



Issue 30 | January 2024

Early warning

Anticipating illegal timber logging trends in Cameroon

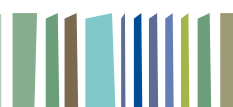
Nicholas Atampugre

Summary

Cameroon's Congo River basin forest sector is emerging as an area for criminal actors to make significant profits through illegal timber logging. Demand for high-quality wood in Asia is growing and Cameroon provides opportunities for meeting this demand, not least because its forestry sector governance and management is ineffective. The key to combatting transnational organised crime in the timber sector is to detect early warning signs on the changing nature of demand for high-value wood species in the furniture industry.

Key points

- Cameroon's Congo River basin forest sector is emerging as a focal area for local and foreign actors to make significant profits through illegal timber logging.
- Corruption and ineffective governance in the forestry sector sustain illegal logging.
- Asian companies are an integral part of Cameroon's local timber industry, and exports to Asia have ballooned in recent years.
- High-value wood is sourced from artisanal illegal loggers and licensed timber operators.
- Identifying which wood species are in high demand could aid in combatting illegal logging.



Introduction

Transnational organised crime is highly adaptable and quickly changes its methods to respond to opportunities for making significant profit. Exploring early warning signs within specific criminal markets – which are rooted in changes in demand for the product – may point to emerging dimensions of organised criminal behaviour and allow states to develop appropriate responses.

Transnational organised illegal timber logging and trade is an intractable and ongoing criminal activity that is unlikely to be completely eliminated. When supplied, the demand for wood brings in vast profits for transnational organised criminals.



Illegal timber
logging is a criminal
activity unlikely to be
completely eliminated

Located in the Congo Basin, the world's second largest tropical rainforest, Cameroon provides an important case study for tracking the changing demand for illegally logged timber, identifying how supply has responded to this changing demand, and testing new ways of combatting illegal logging.

The Congo Basin is an interlinked region. Illegally logged timber in any part of the basin can find its way to another country where conditions are favourable for the activities of transnational organised criminals. Recommendations from the Cameroon case study can thus be adapted and refined to meet emerging situations in neighbouring countries.

This Policy Brief begins with a general overview that highlights the wider impact of illegal logging before focussing on Cameroon's forestry sector and its timber trade with Asia. The Policy Brief is intended to assist the Central African Police Chiefs Committee (CAPCCO), as well as institutions and agencies involved in the forestry sector, to fight transnational organised illegal timber logging and trade.

Methodology

An initial literature review, which included the CAPCCO Organised Crime Threat and Resilience Assessment (OCTRA) Report,¹ led to a focus on Cameroon, and illegal logging in particular, as a case study.

A further comprehensive literature review of the Congo River Basin and Cameroon's forestry sector was complemented by a semi-structured interview with Marshall Adams, United States Forest Service Technical Advisor for Ghana, who has extensive experience of Ghana's forestry sector as well as the Congo River Basin.² The objective for conducting this interview was primarily to draw insights from similar efforts aimed at combatting illegal logging.

Context

The Congo Basin is the world's second largest tropical rainforest and its biggest carbon sink, absorbing 4% of the world's carbon dioxide emissions.³ Its peatlands alone store 30 billion metric tons of carbon, which is equivalent to three years' worth of fuel emissions.⁴ Sourced from the Congo Basin's rainforests, the Central African region supplies the world with a wide range of wood species, including African teak, rosewood, bubinga, iroko, doussie, sapele and moabi.

These species are also trafficked to supply high demand in Asia, where China and Vietnam are key destinations.⁵

There was an overall increase in deforestation rates in protected areas and forestry concessions in the Congo Basin between 2010 and 2020.⁶ There is a fear that more than 15% of the forests could vanish by 2050, largely due to illegal logging, unless it is checked. ENACT's 2023 Organised Crime Index

acknowledges that while many countries in Central Africa have strengthened their regulations related to forest resources and tightened forest governance, illegal timber exports persist.⁷

Artisanal or small-scale loggers typically extract the high-value wood that supplies trafficking groups – their operations are more informal, with fewer regulations and less oversight than commercial loggers. Small-scale logging, most of which is illegal, is responsible for 50% of the annual wood harvest in Cameroon, 50% in Uganda, 70% in Ghana and 90% in the Democratic Republic of Congo (DRC).⁸

Transnational organised criminals will always follow the most profitable routes. Illegally logged timber from across the Congo Basin frequently finds its way into the Central African countries where profits are highest. At the borders, traffickers falsely declare the tree species to pass illegal timber off as legal. This is the case with rosewood, which is illegally logged in Cameroon but trafficked into Nigeria for export to China.⁹

Both private sector and state operators in the timber industry are involved in this illegal trade.

