

Cross-border charcoal trade in selected East, Central and Southern African countries: A call for regional dialogue



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This publication is part of a series of briefs describing findings from the EU-funded Governing Multifunctional Landscapes Sustainable Woodfuel project, which aims to contribute to knowledge, options and engagement for more sustainable woodfuel value chains across Sub-Saharan Africa.

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Key lessons

- Cross-border trade in woodfuel in certain African countries is increasing, undermining national and subnational efforts to sustainably manage woodfuel resources.
- National bans and restrictions on exports, combined with legalized imports, are contributing to a shifting of supply basins to neighbouring countries and further afield.
- Significant amounts of woodfuel trade operate through informal or illegal, unknown and unregulated channels, leading to huge losses in government revenue.
- To avoid further marginalizing women and other groups that are vulnerable to exploitation, efforts to improve compliance must include targeted solutions that differentiate between large- and small-scale traders.
- Key state and non-state stakeholders from neighbouring countries should actively develop strategies for sustainable woodfuel production and trade that support national and regional natural resource management strategies. The success of such trade depends on the adoption of enduring and harmonized regulatory institutional mechanisms at regional and continental levels.

Introduction

Cross-border charcoal trade in Africa

Woodfuel remains the main source of cooking and heating energy for many, especially in Sub-Saharan Africa. More than 50% of wood extracted from forests worldwide is used for energy production, of which about 17% is converted to charcoal (FAO 2017). Africa alone accounts for an average of 57% of global production (Nabukalu and Reto 2019). Energy access is failing to keep up with population growth, so this trend of increasing woodfuel demand is not about to change. Firewood is consumed more in West Africa, while East Africa leads in charcoal production and consumption (UNEP 2019). However, not all countries or localities are endowed with enough forest and tree resources to sustain this high production, consumption and trade of woodfuel. This has resulted in woodfuel – especially in the form of charcoal – being moved long distances to urban centres and across borders to international markets, even as far as Europe (Nabukalu and Reto 2019).

Although several governments in Africa have banned the cross-border trade of charcoal, making it effectively illegal, markets in border areas and beyond remain vibrant. Charcoal supply chains transcend international boundaries to meet high demand – particularly in urban centres – throughout Sub-Saharan Africa. Since bans rarely lead to sustainable management, the trade threatens many supply basins, some of which are already experiencing forest degradation and deforestation, with impacts extending beyond borders and the potential to spark transboundary conflicts (Nabukalu and Reto 2019). Therefore, the issue of sustainable charcoal production and trade remains critical and must be addressed as part of broader efforts to manage forest-agricultural landscapes across national borders.

It is important to understand how woodfuel supply chains function. To what extent do they pose a threat to the long-term sustainability of natural forests and woodlands? Who are the actors? These are important questions, even more so in light of evidence that global charcoal production and consumption is increasing (UNEP 2019). However, answering these questions is a mammoth task, especially in Africa where this trade has remained mostly informal and outside the scope of regulatory frameworks. In situations where charcoal export has been explicitly banned, trade has become illegal. Actually, the extent of trade is unknown and likely underestimated, most often due to inadequate monitoring, record keeping, documentation and inefficiencies along the value chain (Shively et al. 2010; Schure et al. 2013; Sola et al. 2019).

Several countries have made attempts to control the charcoal sector but, in general, policies of tolerance prevail, with governments forgoing billions of dollars in potential tax revenues (UNEP 2019). This negates efforts towards sustainable charcoal management at national and local levels, rendering the issue even more urgent. This brief aims to provide new insights into the cross-border woodfuel trade and its implications for in-country woodfuel management, as well as to share lessons and options to inform and catalyse a regional dialogue for sustainability in East, Central and Southern African regions.

Approach towards synthesis study on cross-border trade

This brief presents a synthesis of literature reviews and case studies on cross-border trade in Kenya, Cameroon and Zambia. Cross-border case studies were undertaken in the three countries and their selected cross-border areas. In Kenya, one study investigated policies, regulations and institutional mechanisms as well as transboundary charcoal flows between Kenya and Uganda across the Busia border. Data on formal charcoal flows were obtained from the Kenya Forest Service for the period August 2018 to December 2020, while data on informal trade flows were collected over two weeks at informal crossings in December 2020 (Gambo 2021). No official woodfuel import/export data were available for the other countries. Surveys were conducted to investigate woodfuel trade flows from the Central African Republic (CAR) into east Cameroon, and from Cameroon into Chad and Nigeria. In the Southern African region, charcoal monitoring activities aimed to establish the direction of charcoal movement between Zambia and the Democratic Republic of the Congo (DRC), with special focus on the Mokambo and Chembe border posts. The containment measures of the Covid-19 pandemic affected data collection. For instance, in Kenya it was noted that due to Covid-19 restrictions, only medium- to large-scale traders using trucks were allowed through this formal border, thus the activity of small-scale traders was not captured during the study period. Adaptation measures were adopted for data collection under Covid-19 restrictions. For example, data collection in the field lasted for shorter periods than originally planned, and some interviews were undertaken remotely.

