NEW CITES REGULATIONS FOR TIMBER SPECIES AFZELIA, KHAYA, AND PTEROCARPUS, AND IMPLICATIONS FOR AFRICAN EXPORTERS AND CHINESE AND VIETNAMESE IMPORTERS

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INTRODUCTION

African populations of highly exploited commercial timber species, Afzelia, Khaya, and Pterocarpus, have recently been listed under the Convention on International Trade in Endangered Species (CITES)¹ in order to support their sustainable and legal trade. Many of these species come from countries with poor governance, high levels of corruption, and weak enforcement. China and Vietnam are the primary importers of much of this timber, and over the last 10-15 years, have been the main drivers of trade. These new regulations bring significant implementation challenges for both producer and consumer countries. This Policy Brief outlines the listings and discusses the consequences with a focus on China and Vietnam, the main importers.

¹The Convention of International Trade in Endangered Species of Wild Fauna and Flora, an international agreement between governments. It aims to ensure trade in specimens of species of animals and plants does not threaten the survival of the species in the wild.
New CITES regulations for *Afzelia*, *Khaya*, and *Pterocarpus* species

At the 19th Meeting of the Conference of the Parties to CITES, held in Panama City in November 2022, African populations of three commercially traded tree genera – *Afzelia* (doussie), *Khaya* (African mahogany) and *Pterocarpus* (padauk) – were added to Appendix II\(^2\) with annotation #17, which includes logs, sawn wood, veneer sheets, plywood, and transformed wood.\(^3\) The listings were proposed by range States including Benin, Côte d’Ivoire, Liberia, Senegal, and Togo, and supported by the European Union. Many species within these genera are subject to unsustainable trade; the high levels of exploitation coupled with a lack of regeneration of the populations have led to increasing concerns about the species’ survival in the wild. These regulations come into force on February 23, 2023, and permits are now required in order to continue to export timber and any other covered products from these species. Before issuing an export permit, national authorities in range States are now required to carry out, at species level, a non-detriment finding (NDF), to ensure that trade in specimens of these species is not detrimental to the survival of the species in the wild, and a legal acquisition finding (LAF), to confirm that trade in these species is legal according to national legislation and CITES obligations. Asia, particularly China and Vietnam, is one of the main destinations for timber of all three genera, and the implementation of the CITES listings for these species will have a far-reaching effect on the use of this timber in the region.

*Afzelia* is a genus of 12 species, with seven from Africa,\(^4\) which are now subject to CITES controls, and five from Southeast Asia,\(^5\) which are not. All species of *Afzelia* are slow growing and occur at low densities; the durable timber is difficult to identify at species level and is marketed under the same commercial names, including doussie or African pod mahogany. *A. africana*, *A. bipindensis*, *A. pachyloba*, and *A. quanzensis* (the latter considered a replacement timber for the over-exploited *Pterocarpus erinaceus*, or kosso), were included

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1. [https://cites.org/eng/disc/text.php#IV](https://cites.org/eng/disc/text.php#IV)
2. Defined by Harmonized System code 44.09: Wood (including strips, friezes for parquet flooring, not assembled), continuously shaped
4. *Afzelia* species distribution
5. *Afzelia* species distribution
due to concerns about sustainable trade. A. bella, A. parviflora, and A. peturei were included due to the similarity of their timber with the more commercially popular species (fulfilling the CITES look-alike criteria). Due to the slow growth of hardwood species such as A. quanzensis, plantation production is considered to give a poor economic return and does not appear to reduce harvesting pressure on wild populations. However, small research plantations exist in Africa. There are no known national population estimates or stock assessments for any African species of Afzelia. However, A. africana is considered commercially extinct in Ghana and any timber is currently exported under a salvage license. The timber is popular in Asia, particularly in China and Vietnam, where it is used for doors, flooring, and Hongmu furniture. Mainly exported as logs or sawn wood, Afzelia bipindensis and A. pachyloba are reportedly the most commonly traded species with Cameroon, Côte d’Ivoire, and Ghana, the main exporters.

