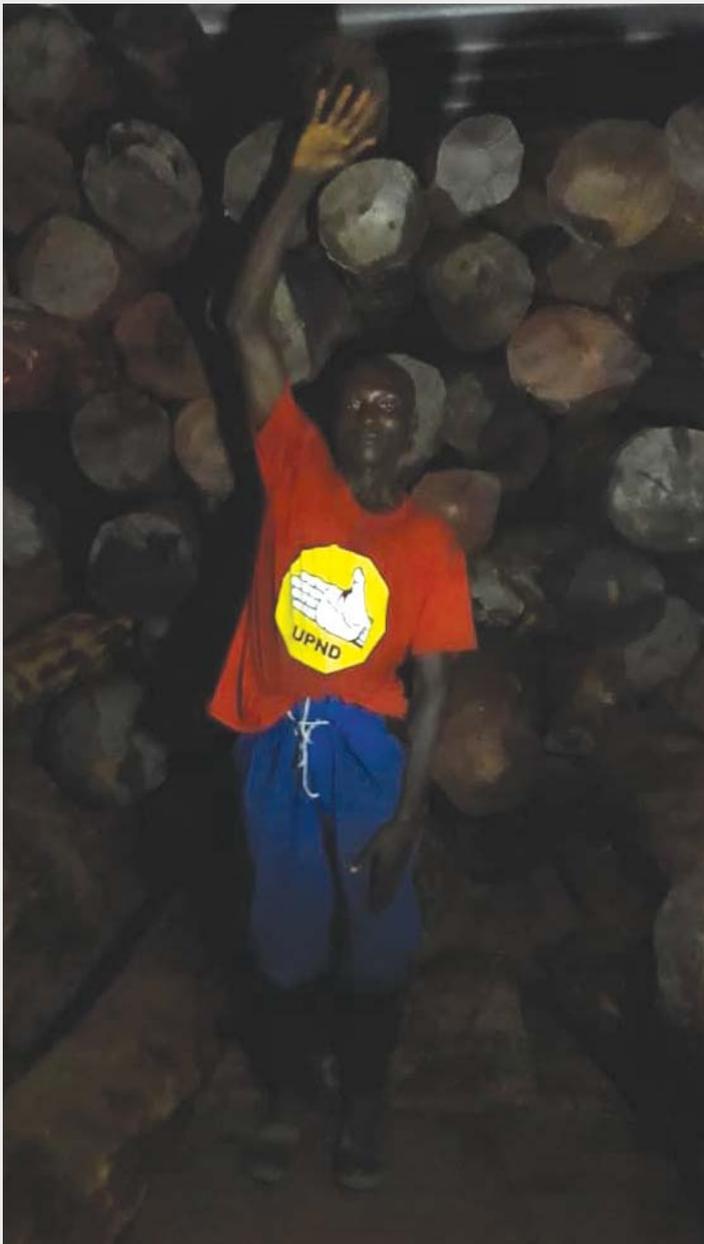


SCHEDULED EXTINCTION

Our Last Chance to
Protect the Threatened
African Mukula Trees





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ABOUT EIA

We investigate and campaign against environmental crime and abuse. Our undercover investigations expose transnational wildlife crime, with a focus on elephants and tigers, and forest crimes such as illegal logging and deforestation for cash crops like palm oil. We work to safeguard global marine ecosystems by addressing the threats posed by plastic pollution, bycatch and commercial exploitation of whales, dolphins and porpoises. Finally, we reduce the impact of climate change by campaigning to eliminate powerful refrigerant greenhouse gases, exposing related illicit trade and improving energy efficiency in the cooling sector.

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Front cover: a trafficker showing the relative size of a mukula log using his pack of cigarettes for reference.

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EXECUTIVE SUMMARY¹

According to the United Nations Office on Drugs and Crime (UNODC), rosewood is the single-most smuggled wildlife product in the world.² As a consequence of increasing scarcity and protection granted to rare species, traffickers are now looking beyond traditional rosewood (“hongmu”) species in order to meet the insatiable demand from the neo-antique furniture industry in Asia.

Over the past five years, Asian timber trafficking networks have been plundering the forests of the Central and Southern Africa regions, on the quest for a tree locally known as “mukula” or “nkula” (*Pterocarpus tinctorius*, a synonym of *Pterocarpus chrysothrix* and *Pterocarpus stolzii*).^{3,4} Under public pressure, governments in the Democratic Republic of Congo (DRC) and Zambia – the two principal producing countries according to available information – have instituted on-and-off restrictions to stop the pillage of mukula.⁵ However, well-connected traffickers have ensured access to the region’s fast-disappearing forest resources through bribes and secret schemes. As one of them told Environmental Investigation Agency (EIA) undercover investigators, despite different bans and restrictions, mukula harvest and trade “never stopped.”

In Zambia, EIA investigators found that the State-owned company Zambia Forestry and Forest Industries Corporation Limited (ZAFFICO) has been secretly used for at least two years as a cover for well-connected Zambian and Chinese businessmen to export thousands of freshly cut mukula logs, despite the ban in place.

In DRC, the uncontrolled illegal trade, which proliferated until 2017 amid ambiguous Congolese stop-and-go policies, suddenly came to a halt when Zambia prohibited the transit of mukula logs. In 2019 a new arrangement was reached between Zambian and Congolese authorities, allowing Congolese mukula logs to transit through Zambia again. The dormant trafficking networks suddenly awakened; less than a week after the first container of mukula from DRC crossed the border to Zambia in April 2019, EIA sources observed the nightly loading of a clandestine convoy guarded by individuals with Congolese army uniforms.

Several traffickers stated to EIA undercover investigators that mukula has already become rare and will likely go extinct in three to five years at the latest. In both Zambia and DRC, corruption is a key enabler of the traffic. The inclusion of *Pterocarpus tinctorius* in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) at the 18th Conference of the Parties (CoP18) is a unique opportunity to prevent its commercial extinction and support Zambia’s and DRC’s efforts to curb the illegal and unsustainable timber harvest driven by international trade.