Foreign actors, ranging from traffickers to private companies, are involved in the systematic illegal logging of endangered or prohibited timber species in several countries.¹⁰

Illegal logging is steeped in corruption, involving state-embedded actors at the highest levels of government who abuse their office for personal gain and lubricate the various stages of the illegal timber supply chain.¹¹ There are reports of bribe-taking among senior officials, civil servants and companies in exchange for timber logging permits.¹²

Transparency in Cameroon's forest sector management remains a challenge and there is no formal, independent forest law enforcement monitoring mechanism in Cameroon. Citizens have limited ability to hold forest sector officials accountable.¹³

Illegal logging is also facilitated by the inability of most states in the region to effectively monitor their vast forests. A lack of appropriate technology, such as satellites and drones, means that even when there is political will, states are not able to control the illegal harvesting and trafficking of timber.¹⁴

These factors mean that conditions in Cameroon are ripe for criminal actors to increase the supply of illegally logged timber in response to an increased demand from international buyers.¹⁵



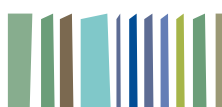
Deforestation rates
in the Congo Basin's
protected areas
increased between
2010 and 2020

Cameroon's forestry sector

Cameroon is an important biodiversity reserve, hosting many endemic species of flora and fauna. Cameroon's forest cover is estimated to be about 20.2 million hectares (or 42% of its national territory), of which 15.7 million hectares are production forests.¹⁶ The forests are comprised of rainforest, where there is logging, and mangroves of little interest to loggers.¹⁷

Cameroon's annual forest cover change rate has been estimated at less than 1% per year over a 25-year period (1990–2015).¹⁸ The Guineo-Congolian forests in the south and southeast have the highest rate of deforestation, largely due to an increase in population, the need for agricultural land and fuelwood, as well as mining and illegal logging.

Cameroon's forest management is one of the most advanced in the Congo Basin. The basic unit of Cameroon's forests are called Forest Management Units and have a maximum size of 200 000 hectares. They are usually aggregated and referred to as forest concessions, which can be legally managed for 30 years.¹⁹ There are estimated to be about 64 699 hectares of forest concessions. Forest concessions under the jurisdiction of the rural council instead of the national government are referred to as council or communal forests.



Rural councils have the legal right to apply to be a forest estate within the permanent forest domain, following the preparation of a management plan approved by the forest administration.²⁰ Council forests can then be leased out for logging rights during a public bidding process. **Community forests** (forêts communautaires) are very much like council forests except that they are located within the non-permanent forest domain and carved out for the exclusive use of village communities. And like council forests, a village community can obtain a forest title for an area not exceeding 5 000 hectares by applying to the government.²¹

Protected areas are created to safeguard specific forest areas, especially where there is evidence that the rich flora and fauna are under threat. They invariably face management challenges due to a lack of financial, technical and human resources, as well as political instability and corruption.²²



Cameroon's forests
are a multipurpose
resource, most
harvested wood species
having various uses

Overall, protected areas cover about 32 142 hectares, while council and community forests and unclassified cover about 72 413 hectares. Mining concessions cover 7 946.1 hectares.²³ In 2019, the Ministry of Forestry and Wildlife (MINFOF) declared 93 forest concessions and 38 communal forests. Cameroon is the only country in the Congo Basin where communal forests have increased since 2000, reaching nearly 2 356 807 hectares.

Cameroon has also improved how financial resources generated by logging are used to promote development. Cameroon's forests are a multipurpose resource, with nearly all of the most harvested wood species having various uses, including medicinal.

Wood from Cameroon is sought after for plywood and veneers, solid wood furniture, construction (including decking, interior trim, door frames and flooring), hydraulic construction, sound barriers and musical instruments. Some wood species, such as fraké (*Terminalia superba*), are particularly prized for their workability and excellent colour and finish.²⁴

Cameroon makes a significant contribution to the legal annual log production of the Congo Basin – it has remained relatively stable since 2009 with a slight decline since 2016. It is difficult to say if this declining trend is a consequence of illegal timber logging and trade or a result of deforestation.