Stakeholder story

Ensuring smooth cross-border charcoal trade in Kenya



Walter Mungála is Coordinator and Secretary of the Charcoal Cross-Border Traders Association in Kenya. His role is to sensitize stakeholders – government actors, traders and association members – involved in the importation of charcoal into Kenya and to manage disputes between traders and authorities.

Mungála notes that the booming cross-border trade in charcoal, fuelled by Kenya’s timber and logging moratorium of February 2018, attracted people who wanted to get into the formal charcoal import business without the association’s approval. This led to disagreements among traders and government authorities, resulting in the detainment of more than 200 trucks full of charcoal at the Busia Border.

“We laid down rules that gave registered members priority to take part in formal cross-border charcoal trade,” said Mungála.

The association sensitized traders and brokers about the issue and petitioned the Cabinet Secretary for Environment and Forestry to allow formal importation. They succeeded in obtaining an importation permit, but only for charcoal from DRC and South Sudan, as Kenya, Uganda and Tanzania have an agreement that blocks trade in charcoal sourced from their forests.

The effects on the economy of the town of Busia were immediate: security improved, hotels and other accommodation near the border post filled to capacity, and nearly 300 women were directly employed in the charcoal trade. Over 500 youths found jobs as loaders and local charcoal transporters. However, coordination of the formal trade was hampered by loopholes that enabled cartels to collect illegal taxes, leaving registered traders feeling robbed. Efforts to organize a meeting have been unsuccessful.

Asked what would foster a more sustainable and equitable cross-border trade, Mungála pointed to the need for guidance and leadership from the county government on: the significance of the cross-border trade, well-defined roles for the Kenya Revenue Authority, law enforcement, the Kenya Forest Service and traders association, and lower national-level restrictions. Establishing warehouses at the border would allow traders to buy charcoal directly from sellers – who earn much less per bag than the brokers – and would discourage smuggling.

“*We also need to extend the conversation across the border, engaging stakeholders from our neighbouring Uganda, so that we can allow the cross-border charcoal trade to continue and help the Kenyan people.*”



Transporting firewood
(Olivier Girard)

Overview of woodfuel cross-border trade

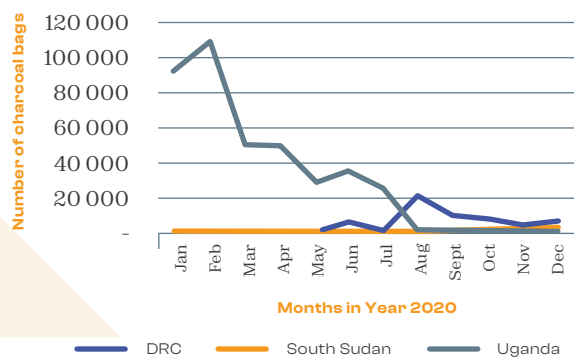
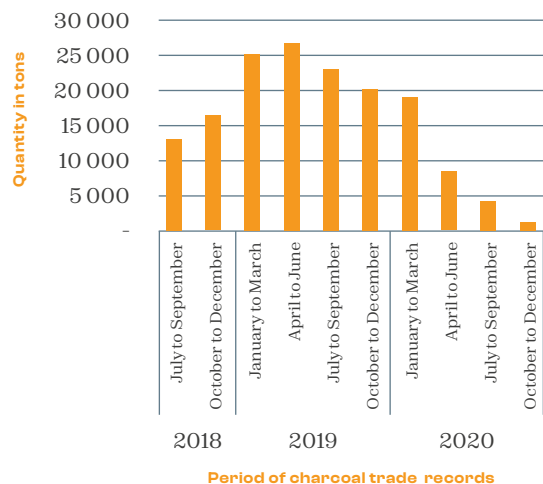
Extent of woodfuel cross-border trade flows

Some countries in SSA are importing more and more woodfuel, according to FAOSTAT data that are based on national records and thus exclude most of the informal trade flow. These data indicate that most East African countries registered negative trade balances in 2019 (FAO 2020). Results from recent studies indicate that there are substantial volumes of woodfuel, especially charcoal, crossing borders. An estimated 64,345 tons/year of charcoal, valued at over USD 10 million, were formally imported into Kenya through the Busia border (Gambo 2021). Likewise, USD 211,000 worth of charcoal was imported from CAR into Cameroon, while over 22,000 tons were exported from Cameroon into Chad and Nigeria, with a value of USD 2,731,185.