While the listing of mukula on CITES Appendix II will no doubt have invaluable tangible benefits for the conservation of the species and for the well-being of rural communities, a “species-by-species” approach to the current rosewood crisis has proven ineffective in countering the fast-moving trafficking networks and the misdeclaration schemes they have been using, relying on non-listed look-alike species. A genus-wide approach to include all *Pterocarpus* tree species on CITES appendix II is therefore necessary in order to effectively implement the Convention.

EIA recommends to CITES Parties:

- 1. Support the proposal by Malawi (Prop. 54)**
to include mukula (*Pterocarpus tinctorius*) in CITES Appendix II at CoP18.
- 2. Consider a genus-wide listing of look-alike species**
of *Pterocarpus* on Appendix II at CoP19 using an annotation that facilitates proper enforcement.



BEYOND “HONGMU”: THE GLOBAL ROSEWOOD CRISIS

The Global Hongmu Hunt

Meaning “red wood” (“红木”) in Chinese, the term “hongmu” refers to a group of 29 timber species with distinct features valued in China, including the rich hue, extreme durability and often pleasant smell.⁶ Hongmu species are widely used in antique furniture reproduction in China and Vietnam (Figure 1).⁷

Demand for hongmu has driven boom-and-bust cycles, marked by steep increases in harvest and export volumes from individual countries before a sudden collapse, or “bust.” Once a species is exhausted in one country, or new control measures are put in place by governments, smuggling networks quickly identify new supplies and move to the next country or region. This phenomenon of “boom and bust” in the rosewood trade has been well documented and was confirmed by the CITES Secretariat in its 2019 “Threat Assessment on Illegal Wildlife Trade in West and Central Africa.”^{8,9}

The insatiable demand for scarce hongmu resources has caused the expansion of supply chains from Southeast Asia to new frontiers in Africa and Central America.¹⁰



Figure 1
An antique furniture reproduction factory in China filled with African precious wood

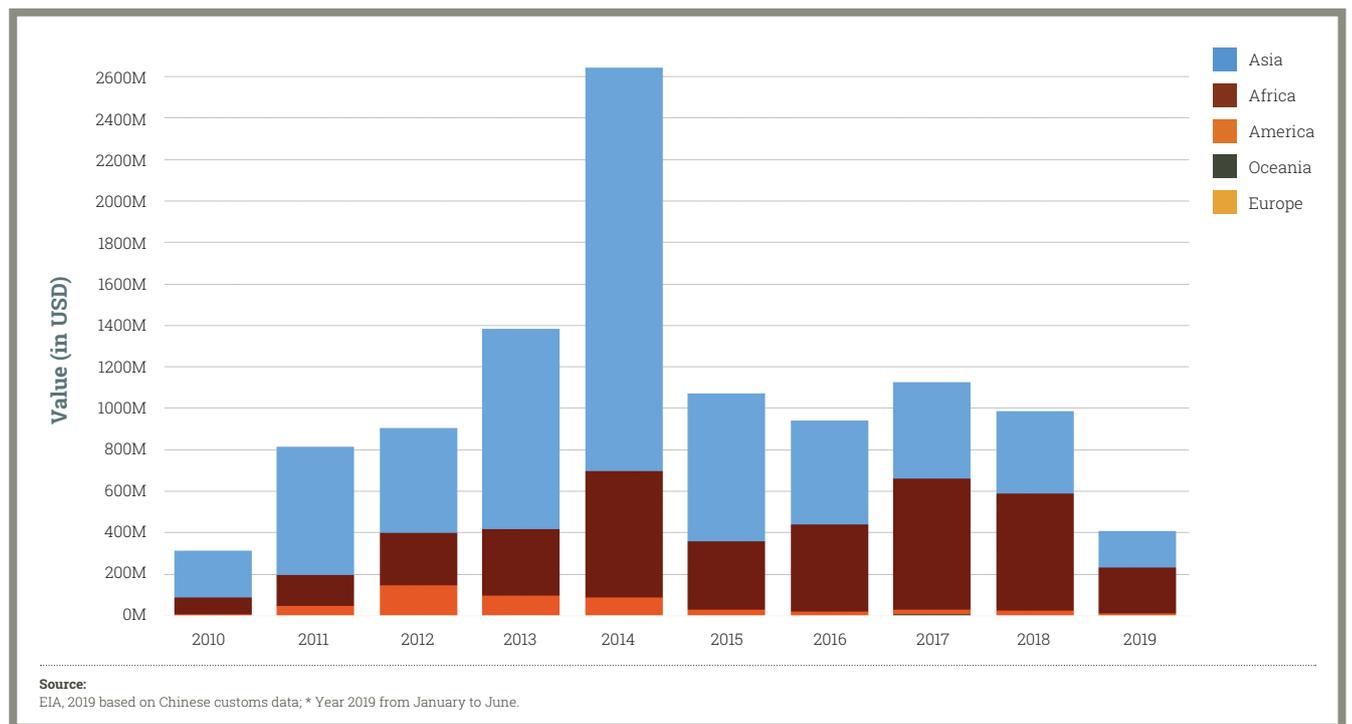


Figure 2
Evolution of Chinese hongmu imports, logs and sawn timber, by producing region (in value)

Since 2015, Africa has become the world's top hongmu producing region.