Most of the harvested logs are processed within Cameroon, where the timber industry mainly produces primary timber products. The main timber export products are logs and sawn wood.

Chart 1: Classification of dense moist forests in Cameroon

Classification	Hectares	Total forest area (%)
Total area of dense moist forests	21 500 00	100
Area of forest cover used for production	8 740 404	40.65
Area of forest cover used for conservation	2 938 825	13.67
Area of unclassified forest cover	9 820 871	45.68

Source: Center for International Forestry Research and World Agroforestry, *Forests of the Congo Basin: State of the forests 2021*

Chart 2: Cameroon's annual log production (2009–2018) in cubic metres (m³)

	Cameroon	Total Congo Basin	Cameroon % of Congo Basin
Average (1991–1998)	2 800 128	6 426 086	43.57
Average (1999–2008)	2 150 015	7 549 265	28.48
2009	1 875 460	6 249 286	30
2010	2 348 150	6 386 523	36.77
2011	2 440 605	6 523 052	37.41
2012	2 437 300	6 162 666	39.55
2013	2 708 242	6 850 886	39.53
2014	2 747 380	6 810 921	40.34
2015	2 249 255	6 262 136	35.92
2016	2 966 971	7 290 377	40.70
2017	2 500 484	7 494 152	33.37
2018	2 521 373	8 233 297	30.62

Source: Center for International Forestry Research and World Agroforestry, *Forests of the Congo Basin: State of the forests 2021*, Chapter 2

Chart 3: Cameroon's timber production – domestic consumption and exports

	Production (x 1 000 m³)	Imports (x 1 000 m³)	Domestic consumption (x 1 000 m³)	Exports (x 1 000 m³)
Logs	3.560	77	2.218	1.418
Sawnwood	1.022	0	376	647
Veneer	56	0	13	42
Plywood	18	0	12	6

Source: *Timber Trade Portal*, *Timber sector*, www.timbertradeportal.com/en/cameroon/23/timber-sector

Cameroon's timber trade with Asia

Chinese investments in Cameroon have increased steadily since 2000, reaching US\$25 million in 2009.²⁵ However, by 2016, Chinese investment in Cameroon was estimated at US\$35.06 billion and the trade volume between the two countries was estimated at US\$1.96 billion.²⁶ China is Cameroon's leading trade partner (with 16.6% of exchanges), its largest supplier (19.4%) and its third largest customer (12.5%).²⁷

China's presence in Cameroon has also been strengthened by its financing of development initiatives, especially infrastructure projects such as seaports, motorways, hydroelectric dams, drinking water supply systems and preparation for the Africa Cup of Nations tournament.²⁸

There has been a dramatic increase in Cameroon's timber exports to China since 2012. China and Vietnam have surpassed Europe as the primary destinations of Cameroon's wood products, accounting for 60.1% of timber exports between 2009 and 2018.

The decline in timber exports from Cameroon to Europe is a result of Europe's preference for finished or semi-finished wood products. European importers also more closely scrutinise the legality of the wood they import. Asian markets, on the other hand, prefer unprocessed timber largely because of increased costs in the timber sector.

Sino-Asian operations have also become integral to Cameroon's local timber business. They buy out local licensed companies and have secured 18% of the surface area of Forest Management Units and 57% of notarised sub-contracts for the exploitation of council forests for permanent timber supply.²⁹ Sino-Asian capital is present in 20% of the timber processing units for the country's logs and sawn wood, two of Cameroon's main timber product exports.³⁰

Some Sino-Asian operators sign short- or long-term economic partnership agreements to acquire timber. Chinese partners undertake to provide financial and/or material resources in exchange for the supply of logs. Some operators choose to purchase logs directly, with or without intermediaries, and the logs are either exported or sent to timber processing units (TPUs).³¹