Charcoal trade flows in case study areas

	Data period	Quantity of charcoal observed (tons)		Quantity of charcoal (tons/year)		Annual value of trade flows (USD/year)	
		Formal	Informal	Formal	Informal	Formal	Informal
Kenya	29 months	155,515		64,345		10,133,127	
Busia	14 days	322	104		2,704		425,892
Cameroon Garoua Boulai	79 days		375		1,859		211,219
Cameroon North	35 Weeks		16,679		22,239		2,731,185

For instance, despite charcoal bans on both sides of the Busia border between Uganda and Kenya, thousands of tons of charcoal packaged in about two million bags were imported into Kenya between August 2020 and December 2020, according to official data from the Kenya Forest Service. However, a drop of 13% of imported volumes into Kenya was noted after February 2020, due to Covid-19 restrictions and stricter enforcement of charcoal export legislation in Uganda. While charcoal imported from DRC and South Sudan increased slightly during the same period, 97% (151,000 tons) of total imports were reported to be from Uganda until August 2020. In addition to these official figures, substantial amounts passed through informal routes and crossing points. One field study showed that, during a two-week monitoring period, 1,387 bags of charcoal were imported into Kenya through three frequently used informal crossing points in Busia; during the same period 2,908 bags were recorded across the formal border post (Gambo 2021). At Busia border post, charcoal was sold at between USD 9.08 and USD 13.62 per bag, an average of USD 11.81. Meanwhile, in major urban centres (especially in Nairobi), the same bag retailed at between USD 19.98 and USD 22.71, with an average selling price of USD 20.89. An estimated 93% of the formal imports were transported to Nairobi and Kiambu counties, while 7% were transported to other urban centres in Kenya (Gambo 2021).



Charcoal flows through the Busia border
Source: Gambo 2021

In the absence of official data on the woodfuel (charcoal and firewood) cross-border trade for Cameroon and its neighbouring countries, a survey conducted in Garoua Boulai, East Cameroon indicated that 90% of the woodfuel consumed in the town of Garoua Boulai was from CAR forests. Most of this imported woodfuel – 70% and 60% of the charcoal and firewood respectively – was consumed in Garoua Boulai, with the remaining quantities being transported and sold to major cities such as Bertoua, Yaoundé and Douala, and even to the Far North region.

During a 79-day data collection period, 1,071 tons of firewood (or 4,226 tons annually with a market value of USD 194,560) were recorded passing through the border from CAR to Cameroon. In the case of charcoal, the total quantity that was recorded as imported through the main border during the same period was 375 tons (or 1,859 tons annually with a market value of USD 211,219). Once in Garoua Boulai, charcoal was repackaged and sold to the local market, mostly in recycled cement bags each weighing 16 kg.

