





## Artisanal milling and agroforestry as alternatives to chainsaw milling

In 1998, the use of chainsaws in felling and processing logs into lumber was outlawed in Ghana (Act 547 and LI 1649). Forest fringe communities that depended on chainsaw milling were faced with a dilemma. Chainsaw milling had been a productive economic activity for most of these communities, employing about 97,000 people. It was the mainstay of many local economies.

Since these communities depended on chainsaw milling for their livelihoods and economic survival it is not surprising that the law was flouted with impunity. Alternatives needed to be provided to encourage forest fringe communities to obey the ban on chainsaw milling and at the same time supply the local market with legal timber.

Since 2007, the <u>Chainsaw Milling (CSM) Project</u>, funded by the European Union, has been implemented by TBI Ghana. The project had two goals, both difficult to achieve: to reduce conflicts associated with chainsaw milling by promoting legal and legitimate lumber in the domestic market; and to develop alternatives livelihoods for forest fringe communities that depended on chainsaw milling.

To this end, the project developed two schemes that provided alternative livelihoods for forest fringe communities. The first was the use of artisanal mills (such as the Wood Mizer) under an Artisanal Milling (ATM) concept that introduced and promoted improved methods for wood processing. The second, the development of agroforestry plantations, addressed both of the project goals. These alternatives allowed former chainsaw millers to earn income while carrying out reforestation in degraded forests.

#### Artisanal Milling

Next to its illegality, the major flaw of chainsaw milling is its inefficiency. With an efficiency rate of only 20 to 30 %, processing timber into lumber using this method creates a lot of waste. The chainsaw machine also posed a safety hazard to chainsaw millers, and its light weight makes it very mobile, which enables its users to easily engage in unlawful timber harvesting. This hindered the effective monitoring of forests.

In comparison, artisanal milling machines have an efficiency rate of 50% or greater. Artisanal millers trained under the project achieved an efficiency rate of 70% using the Wood Mizer portable mill that was introduced to the country by the project.

Artisanal milling activities are now being carried out by private individuals using their own machines who received training under the project. In addition, the 40-member Artisanal Milling Association at Sankore is operating a mill that was provided for by the project and the Ministry of Lands and Natural Resources.

#### Agroforestry plantations

The development of agroforestry plantations was adopted as a viable alternative to illegal chainsaw milling, following an initial needs assessment and a discussion on alternative livelihoods. The project conducted intensive training workshops for seven interested associations within the project sites to provide them with agroforestry and plantation development skills.

Agroforestry combines trees with agricultural activities on farms. Known in Ghana's forestry

sector as the Modified Taungya System, agroforestry allows farmers to plant food crops and trees in degraded forests for a specified period until the tree canopy closes. It is an ideal method for encouraging forest fringe communities to reforest degraded forests by planting of indigenous and exotic species for timber and non-timber forest products. Agroforestry provides agricultural benefits and generates income for chainsaw operators, which reduces the reliance on chainsaw milling.

A total of 135 reformed chainsaw millers have organized themselves in agroforestry associations: the Asante Akyem Woodworkers Association has 60 members, the Breman Anwhiam Agroforestry Association has 40 members, and the Feyiase Agroforestry Association has 35 members. A fourth group — the Kyekyewere Agroforestry Association, with 80 members — is waiting to be assigned a degraded compartment where they can carry out their reforestation activities.

In all, a total of 166 hectares of degraded forests
— representing 56% of the degraded portion
allocated to former chainsaw millers — have been

planted with tree seedlings. They comprise Teak (Tectona grandis), Ofram (Terminalia superba), Emerl (Terminalia ivorensis), Kusia (Nauclea diderrichii), Mahogany (Khaya spp.), Cedrella (Cedrella adorata) and Asamfena (Pouteria spp.).

The agroforestry associations have also been introduced to cocoa agroforestry. This involves intercropping trees with cocoa seedlings supplied by the project; it allows them to earn additional income and boosts Ghana's cocoa industry.

In addition to these two alternative livelihood, members of the plantation and artisanal milling teams have also been trained in charcoal production. They use improved kilns that yield more charcoal than traditional methods do. Resource materials for charcoal production are timber waste generated during the milling process and wood from the plantations that is unsuitable for timber.







## Small and Medium Forest Enterprises in Ghana get acquainted with forestry reforms

Ghana's timber industry is dominated by Small and Medium Forest Enterprises (SMFEs), which provide the majority of the timber and timber products for the domestic market. Most of these enterprises are not able to acquire knowledge about the industry. This means that their workers cannot gain important skills or obtain information about forestry reforms in Ghana.