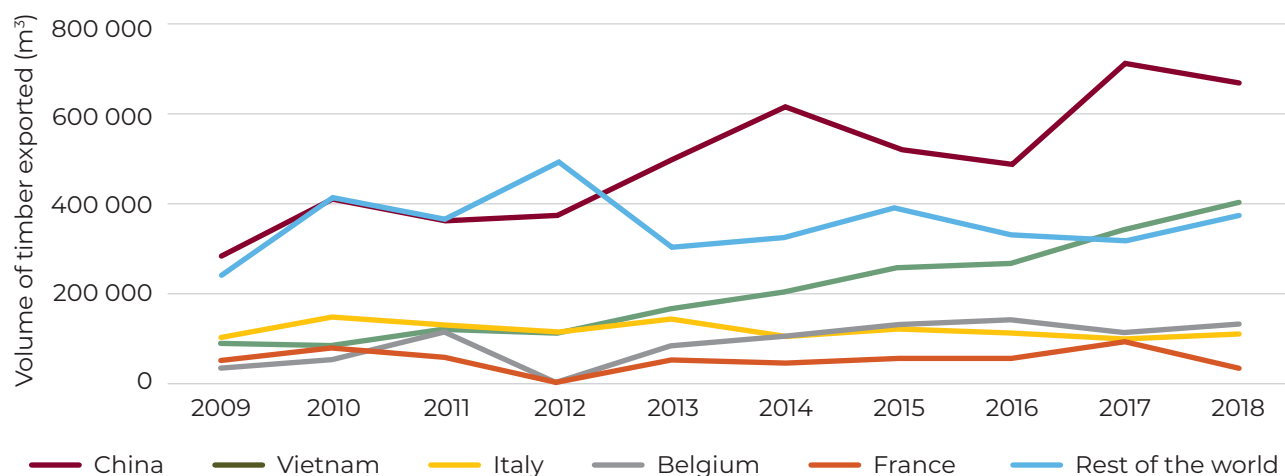


Chinese investment
in Cameroon was
estimated at
\$35.06 billion

To ensure a regular supply of logs, some operators set up long-term strategies, such as obtaining a forestry licence, which is a restrictive, long and uncertain process in Cameroon. This may entail buying out Cameroonian-owned licensed companies that have not made use of their licence due to lack of capital, or buying shares in companies that hold a licence and ensuring the shareholding is commensurate with the stakes and ambitions of the shareholders. In 2019, among the 100 companies holding operating licence titles in Cameroon, 18 had Sino-Asian capital (of which 16 were Chinese).³²

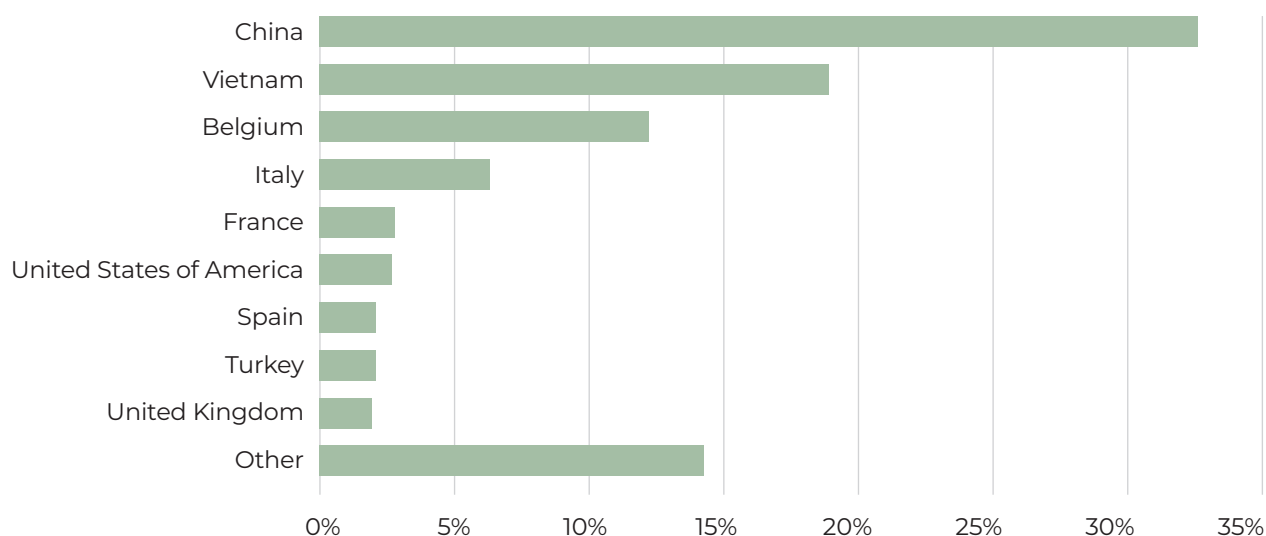
Some Asian operators are moving into council forests due to the difficulty of obtaining Forestry Management Units by transfer. Out of 21 companies approved by MINFOF for the exploitation of council forests, 12 have Asian capital. These companies set their sights on council forests located in the southern and coastal regions because they contain wood species prized in Asian markets.³³