Nearly half of the world's countries (95 in total) across five continents have been exporting rosewood to China since 2000.¹¹ At a plant genus level, where studies exist, 90 percent of *Pterocarpus* and *Dalbergia* populations – two genera that include a variety of rosewood species – show declining or unstable populations.¹²

Since 2015, Africa has become the world's top hongmu-producing region, accounting for the majority of all hongmu log imports to China by volume between January 2015 and June 2019 (Figure 2).¹³ The colossal exports of *Pterocarpus erinaceus*, also known as “kosso,” from West Africa have been the primary factor for this steep rise.¹⁴ The listings of *Pterocarpus erinaceus* and the *Dalbergia* genus in 2016 increased international protection and control for 16 of hongmu species, leaving 13 species on the hongmu list without international

protection, several of them being very rare or on the edge of commercial extinction, such as *Pterocarpus macrocarpus*.¹⁵

Faced with the rapid decline of easily available hongmu trees, Asian traders have looked beyond the hongmu list of species and diversified their supply through other rosewood species with similar features, suitable for the furniture industry. One of them is *Pterocarpus tinctorius* (a synonym of *Pterocarpus chrysothrix* and *Pterocarpus stolzii*), locally known as “mukula”, which is found in Central and Southern Africa.¹⁶

Mukula Fever

Mukula is a rosewood species native to Africa's broad belt of Miombo woodland, an area of 2.7 million square kilometers of tropical seasonal and dry forests crossing Angola, Burundi, DRC, Malawi, Mozambique, Tanzania, and Zambia (Figure 3).¹⁷ The mukula tree is known to play an important role for a variety of species including bees, primates, elephants, and rodents; it is also vital to soil preservation and other ecosystem services.^{18,19} Like many members of the Fabaceae family, mukula is a favored shade tree and its foliage commonly serves



Figure 3
African Miombo woodland

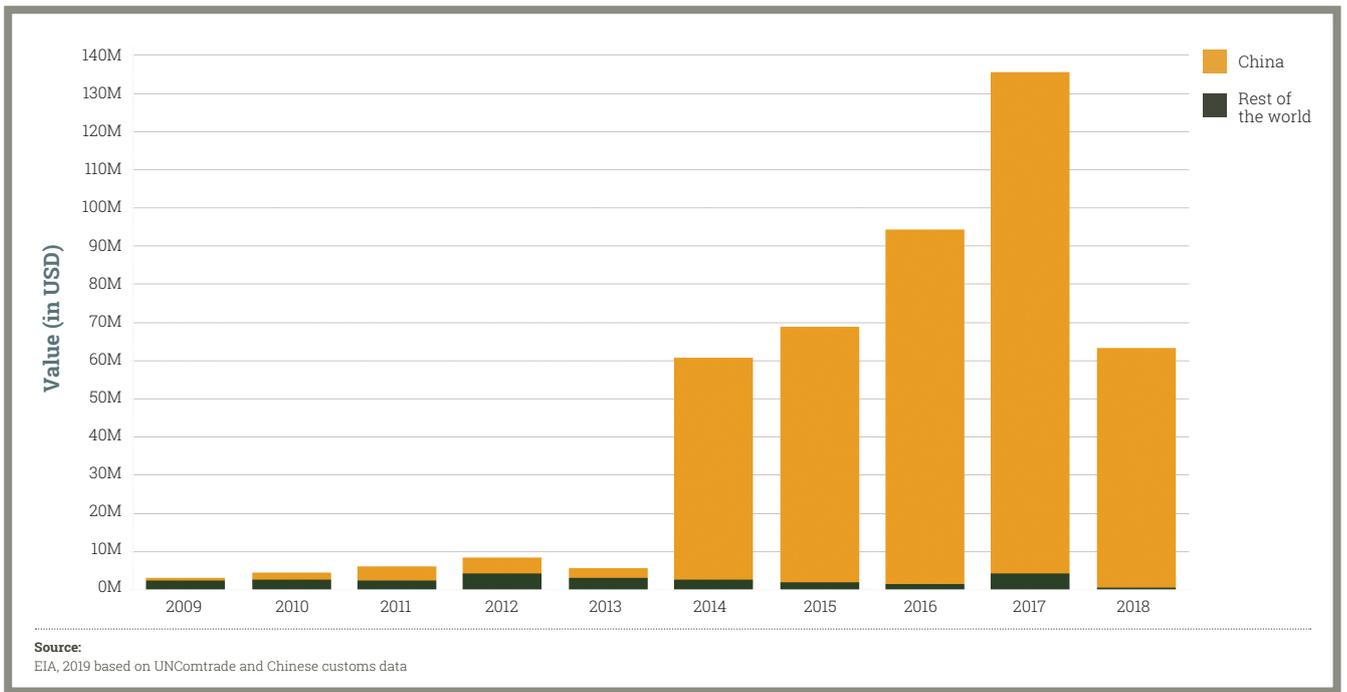


Figure 4
Destination of the timber exported by Zambia (in value)

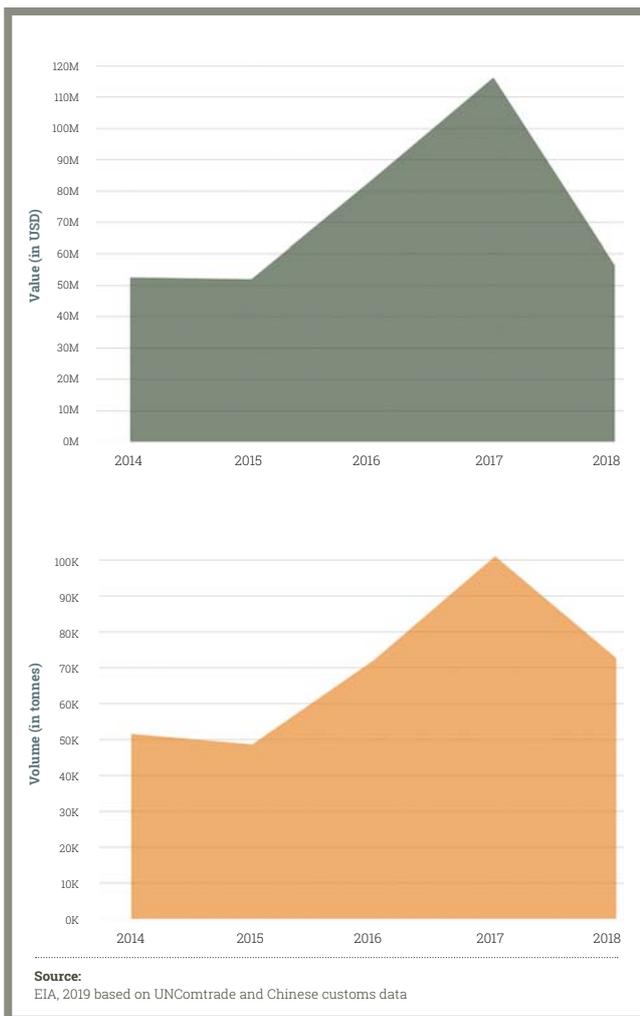


Figure 5
Estimate of the evolution of the mukula exported from Zambia (by volume and in value)

as grazing fodder for domestic wildlife.²⁰ The reddish sap is used by rural communities for fabric dyes and body coloring. In addition, mukula has a number of valuable antibacterial and medicinal qualities.^{21,22}

