

Models of Artisanal Milling



Models of Artisanal Milling

Tropenbos International Ghana

Kumasi, Ghana

July 2013

This publication has been made possible in part through financial support from the Food and Agriculture Organisation under the ACP FLEGT Support Programme (*The Forest Law Enforcement, Governance and Trade Support Programme for African, Caribbean and Pacific Countries*) to address forest law enforcement, governance and trade issues in ACP member countries.

The content of this publication was put together by Tropenbos International Ghana after consulting several stakeholders and can no way be taken as the views of the Food and Agriculture Organisation or the partners of the ACP-FLEGT Support Programme.

Published by: Tropenbos International Ghana

Copyright: ©2013 Tropenbos International Ghana

Texts may be reproduced for non-commercial purposes, citing the source.

Citation: Tropenbos International Ghana (2013). *Models of Artisanal Milling*. Tropenbos International Ghana, Kumasi, Ghana, 19 pp.

Editors: Jane Aggrey, Mercy O. Ansah and Samuel K. Nketiah

Layout and design: Jane Aggrey and Joseph Adu

Illustrated by: Joseph Adu

Printed by: JEB Solutions, Accra, Ghana

Available from:
Tropenbos International Ghana
Samuel K. Nketiah
P. O. BOX UP 982
KNUST Kumasi, Ghana

www.tropenbos.org

Table of Contents

Acronyms	iv
Preface	v
Acknowledgements	vi
1. Introduction	1
1.1 Background	2
2. What is artisanal milling?	3
2.1 Who can be an artisanal miller?	4
2.2 Requirements for operating and artisanal mill	5
3. Models of artisanal milling	6
4. Possible benefits of artisanal milling	11
5. Where can an artisanal miller get wood from?	12
6. How can raw material supply be sustained?	13
7. Marketing of lumber from artisanal milling	14
Annexure - Sample of partnership agreement	

List of Figures

Figure 1 Artisanal Miller owns processing equipment and mills at a fee

Figure 2 Artisanal miller owns equipment and purchases logs to mill

Figure 3 Artisanal miller owns a TUC area

Figure 4 Artisanal miller acquires logs from community

List of Table

Table 1 Benefits of artisanal milling

Acronyms

ACP	African, Caribbean and Pacific Group
AM	Artisanal Milling
FAO	Food and Agriculture Organisation
FC	Forestry Commission
FLEGT	Forest Law Enforcement Governance and Trade
TIDD	Timber Industry Development Division
TUC	Timber Utilisation Contract
VPA	Voluntary Partnership Agreement

The concept of artisanal milling has been proposed as a way of producing legal lumber for the domestic market in place of illegal chainsawn material. This booklet is a contribution to the evolving concept. The authors have described different kinds of partnerships that could be fostered between key actors in the lumber supply chain to address a weak link in producing legal lumber for the domestic market, namely, how artisanal millers can access legal logs for processing.

In presenting the models, the document also discusses the definition of the concept, who qualifies to be an artisanal miller as well as sources of wood and markets for products from artisanal milling. Given the multiplicity of actors in the supply chain, several permutations of partnership arrangements are possible; the models presented in this document are therefore not exhaustive; they rather cover the basic ones.

With respect to the sources of wood available to the artisanal miller, the document only considers current possibilities, and therefore does not include the granting of timber utilization contracts directly to artisanal millers; this is based on the fact that, most areas that qualify for Timber Utilization Contracts (TUCs) are currently encumbered. However, in the medium to long term, as existing TUCs expire, it should be possible for artisanal millers to compete for their own TUC areas through the laid down procedures.

But given the rapid expansion in domestic lumber demand, the surest way of sustaining supply will be through intensification of resource development efforts. In the short to medium term however, importation of logs, lumber or both could help bridge the gap between domestic lumber demand and supply.

Acknowledgements

This booklet emanated from a pilot project on linking communities to holders of timber utilization contracts to produce legal timber for the domestic market which was funded under the FAO/ACP FLEGT Support Facility.

The models were developed jointly with stakeholders; we however acknowledge the key role played by Mrs. Mercy Owusu-Ansah and Dr Kyereh Boateng.

