keep records for internal analysis of production. Data is only used on request by management or external bodies (CEPS, TIDD etc.). There is therefore the need to develop a Model management regulation regime with minimum data collection template as a guide.

4. The major challenge SMFEs are likely to experience is upgrading the education levels of the work force to meet VPA/FLEGT implementation which may be an added cost.

Issue Two

Regarding new data gathering and reporting under FLEGT; readiness and challenges envisaged by SMFEs in IWCS, stakeholders made the following recommendations;

1. At present industry does not have the man power to implement FLEGT/VPA. Industry could however source this man power from the pool of already existing unemployed Natural Resources graduates. The constrain however will be the cost of training and cost of equipment involved in the Implementation of the Wood Trucking System under the VPA. FC could initiate training in Natural Resource Schools to take the cost of training off industry and policies put in place to address the concerns of VPA. There is also the need for SMFEs to pull together Resources as a group to share cost of training and other requirements by FLEGT, Companies could bond workers for a period after training to retain labour.

2. Although Equipments are available on the market, there are constraints with funds to purchase them. Finance is the biggest issue SMFEs face with no access to loans from financial institutions. Unavailability of the Resource base is also a major constraint. A standard template for data capturing and processing should be developed. The template however should be simple and easy to apply by all sections of

workers.

Project Outcome, Target Beneficiaries Involvement

The project through workshops and practical training raised awareness, sensitized and educated major stakeholders on timber tracking, chain of custody certification and all other internal wood control systems and their implications to international timber market requirements. The major stakeholders that participated in the project were the Working Group of Certification in Ghana (WG), Ghana Timber Millers' Organization (GTMO), the Ghana Timber Association (GTA), Timber Validation Department (TVD) of the Forestry Commission, the Timber Industry Development Division (TIDD) of the FC, Small-Medium Forest Enterprises (SMFEs) such as the Furniture and Wood Workers Association of Ghana (FAWAG) and Wood Workers Association (WAG) small and informal wood workers, including small loggers, small millers using mobile saws or rip saws, small furniture makers and carpenters, as well as and Kumasi Wood Cluster Association (KWC), the project implementers. KWC, GTMO, TVD and WG constituted the project steering committee, whiles all stakeholders at the project inception validation workshop offered appropriate and valuable suggestions that guided the EA in its implementation. The EA and Steering Committee in consultations and discussion with relevant stakeholder institutions on the project goals and objectives established areas of common interests for collaboration, assessment of capacity of stakeholder institutions and identified suitable individuals within the institutions who will trained as future trainers to serve as the links between the project office and the various institutions.

The project utilized 17 contact activities mainly training workshops and field coaching, at which 216 organizations (including repeated counting of some 90 forestry enterprises and 12 agencies and trade associations) [Annex7 Summary of Organisations and Persons Trained] to provide learning and training on topics such as principles of internal wood control or tracking, data management in wood tracking and the use of templates for both paper and electronic based data capturing, storage, analysis and reporting. These actions have highlighted the importance of information data and information management to demonstrate compliance with Ghana's standards of legality. Two companies, Susntex Company Limited (SCL) and Bibiani Logging and Lumber Company Limited (BLLC) both in the Ashanti Region used templates developed under the project for the CoC recordings to achieve FSC certification. Eight other companies are at different levels of installing the TimTracker and to be trained to use it for their internal wood control and tracking. The companies include Logscourt Limited and Bafour Investments Limited (Ashanti Region), Boisson Limited and T. Andrews Limited (Western Region), Ayipa Wood Processing and Broadwater Sawmills (Eastern Region), Asuo Bomosadu Timbers Limited and(Brong Ahafo Region). It is envisaged that many more SMFEs will be assisted when Ghana's WTS and FLEGT licensing commences about 2014.

Two information and educational publications were produced by the projects and have been used to train stakeholders and made available at public fora. They are the "Chain of Custody Verification for Legality and Certification" brochure and the "Wood Tracking Manual of Procedure for Small-Medium Enterprises". Two thousand copies of the former and 500 of the latter were printed and copies are available at KWC and some partner organization for distributions.