Prior to the surge in international demand, domestic markets in Africa had little interest in commercializing mukula; the timber was mainly used by villagers for housing construction. The situation has changed drastically since 2014, and despite the lack of comprehensive data, several indicators help understand the sudden change, particularly in Zambia and DRC known as the two principle producing countries.²⁴

Chinese log imports from Zambia boomed within a few months (Figure 4). In 2013, the value of the timber exported from Zambia to China totaled US\$2,528,619.²⁵ One year later in 2014, exports had risen to US\$58,080,578, an increase of 2,197 percent in comparison to the previous year. This skyrocketing trend continued the following years before a drop was registered in 2018. In 2018, China still imported 63,498 tons (equivalent to approximately 102,172 cubic meters) of timber products from Zambia worth US\$62,595,02. According to the information gathered by EIA undercover investigators and available literature, the vast majority of these logs were mukula.^{26,27} Figure 5 presents the evolution of mukula exports from Zambia, based on the assumption that ninety percent of the timber exported by Zambia to China between 2014 and 2018 was mukula. This estimate is coherent with the findings from the Center for International Forestry Research (CIFOR) who estimated the national annual production of mukula in Zambia at 110,000 cubic meters, affecting a forest area between 90,000 and 150,000 hectares.²⁸

Source: Screen capture from the Zambianobserver webpage⁶



Figure 6
Organized youths stop mukula shipments

In 2016, the harvest of mukula trees also soared in DRC, with the volume of trees cut down in five months totaling almost 3,300 cubic meters.²⁹ During the same period, 90 percent of the wood moving across the border from DRC to Zambia was reportedly mukula.³⁰ Extrapolation from available sources indicates that 49,804 cubic meters of timber was being traded in one year through three checkpoints at the DRC/Zambia border, of which 44,824 cubic meters was mukula.³¹ Chinese syndicates were reportedly financing the skyrocketing harvest, transport and export of mukula from Africa.^{32,33}

The soaring illegal and unsustainable harvest of mukula and the illicit export of logs to Asia, principally China, has been the subject of growing criticism from the public and leaders in the region. For example, a Catholic bishop in DRC denounced illegal logging to the media, describing logs being moved at night "before they are smuggled into Tanzania, via Zambia, en route to China."³⁴ Illegal logging of mukula has also been reported within DRC's Kundelungu National Park.³⁵ Zambian Members of Parliament have repeatedly questioned the sustainability and legality of mukula harvest driven by Chinese demand. In 2017, the mukula crisis was debated at the national State House in Zambia.³⁶ Representatives from several districts took the floor and expressed concerns.³⁷ In December 2017, the youth faction of the ruling Patriotic Front (PF) intercepted 11 trucks of mukula for export in Chilanga (Figure 6) and accused House Special Assistant for Politics, Kaizer Zulu, of "illegal export of Mukula trees."³⁸ A Facebook post of a video showing the youth action received hundreds of comments by citizens expressing confusion about how this could happen when mukula harvest and transit was

Source: Screen capture from Greenpeace twitter webpage⁶



Figure 7
International campaign by the Non-Governmental Organization (NGO) Greenpeace

supposedly banned in the country. Greenpeace also raised the issue at the international level (Figure 7).

Under public pressure, the governments of Zambia and DRC have announced over the years a series of on-and-off bans that traffickers have managed to routinely circumvent, as presented in the following section.



ZAMBIA: IN THE SHADOW OF THE STATE-OWNED COMPANY

On-And-Off Bans

In Zambia a series of harvest moratoria and export bans, frequently announced publicly without written legislation to make the bans enforceable, have repeatedly been imposed and lifted in attempts to control the illegal and unsustainable trade.

In July 2014, mukula logging was banned and a taskforce was created to address the illegal logging issue.⁴¹ The ban was lifted a few months later in 2015 and the Ministry of Lands, Natural Resources and Environmental Protection along with the national company ZAFFICO auctioned off thousands of seized logs.⁴² A Ministerial delegation was reportedly sent to China to promote the auction, which allegedly generated 4.3 million dollars.⁴³ A new ban on harvesting and transit was imposed in January 2016, lifted and then reinstated.⁴⁴

In February 2017, the Ministry of Lands Natural Resources and Environmental Protection announced a

ban on the export of logs of all tree species, although the Minister, in consultation with the Director of Forestry, may “issue export permits for any timber if that is deemed necessary in the interest of the Republic.”^{45,46} An additional ban was later placed on the movement of logs beyond 100 kilometers from the harvest zone, in order to promote value added processing and job creation in rural areas.⁴⁷ The Road Transport and Safety Agency (RTSA) and the Zambia Revenue Authority (ZRA) were mandated to stop and seize any truck transporting logs beyond the 100 kilometer zone.⁴⁸ As a consequence of this ban, several hundred trucks transporting mukula logs from DRC to Walvis Bay in Namibia were stopped for several months.⁴⁹ The issue caused a diplomatic row between Namibia and Zambia, which was reportedly resolved through a phone call between the two presidents.⁵⁰

In April 2017, the Zambian Minister of Lands and Natural Resources, Jean Kapata, announced a new ban on all logs “in transit” on Zambian soil transported by foreigners. The new ban, one of the rare announced bans

backed by a legally binding statutory instrument, reportedly took effect immediately. Ms. Kapata stated: "Once the SI [Statutory Instrument] is signed, it will mean that Zambia is not going to allow any transit of the mukula logs on its soil. We will have sealed where the mukula is coming from, especially from the Congo DR."⁵¹ The decision by Zambian authorities resulted in hundreds of log trucks being blocked at the DRC and Tanzania border.⁵²