Jane Aggrey, put the document together, whilst Mr Joseph Adu provided the illustrations. Messrs Bossman Owusu helped with the final editing.

We gratefully acknowledge the contributions of all these people and that of the entire project team.

K.S. Nketiah

Project Leader

1. Introduction

This document presents the concept, definition and models of artisanal milling. The models have been developed based on types of partnership agreements, sources of raw material, and marketing of products developed with stakeholders on a project funded by the ACP/FAO FLEGT Support Facility. The project '*Linking local communities and forest concession holders to produce legal lumber for the domestic market*' was implemented by Tropenbos International Ghana and the Forestry Commission between January and December 2012. The focus of the project was to address a weak link in the supply chain of legal timber to the domestic market.

The project was carried out in three regions (Eastern, Brong-Ahafo and Ashanti) in the High Forest Zone of Ghana where illegal chainsaw milling is prevalent and the potential for collaboration existed for implementing the project. The project developed modalities and strategies for linking communities to timber utilization contract (TUC) holders to enable them enter into partnerships to produce legal lumber for the domestic market in support of the Voluntary Partnership Agreement (VPA).

1.1 Background

Ghana banned the use of freehand chainsaw milling in 1998, but chainsawn lumber still constitutes 84% of the domestic supply. As part of the EU-Ghana Voluntary Partnership Agreement (VPA), Ghana commits to supply only legal lumber to the domestic market; there is therefore an urgent need to address the domestic lumber supply issue. As part of efforts to address this challenge, a new policy has been promulgated. The policy hinges on giving artisanal millers the opportunity to produce lumber for the local market.

A new challenge however, is how artisanal millers can have legal access to timber for their production. Much of the forest resources are already allocated to concessionaires, many of whom have no processing facilities and therefore sell logs to the conventional saw millers. However, for several reasons, including economics, the saw millers are more willing to export their products rather than sell on the domestic market, thereby creating a gap in the domestic supply. The concept of Artisanal milling (AM) has been proposed as a way of addressing supply of legal lumber to the domestic market.

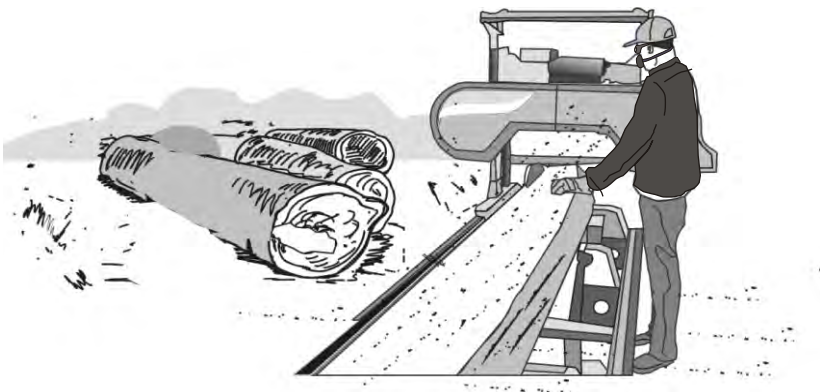
2. What Is Artisanal Milling?

After consulting with different people (stakeholders) with interest in the supply of legal lumber to the local market, it was agreed that artisanal milling should have the following meaning.

"Artisanal milling is small-medium scale milling of timber from specified legal sources by a trained, certified, registered and licensed Ghanaian artisan , using licensed mobile saw milling equipment that excludes any form of chainsaw machines capable of recovering at least 50% of dimension lumber from logs for the domestic market only. This may be processed in-situ or ex-situ. "

The definition takes into consideration the following issues.

- Who qualifies as an artisanal miller
- Scale of operation
- Type of machine and its efficiency
- Where the product can be sold
- Location of activity and milling as a type of wood processing activity
- Source(s) of raw material



From this definition, artisanal milling as a concept is not entirely new in the forestry sector at least, in terms of scale of operation and the target market. Artisanal milling has considerable potential to reduce poverty through the creation of rural forestry enterprise. From the definition, artisanal milling requires that only legal logs are processed for the domestic market and a commitment that chainsawn lumber in any form is illegal and unacceptable.