Access to information about initiatives such as Forest Law Enforcement, Governance and Trade (FLEGT), and its associated Voluntary Partnership Agreement (VPA) with the European Union (EU), which was ratified by Ghana in September 2009 is especially crucial. The industry needs to address the high incidence of illegal lumber, which comprises 84 percent of the wood on the domestic market.

To address this knowledge gap, TBI Ghana,
— in collaboration with the Ghana Forestry
Commission and with funding from the
EU — implemented the project, "Supporting
Intermediaries with information and guidance to
comply with the Timber Legality Assurance System
and engage in advocacy on the domestic market
reform," otherwise known as the Timber Legality
and Assurance Project (TILCAP).

A baseline survey conducted by the project indicated that SMFEs and their associations lacked the requisite knowledge of forestry sector reforms, and also did not have the necessary skills in leadership, advocacy and networking. To bridge these capacity gaps, strengthen the associations and provide educational programmes for employees of SMFEs, the project provided intensive training

to association leaders in advocacy, networking and Ghana's Legality Assurance System (LAS).

One of the project goals was to ensure that the trained leaders passed on these skills and knowledge to SMFEs throughout the country. The project divided into Southern and Northern Zones, each with its own Peer Guidance Team. The two zones were in turn subdivided into three subzones. In 2015, the two teams trained more than 1,180 employees of SMFEs and civil society organizations. This increased the ability of SMFEs to comply with Ghana's LAS and supported the civil society organizations in their work as watchdogs of Ghana's forestry reforms.

TILCAP also developed and launched two training manuals in 2015: Understanding Ghana's Timber Legality Assurance System and Sourcing Wood Legally in Ghana. A third manual, A Guide for Effective Advocacy for Trade Associations of Small and Medium Forest Enterprises, provides information about the principles of effective advocacy and networking.

Although TILCAP has raised awareness about Ghana's forestry reforms among SMFEs, much still needs to be done to ensure that these reforms are implemented.





## The Chainsaw Milling Project and the Timber Legality Compliance and Advocacy Project

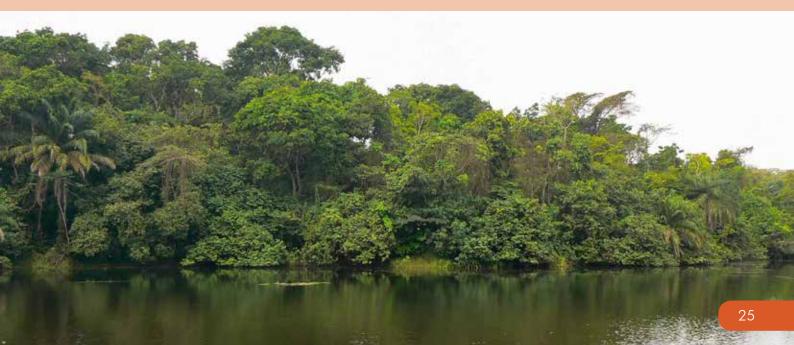
In 2015, TBI Ghana initiated a process to link the outcomes of the Chainsaw Milling (CSM) Project with those of the Timber Legality Compliance and Advocacy Project (TILCAP). It did this by building a symbiotic relationship between the two projects to ensure that they supported and built on each other's efforts.

Under the initiative, artisanal millers who have been trained to produce legal lumber for the domestic market under the CSM project will sell their lumber to Small and Medium Scale Forest Enterprises (SMFEs). Both buyers and sellers of artisanal milled lumber will be trained in the Voluntary Partnership Agreement under Forest Law Enforcement, Governance and Trade, and

therefore will be familiar with the requirements of using legal lumber in their businesses.

This initiative has become necessary because the domestic market is still flooded with illegal wood from chainsaw millers. Linking SMFEs to artisanal millers will discourage SMFE members from buying illegal wood, which is cheaper than legal wood. Connecting the two projects helps artisanal millers find a ready market for their products and provides SMFEs with easy access to legal timber.







# Awareness campaign for artisanal loggers in DR Congo

In Province Orientale of DR Congo artisanal loggers generally work informally. This results in significant shortfalls: the state receives less revenue; local communities see their forest resources irreparably exhausted without any real improvements in their livelihoods; and artisanal loggers are not paid fairly for their hard work. TBI DR Congo is developing a project to bring together artisanal loggers in legal associations in order to promote the legality of the artisanal logging sector.

Legal associations can help artisanal loggers cope with the difficulties of dealing with government processes, including a multiplicity of taxes and extensive bureaucratic red tape. The project would also encourage illegal operators (who provide unfair competition to legal artisanal loggers) to respect the law.

In 2015, an awareness campaign was held for artisanal loggers from *Province Orientale* to make them aware of artisanal logging sector regulations, legal taxes and legal associations. The campaign took place in Kisangani and in six territories of *Province Orientale*: Aru, Mahagi, Mambasa, Bafwasende, Ubundu and Isangi.