The ZAFFICO Scheme

In June 2017, the government appointed the State-owned company ZAFFICO to export the seized illegal timber stockpiles on its behalf.⁵³ ZAFFICO reportedly manages 50,000 hectares of forest plantations and employs over 5,000 people.^{54,55} ZAFFICO became subject of a national controversy in Zambia when rumors concerning privatization plans emerged in late 2018.^{56,57} Critics feared that control over the profitable and powerful state-owned company would be handed to foreign investors, in particular Chinese, through the maneuver.⁵⁸ Workers from ZAFFICO also protested in response to the government's decision to list the company on the Stock Exchange and to delay payment of salaries.⁵⁹

Traffickers told EIA undercover investigators on multiple occasions that the official export of seized mukula logs by ZAFFICO has served as a cover for a large clandestine operation for the past two years, allowing anyone with enough money and high-level connection to secretly export freshly cut mukula logs

out of Zambia. The volumes involved are difficult to evaluate, but triangulating multiple sources it can be estimated that on average a minimum of 15 20-foot containers of mukula have been exported each month under the guise of seized stockpile wood from mid-2017 to mid-2019. This would represent approximately 330 containers of mukula worth approximately 10 million dollars.

Under the guise of the official tender for the disposal of confiscated timber, ZAFFICO issues "special permits" to preferred companies for the transport of freshly harvested mukula. The permits specify means of transport and the port of loading for export (usually Durban in South Africa). Based on the ZAFFICO special permit, "joint forces" of army, security and police issue the export permit and required transportation documents for the shipment to Durban through Zambia. These documents would also facilitate the customs clearance for shipping the timber in South Africa.

As an influential Chinese trafficker explained to EIA investigators: "If you work with ZAFFICO, you'll know that they have a log yard. They'll handle the logging. After you pay them, you go to their yard, load your trucks, get their permit, and you're good." The trafficker confirmed that he has only bought "freshly harvested mukula logs" from ZAFFICO. He explains: "I used to smuggle through Tanzania. Now I ship out of Durban. I have to go to Durban because the [ZAFFICO] permit requires a specific port of clearance." The trafficker presented to EIA undercover investigators the ZAFFICO permit he has been using to export freshly cut logs outside of Zambia (Figure 8).

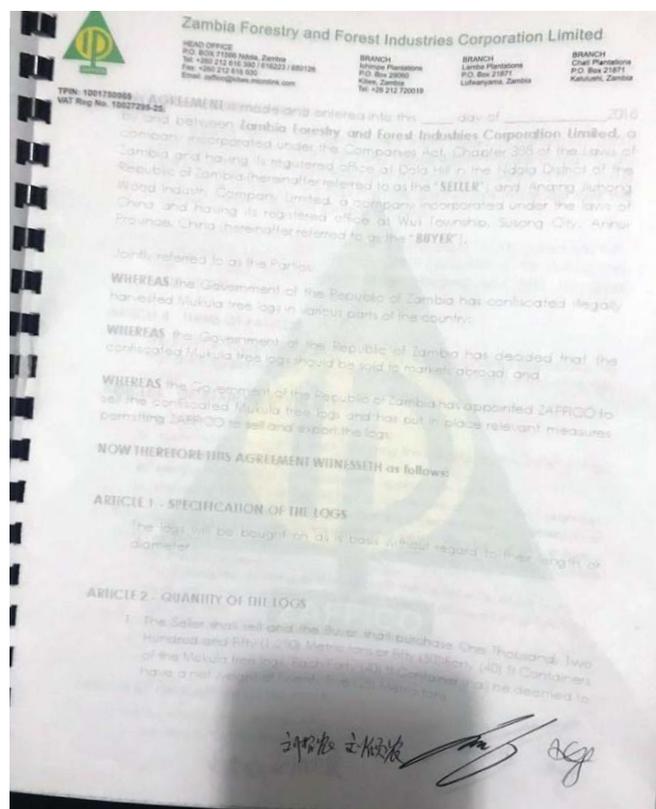


Figure 8
ZAFFICO permit used by a trafficker to export freshly cut logs from Zambia

Traffickers told EIA investigators that the official export of seized mukula logs by ZAFFICO has served as a cover for a large clandestine operation running for years.

Another trafficker describes a variation of the confidential scheme: "ZAFFICO sends over info to the concession, we have our trucks go there. They'll get the logs ready to load. When trucks arrive, they'll inform us, so we have our people there to load. It takes three to four hours to get everything loaded." He confirms that the "special agreement" with the government through ZAFFICO is much safer and more profitable than smuggling through Tanzania. He details for investigators the break-down of his production cost, for a container worth on average US \$28,000 (Free On Board Durban): "That's my business. Of course I paid a lot for it. If I'm not willing to pay, I won't get this permit. Mukula itself doesn't cost a lot of money, only US\$5,000 per container. Transport costs US\$8,000. The rest is government 'fees'".

According to the testimony, the total cost of production would be US \$13,000 and the money paid in “fees” to officials for the confidential scheme is an additional US\$15,000. Assuming that 500+ containers have been exported, that would be about 5.4 million dollars per year in bribes and so-called “fees” paid to officials.

A third trafficker told EIA investigator that he shares ownership of a forest concession in the northwest of Zambia with a well-connected “friend.” He explained to EIA investigators that they would “just need a partner” to buy the mukula they are harvesting in their concession, and then have it legalized through the ZAFFICO permit. For his foreign business partners, this Zambian trafficker usually arranges all necessary documentation: production document, transport (“conveyance”) document from the point of harvest, export permit, and the “certificate” for the company, which he described as the “very crucial document” needed to start and complete the process. The mukula logs he offered to EIA investigators are harvested in Northwest Province, then moved to Mansa where they are containerized, before being trucked to Lusaka. In Lusaka, the containers are moved to Namibian trucks for transport to Walvis Bay. The Zambian trafficker said he works in collaboration with an “agent” located at Walvis Bay port who facilitates the export. Given the recent diplomatic incidents related to the mukula trade between Zambia and Namibia, he recommended to mis-declare mukula logs as “African timber” or “Guibourtia coleosperma.”