2.1 Who can be an artisanal miller?

The qualifications for an artisanal miller as detailed out in the artisanal milling concept are as follows:

1. Investment capacity (including financial capacity)
2. Existing access to raw material
3. Entrepreneurial experience (including Registrar-General's registration)
4. Existing milling facilities (artisanal or saw mill)

These qualifications would vary for each partnership and resource access model. Local communities that have established artisanal milling facilities would not be required to possess saw milling facilities to qualify for artisanal milling. Meanwhile an existing saw miller who wishes to produce lumber under the concept of artisanal milling must show proof of his sawmill facility and commitment to supply the milled lumber to the domestic market.

2.2 Requirements for operating an artisanal mill.

1. Must be a Ghanaian
2. Must be trained and certified in the use of artisanal mills
3. Must possess a license and be registered in operating an artisanal mill
4. Must be willing to form/be a member of an operators' association



LICENSE

NAME.....

NATIONALITY.....

MEMBER OF OPERATORS' ASSOCIATION

3. Models of artisanal milling

The artisanal milling models are based on the assumption that stakeholders would build partnership in processing legal lumber for the domestic market. The partners would enter into an agreement (Memorandum of Understanding, see annexure for sample) that is favorable for each party. Under the partnership agreement four basic kinds of models are possible.

Model 1 Artisanal miller owns processing equipment and mills at a fee.

In this model the artisanal miller will obtain full sized logs which are legally harvested from one of two sources - directly from a TUC holder or through a middleman.

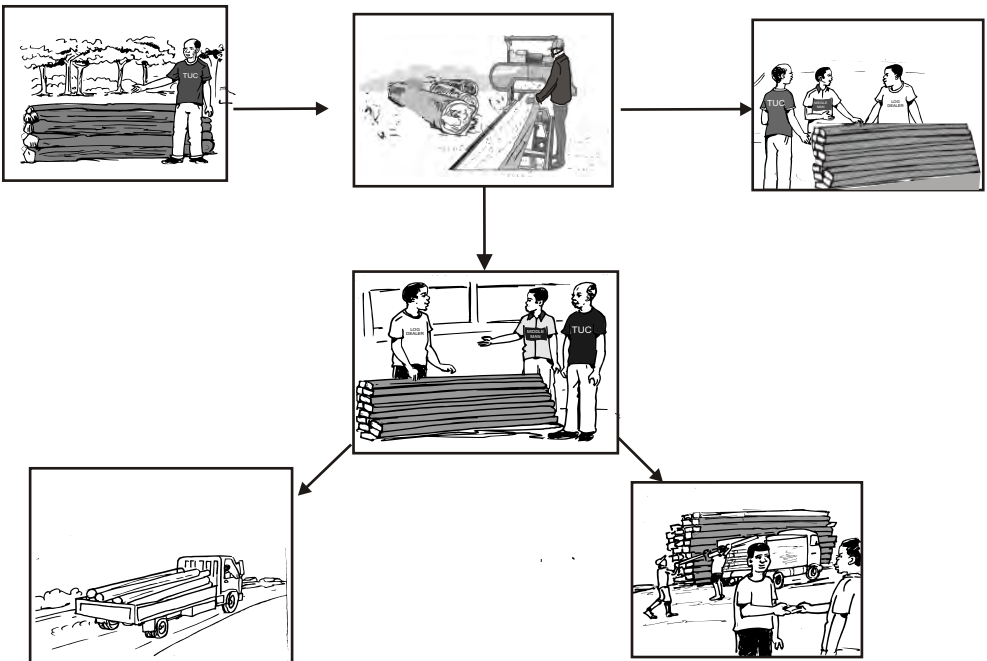


Figure 1 Artisanal Miller owns processing equipment and mills at a fee

A middle man in this case is one who has entered into partnership with a TUC holder and has permission to harvest un-removed yields from his TUC area. The miller processes the logs into lumber at an agreed fee. The processed lumber is collected by the owner of the logs, in this case a TUC holder or a middle man who sells to any lumber dealer who is a member of the Domestic Lumber Traders Association or directly to a consumer. The middle man may be receiving financial assistance from the consumer.



