

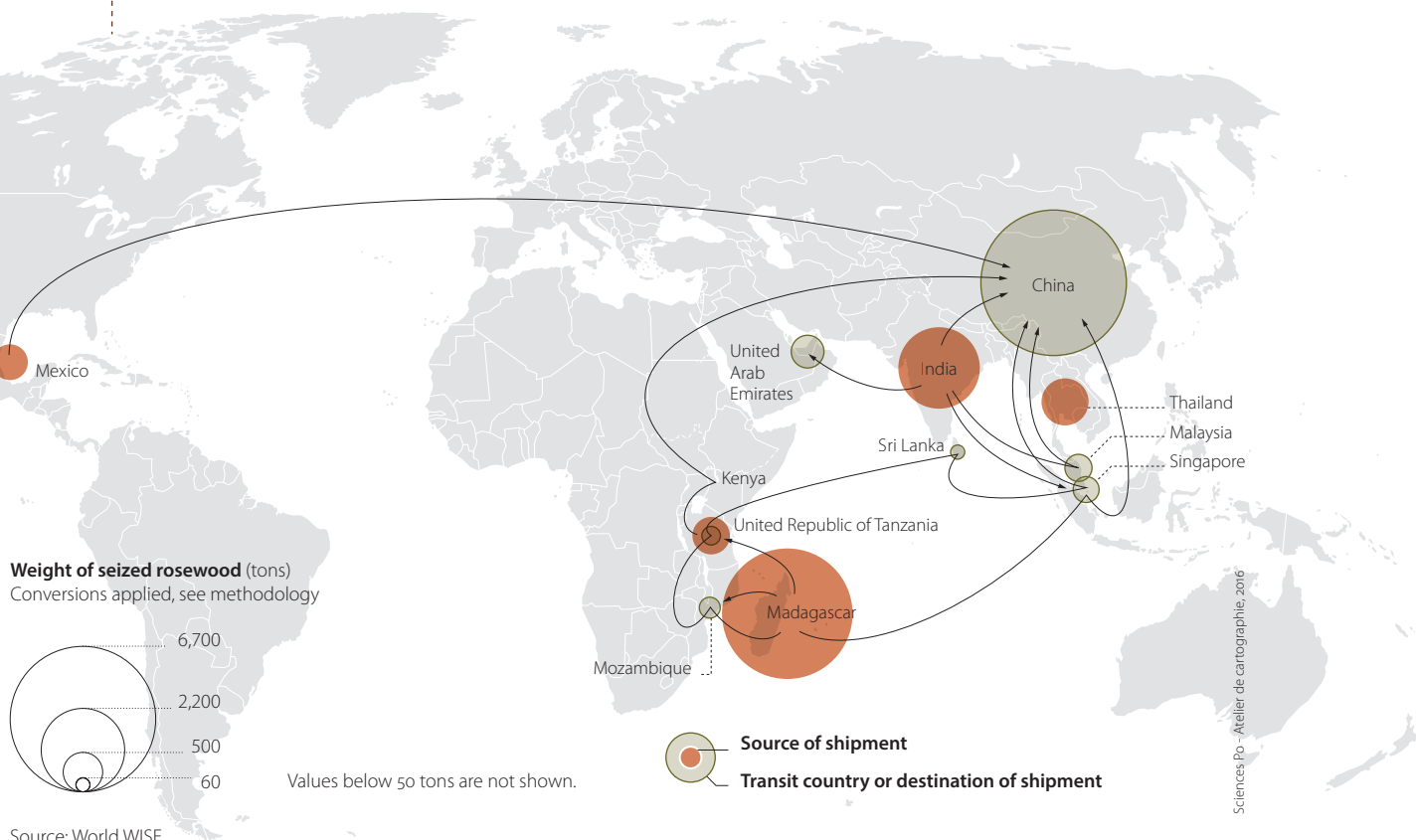


# FURNITURE

## CASE STUDY: Rosewood logs

### WILDLIFE AND THE TROPICAL HARDWOOD FURNITURE TRADE

**Map 1** Main flows of rosewood logs and timber seizures (tons), 2005-2015



Illegal logging is one of the most destructive wildlife crimes, as it threatens not just a single species, but entire habitats. Much illegal logging involves cutting common or undifferentiated species for charcoal or pulp and paper, but where specific rare timber species are targeted, the object is often tropical hardwood furniture. This industry provides a prime example of the way that, outside the CITES regime, wildlife harvested or exported contrary to national laws in its source country can still be introduced into legitimate commercial streams in other countries.