Chart 4: Volume of timber exported from Cameroon to its top five destination countries



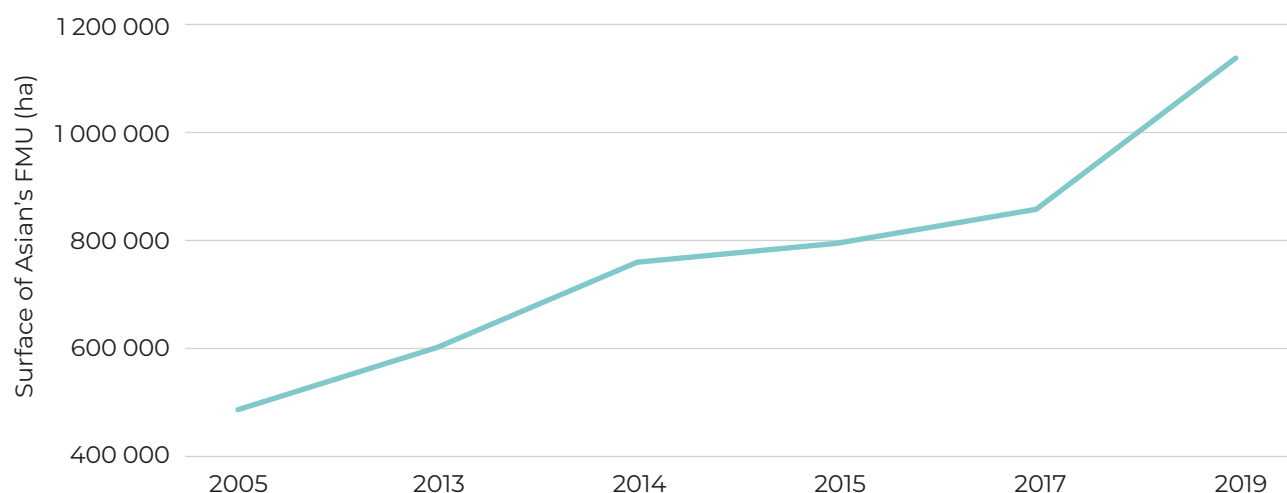
Source: SS Nanda, A Zongang, F Al-Fadhat & A Sahide, *Changes induced by Sino-Asian investments in Cameroon's forestry sector, 2022, Journal of Forest Economics*, pg 394

Chart 5: Top 10 export markets for Cameroon in 2018



Source: Timber Trade Portal, Timber sector, www.timbertradeportal.com/en/cameroon/23/timber-sector

Chart 6: Surface of Forest Management Units secured by Sino-Asian operations



Source: SS Nanda, A Zongang, F Al-Fadhat and A Sahide, *Changes induced by Sino-Asian investments in Cameroon's forestry sector*, Journal of Forest Economics, 2022, www.researchgate.net/publication/361499035_Changes_Induced_by_Sino-Asian_Investments_in_Cameroon's_Forestry_Sector, p. 392

It is argued that financial systems set up by Chinese companies are not always transparent. Payments are made without supporting documents and it is often difficult to trace documentation on the transfer of ownership – this makes legal transfers potentially fertile grounds for transnational organised crime.³⁴

Furthermore, it is suggested that the inability of Chinese companies and Cameroon's forestry sector ministries to implement and monitor even simple environmental management plans provides fertile ground for the perpetuation of some illegal operations in the informal forestry sector. Chinese traders buy illegally logged bubinga species from rural chainsaw loggers and millers.³⁵

Illegal timber trade: Nigeria as cautionary tale

While the above describes 'legal' developments in Cameroon's timber sector, it is the need to meet demand for wood that invariably fuels a combination of both legal and illegal logging of timber.³⁶

It is difficult to ascertain the scale of criminal timber markets in the Central African region due to lack of data,³⁷ and this impedes an analysis of the scale and diversity of the illegal timber trade within and from Cameroon.