The project provided foundation training in computer skills and application to 70 operators at the SMFE level as a requirement for them to understand and use the TimTracker, the national Wood Tracking Software as well as using the computer for regular communication in their businesses. The Tim Tracker which is an output of this project is a wood tracking software developed to the intensity and scale of SMFE operations for efficient capture, processing and storage of data collected in the field or submitted to FC for monitoring or supply chain verification of Ghana's legality standards and issuance of FLEGT license.

The technical capacities of five KWC staff have been improved and are able to complement FC/TIDD/TVD to manage the FLEGT WTS system by assisting and monitoring implementation by SMFEs and coaching those willing to comply with existing and new regulations in international market requirements. KWC staff have demonstrated this by providing classroom type and field practical training on Timber Legality Assurance Systems to forestry enterprises, civil society organisations, non-governmental agencies and trade associations. KWC is available to partner local and international organizations to provide such training.



The economic impact of the project has been the award of FSC Controlled Wood and Chain of Custody Certification to two small – size enterprises which on its own could not have handled the technical requirements of the certification process. The experience that KWC gained in the process will enable it bring more SMFEs to certification and extend support to exporters to gain FLEGT licenses to the EU under Ghana-EU VPA.

A robust IWCS is now available to SMFEs to develop the data base in timber stock enumeration, timber harvesting allocation and monitoring, efficient processing to

curtail excessive wastage in utilising timber resources, among others. Efficient timber utilization will be useful to control volumes of timber harvested, monitor and control illegal harvesting and contribute towards preserving the forest environment.

5. ASSESSMENT AND ANALYSIS

Project Rational and Project Identification

The project played a significant role to raise awareness on Ghana's VPA among SMFEs, ENGOs and forestry agencies. Under the VPA and the new wood tracking system, timber companies will have to provide regular reports for verification against legality standards. This provision requires timber companies to improve their internal wood tracking systems to facilitate the reporting process. Most SMFEs in Ghana however lack the technical capacity to develop and implement internal wood control system that is consistent with legal timber trade requirement. The project developed the tools by which SMFEs can satisfy such requirements through decentralized training from Kumasi to the regions was able to reach many as well as the small companies to build their capacities to facilitate the reporting process.

Project Objectives and Implementation Strategies.

Based on the project objectives, the strategies undertaken in the implementation of project activities

necessitated giving SMFEs as the primary stake holders of the project space and opportunity to freely and truthfully expressed their views and understanding of how trading in legal timber affected their businesses and livelihoods. Project implementation strategies therefore were focused on awareness creation based on practical instructions on how legality can be achieved at the levels of the scale and intensity of their operations and stressing on building or enhancing the skills of operators and enterprise owners to apply the standards. Training was extended to urban centers



where informal harvesting and processing was carried out and utilized trade associations to mobilize members for training, which was cost effective in achieving good attendance for training. Cognizance was placed on the fact that most SMFEs understood and utilized more paper based information and data collection and storage systems and therefore the project was thoughtful about developing standardized templates for such purpose while the use of computers was envisaged to assist those with the human and material resources to acquire them; the challenge was to develop modules and tools that were simple and easy enough to apply by all sections and categories of workers and businesses and yet cover essential elements of legality standards.

Critical Differences between Planned and Actual Project Implementation

The project covered essentially all planned activities, although some were delayed or extent of coverage reduced. Whereas sufficient awareness was created on IWCS, the extent, ability and efficiency with which it was being applied could not be conclusively measured, either because operators needed more training, coaching or supervision than could be covered under the project due to time constrain, or the fact that neither the FLEGT licensing to cover exportable products nor enforcement of legal procurement

for domestic public projects were not in force as yet and therefore SMFEs were yet to attach urgency to the total enforcement of the knowledge and skills they gained under the project. The wood tracking software now covers sawmill activities; it can be expanded to cover veneer and plywood production as well as builder' wood work anc carperntry items most SMFEs are engaged in.