As support material the campaign provided illustrated booklets on the regulation of artisanal logging, taxes on artisanal logging, and legal associations. A booklet on regulation focuses on the legal status of artisanal loggers, access to timber resources, the requirements for practicing artisanal logging, the documents required, and sanctions for violations of the laws. It also explains the negotiation process of the Voluntary Partnership Agreement of Forest Law Enforcement,

Governance and Trade (FLEGT-VPA); specifically, the principles of legality according to FLEGT-VPA and the steps taken by DR Congo to achieve the agreement. During workshops related to this booklet, discussions on regulations allowed artisanal loggers and other stakeholders to identify the causes of noncompliance with laws. These include the incoherence of some legal texts, the administrative burden and the many different taxes, including illegal levies.

A booklet on taxes and fees outlines the main charges collected from artisanal loggers. Of the 27 taxes identified, 6 are illegal. The illegal fees include a migration tax, road tax, security tax, tree-felling costs and costs for circulation permits. Although some artisanal loggers recognize that some of these fees are illegal they have no option but to pay them. Loggers need to organize themselves in legal associations to stop these illegal practices. The public servants who participated in the discussions were indignant about the behaviour of dishonest agents (who receive illegal fees without any legal basis) and promised to take decisive measures to end these practices.

A booklet on legal associations for artisanal loggers presents the challenges and benefits of creating these associations. This information may help artisanal loggers cope with the administrative difficulties that they encounter in their activities.



## Workshop - Identifying synergies between FLEGT/VPA and REDD+ initiatives in Ghana

Date: 12 November 2015 Place: Accra, Ghana

By: Tropenbos International Ghana and Food and Agriculture Organisation

Forests are not just an assemblage of trees, a reservoir of carbon stocks or entities with a monetary value used for economic exchange. They possess inherent values for forest fringe communities. These values should be recognized and taken into consideration when drafting laws and policies on forest governance. In addition, the well-being of local people should be paramount in every decision relating to forest management, since their livelihoods and cultural heritage depend on these forests.

These were the views of the participants in the national workshop organized by TBI Ghana to identify and promote synergies between Forest Law Enforcement, Governance and Trade/Voluntary Partnership Agreement (FLEGT/VPA) and Reducing Emissions from Deforestation and Forest Degradation and the Role of Conservation, Sustainable Management of Forests and Enhancement of Forest Carbon Stocks (REDD+). These initiatives are being implemented by the Forestry Commission (FC) as part of the measures they are taking to improve forest governance in Ghana.

The workshop was attended by 50 participants from the FLEGT/VPA and REDD+ Secretariats and staff of the FC, civil society organizations (CSOs), the Energy Commission, industry, the Forestry Research Institute, and Kwame Nkrumah University of Science and Technology, among others. It was sponsored by the Food and Agriculture Organisation.

At the workshop, it was pointed out that forest resource governance should focus on the human element, which is crucial to sustainable forest management. In spite of parallels between FLEGT/VPA and REDD+, opportunities for synergy and complementarities have not been fully explored. The workshop concluded that these opportunities must be taken advantage of in order to avoid duplication of activities, allow for the sharing of knowledge and experience across the two initiatives, and provide a joint effort in planning and implementation in areas of overlap.

For example, measures for identifying legality and providing safeguards in Ghana exist under both initiatives. They include compliance with the sustainable levels of timber harvesting in order to safeguard the forest's capacity to serve as a carbon sink; restoration of degraded forest lands to enhance forest carbon stocks and promote biodiversity conservation; and the promotion of deforestation-free cocoa (where farmers are assisted to increase cocoa production without expanding their farm area).

Other measures include strategies to regulate the domestic market through instituting equitable benefit-sharing arrangements (under REDD+) to reduce conflicts and ensure the protection of forests; implementation of tenure reforms to enable farmers to derive benefits from trees on their farms; plantation development schemes by the FC and the private sector; and the promotion of alternative livelihoods by the FC, with support from CSOs.

Both initiatives have key environmental and social safeguards and efficient benefit sharing mechanisms, including clarification of tree and carbon tenure in order to develop equitable benefit-sharing; mainstreaming gender issues into REDD+; institutionalizing and sustaining multi-stakeholder consultation and engagement in the sector; and implementing dispute resolution mechanisms to help prevent or manage disputes that affect the management of REDD+.

# Promoting Legal Livelihoods in Ghana Providing starthating to thing the start of the starthand of the start

### Promoting legal livelihoods in Ghana

Illegal logging in
Ghana is partly a
problem of poverty.
Changing the policy
environment —
especially increased
enforcement to combat
illegal logging — has
proved to be important
over the years, but

this needs to be complemented by alternative income opportunities for the rural poor in forest communities. The Chainsaw Milling Project was initiated by the Ghana Forestry Commission, the Forest Research Institute of Ghana and Tropenbos International, with funding from the European Commission. It involves stakeholders in dialogue, information gathering, and the development of alternatives to illegal and unsustainable chainsaw milling practices.