High demand for rosewood furniture has made it the most traded tropical hardwood species

Nevertheless, the experience of neighbouring Nigeria illustrates the negative impact of transnational organised illegal logging once business is lucrative and serves as a cautionary tale for Cameroon.

The high demand for luxury rosewood furniture in China has made rosewood one of the most traded tropical hardwood species. Rosewood log imports into China increased by 1 300% between 2009 and 2014. As of 2016, the 30 000 companies in China's rosewood industry generated retail revenues of more than US\$25 billion.³⁸

Since 2013, Nigeria has gone from a net importer of logs to the world's largest exporter of rosewood. Sino-Nigerian criminal networks have taken advantage of an obsolete and obscure

permitting system to launder illegal rosewood. About 1.4 million rosewood logs valued at US\$300 million were stopped by Chinese customs officials in 2016 and released in 2017 after Nigerian authorities retrospectively issued 4 000 permits. The suspicion is that influential Nigerian officials were paid over US\$1 million with the help of in-country Chinese officials to process the permits.³⁹

The level of rosewood being harvested from the Congo Basin, and Nigeria in particular, is unsustainable and impacting negatively on the economy, society and the environment.

Challenges facing Cameroon's forestry sector

There are several challenges facing the forestry sector in Cameroon, which make it especially vulnerable to transnational organised criminals looking to make a profit from illegal timber.

Wood identification is a real challenge throughout the forest sector. The lack of skills to identify wood species along the timber value chain – from harvest to the domestic market and export – leads to loss of tax revenue due to the state, misrepresentation, fraud and corruption. For some it is due to ignorance and for others it is a deliberate attempt to facilitate the illegal trade in timber.

Communities that cannot identify tree species tend to be unaware of the real value of the timber from high-value tree species found in the community forests they have access to or manage. This means they often fall victim to illegal loggers who encourage them to sell the timber for next to nothing. Frontline forestry staff, law enforcement agencies and civil society organisations (CSOs) working in the sector have no scientific basis for identifying wood species. They sometimes use physical characteristics such as colour and smell to identify trees, but this can be misleading – for example, banned wood can be steamed to change its colour.

While a timber legality assurance system has been put in place, it has not been deployed and used for tracking wood from the point of harvest to the point of export.

Vested political and economic interests in illegal logging in Cameroon are enabled by a lack of transparency and the reluctance to share information on forest sector processes. This is exacerbated by a lack of sectoral communication and coordination, and inconsistency in implementing forestry regulations

over the years. This is especially the case with the implementation of the Forest Law Enforcement, Governance and Trade (FLEGT) voluntary partnership agreement (VPA) that Cameroon and others signed with the European Union.

Conclusion

Weak governance and ineffective management typify Cameroon's forest sector, a sector that has emerged as a significant source of revenue for Cameroon and an attractive area for Chinese investors. Asian companies are an integral part of Cameroon's local timber industry, whose exports to Asia (especially China) have ballooned in recent years.

High-value wood is sourced from artisanal illegal loggers as well as licensed timber operators and this overlap is needed to meet the growing demand from the luxury furniture industry for high-value wood. Against this background, there is an urgent need to get ahead of transnational organised criminals who are benefitting from outdated processes and limited use of technology in the forestry sector.

Recommendations

- Build upon ongoing efforts to develop technology-based wood identification methods linking species to areas of origin and explore mechanisms and applications for tracing wood species to their origins. This would enable Cameroonian authorities to better track more vulnerable wood species. It would also help to identify the type and source country of the wood used in Chinese furniture exports to Europe, the United States and Africa.
- Forestry sector staff, police, local communities and CSOs engaged in combatting illegal logging require capacity building to help them identify and learn the value of different tree species. If a cross-section of those involved in the sector are capacitated, there is less reliance on individuals who may be amenable to corruption.
- Xylorix – a semi-automated app supported by a manual – contains a database of all commercially traded wood that can assist with wood identification. There is an ongoing plan in Ghana to make the app fully automated and capable of identifying wood species. The app can help to thwart corrupt officials from collaborating with organised crime. When fully operational, the technology can be adapted or improved upon by CAPCCO and forestry sector agencies in Cameroon.
- It is important to link wood identification technology with the changing demands for wood products based on specific species. This would provide CAPCCO with early warning alerts for trees that are potential targets for illegal logging. It would also enable greater surveillance and coordination among actors and agencies keen on curbing transnational organised timber crime.
- The need to implement new and changing regulations requires periodic capacity strengthening among frontline staff. This is especially in light of revisions to the FLEGT VPA and new requirements for the export of wood products under the United States Forest Act.
- It is important for Cameroon to develop collaborative links for tracking Asia's application of the FLEGT licensing scheme.