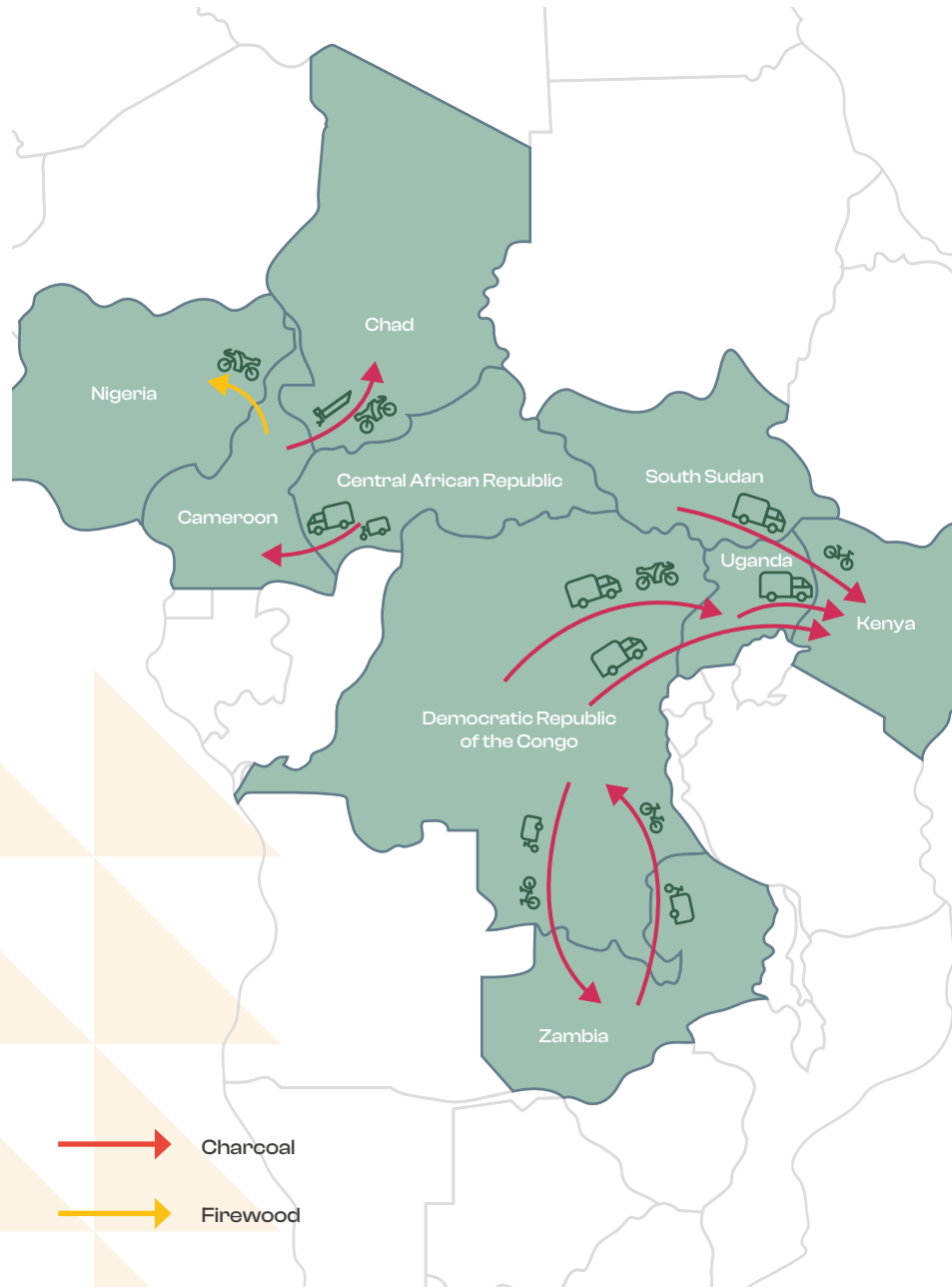
In northern Cameroon, firewood was exported mainly to Nigeria, while 80% of exported charcoal went to Chad (and the remaining 20% to Nigeria). Each week, nearly 184 tons of firewood and 410 tons of charcoal were exported to Nigeria and Chad. In Nigeria, the main trade routes were through Fotokol, Dabanga and Bargaram in the Logone and Chari division, Mogode, Bourha and Tourou in the Mayo-Tsanaga division, and Kirawa in the Mayo Sava division. Woodfuel exports to Chad pass mainly through Kousseri for trade to N’Djamena. During the dry season covering eight months of the year (about 35 weeks), a total of 6,428 tons of firewood and 22,239 tons of charcoal were exported to Chad and Nigeria, equivalent to a total of 158,252 tons of firewood per year.¹ This is much higher than the estimates of 12,773 tons previously stated in the regions’ woodfuel planning documents (MINFOF-MINEPDED 2017).

In the south, charcoal moves from Mokambo in the DRC into Zambia, and from Kasumbalesa Chembe, and Nakonde in Zambia into the DRC. Movements are informal and influenced by resource availability, market, and distance to selling points. There were no official data available on total quantities exported and imported between DRC and Zambia. A five-day monitoring exercise indicated that a total of 1,472 bags of charcoal, equalling 98 tons of charcoal, crossed into Zambia at the border post of Mokambo. Most charcoal was transported during weekends, when there are reduced enforcement agents on duty. Some charcoal was transported at night to evade enforcement authorities.

¹Assuming the standard wood-to-charcoal conversion efficiency of 15%.



Charcoal being transported to Kisangani, DRC
(Axel Fassio/CIFOR)



Sources and actors in the cross border charcoal trade

Woodfuel is harvested from forests and woodlands, following patterns of demand that cross international borders. Sometimes this involves transportation over hundreds of kilometres from the source across multiple countries. For instance, charcoal traded across the Busia border post originated from Uganda, DRC and South Sudan (Gambo 2021).