Time and project Inputs

The EA involved the services of its internal staff to research into and develop the IWCS tools to train companies and participants it covered in the project. Periodically, certification managers of the two companies it has prepared for the FSC Controlled Wood and Chain of Custody certification, the future trainers it has prepared and resource persons of the TVD-FC provided specific assistance to support the project. Of particular significance however was the SSC Forestry Group of Sweden who as project external consultants provided fundamental direction, undertook studies covering principles of wood tracking and how they can be appropriately applied to the Ghanaian situation including reference publications and materials that helped to carry out the project. The architecture and functions of the wood tracking software, TimTracker, was laid out by a local small size ICT specialist company, TEKSOL that worked intensively with KWC staff to bring about the product. Being the first time of making the effort, KWC woefully underestimated the time and resources budgeted for the development of the software. It is gratifying that the enthusiasm of the parties to develop the system locally was sufficient motivation and incentives to them to carry out the task within the resources allocated under the project. Very importantly, their conviction is that they have the knowledge, skills and ability to expand and improve upon the software to cover other milling activities and downstream value addition production processes that have not been covered under this project. The opportunity exists for them to develop tracking tools for local domestic market supplies. The financial resources to cover product development and undertake training would however be required.

Through the periodic conduct of project meetings, workshop training, monitoring the activities and assessing available financial resources, the budget released from ITTO and agency counterpart have been properly managed to carry out and complete all project activities. Audited accounts, cashflow and financial statements are provided in Annexes 1 and 2. Project assets acquired were mainly office equipment which are listed in Annex 8. The EA requests from ITTO to keep those still in use to be applied for further training and keeping records for IWCS.

External Influences

There were some external influences beyond the control of the EA which affected the implementation of project activities within its work plan.

• In order to address shortfalls this project identified in the existing FC chain of custody system, the external consultant and KWC consulted with FC and its consultants developing the new national WTS on the tracking procedures to be applied under Ghana's VPA process. It was necessary to verify how any new system recommended will be structured so that recommendations of this project can synchronize with the national WTS. FC's development of new protocols, their testing and analyses have been drafted but not finalized. The IWCS tools in this project were therefore based on the FC drafts of the wood tracking operational specification, its critical control points, and verification

protocols. This was done in other to bring this project to conclusion. KWC is however maintaining contact and discussion with FC as the national WTS continues to be fashioned out so that any deviations from what has been previously relied upon can be corrected.

- SMFEs are ambivalent about the national WTS as it has not been concluded to give them clear direction on its implementation; the resources in human and materials required and how they are to be provided. This uncertainty had its toll on the project and there was some "sitting on the fence" attitude displayed by some enterprises. The completion of the national WTS will hasten the implementation of the IWCS which has been designed to support to support it.
- The timber industry in Ghana is distressed by the lack of sufficient wood and financial resources to maintain it. Several enterprises that the project started with have folded up while in several cases staff trained have moved on. KWC and existing enterprises are therefore challenged with training and re-training staff on continuous basis.

Project Beneficiaries

The beneficiaries of the project are very thankful to ITTO and the EA for its implementation. The information, knowledge and skills they have acquired from the project have raised their awareness on the VPA and how it is to be implemented. They hope to sustain and improve on what the project has provided them in order to adapt to changes that the trade in legal timber and its products would require. They will then be able to protect their businesses and incomes to improve their livelihoods. The Technical Committee also expressed its satisfaction with activities carried out but stressed that the project outcomes be synchronized with the national WTS

Project Sustainability

The following are steps to ensure that the benefits of the project are sustained:

- i. KWC has 9 enterprises identified for whom the TimTracker is being installed and support given to continue its application. Data for some will be hosted on KWC computer (server) to support their information management.
- ii. KWC is networking with stakeholder organizations as civil society organizations, ENGOs and trade associations to provide them with technical support to carry out their sensitization and monitoring roles under the Ghana TLAS.
- iii. KWC will use its website as platform for information sharing among SMFEs and project beneficiaries.
- iv. The capacities of enterprises pursuing higher forms of sustainable forest management such as certification will continue to be built by the KWC.
- v. KWC will continue to offer technical support and coaching to SMFEs.
- vi. Knowledge and lessons learnt from the project will be shared with the TVD/TIDD for maintaining the VPA program and with the WG to continue with certification development in Ghana.