The demand for the tropical hardwood is mainly driven by the furniture industry and the world trade in tropical hardwood furniture

is immense.<sup>1</sup> Global production of all types of furniture was valued at over US\$400 billion in 2012.<sup>2</sup> Of this, tropical hardwood furniture production was valued at approximately US\$65 billion, representing about 39% of wooden furniture production and 16% of total furniture production by value (Fig. 1).<sup>3</sup> Some of the top producers of tropical hardwood furniture are also some of the top consumers, so only a fraction of production is traded internationally. Thus, the international trade in tropical hardwood furniture was only worth some US\$19 billion in 2013, or about one-third of production.

The primary source of tropical hardwoods is Southeast Asia and the Pacific, although African and Latin

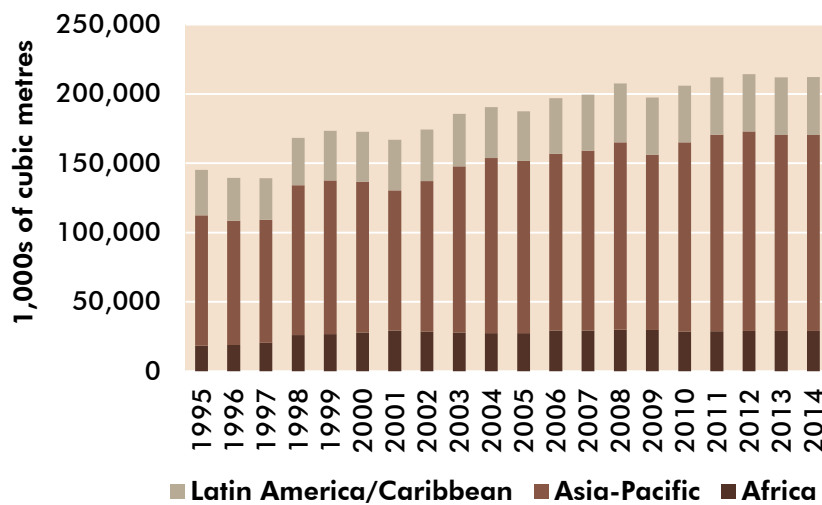
**Fig. 1** Value of global furniture production by type of furniture, 2012



Source: Elaborated from data from EC 2014<sup>4</sup>



**Fig. 2** Volume of tropical logs exported by selected regions (1000s of cubic meters), 1995-2014



Sources: ITTO Statistics Database; COMTRADE

American countries contribute about one-third of exports. Some of the poorer source countries have struggled to come to terms with the burgeoning trade in tropical hardwoods, as they lack the capacity to monitor forest loss and prevent excessive logging. Threatened with widespread deforestation, some source countries have imposed log export bans, protections for specific species, or even general logging bans. But with limited capacity to monitor and enforce these controls, exports may be vulnerable to the introduction of wood that is illegally sourced.

### Log export bans and species-specific controls

National log export bans are generally designed to accomplish two objectives:<sup>5</sup>

- to retain a greater share of the value of the logs in the source country, as the timber must be processed before export;
- to slow the rate of extraction to the pace of the local sawmills.

Log exports can continue despite the bans. This can be documented by the import statistics of other countries, which identify the source of the logs. While these discrepancies can indicate real criminality, they may also

be due to definitional differences around what constitutes a “log”. Logs are often roughly squared, removing the sap wood and improving packing efficiency, and this can sometimes be mistaken for “worked timber”. The same shipment may be exported as timber and imported as logs, so it can be difficult to reconcile trade statistics.