Khaya is a genus of five species, all distributed within Africa but with introduced plantations in Brazil, Indonesia, Malaysia, and Sri Lanka, none of which are believed to be supplying substantial amounts of timber, Australia, which appears to have significant stocks of Khaya species, as well as in Africa. Khaya madagascariensis, only found in Madagascar, is considered to be commercially depleted, and the wild populations of the other four species are decreasing due to the pressure of international trade. The high quality, durable timber is used for construction, carpentry, flooring, furniture, panelling, veneer, and plywood. The genus is difficult to identify at species level and species are traded under the same common names, including khaya, acajou, and African mahogany. No comprehensive global trade data exist for Khaya spp., however, from available information from exporters and importers, Cameroon, Congo, Côte d’Ivoire, Democratic Republic of the Congo (DRC), Gabon, and Ghana appear to be the main exporters of khaya timber.

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5 Criterion B in Annex 2a of Res. Conf. 9.24 (Rev. CoP17)
6 Annex 2b of Res. Conf. 9.24 (Rev CoP17)
7 CoP17 Inf.47 https://cites.org/sites/default/files/eng/cop/17/InfDocs/E-CoP17-Inf-47.pdf
9 Pers.comm. William Dumenu, Forestry Research Institute of Ghana, 6 Feb. 2023
12 The taxonomy of Khaya is unresolved but a taxonomic review is underway. Five species are currently recognised: Khaya anthotheca, K. grandi-foliola, K. ivorensis, K. madagascariensis, and K. senegalensis
14 https://doi.org/10.1590/2179-8087-FLORAM-2020-0081
15 Likely to be Khaya senegalensis
16 CoP19 Inf.3 https://cites.org/sites/default/files/documents/E-CoP19-Inf-03.pdf
**Pterocarpus** is a genus of around 40 species native to tropical and subtropical regions across the world, 12 of which are native to Africa. Two African species, *Pterocarpus erinaceus* and *P. tinctorius*, have already been regulated under CITES in 2016 and 2019, respectively. The only Asian species included in CITES is the endangered Indian endemic *P. santalinus*, listed in 1995. The most heavily exploited of the ten newly listed African species include *Pterocarpus angolensis*, *P. soyauxii*, and *P. tessmannii*, which meet the CITES criteria for inclusion in Appendix II due to concerns about sustainable trade. The genus is difficult to distinguish at species level and the other African species are included in the listing due to meeting the look-alike criteria. There are no known large-scale plantations of these species, although small research plantations of *Pterocarpus erinaceus* have been set up in some countries in Africa.

The species are used to manufacture high-quality furniture in China and Vietnam and trade shifts between species depending on availability. Many species are commonly traded under the same names, including padauk, African rosewood, kosso, and mukula. Different range States export different species. The main exporters for *P. angolensis* are considered to be Mozambique, Tanzania, and Zambia; Gabon and Congo for *P. soyauxii*, and DRC and Zambia for *P. tinctorius*. There should be no trade of *Pterocarpus erinaceus* due to a current suspension of all trade from range States or a zero-export quota.

China and Vietnam are the top importers of African timber, mainly logs and sawn wood. In 2022, China and Vietnam imported nearly 4 million meters cubed (m³) and 2 million m³ RWE, respectively, from Africa. A large proportion of imports contain species of *Afzelia, Khaya*, and *Pterocarpus*.

**Implementation of the new regulations for export**

As noted, in order to implement these listings under CITES, national authorities in range States are obligated to carry out rigorous findings on sustainability and legality before trade can occur. The lack of complete inventories at the population level of the majority of these African species makes this a challenging prospect. Elements of an NDF may include gathering data on distribution, population status and trends, harvest levels and other biological and ecological factors, and trade information relating to the species concerned.