For a long time, it was believed that most of the people involved in cross-border trade were locals and that woodfuel was consumed mostly in nearby border towns (Omondi 2012; Peberdy et al. 2015). However, the picture emerging from our research is that charcoal cross-border trade is undertaken by a broad spectrum of small- to large-scale actors playing various roles, who sometimes form networks for transporting charcoal over hundreds or even thousands of kilometres across borders. For instance, according to official figures, 1,577 individual traders and 25 companies participated in cross-border charcoal trade at the Kenya Busia border between August 2018 and December 2020, with Congolese, Sudanese and Ugandan charcoal transported as far as Nairobi. Men represented the majority of transporters/traders (67%), with women representing around a third (31%) of traders. However, women did account for 41% of the total volumes of charcoal traded (Gambo 2021).

Most of the trade through informal crossing points was by small-scale traders using bicycles and motorcycles (55% and 37%, respectively). Most of the informal transporters/traders (98%) carried maximum three bags at any given time, to avoid penalties or the need to purchase a permit; as such, they often made multiple trips (Gambo 2021).



Transporting charcoal via motorcycle
near Lobo, Baringo County, Kenya
(Axel Fassio/CIFOR)

Several modes of transportation were used to move woodfuel from CAR into Cameroon through the border town of Garoua Boulai. The most commonly used mode of transport was cargo truck. Most of the transporters going through the crossing point were men (92%), who tended to use motorized transport in contrast to women (8%), who tended to carry the loads on their heads. Almost half of the transporters were youth (47%), while children and the elderly accounted for 4% and 3% respectively. In contrast, significantly more youth (57%) than adults were involved in firewood transport. Unlike at the Garoua Boulai border crossings in the Far North region, at Kousseri motorcycles were the most prevalent means of transport. These transporters were experienced in bypassing regulatory obstacles or negotiating with forest agents and other administrative personnel at the border. Canoes were also used to transport charcoal to N'Djamena, the capital of Chad. Likewise charcoal from DRC was mostly carried on bicycles and push carts into Zambia's Mufulira town at early and late hours of the day through the Mokambo border post. Slightly less charcoal came through the Chembe border point. This charcoal was mostly sourced from the Nsalali, Mulewa and Cibote areas of DRC's Katanga Province, which has more tree resources than across the border in Zambia.

Governing charcoal cross-border trade

Most countries do have national regulations regarding cross-border trade. For instance, cross-border trade in charcoal between Kenya and Uganda through the Busia border post is formally governed by each of the countries' forestry regulations on commodity imports and exports (Gambo 2021). On the Kenyan side, the Forest Conservation and Management Act of 2016, Forest (Charcoal) Rules of 2009 (amended in 2012), and revenue administration laws at the national Kenya Revenue Authority (KRA) and subnational (County Government of Busia) levels permit trade in charcoal imported from neighbouring countries. Kenya's timber harvesting and logging moratorium of 2018 restricted local charcoal production, and the charcoal ban outlawed its transportation, forcing traders to obtain Forest Products Movement Permits from the Kenya Forest Service to formally import charcoal. On the Uganda side, regulation of the forestry sector is essentially guided by the National Forestry and Tree Planting Act of 2003. The act allows for the internal production, distribution and trade in charcoal, but it prohibits the export of charcoal to other countries, including Kenya, unless authorization for such exports is obtained from the minister in charge of forestry. In addition to Uganda's export regulation, the External Trade Act of 1953 (amended in 1987), banned the export of charcoal to other countries. The law was later reinforced in 2004 when the East African Community (EAC) adopted the Customs Management Act. This effectively banned charcoal exports in all EAC partner states – but not necessarily imports.

In spite of national regulations, charcoal cross-border trade is often informal, occurring outside the scope of existing trade regulations. Often the laws are not known to those involved in the charcoal trade, and even where they are, traders will avoid official borders to evade taxes, as well as the 'unofficial taxes' demanded by state agents (Titeca 2009). In countries where charcoal trade violates national export bans, such as Kenya, Uganda and Zambia, the practice is illegal. However, despite this, charcoal does cross borders with de facto permission by neighbouring countries. For instance, an estimated 97% of charcoal was still formally imported into Kenya from Uganda between August 2018 and December 2020, demonstrating inadequacies in the Ugandan enforcement mechanisms to effectively stop charcoal export. In general, governance of woodfuel cross-border trade is characterized by poor monitoring, enforcement and compliance across most border points. A major complication is the myriad of regulatory actors involved, such as forestry authorities, revenue authorities, customs, local government, police services, and defence forces. Each one of these has their own institutional mechanisms for the collection of fees and taxes, enforcement and prosecution.

