



Dynamics of the charcoal and indigenous timber trade in Zambia

A scoping study in Eastern, Northern and Northwestern provinces

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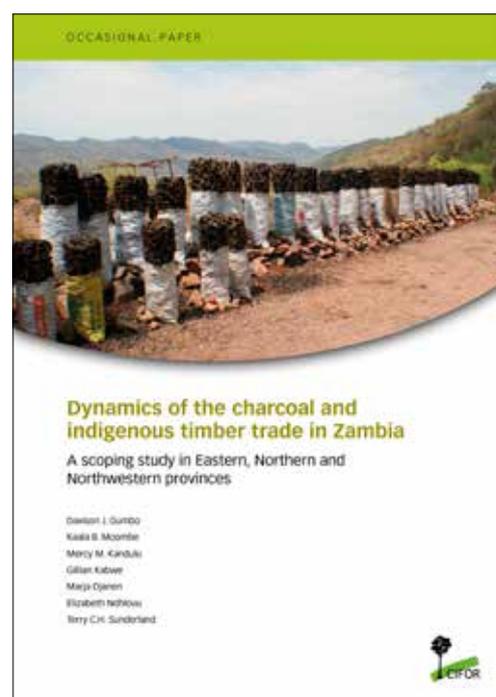
Objectives of the scoping study

Together with the Finnish Embassy in Lusaka and other stakeholders, the Zambia Project Office of the Center for International Forestry Research has been involved in the initial planning of a 'Decentralised Forests and other Natural Resources Management Programme in Zambia'. As part of its contribution, CIFOR conducted a scoping study on the production and trade of charcoal and timber in Zambia with the following objective :

To identify and characterise the social, economic and environmental issues pertaining to charcoal and timber production and trade in Zambia, as well as the implications of the nascent regional charcoal industry.

Specific terms of reference were to:

- Identify and characterise the charcoal flows and trade trends in Zambia.
- Document institutional and socio-economic aspects related to the production, trade and consumption of charcoal.
- Identify the main policy and institutional arrangements governing charcoal production and commercial timber extraction.
- Carry out a comprehensive review of grey and published literature and data on charcoal and timber production and trade in selected countries in the southern African region.



Full version of this book is available at
cifor.org/Charcoal-Zambia



Kiln under construction on land cleared for cultivation in Nyimba district, Zambia

The scoping study was conducted in six districts in Eastern, Northern (now Muchinga)¹ and Northwestern provinces and arrived at a series of findings from which a number of recommendations were derived. These recommendations indicate measures to change the profiles of the production and trade of charcoal and timber in Zambia.

The process was underpinned by the following areas of inquiry, identified as prerequisites for the development of an understanding of the objectives of the scoping study:

1. Improve knowledge on charcoal and timber flows from source to markets in selected districts in Eastern, Muchinga (Northern) and Northwestern provinces of Zambia.
2. Determine key stakeholders and their respective roles in the charcoal and timber trade in selected districts in Eastern, Muchinga and Northwestern provinces.
3. Summarise governance structures involved in the charcoal and timber production and trade.
4. Improve knowledge of charcoal and timber flows to and from countries in the region.
5. Determine specific research, conservation and livelihood development activities that should be carried out under the proposed programme.

Methodology

To execute this study, CIFOR established a small technical team to conduct a literature review and, with the support of field-based researchers, conducted district-level interviews and informal discussions around border areas and international crossing points.

Following a thorough literature review, one-day meetings in each district validated the results of the scoping study. There were common findings from the six districts,

including a realisation that a reduction of customary power and control by chiefs and local leaders in the management and protection of the forest resources was contributing to widespread forest loss.

Major findings

Often blamed as major contributors to Zambia's 0.3% per annum forest loss, the largely undocumented charcoal and timber trade nevertheless make meaningful contributions to livelihoods and national income. The Forest Department (FD) is at the centre of efforts to address social and environmental impacts of the trade. The development, adoption and deployment of sustainable approaches embodying the relevance and roles of local-level institutions are likely to have meaningful impacts.

a. Charcoal production, consumption and trade

Urban centres drive demand for charcoal and, as such, it is widely produced throughout Zambia. Charcoal production is inevitably followed by associated environmental problems such as the depletion of preferred species, forcing producers to resort to lesser-used species and, critically for livelihoods, food-bearing trees. Where charcoal is produced in quantity, localised deforestation has been noted.

The study confirmed that poverty, lack of employment and limited livelihood options are major factors behind charcoal production. A broad range of stakeholders finds the practice to be lucrative, requiring minimal investment. Some producers claimed that areas in their respective districts have been producing charcoal for up to 10 years without an immediate loss of the resource: such claims merit further investigation. Various legislative gaps have been exploited by charcoal producers and, coupled with the ease of entry into the charcoal business, as well as limited monitoring by the FD, illegal activities around charcoal have not been actively discouraged.

¹ Muchinga province was established by presidential decree after the study was completed, but the districts of Chinsali and Nakonde fall under this province see <http://www.mlgh.gov.zm>. (26 April 2012).

With Zambia's urbanisation rate projected at 3.2% per annum, it is likely that, in the absence of alternative energy sources, charcoal demand will increase, as will the rate of charcoal production; both supply and demand issues will need to be addressed.