6. LESSONS LEARNED

Development Lessons

Project Identification and Design which contributed in achieving the development objective

- KWC technical support to SMFEs undergoing Group/Individual FSC certification provided it with the background knowledge of needs that must be addressed in the project.
- Multi-stakeholder partnership was an important factor in establishing relationships and roles of institutions that supported the project design, direction, implementation and monitoring
- It is necessary that economically, SMFEs do not lose out when FLEGT licensing become the condition to export to EU countries; even on the local market, public procurement requirements demand that they demonstrate compliance of legality standards informed SMFEs desire to ensure that project objectives were achieved.

Additional arrangements that could improve cooperation among participants

- Common platform created for activity implementation and dissemination of information. Efficient use of the media, internet, TUC, trade associations, CSOs be made by KWC and FC.
- Promote and organize SMFEs to pull together Resources as a group to share cost of training and other requirements by FLEGT.
- Stakeholders led by FC research impact of VPA/FLEGT implementation on SMFEs and recommend solutions to any legitimate concerns they may have due to their inability to comply with standards beyond their capacities.

Factors that will most likely affect project sustainability after completion.

- Continued support and guidance of KWC and FC in assisting beneficiaries and SMFEs in general
- Access, availability and affordability of human and material (timber) resources for different categories of SMFEs to work with.
- Implementation of policies designed to promote SMFEs viability and environmental best practices.
- Financing to develop outstanding components of the TimTracker software and extend its application to as many SMFEs as possible.

Operational Lessons

The lessons learned from the operational aspects of the project were as follows;

- Paper based tracking be practiced alongside the use of electronic devices to meet the capability of SMFEs.
- Much as there is the demand for standardized and simplified templates to be provided for SMFEs for data capturing and processing, they must be adaptable to peculiarities of varying categories and nature of business of the group; there will be the need for continuous research and "practice to perfect" the tools they can use conveniently and efficiently.
- Utilization of project resources was maximized when trade associations and grouping were involved in organizing workshops for training and disseminating information; planning and engaging in industry and community outreach for training, coaching, experience sharing and feedback to improve on project implementation

7. CONCLUSIONS AND RECOMMENDATIONS

To improve the development and implementation of projects with same or similar objectives, the following are recommended:

Project Identification

- Build on the capacity, knowledge and track record of Implementing Agencies who will lend support to FC to raise awareness and train SMFEs to practice legal and sustainable forestry.
- Implementing Agencies to proactively seek government policy direction and **program implementation schedules** to align and design successor projects.

Design

- Include representatives of major and minor stakeholders (from national and urban/community levels) in the planning and formulation of project design to capture specific needs of the wide range of beneficiaries that must be addressed.
- Project must be designed to reflect the capacity of SMFEs to own and implement it.
- Objectives, activities and budgets must be realistic to identify and seek resources that will "incentivize" and support project implementation in effective and timely manner.

Implementation

- FC financial and technical support to implementing agencies will go a long way to enable them develop capacity building tools, undertake training and reach as many SMFEs as possible.
- Continue ITTO financial support to Implementing Agencies to develop customized tools (derived from national WTS) that will address specific requirements of SMFEs
- Adequate provision made to prepare project beneficiaries to buy into the project objectives will enable them lend their support to its implementation and successful completion.

Organization

• Clear roles for stakeholders in project formulation will engender their "buy-in" into its implementation.

Management

• Provide resources to strengthen capacities of capable stakeholders and trade associations to take on responsibilities of organizing training and information dissemination workshops, field extension and hands-on-practical training, and setting up self regulating norms and standards, among others.

Monitoring and Evaluation

• Regular monitoring and evaluation be adhered to and thorough enough to assess project status, including identification of problems and embodying project beneficiaries concerns and recommendations to seek corrective measures

RESPONSIBLE FOR THE REPORT: Signed

GUSTAV A. ADU Date: September 6, 2013 **Project Coordinator**