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18 Distribution of *Pterocarpus angolensis*: Angola, Botswana, Congo, DRC, Eswatini, Malawi, Mozambique, Namibia, South Africa, Tanzania, Zambia, Zimbabwe; *P. soyauxii*: Angola, Cameroon, CAR, Congo, DRC, Equatorial Guinea, Gabon, Nigeria; *P. tessmannii*: Equatorial Guinea, Gabon; and *P. tinctorius*: Angola, Congo, DRC, Malawi, Mozambique, Tanzania, and Zambia
19 Bayala et al. (2022) Frequency and period of pruning affect fodder production of *Gliricidia sepium* (Jacq.) Walp. and *Pterocarpus erinaceus* Poir. in the Sahel. Agroforestry Systems, Springer Nature
21 Conf. 16.7. (Rev. CoP17)* Non-detriment findings
Parties are also required to ensure all trade is legal. Until 2019, when Resolution Conf. 18.7 on Legal Acquisition Findings\(^{22}\) was adopted by the Parties, there was no common understanding within CITES institutions of how to ensure specimens were traded legally, and implementation of this requirement varied widely. The new resolution has provided guidance to Parties on how to assess legal acquisition, and discussions and workshops are now ongoing to support Parties in confirming legal trade. The need to fulfill both the NDF and LAF requirements could result in significant implementation challenges, similar to those experienced after the CITES listing of *Pterocarpus erinaceus* in 2016. In this case, no range State was able to produce a satisfactory NDF or LAF for this species, and following pervasive documented illegal trade, a suspension was put in place in June 2022 for all commercial trade\(^{23}\) from most range States, with all others adopting a voluntary zero-export quota.

There has been trade in *Khaya* species from Africa since the late 19th century. Plantations exist within Africa, forest concessions have management measures in place, and data should be available regarding harvest levels, population inventories, and so on, to support the making of an NDF. Following the inclusion of these species in the CITES Appendices, operators in Cameroon have been informed that they must present forest inventories and harvested log stock data to the forest authorities before February 23, 2023. This information will be used to determine the volume of sawnwood that will be available for export.\(^{24}\)

Stockpiles of these species are believed to exist, and timber from these sources can continue to be traded under the pre-Conference exemption,\(^{25}\) which allows trade in specimens harvested before a listing came into force. If trade occurs after February 23, 2023, but the timber was harvested before this date, the shipment should be accompanied by a CITES pre-Conference certificate, and an NDF does not have to be carried out by the exporting country. Where stockpiles are known to exist, range States should compile and maintain an inventory of the amount of timber held in order to counteract the laundering of recently harvested timber traded under this exemption. Traders should provide proof of the date of harvest and acquisition when applying for export permits to ensure the specimen qualifies for the pre-Conference exemption.

\(^{22}\) Conf. 18.7 Legal Acquisition Findings


\(^{25}\) Conf. 13.6 - (Rev. CoP18)* Implementation of Article VII, paragraph 2, concerning ‘pre-Convention specimens’
Implementation of the new regulations for import

Parties to CITES are allowed to adopt stricter domestic measures than those required by the Convention. China and Vietnam are Parties that have done so, and for Appendix II species, together with an export permit issued by the Management Authority (MA) of the exporting state, traders importing specimens of CITES listed species are required to obtain an import permit from their national authorities. In addition, as of June 1, 2021, China no longer accepts export permits for CITES Appendix II-listed tree species without the quantities indicated and the export endorsement column completed.26

Under Resolution Conf. 11.3 on Compliance and Enforcement, importer countries are obliged to ensure they are “exercising due diligence when presented with a CITES permit or certificate, even if they believe it to have been issued by a competent authority, when they have a reason to believe that the specimens of CITES-listed species may not have been traded in accordance with the provisions of the Convention.” As outlined in paragraph 2 a)-b) of this resolution, if there are concerns about the export permit, the MA of the importing Party can contact the exporting Party’s MA and request verification of the validity of the permit and, if necessary, the basis for the NDF and LAF determinations. Furthermore, if there is no satisfactory response, the MA should then contact the CITES Secretariat to make a final decision on whether to refuse the export permit.

In addition, all imported products covered under the #17 annotation that are subsequently re-exported need a re-export permit issued by the MA of the country that is re-exporting. Finished products, such as furniture and handicrafts, are not regulated and can be freely imported, exported, and re-exported.