Traffickers met by EIA undercover investigators show their ongoing clandestine operations through visits in the field or videos taken of the current harvesting/stocking/loading operations (Figure 9).

The legitimacy of the ZAFFICO scheme on mukula has been questioned and denounced on several occasions. On one hand Ministers and other senior officials have lauded the positive outcomes of ZAFFICO’s auction of the mukula contraband, on the other the public in Zambia remains skeptical amid reports that the

company could be involved in laundering illegal logs.^{60,61,62} Under popular pressure, ZAFFICO Board Chair Jacob Mwitwa publicly declared that only logs confiscated by the government and officially cleared by relevant institutions were allowed to be exported by ZAFFICO, seeking to reassure the public that ZAFFICO was by no means involved in the harvesting of mukula trees.^{63,64,65} In December 2018, Minister Kapata, while attending the international climate CoP24 in Poland, issued a statement that the mukula export ban would not be lifted and that the government will own the process on behalf of the Zambian people, as “the Mukula tree is too valuable to be left to a small part of the population to reap the benefits.”⁶⁶

"The people need to benefit from their trees. They just can't experience deforestation for nothing. Let mukula revenues build hospitals with maternity wings."

C. Kawita, Chairman of the National Democratic Congress, Zambia

The chairman of the National Democratic Congress (NDC), Charles Kawita, denounced mukula smuggling out of Zambia through ZAFFICO.⁶⁷ Mr. Kawita declared: “The people need to benefit from their trees. They just can't experience deforestation for nothing. Let mukula revenues build hospitals with maternity wings. Let mukula revenues be accounted for.”⁶⁸ In DRC people and leaders have also expressed their opinion about what has become a national issue.





Figure 9
Multiple clandestine mukula operations found by
EIA investigators in 2019



DRC: DORMANT TRAFFICKING NETWORKS AWAKEN

On-And-Off Bans

From 2013 to 2017, a mukula rush hit the dry forest of Katanga Plateau in DRC. The harvest and trade exploded without control and took local authorities and communities by surprise. The vast majority of the commercial mukula harvest took place outside of designated concessions. Lured into illegal harvest and trade by quick money offered by Asian, mostly Chinese, traffickers, local community members and traditional chiefs ran to the forests to cut what they could.⁶⁹

Alerted by local and international outcries, the Congolese government took a series of ambiguous decisions: instituting a harvest ban in April 2017; lifting the ban in August 2017 after having reportedly taken the appropriate corrective measures; postponing the lifting of the ban in September 2017, confiscating all abandoned mukula logs, and creating a multipartite commission in charge of the stockpile disposal process (Figure 10).^{70,71,72}

As of August 2018, the trade of mukula from DRC was reallocated through the commission's disposal process, but Zambia was enforcing the 2017 transit ban, making it impossible to move the logs to the principal ports of the region in South Africa and Namibia. According to local sources in Lumumbashi, most of the Chinese traders left the region and the Mukula trade from DRC died down.⁷³

This was confirmed by traffickers met by EIA investigators in Zambia who had relocated their business from DRC following the transit ban implementation. With little interest on the demand side and no more injection of cash locally, the timber lost its commercial value and logs were abandoned in the field (Figure 11).⁷⁴

The Artisanal Loggers Association of Katanga (AEFAKAT- Association des Exploitants Forestiers Artisanaux du Katanga) was hit hard by the lost trade and undertook efforts to have it reopened as soon as possible. Supported by Congolese diplomacy, the association opened direct talks with Zambian authorities in September 2018. An agreement was eventually reached between DRC and Zambia in early 2019, to allow mukula logs from DRC to transit through Zambia starting in April 2019 under a series of conditions.⁷⁵ The conditions include the payment of a fee for the inspection in Zambia, the payment of a fee for an escort in Zambia, a maximum convoy size of no more than 20 trucks, a single entry point in Zambia, and a 6-month timeframe for the operation, which would end in October 2019.⁷⁶ The Ministry of Lands and Natural Resources has allowed the DRC to transport 3,400 containers of Mukula logs through Zambia for export. The Minister in charge, Jean Kapata, said this will be done under security escort so as not to allow any manipulation.⁷⁷

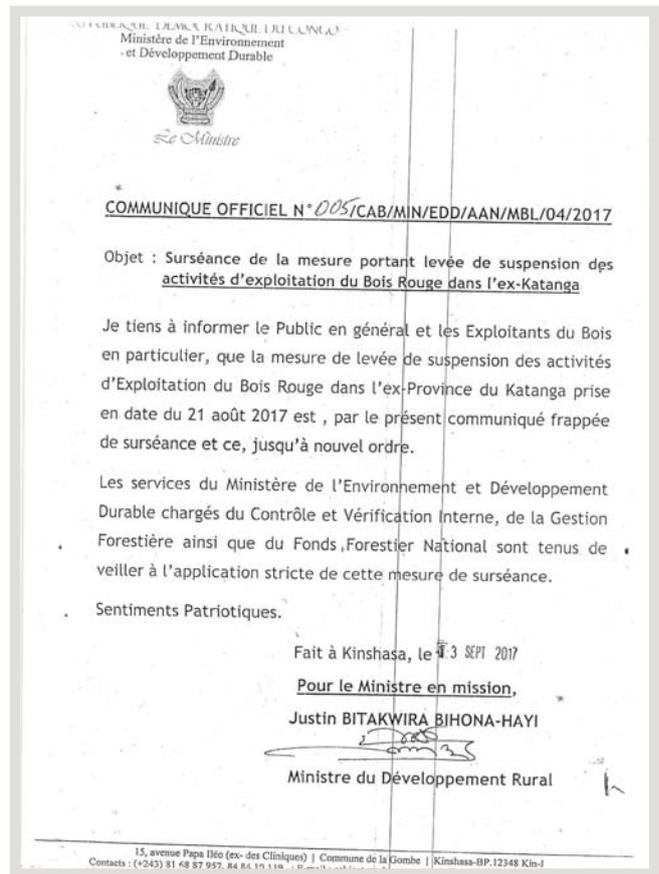


Figure 10
The sequence of official documents stopping and authorizing the harvest in mukula