In the absence of properly enforced regulations, illegalities and corrupt practices in the cross-border charcoal trade become more prevalent. The study by Gambo (2021) documented how all taxes paid as charcoal are moved from sources in northern Uganda through Busia County to the rest of the country. Informal taxes were cumulatively higher than the formal fees for importing charcoal, accounting for 51% of total taxes. In Cameroon, taxes of USD 3.5 per truck were paid to the forest controllers, though these were not always remitted to the state. Trucks passing through the CAR–Cameroon border were paying only 'informal' fees in the form of negotiable bribes to state agents. To reduce such transaction costs (bribes and fines), transporters evade detection by authorities by using informal border crossing points or by crossing at night. In Kenya, most often, traders unload their consignment just before the border and hire small scale traders to carry across three bags at a time as permitted by law, to avoid having to purchase movement permits or pay penalties (Gambo 2021).

Conclusion and recommendations on the cross-border woodfuel trade

The trade in charcoal is a global phenomenon and needs to be tackled at large enough scale to make it more sustainable and competitive. Charcoal crosses through formal border posts and informal/illegal crossing points from Uganda, DRC and South Sudan into Kenya, from CAR into East Cameroon, and from the latter into neighbouring Chad and Nigeria. Likewise, charcoal is being transported from DRC into Zambia and from Zambia into DRC, Tanzania and Zimbabwe.

Most governments, including those of Cameroon, Chad, Kenya, Uganda and Zambia, have outlawed the commercial exportation of charcoal, but enforcement is weak or absent as markets remain insatiable and omnipresent in and across borders. Trade is facilitated by informal arrangements, sometimes with some form of legal documentation from ‘importing’ countries. The general lack of management and control of sustainable practises, coupled with a lack of control of trade across borders, leaves supply basins vulnerable and exposed to mismanagement, deforestation and forest degradation. Environmental costs are being externalized to neighbouring countries, and in-country efforts to manage sustainable woodfuel supply are being undermined. This situation – first and foremost – calls for wider regional-level engagement and harmonization of regulations between neighbouring countries to ensure more sustainable charcoal production and trade.



Loading a charcoal load for transport.
(Gabriel Mulenga/CIFOR)

Recommendations and future considerations

Woodfuel cross-border trade is omnipresent in Africa and keeps increasing to meet growing demand. Informal trade follows patterns of supply and demand across borders, undermining national and subnational efforts to sustainably manage woodfuel resources. Woodfuel bans do not succeed in regulating the value chain, they merely shift production basins and drive trade underground. This is even more detrimental and defeats efforts at ensuring environmental sustainability, because what is not known cannot be managed.

Addressing the shift in supply basins caused by banning/suppressing domestic production and trade while legalizing imports from neighbouring countries requires an enhanced and more focused engagement of institutions at regional and continental levels to inform policy and practice. The cross-border trade of woodfuel is not adequately regulated and often falls under conflicting regulations from neighbouring countries. Cross-border trade from countries that are net exporters undermines and displaces national efforts for sustainable woodfuel management. In addition, significant amounts of woodfuel trade flows pass through informal, illegal, unknown and unregulated channels. This leads to huge losses in government revenue, thereby undermining and underestimating the contribution of this industry to national economies and livelihoods. As long as the charcoal cross-border trade remains informal, policies that are based on formal data alone remain inadequately informed.

Formalization of the charcoal sector is often thought to disfranchise poor communities that depend on charcoal for income. However, informal cross-border trade and lack of transparency around trade flows increase opportunities for corruption and economic exploitation, especially of women and other vulnerable groups. There are ways to regulate without marginalizing small-scale actors, for example by differentiating licencing requirements under the simplified certificate of origin of COMESA and the EAC, where small-scale traders enjoy certain exemptions.

In conclusion, these findings suggest the need for key stakeholders (state and non-state actors) from across neighbouring countries (Kenya, Uganda, DRC and South Sudan; Cameroon, Chad and Nigeria; DRC, Zambia, Zimbabwe and others) to actively develop a roadmap for sustainable charcoal production and trade. This can build on and feed into regional natural resource management strategies, which are currently silent on woodfuel production and management.

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