Both China and Vietnam have systems in place to reduce the likelihood of illegally traded wood entering the market. In July 2020, China’s amended Forest Law came into force, which includes a ban on buying, transporting, and/or processing illegally sourced timber. It also requires processing companies to establish a record of raw materials and products.28

However, enforcement of this legislation will not begin until implementing regulations are finalized, and there is no mandatory, robust chain of custody system that would trace wood material sourced in producer countries and processed into finished products in China. Nevertheless, proper enforcement of the due diligence obligations for CITES-listed species outlined in Resolution Conf. 11.3 can support the import of legal timber into China.29

27 Conf. 11.3 - (Rev. CoP18)* Compliance and enforcement
28 China introduces new law to safeguard forests and improve governance | ClientEarth
29 Timber Legality Risk Dashboard: China | Forest Trends
In Vietnam, under the current Vietnam Timber Legality Assurance System (VNTLAS), African timber imported into the country, including CITES species, are considered high-risk and are subject to deliberate scrutiny from the competent authority. Vietnamese importers bringing such timber into the country are also required to provide additional documents to prove legality and to exercise due diligence to mitigate any risks associated with the import. VNTLAS also requires that CITES species are only allowed to enter the country if the importer obtains the export permit from the CITES Authority in the country of export and if the importer is granted an import permit by Vietnamese CITES Authority thereafter. Experience in Vietnam has revealed that when a species is listed under CITES, imports often fall to zero, mainly because traders fail to acquire the necessary documents required by the authority. The import of *Pterocarpus erinaceus* is a case in point.

**Vietnam’s Imports of *Afzelia, Khaya, and Pterocarpus* species from Africa**

Africa has become the most important source of tropical hardwood for Vietnam, and imports from this region have continued to rise over the last 10 years. There are several factors that have contributed to this. Following the prohibition of harvest from Vietnam’s natural forests, traders had to look elsewhere for substitute timber. Prior to 2015 and 2016, Laos and Cambodia filled this gap. However, this supply has been reduced substantially, as a result of both stringent exporting requirements established by the Laos and Cambodian governments and the exhaustion of good quality timber stocks. Africa has now become the dominant supplier of timber to Vietnam, with nearly 2 million m³ RWE of logs and sawn timber being imported in 2022, valued at $500 million USD and accounting for around 30 percent of the country’s total timber import volume. Almost all African timber imported to Vietnam is for domestic consumption.

Figures 1 and 2 present the imports of timber of *Afzelia, Pterocarpus,* and *Khaya* from Africa into Vietnam from 2019 to 2022 which, on average, account for nearly 30 percent of quantity and value of total African logs and sawnwood imported by Vietnam. Among them, *Afzelia* usually ranks among the three most imported African timber genera, representing over 25 percent of timber imports from Africa. *Pterocarpus* species only account for about 4 percent of total imported African timber, and the quantity of African *Khaya* species imported into Vietnam is very small. Despite occasional inconsistent name use, they are generally sold to Vietnamese producers under the Vietnamese trade names huong (*Pterocarpus* spp.), go (*Afzelia* spp.) and xa cu (*Khaya* spp.).
Quantity of logs of *Afzelia* spp., *Pterocarpus* spp., *Khaya* spp., and other timber species imported from Africa into Vietnam within 2019-2022 (m³)

**FIGURE 1**

Source: Vietnam’s Custom data, compiled by Vietnamese timber associations and Forest Trends

Quantity of sawnwood of *Afzelia* spp., *Pterocarpus* spp., *Khaya* spp., and other timber species imported from Africa into Vietnam within 2019-2022 (m³)

**FIGURE 2**

Source: Vietnam’s Custom data, compiled by Vietnamese timber associations and Forest Trends
African timber in general, and *Afzelia, Khaya,* and *Pterocarpus* species in particular, has found its way to wood villages of Vietnam, such as Dong Ky (Bac Ninh), Van Diem (Ha Noi), Canh Nau (Ha Noi), and La Xuyen (Nam Dinh). In villages like Thuy Lan, villagers exclusively use these species to manufacture antique-styled furniture, religious sculptures, altars, and wooden houses. From the early 2000s, as economic development grew, demand for these wooden products soared when people saw them as a way to indicate wealth and social status.