Notes

- 1 OCTRA is based on a study of the eight countries that constitute the membership of CAPCCO: Cameroon, the Central African Republic (CAR), Chad, the Republic of Congo, the Democratic Republic of Congo (DRC), Equatorial Guinea, Gabon and São Tomé and Príncipe.
- 2 Interview with Dr Marshall Adams at the offices of the United States Forest Service, Accra, Ghana, 23 December 2023. See M Adams et al., A comparative analysis of the institutional capacity of FLEGT VPA in Cameroon, the Central African Republic, Ghana, Liberia, and the Republic of the Congo, *Forest Policy and Economics*, 112, 2020.
- 3 The World Bank, Journey into the Congo Basin: The lungs of Africa and beating heart of the world, 24 October 2022, www.worldbank.org/en/news/feature/2022/10/24/journey-into-the-congo-basin-the-lungs-of-africa-and-beating-heart-of-the-world.
- 4 G Brown, World's largest tropical peatland found in Congo basin, *The Guardian*, 11 January 2017, www.theguardian.com/environment/2017/jan/11/worlds-largest-peatland-vast-carbon-storage-capacity-found-congo.
- 5 ENACT, Organised crime threat and resilience assessment in Central Africa, forthcoming 2024, p. 42. See also Center for International Forestry Research and World Agroforestry, Forests of the Congo Basin: State of the forests 2021, 2021, www.cifor.org/knowledge/publication/8700, p. 49.
- 6 Ibid., pp. 4–34.
- 7 ENACT, Africa organised crime index: Increasing vulnerabilities, growing inequalities, 2023, <https://globalinitiative.net/wp-content/uploads/2023/11/Africa-organised-crime-index-Increasing-criminality-growing-vulnerabilites-2023-web.pdf>.
- 8 Africa Development Bank Group, Illicit trading in Africa's forests products: Focus on timber technical report, 2021, www.afdb.org/en/documents/illicit-trading-africas-forest-products-focus-timber-technical-report.
- 9 C Locka, How rosewood is stolen in Cameroon, laundered in Nigeria and exported to China, February 2022, <https://pulitzercenter.org/stories/how-rosewood-stolen-cameroon-laundered-nigeria-and-exported-china>.
- 10 ENACT, Organised crime threat and resilience assessment in Central Africa, forthcoming 2024, p. 54.
- 11 Ibid.
- 12 See, Concepts of corruption, governance and their linkages, pp. 5 and 6, in *Illicit trading in Africa's forest products: Focus on timber*, 2021, by JC Treguhong, Chief Forestry Officer, African Natural Resources Centre.
- 13 Paolo Omar Cerutti and Luca Tacconi, Forests, illegality, and livelihoods in Cameroon, Center for International Forestry Research, 2006, p. 13.
- 14 J Cochrane and A Glasson, A double-edged sword: The role of technology in combating wildlife crime, May 2022, <https://enactafrica.org/research/policy-briefs/a-double-edged-sword-the-role-of-technology-in-combating-wildlife-crime>.
- 15 Preferred by Nature, Timber legality risk assessment, Cameroon Version 2.0, December 2021, <https://preferredbynature.org/sites/default/files/SourcingHubDownload/Cameroon/Cameroun%20Analyse%20Risque%20L%C3%A9galit%C3%A9%20BOIS-FR-V2.0-Dec21.pdf>.
- 16 Timber Trade Portal, Forest resources and context of Cameroon, www.timbertradeportal.com/en/cameroon/22/country-context.
- 17 Center for International Forestry Research and World Agroforestry, Forests of the Congo Basin: State of the forests 2021.
- 18 Timber Trade Portal, Forest resources and context of Cameroon, www.timbertradeportal.com/en/cameroon/22/country-context.
- 19 Timber Trade Portal, Legal framework for forest management and timber trade of Cameroon, www.timbertradeportal.com/en/cameroon/24/legal-framework.
- 20 Ibid.
- 21 Center for International Forestry Research and World Agroforestry, Forests of the Congo Basin: State of the forests 2021, p. 20.
- 22 Ibid.
- 23 Ibid., Chapter 2.
- 24 Wood species found in Cameroon used for these purposes include: ayous or the African whitewood (*Triplochiton scleroxylon*), tali (*Erythrophleum ivorense*; *Erythrophleum suaveolens*), azobé (*Lophira alata*), okan (*Cylicodiscus gabunensis*), iroko (*Milicia excelsa*), padouk or African padauk (*Pterocarpus soyauxii*), kossipo (*Entandrophragma candollei*) and dabéma (*Piptadeniastrum africanum*).
- 25 A Wilkes, China-Africa forest trade and investment: An overview with analysis for Cameroon, Democratic Republic of Congo, Mozambique, and Uganda, 2016, www.iied.org/sites/default/files/pdfs/migrate/17585IIED.pdf.
- 26 A Zongang, Timber trade in Cameroon controlled by ASIAN companies, August 2019, https://dtnac4dfluyw8.cloudfront.net/downloads/timber_trade_in_cameroon_controlled_by_asian_companies.pdf, p. 17.
- 27 Ibid.
- 28 African Business Development Association, A surge in Asian demand for wood from African forests, April 2023, <https://abdass.org/2023/04/27/a-surge-in-asian-demand-for-wood-from-african-forests/>.
- 29 SS Nanda, A Zongang, F Al-Fadhat and A Sahide, Changes induced by Sino-Asian investments in Cameroon's forestry sector, *Journal of Forest Economics*, 2022, www.researchgate.net/publication/361499035_Changes_Induced_by_Sino-Asian_Investments_in_Cameroon's_Forestry_Sector.
- 30 Mapping of Sino-Asian investments in Cameroon's forestry sector: Operators and flow trends, DFID/WWF, Document – undated.
- 31 SS Nanda, A Zongang, F Al-Fadhat and A Sahide, Changes induced by Sino-Asian investments in Cameroon's forestry sector, *Journal of Forest Economics*, 2022, www.researchgate.net/publication/361499035_Changes_Induced_by_Sino-Asian_Investments_in_Cameroon's_Forestry_Sector, p. 390.
- 32 Ibid., pp. 391–393.
- 33 Ibid., p. 392.