Model 2 Artisanal miller owns equipment and purchases logs.

Artisanal Miller in partnership with a TUC holder is supplied with logs on purchase. This could be the TUC holder selling logs directly to the artisanal miller or grants permission to the miller to harvest logs from his TUC area. The artisanal miller after milling the logs sends the lumber to a domestic lumber trader or to the one who ordered the processing. In this model the lumber trader may financially support the artisanal miller in harvesting and transporting the logs to the milling site as well the processing and storage.

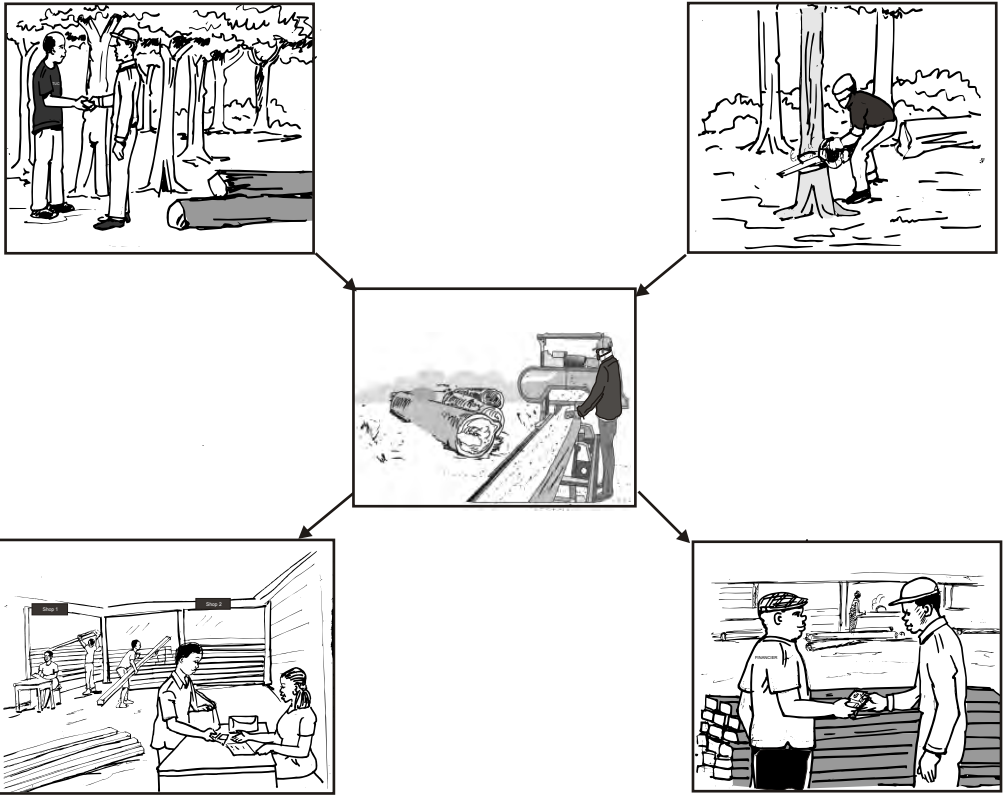


Figure 2 Artisanal miller owns equipment and purchases logs to mill

Model 3 Artisanal miller owns a TUC area.

This is a model where an artisanal miller owns a TUC area. He harvests his allocated yield of trees and uses an artisanal mill to process the logs into lumber. In partnership with a domestic lumber trader, the miller sells the processed lumber on the domestic market. In this model the artisanal miller has some added responsibilities to fulfill because he is a concession holder. These include keeping to social responsibility agreements and all regulations pertaining to timber harvesting