The study noted that policies and institutional arrangements governing charcoal production are generally not applied due to a lack of human and fiscal resources and complex bureaucracy. At the producer level, relevant policies are largely unknown. Regulatory issues that should be reviewed are pricing of licences, points of issue and costs of licence registration, as well as better organisation of charcoal producers.

Current policies and institutional arrangements affecting charcoal production do not allow charcoal producers to organise themselves into groups or cooperatives. Correspondingly, communities, or villages with forest resources suitable for charcoal production, cannot exclude outside producers under the present law.

With traditional rules on use of forest resources becoming diminished, chiefs feel they no longer have tangible control over forest issues. Yet they are expected to make recommendations on who can produce charcoal and where. Their ability to deal with rule-breakers has now been passed on to the courts, further accelerating the breakdown of traditional forest management rules and regulations.

Traditional rules once provided the basis for district-level by-laws. These rules need to be formalised and become the foundation of local natural resources management. District councils have now assumed a leadership role in this regard, extracting levies on forest products such as charcoal, and seldom reinvesting in forest management in their districts. The FD only provides extension services; with disempowered chiefs and district councils seemingly interested only in taxing forest products, a management gap has promoted illegal charcoal-producing activities of which producers have taken advantage.



A burning earth kiln in Nyimba district

The study highlighted a broad array of state and non-state actors dominated by charcoal producers, government service providers, traders, transporters, retailers and vendors, some of whom have multiple roles in the value chain. Linkages within and between most non-state actors are largely based on cash payments. In the past, women have been known to be retailers and petty traders in the value chain. However, this study established that women were becoming charcoal producers, effectively challenging the assertion that charcoal production is a male-dominated activity. Youth are also involved in producing charcoal, transporting it to markets and selling it door-to-door in urban centres.

Most charcoal production reviewed by this study was traded and consumed in district centres and major towns across Zambia. There were claims that, as a result of higher prices paid in neighbouring countries, charcoal is moving across borders in haulage trucks and through cross-border traders.

b. Timber production, consumption and trade

Production of timber from indigenous trees is prevalent where suitable trees still occur. Stocks have been noted to be in decline in the Western and Southern provinces (and in other regions in Zambia). Current literature indicates that merchantable sizes of species such as *Baikiaea plurijuga* have declined, leading to calls for better management of the resource base. Merchants who hire villagers to cut logs for a designated fee without the necessary legal clearance further promote illegal production.

The production and trade of timber are largely formal activities by definition, limited to planks and semi-finished goods. The institutional and policy framework in use is the Forest Act of 1973. Licences are issued by the Forest Department Headquarters (FDHQ), requiring aspiring pit sawyers to travel to Lusaka without guarantees they will get the licence.

On the plus side, the greater number of licences granted to pit sawyers is viewed as a major contribution to poverty alleviation. Still, pit sawyers feel disadvantaged due to limited capital, poor equipment and lack of business training. District validation meetings indicated that most pit sawyers operate illegally.

As with charcoal, traditional leaders and district councils seem less concerned about the impacts of the operations of timber producers on the forests; as a result, there are no institutions that can meaningfully help the FD pursue its objective of better forest management.

The timber trade, including exports, is permitted but round wood is currently banned; export of planks is promoted instead. The production process is dominated by pit sawyers operating in registered groups, few of which take part in direct timber transportation.

Timber flows follow similar patterns to those observed for charcoal, but another dimension was added in the form of saw millers (both formal and informal) who may purchase or process logs for pit sawyers.

Major recommendations of the study

a. Charcoal production

- i. Efforts should be directed towards restoring areas that have been degraded through charcoal production, starting with environmentally sensitive areas such as riverbanks.
- ii. Schemes to promote sustainable charcoal production should be developed with producers, building on lessons learned from areas in customary land where charcoal production has been taking place for long periods.
- iii. Special support must be provided to women charcoal producers to ensure they carry out their work within the confines of the law.
- iv. Working with chiefs and district councils, communities should develop local rules and guidelines for managing forests, through which timber can be made available to charcoal producers for a fee. Traditional rules of forest management could be a good foundation for management plans.
- v. Municipalities, district councils and other local government authorities should be encouraged to work with charcoal consumers in areas under their jurisdiction so they (the users) can adopt energy-saving stoves and other conservation measures and technologies.

b. Timber production

- i. Remote sensing data, concession management plans and records should be used to determine vegetation change before and after logging in selected sites.
- ii. Licences for pit sawyers should be granted by provincial offices, as it is difficult for most applicants to travel to Lusaka. Requirements for obtaining a licence are too stringent for the average pit sawyer.

It was also recommended that:

- i. Better understanding of the implications of charcoal and timber production on the forests be developed, in light of climate change, increased community participation, REDD+, carbon markets and other initiatives.
- ii. District councils, chiefs and other local-level institutions be encouraged to take a greater interest in the management of forests, especially those being used for charcoal and timber production, through the enactment of by-laws. Current by-laws only cover the generation of levies.
- iii. Both charcoal producers and pit sawyers are provided with technical and business training so they can contribute to better management of their resources.

Photos by Davison Gumbo and Daniel Tiveau



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