Figure 11
Abandoned mukula logs in Haut-Katanga before the trade restarted in 2019



Figure 12
Marked and tagged logs in Lumumbashi

Door Opened for the “Untouchables”

According to EIA’s sources the first convoy of mukula logs from DRC left the country and entered Zambia the night of April 19, 2019. The logs were reportedly fully marked and tagged, as per the protocol put in place by the disposal commission established in DRC (Figure 12), under the auspices of the Program of Control of the Production and the Commercialization of Timber (PCPCB), which was set up to establish traceability of the Congolese logs.

According to several sources in DRC, including officials, the traceability program in place would help guarantee that no freshly cut logs from the forest are laundered into the stockpile of seized logs. But as they quickly acknowledged, the program is not infallible. The risk of using the stockpile disposal process for exporting freshly cut logs is extremely high given the high value of the logs and influence traffickers have had. Two Chinese traffickers, one based in Zambia and one based in DRC,

told EIA undercover investigators in May 2019 that they would be able to supply freshly cut logs for export to China.

The powerful networks that took advantage of the mukula rush in 2017 have quickly identified the disposal process and the reopening of the trade through Zambia as an opportunity for taking over the illegal trade where they left it two years ago. According to EIA's sources, the "Untouchables" – a group of highly influential senior officials (and their relatives) and members of the Congolese army (FARDC – Forces Armées de a République Démocratique du Congo) are commonly referred to in politico-administrative spheres – are once again attempting to reenter the trade and plunder the forest. The "Untouchables" are known for living and acting above the law, or for manipulating the law to their advantage. This group was at the heart of the illicit exploitation and trade that plagued the DRC in 2017. They have also been identified as the masterminds behind the illegal logging operations in Kundelungu Naitonal Park.⁷⁸ Government agents who have attempted to enforce the law on them and their associates have been threatened, harassed, and physically brutalized according to EIA's source.⁷⁹ In 2017, some agents were reportedly kidnapped by the FARDC.⁸⁰

Information gathered by EIA indicates that the "Untouchables" are now back in the mukula business. Sources reported that in the dead of night, on April 24, less than a week after the first official container of mukula logs disposed by the inter-institutional

commission left DRC, individuals with FARDC uniforms were seen guarding and loading mukula logs in a container that went to an unknown destination. The risk of using the stockpile disposal process to launder freshly cut logs is high, reusing the same system devised in 2017. At the time, the "Untouchables" and their foreign associates obtained "Special Authorizations" to purchase mukula in volumes that far exceeded the limits of legal production. According to EIA's information, only eight artisanal concessions were authorized to produce a maximum of 180 cubic meters of mukula per year. Nevertheless 20 untouchables were granted special authorization to buy and export between 5,000 to 10,000 cubic meters of mukula in 2017 (Figure 13).⁸¹

The traffickers who took advantage of the mukula rush in 2017 have identified the stockpile disposal process as an opportunity for taking over the illegal trade where they left it two years ago.

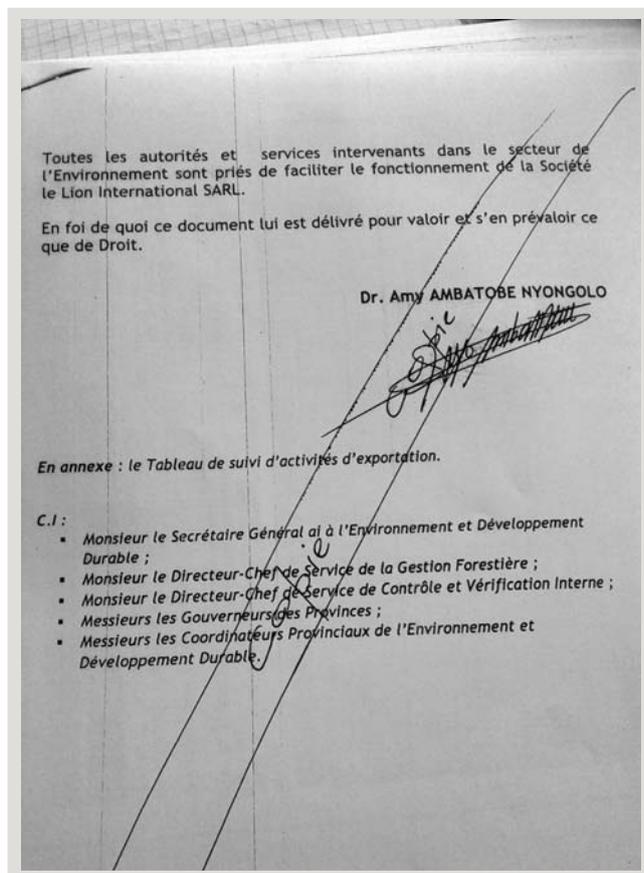
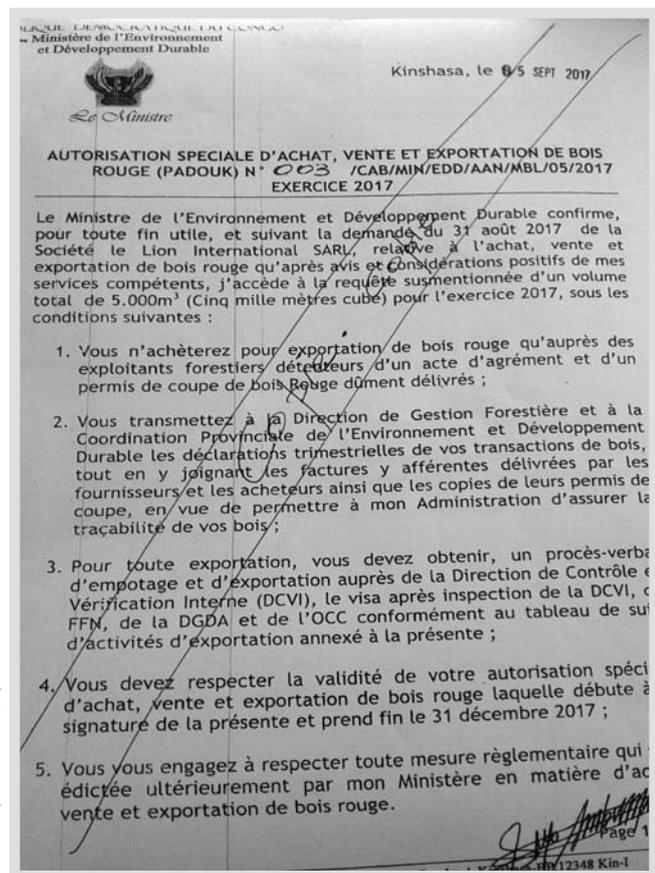