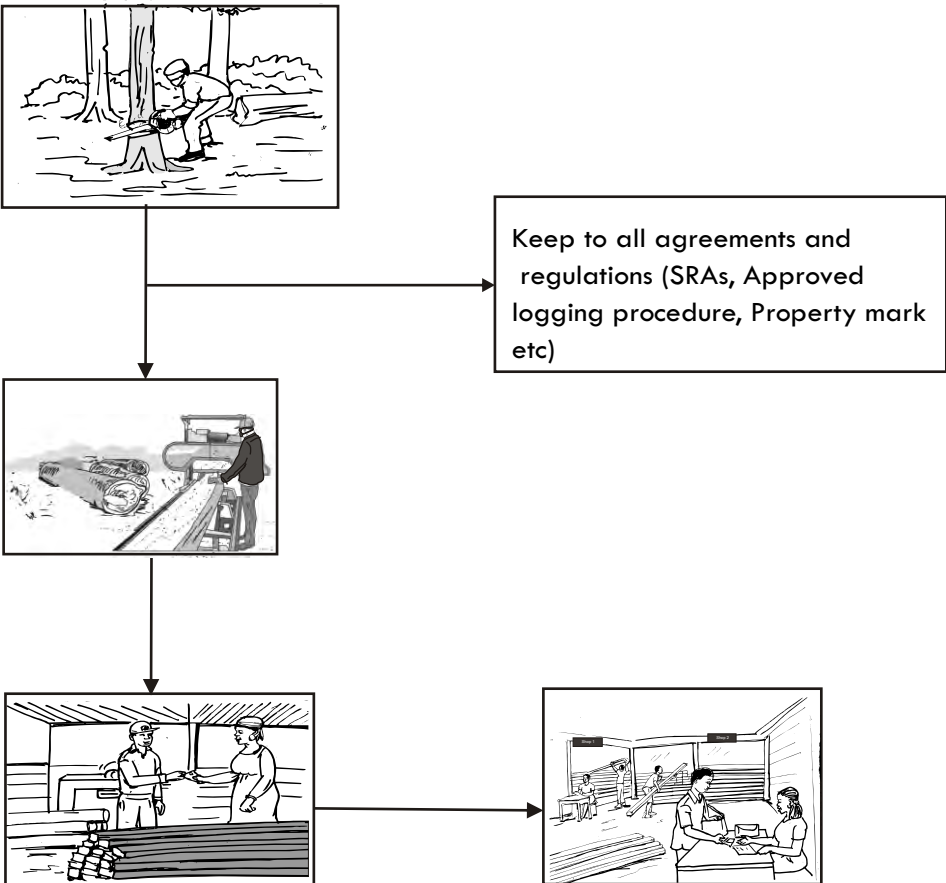


Figure 3 Artisanal miller owns a TUC area

Model 4 Artisanal miller acquires logs from community

This model seeks to develop partnership between TUC holders, community and artisanal millers. The TUC holder in honoring his Social Responsibility Agreement could grant the community access to un-removed yields or logging residue. The community in turn engages an artisanal miller to process the logs and the lumber sold by the community to a lumber trader or used for community development projects.