Together with several other timber genera, *Afzelia spp., Pterocarpus spp.,* and *Khaya spp.* imported from Africa and chosen for their beauty and durability have been widely used in the domestic market. Imports of these species to Vietnam have increased year on year, reflecting the rising demand from Vietnamese consumers. Vietnamese customs data shows that in 2022, Vietnam imported 146,000 m³, 47,000 m³, and 26,000 m³ of *Afzelia africana, Afzelia pachyloba,* and *Pterocarpus soyauxii,* respectively, from Africa.

As many wood villages depend on these species, the implementation of CITES may have significant consequences for the communities, with risks for their future livelihoods. If the species are no longer available on the market, villagers may have to find alternative sources, such as timber from Papua New Guinea, Latin America, and other parts of Asia. Traders have reported they are already exploring imports from these regions.
China’s import of rosewood (Hongmu) from Africa

China is the most important importer of African timber, with an annual import of logs and sawn-wood of nearly 4 million m3. Chinese customs data only allow the calculation of China’s imports of Hongmu species, such as logs and sawnwood of Pterocarpus and Khaya sawnwood, among others. Figure 3 shows China’s imports of these species from Africa from 2019 to 2022. China also imports Afzelia and Khaya species, but the Chinese Customs does not assign specific HS codes for these species, and these imports are often recorded together with other tropical species under the general HS codes 44034990 for logs or 44072990 for sawnwood. The scale of the specific imports of Afzelia (logs and sawnwood) and Khaya (logs) from Africa is unknown.

China’s imports of Hongmu from Africa have declined in recent years. Nonetheless, Hongmu maintained the second largest share of China timber imports from Africa in 2022 after okoume (Aucoumea klaineana). In a survey of Chinese timber manufacturers and importers conducted by China’s Timber and Wood Products Association (CTWPDA) in 2020, Pterocarpus erinaceus (kosso) was the fourth most cited species by interviewees. Key Vietnamese informants also report that Vietnamese importers purchase timber from Chinese companies with access to African concessions, and that much of the Hongmu furniture made in Vietnam is exported to China. However, as mentioned earlier, the import of Pterocarpus erinaceus into Vietnam since being listed under CITES has been small and its trade is currently banned.

China used to import a large amount of Afzelia spp. for wood flooring, furniture making, and other applications. It is considered a similar but less expensive species to merbau (Intsia spp.), which has been very popular in China. However, traders have indicated a decline in imports in recent years. One explanation is that Chinese traders from Guangdong and Zhejiang Province have Afzelia spp. exported directly from Africa to Vietnam instead of China. This may explain the large imports of Afzelia spp. to Vietnam (see Figure 1).

Imports of Khaya species are predominantly made into furniture in China; over a quarter of the companies CTWPDA surveyed in 2020 claimed they imported and used these species.

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31 The ranking did not include the group of other tropical species under the general HS codes 44034990 for logs or 44072990 for sawnwood
32 China’s International Wood Trade: A Review, 2011-2020
Implications for future trade

Whilst the CITES listing has the potential to conserve populations of *Afzelia*, *Khaya*, and *Pterocarpus* species in the wild, the key is in ensuring successful implementation, which requires adequate resources as well as concerted efforts from multiple actors, including those in producer and consumer countries. A host of factors could hamper the implementation. As noted above, producer countries may find it complex, expensive, and time consuming to gather all the data necessary to comply with CITES regulations, given the lack of species-level estimates of wild populations and stock assessments of forest concessions, particularly in the short time available before the listings come into force. This could result in the disruption of shipping schedules and a reduction in supply to consumer countries. While trade of pre-Convention stockpiles is allowed, the stockpiles may be illegally bolstered using newly harvested timber, leading to the misuse of the pre-Convention exemption on export. There is an opportunity for illegal trade to occur with timber shipped without the necessary permits or under different species names as well as the potential for CITES species to be mixed with non-CITES species in the process of transshipment. Management Authorities in the States of export need to ensure they have sufficient information to make NDFs and LAFs at the species level before issuing export permits.
Their counterparts in importing countries need to exercise their due diligence obligations and ensure CITES export permits were issued according to the text of the Convention (and before issuing an import permit, if one is required). National authorities in all countries need to make clear the information needed from traders to ensure a successful permit application.