Figure 13
Example of "Special Authorization" that triggered the previous mukula crisis



Five years ago, you saw mukula everywhere in East Province, everywhere you go basically. Now there's nothing."

Trafficker

PREDICTED EXTINCTION

Despite the lack of precise and comprehensive data regarding the status of mukula populations, there are clear signs of the depletion of resources over the past five years, with commercial extinction likely in the near future. Due to the commercial pressure on the species, Zambian authorities decreased the minimum cutting diameter in 2015.⁸² CIFOR found that 84 percent of community loggers in Zambia had entered the business since 2012 and that 68 percent of them observed depletion of population stocks in the field, estimating that they would not be able to continue harvesting this tree at the same rate in five years' time. A full 95 percent of key informants in the same study agreed with this assessment and anticipated the species "going extinct."⁸³ Convergent signals of upcoming extinction have come out of Zambia. Maloza Sichone, Muchinga province minister, declared in 2017 that emergency measures to protect the mukula trees were needed since the "tree is now threatened with extinction." She continues: "We have found it necessary for President Lungu to call in the army before the mukula tree is completely wiped out by illegal traders."⁸⁴

A Zambian trader reported to EIA that five years ago it was possible to harvest trees of 20-30 centimeters in diameter "very close to Lusaka" about 50 kilometers from the capital. Over time, the loggers have progressively moved up from Chama to Matumbu, Matumbu to Chinsai, and Chinsai to Polokoso where they are working now, almost 1,000 kilometers from Lusaka.

This was confirmed by a Chinese trafficker:

EIA: Are there still many mukula trees out there?

Trafficker: If we keep logging like this, in two years, all mukula trees will be logged in North Province.

EIA: So they almost extinct?

Trafficker: Almost. The best-quality ones were all logged two years ago. Because Chinsali and Isoka are the best two mountainous areas with high quality mukula. The other areas are not as good. [...] There used to be many mukula trees. Five years ago, you saw mukula everywhere in East Province, everywhere you go basically. Now there's nothing.

EIA: All the mukula were logged?

Trafficker: All of them. Mukula used to be this big [arm's length]. Back then, we shipped the logs to China, and sold them at 40,000-50,000 [Chinese Yuan] per ton, even when market was not doing well.

EIA: You can't find that kind of tree now?

Trafficker: No.

EIA: I guess they're still there, just harder to find?

Trafficker: No, absolutely not in East Province. They are extinct.

EIA: They all went to China?

Trafficker: Yes. Back then 300 containers shipped to China from East Province alone.

In January 2018, National Democratic Congress (NDC) youth leaders in Zambia publicly took action against the pillage of the forest for mukula. A NDC youth leader reportedly stated: "I will instruct our party youths to help with manpower to help with the save mukula tree campaign. We are joining the bandwagon of saving our natural resources from extinction."⁸⁵

The primary mukula extraction areas in Southern DRC (Katanga Plateau) and Zambia (Mamba region and Northwest region) are located in landlocked forests, forcing traffickers to pass through several countries in order to reach a port from where the timber can be shipped to China, and, to a lesser extent, Vietnam. As with other rosewood species, mukula trade appears to be linked to illegal trade in endangered animal parts, and there are indications that routes used by wildlife traffickers to supply Asian markets are the same for animal and timber products.⁸⁶ In late 2016, Chinese customs officials seized a 2.9-tonne shipment of pangolin scales hidden in a container of African timber.⁸⁷ In Namibia, a Chinese national identified as the owner of a key export logistics company for Angolan and Zambian timber clients has also repeatedly been linked to traffic in rhino horn and animal skins.⁸⁸

CONCLUSIONS AND RECOMMENDATIONS

The acceleration of the clandestine plundering of the forests in Zambia over the past two years and the likely resurgence of illegal trade in DRC in 2019 is putting the populations of mukula in the region in an extremely vulnerable situation.

Traffickers expect the species to go commercially extinct in the near future. Little if any benefit from the current mukula rush is coming back to the forest communities and the population at large either in Zambia or DRC.

In order to stop the current crisis, EIA recommends:

- 1. Support the proposal by Malawi (Prop. 54)** to include mukula (*Pterocarpus tinctorius*) in CITES Appendix II at CoP18.
- 2. Consider a genus-wide listing of look-alike species** of *Pterocarpus* on Appendix II at CoP19 using an annotation that facilitates proper enforcement.



ACRONYMS

CIFOR	Center for International Forestry Research
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DRC	Democratic Republic of Congo
EIA	Environmental Investigation Agency
FARDC	Force Armées de la République Démocratique du Congo
NDC	National Democratic Congress
PCPCB	Programme de contrôle de la production et de la commercialisation des bois
RTSA	Road Transport and Safety Agency
UNODC	United Nations Office on Drugs and Crime
ZAFFICO	Zambia Forestry and Forest Industries Corporation Limited
ZRA	Zambia Revenue Authority

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