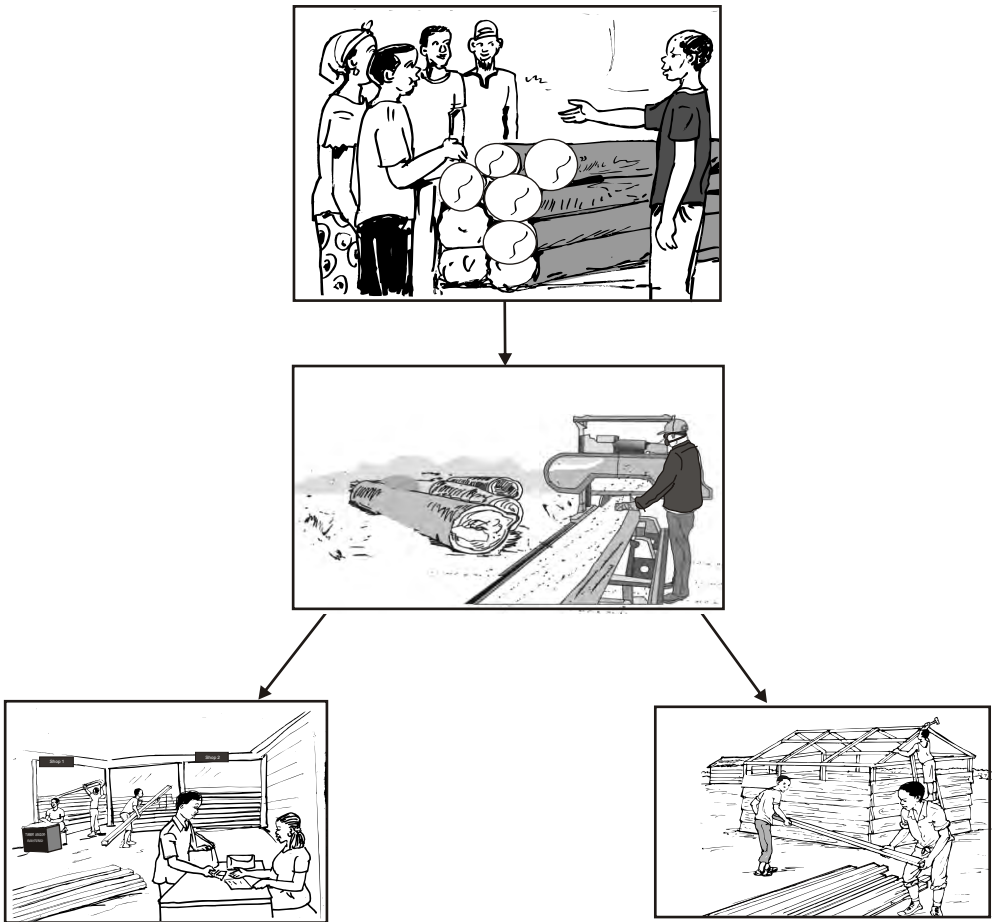


Figure 4 Artisanal miller acquires logs from community

4. Possible benefits of artisanal milling.

Benefits that can be derived from artisanal milling are diverse but depend on the kind of partnerships each actor is engaged in. Possible benefits that could be derived are as shown in the table below.

Table 1 Benefits of Artisanal milling

Actor	Benefit
Community	<ul style="list-style-type: none">• Alternative Livelihoods (e.g. charcoal production)• Employment (labour for milling operations)• Fuel wood
Concessionaire	<ul style="list-style-type: none">• Full yield removal• Additional income• Reduced chainsaw activity in concessions
Forestry Commission	<ul style="list-style-type: none">• Full yield utilization• Better silvicultural management• Reduced illegal logging• Reduced forest conflict
Consumer	<ul style="list-style-type: none">• Access to good quality products.

5. Where can an artisanal miller get wood from?

Logs for artisanal milling can be accessed from five different sources.

1. Un-removed yield from TUC areas. A number of reasons such as absence of market or international contract for some timber species account for the un-removed timber yields. Such species are of economic value locally and can be processed and sold on the domestic market.
2. Rejected, abandoned and seized logs: These include logs that have been deserted by TUC holders in both on and off reserve areas but are suitable for processing by artisanal millers.
3. Logging residues: Many logging sites have piles of logging residues that artisanal millers can mill into lumber.
4. Mill residues such as pillar cores and slicer boards.
5. Plantation grown timber: In the medium term it should be possible for artisanal millers to have their own TUC areas through the established procedures. In the long term however, sustainable supply of wood may have to come from plantations, mainly.

6. How can raw material supply be sustained?

To ensure the sustainability of raw materials under the artisanal milling concept, the:

1. FC would have to ensure that the management of forests, production of timber, and processing of timber products are undertaken in a manner that is economically viable, promotes social equity and protects the environment, and
2. FC should also actively involve forest fringe communities in the sustainable development, protection and management of the forest.



7. Marketing of lumber from artisanal milling

The sale and purchase of lumber from artisanal milling will follow provisions under the public procurement policy. Only timber vendors registered with the Timber Industry Development Division (TIDD) qualify to trade in lumber from artisanal milling as well as other timber products. The following are a set of criteria for verifying the validity of a registered timber vendor.

- Existence of vendor(s) in FC database.
- Proof of FC-TIDD Registration Certificates of one year validity, subject to annual renewal.
- Possession of FC-TIDD issued value books and Product Inspection Certificate(s) in support of domestic trade in timber and timber products



ANNEXURE - SAMPLE OF PARTNERSHIP AGREEMENT

This PARTNERSHIP AGREEMENT is made this day of, 20..., by and between:

Partner One:
Timber Contractor

Kwabena Ntiful
Kwabena Ntiful and Sons Timber Company
Bekwei.