- 34** P Kamkuimo-Piam and J Mayers, Status and issues of Chinese investment in forest land in Cameroon, June 2015, www.iiied.org/g03944.
- 35** Ibid.
- 36** EN Egalame et al., Illegal logging drives deforestation in Cameroon, February 2017, <https://earthjournalism.net/stories/illegal-logging-drives-deforestation-in-cameroon>.
- 37** ENACT, Organised crime threat and resilience assessment in Central Africa, item 55.
- 38** Preferred by Nature, China, Africa and the mukula tree, 10 October 2019, <https://preferredbynature.org/newsroom/china-africa-and-mukula-tree#:~:text=China%20recorded%20a%20700%20percent,more%20than%20US%2425%20billion>.
- 39** Environmental Investigation Agency, The rosewood racket: China's billion-dollar illegal timber trade and the devastation of Nigeria's forests, November 2017, [https://static.us.eia.org/pdfs/Rosewood+Racket+Report+\(High+Res\).pdf](https://static.us.eia.org/pdfs/Rosewood+Racket+Report+(High+Res).pdf).





This project is funded
by the European Union

About the author

Nicholas Atampugre is an independent consultant based in Accra with over 35 years' international development experience. His early career focused on environment and development issues. This has broadened to governance, monitoring and evaluation, organisational development and research.

About ENACT

ENACT builds knowledge and skills to enhance Africa's response to transnational organised crime. ENACT analyses how organised crime affects stability, governance, the rule of law and development in Africa, and works to mitigate its impact. ENACT is implemented by the ISS and INTERPOL, in affiliation with the Global Initiative Against Transnational Organized Crime.

Acknowledgements

ENACT is funded by the European Union (EU). This publication has been produced with the assistance of the EU.



Cover image: Adobestock

The contents of this publication are the sole responsibility of the author and can in no way be taken to reflect the views or position of the European Union, or the ENACT partnership. Authors contribute to ENACT publications in their personal capacity.

© 2024, ENACT. Copyright in the volume as a whole is vested in ENACT, its partners, the EU and the author, and no part may be reproduced in whole or in part without the express permission, in writing, of the author and the ENACT partnership.