The project has piloted three alternative forest-related income opportunities: artisanal milling, plantation development and charcoal production. The publication *Promoting Legal Livelihoods in Ghana* describes and assesses these economic activities using four case studies. Following the Sustainable Livelihood Framework, the publication shows that these economic activities can be viable alternatives to chainsaw milling and can contribute to the sustainable livelihoods of people living in and around Ghana's forests. However, several conditions for success need to be in place. They include an adequate regulatory framework for artisanal milling; secure access to legal logs, land and other resources; adequate skills and capacity of community members; and effective law enforcement.

Three aspects of forest governance in Ghana require urgent attention: land and tree tenure and the inequitable sharing of benefits; access to forest land (which currently favours big companies); and the persistent corruption that jeopardizes any attempt to achieve sustainable forestry. The existing forest governance regime has a negative effect on the potential for small-and medium-scale processing of timber and related industries to offer economically viable alternatives to illegal chainsaw milling.

Parker, J., J. Amonoo, E. Mensah, N. Rozemeijer and M. Wit. 2015. *Promoting Legal Livelihoods in Ghana*. Kumasi, Ghana: Tropenbos International Ghana.



## From cutting to order to cutting for value.: A handbook for chainsaw millers

Chainsaw milling is the on-site conversion of logs into lumber using chainsaws. This handbook provides information to improve the efficiency, safety and profitability of chain-

saw milling, and thereby improve its economic and environmental sustainability. It offers guidance for chainsaw operators, with recommended best practices, some basic principles and useful information. The goal is to shift the focus from the common practice of cutting to order to making timber production decisions that are based on cutting for value. The reasoning behind this is that since value recovery dictates the profitability, viability and sustainability of any enterprise, this must become the main motivation for everyone involved in the chainsaw milling industry.

This handbook introduces the "why," the "what" and the "how" of chainsaw milling, and explains how to make more money from every tree that is felled. This will help to optimize that the economic value of forests while also reducing the environmental impacts of logging. And by adding value to trees, forestry can compete more effectively with other forms of land use.

This handbook was published as part of the EU Chainsaw Milling Project in Guyana, implemented by Tropenbos International together with its local partners, the Forestry Training Centre Incorporated and Iwokrama.

Mendes, A. and N. Pasiecznik. 2015. From Cutting to Order to Cutting for Value: A handbook for chainsaw millers. Wageningen, the Netherlands: Tropenbos International.

#### **Publications**

- Aggrey, J., K.S. Nketiah and A.P. Koranteng (eds.). 2015. Sourcing wood legally in Ghana. Kumasi, Ghana: Tropenbos International Ghana.
- Aggrey, J., K.S. Nketiah and A.P. Koranteng (eds.) 2015. *Understanding Ghana's Timber Legality Assurance System*. Kumasi, Ghana: Tropenbos International Ghana.
- Agyekwena B., and B. Twumasi-Ankra (eds.). 2015. A guide to effective advocacy for trade associations of small and medium forest enterprises. Kumasi, Ghana: Tropenbos International Ghana.
- Biselenge, P., G. Badjoko et A. Maindo. 2015. Répertoire des taxes et impôts du secteur artisanal de bois d'oeuvre. Kisangani, RD Congo: Tropenbos International RD Congo.
- Biselenge, P., J. Bolongo et A. Maindo. 2015. La réglementation forestière en quelques mots. Kisangani, RD Congo: Tropenbos International RD Congo.
- Bolongo, J. 2015. APV-FLEGT : des associations d'exploitants artisanaux de bois au service de la légalité et la rentabilité économique pour tous. Infosheet. Kisangani, RD Congo : Tropenbos International RD Congo.
- Likwandjandja, J. et A. Maindo. 2015. L'ABC des associations. Kisangani, RD Congo: Tropenbos International RD Congo.
- Maindo, A. et J. Tulonde. 2015. Note de politique sur l'exploitation forestière. Kisangani, RD Congo : Tropenbos International RD Congo.
- Sampene Mensah, E. and S. Nketiah. 2015. "Learning lessons slowly: artisanal millers associations in Ghana." In: Pasiecznik, N.M. and H. Savenije (eds.). Effective forest and farm producer organizations. ETFRN News 57: 52—57.
- van Wezel, M. 2015. Affordable and simple tools for monitoring impacts of selective logging on mammals in a FSC-certified forest concession in Suriname. Infosheet. Paramaribo, Suriname: Tropenbos International Suriname.