Property mark (KNS)
P. O. Box 3356, Kumasi.
Tel:

Partner Two:
Artisanal Miller

Ernest Awuku
Nuku Enterprise

P. O. Box 144, Juaso.
Tel:

Partner Three
Lumber Dealer (middle man)

Yaw Kwei
AW/AN/023

Tel:

The parties hereby agree to the following provisions as conditions of the Partnership:

SECTION 1 - EXPLANATORY STATEMENTS

- 1.1 The purpose of the partnership is to supply logs to the artisanal miller to produce lumber for the domestic market, and will conduct all business at Forest District in the Region.
- 1.2 The Partnership will commence on the date listed above, and will end when a mutual agreement of dissolution has been reached or upon the death of one or more partners.
- 1.3 The continuous existence of the Partnership is dependent on how long the Timber Contractor and the Lumber Dealer (middleman) are able to hold on to their various permits and customers respectively.
- 1.4 The Partners have agreed to re-negotiate prices based on changing economic and fiscal regimes pertaining in the country, but will be done to ensure that it is mutually beneficial to all partners.
- 1.5 The Partners have agreed to the following financial arrangements; the Timber Contractor will supply the logs (all species except restricted ones) to the middleman at a price of *GH¢ per cubic meter* and the artisanal miller will process the logs to lumber for a charge of *GH¢ per cubic meter*.
- 1.6 The Timber Contractor will ensure the necessary paperwork for transporting the lumber to the final destination will be processed for the lumber dealer (middleman) including LIC, VAT receipt and so on.

SECTION 2 - COMMITMENTS OF PARTNERS

2.1 Partner One: Timber Contractor

1. Commitment in piloting artisanal milling concept.
2. Hold license for timber harvesting following laid down procedure.
3. Provide legal logs to artisanal miller on regular basis at agreed price for conversion into lumber.
4. The Timber contractor will ensure that the necessary paperwork needed to transport the logs to the sawmill such as; LMCC, TIF, and LIF are all processed.
5. Demonstrate transparency in business transactions with artisanal miller.
6. Ensure that all stumpage fees are promptly paid for smooth operation.
7. Except due to situations which are beyond the contractor such as bad weather conditions, breakdown of equipments, problems with FSD etc., logs will be supplied as and when needed.

2.2 Partner Two: Artisanal Miller

1. Show commitment in piloting the artisanal milling concept.
2. Acquire capacity in artisanal milling.
3. Use only legally acquired logs.
4. Produce lumber exclusively for the domestic market.
5. Enter into necessary financial arrangement with the various partners which will be mutually Beneficial to all.

2.3 Partner Three: Lumber Dealer (Middleman)

1. Show commitment in piloting the artisanal milling concept
2. Deal in only legally acquired lumber
3. Be committed to use lumber domestically
4. Only transport the lumber with the permission of the Timber contractor since His property mark will be on the receipt.
5. Make all payments to partners on time and in the unlikely event of delays, the necessary Arrangements will be made with the partners for immediate payment on a later date.

SECTION 3 - DISPUTES/ARBITRATION

- 3.1 All disputes shall be settled by the Partners via a mutual decision-making process.

SECTION 4 - PARTNER WITHDRAWAL

- 4.1 A partner may withdraw from the Partnership through mutual agreement.
- 4.2 In the event of a withdrawal, all parties involved shall settle all outstanding deliveries or debts before final termination of agreement.

SECTION 5 - JURISDICTION

5.1 This Agreement is subject to the laws and regulations of the Republic of Ghana.

We, the undersigned, agree to all the provisions listed above, and sign this document of our own free will.

Partner One Name

Partner Two Name

Partner Three Name

Partner One Signature

Partner Two Signature

Partner Three Signature

Witness Name

Witness Name

Witness Name

By making knowledge work for forests and people, Tropenbos International contributes to well-informed decision making for improved management and governance of tropical forests. Our longstanding local presence and ability to bring together local, national and international partners make us a trusted partner in sustainable development.