As China and Vietnam are major importers of these species, effective implementation of the regulations are heavily dependent on collaboration between these countries and range States. Both countries should adhere to any national legislation aimed at reducing illegal trade in timber. If it is not possible to verify legality, imports should be refused. As noted earlier, under the current VNTLAS, all CITES species are considered high-risk. Vietnamese competent authorities need to ensure that the enforcement mechanism is robust enough to exclude any legality risk associated with the import.

Importers play a critical role in shaping implementation results, and need to ensure all timber is acquired from legal and sustainable sources and accompanied by all necessary documentation along the supply chain. However, traders are known for rapid species shifting, moving to other timbers if preferred species are unavailable or regulations prove a burden. As noted, there are populations of both *Afzelia* and *Pterocarpus* in Asia that are also being exploited and are as yet unregulated under CITES. Some species, such as *Pterocarpus macrocarpus* and *P. indicus*, are already considered endangered by trade and would benefit from being included in Appendix II of CITES before they become commercially extinct. Anecdotal evidence has shown that some Vietnamese and Chinese traders have started looking for species with similar characteristics and qualities in other regions, and, unless they are subject to good forest management systems, this may lead to unsustainable trade in these replacement species in the future.

However, in Vietnam, there is an initiative intended to shift the use of raw material from high-risk to low-risk timber in wood villages. TAVICO,33 a company that imports low-risk timber, has entered into a collaboration with wood villages including Van Diem and Huu Bang. Under the collaboration, TAVICO provides the villagers with low-risk imported timber such as ash and oak to replace high-risk imported timber such as *Afzelia*, *Khaya*, and *Pterocarpus* species. TAVICO also provides technical support to the villagers in the areas of wood sawing, drying, and product design, and helps villagers sell the final products. Scaling up this model has the potential to move Vietnam away from high-risk timber imports.

33 https://tavicowood.com/
Recommendations

To ensure successful implementation of the regulations, this Brief recommends that:

Exporting countries:

- Establish interim voluntary zero export quotas (if necessary) while information is gathered to make the required sustainability (NDF) and legality (LAF) determinations
- Ensure applicants provide appropriate and authentic documents when applying for an export permit. Authorities should make instructions related to legal acquisition to guide this process publicly available\(^{34}\)
- Ensure procedure of export permit issuance is robust and free from corruption and collusion
- Compile and maintain an inventory of stockpiled timber to counteract the laundering of recently harvested timber trade under the pre-Convention exemption

Importing countries:

- Ensure applicants for import permits (if required) provide all necessary and authentic documents to show legal acquisition of specimens, including information on the chain of custody. Authorities should provide publicly available guidance on what documentation is required
- Exercise due diligence in accordance with CITES Resolution Conf. 11.3 on Compliance and Enforcement, as well as other legislative instruments to support verification of legality of imports
- Ensure range States’ legal prohibitions,\(^{35,36}\) restrictions, and quotas\(^{37}\) are recognized and adhered to by both the national authorities and the industry along the supply chain
- Ensure lines of communication between MAs in both importing and exporting countries remain open and transparent
- Ensure the procedure of export permit acceptance and import permit issuance is transparent and corruption and collusion-free

\(^{34}\) See Forest Trends and CIEL Handbook for guidance: [LEGAL ACQUISITION FINDINGS](#)

\(^{35}\) See Forest Trends table of current forest product restrictions, including log export bans: [Known and Reported Forest Product Export Restrictions](#)

\(^{36}\) [https://www.traffic.org/site/assets/files/19229/rosewood_market_full_report_final.pdf](https://www.traffic.org/site/assets/files/19229/rosewood_market_full_report_final.pdf)

\(^{37}\) For example, Zambia has a current quota for the export of *Pterocarpus tinctorius*—see [Export quotas | CITES](#)
Private sector:

- Ensure that traders provide the correct supply chain documentation and robust verification of legal harvest relating to the species when requesting an export or import permit, and verify the requirements for such documentation with the relevant national authority.
- Ensure that all traders exercise due diligence in sourcing all high-risk timber to mitigate any risk of illegality.