Bans on the trade and export of specific species can affect both logs and sawn wood. As these controls are usually based on executive decisions, officials have the discretion to make

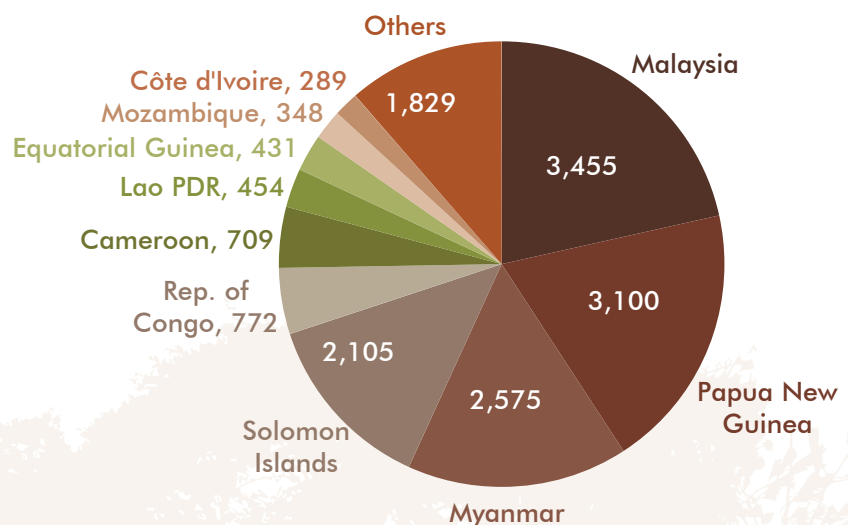
exceptions.<sup>6</sup> Exceptions are typically made for timber that:

- was felled prior to the controls;
- resulted from land clearance for development projects, timber thinning, or agricultural expansion (the “salvage” exception);
- was seized by government authorities as contraband. This is commonly later sold to private buyers at auction.<sup>7</sup>

In each case, the trees are felled and the damage to the environment is done. The state or private firms are saddled with large volumes of wood and have an interest in profiting off this valuable commodity. Illegally sourced timber can be introduced into legal markets when it is publicly auctioned by the seizing state.

Generalized logging bans can give officials a basis for action at logging sites, but they do not provide a basis for challenging exports. This is true because even when no new wild harvesting is allowed, it remains possible that wood to be exported comes from stockpiles of timber felled prior to the ban, or that it was imported from another country without a logging ban. All of this creates a situation of considerable ambiguity as to the legality of any given export.

**Fig. 3** Share of global exports of tropical logs by country of export (1000s of cubic meters), 2013



Source: Elaborated from International Tropical Timber Organization Statistics Database and United Nations United Nations Commodity Trade Statistics Database

## The limitations of national control systems

To compound the confusion, all these national controls appear to have little power once the wood has actually been exported. Outside CITES, most destination countries lack a legal basis for refusing wood that was harvested or exported contrary to source country regulations. The US Lacey Act, the EU Timber Regulations, and the Australian Illegal Logging Prohibition Act are exceptional because they prohibit the import of any illegal timber, wherever the law was broken. For other destination markets, however, the local regulations of source countries are irrelevant, and the wood cannot be refused. In this way, illegally logged or exported timber can become part of legal tropical hardwood furniture in another national market.

The only basis for most countries to seize wood imports of questionable origin is the CITES agreement. There are currently over 600 tree species listed on CITES appendices, including 400 species that are commonly harvested for their timber. A small number of the tropical hardwoods used in fine furnishings are CITES listed, including mahogany (*Swietenia* species and *Cedrela* species), afrormosia (*Pericopsis elata*), and ramin (*Gonystylus* species). Several species commonly marketed as “rosewood” are also included.

“Rosewood” is an imprecise trade term associated with a wide range of richly hued, and often fragrant, tropical hardwoods. The term is most commonly equated with *Dalbergia* and *Pterocarpus* species, many of which are CITES-listed, and many of which are not. These species are primarily found in South and Southeast Asia, West and East Africa, and Latin America.

## CITES-protected species Supply of rosewood

The CITES-listed species make up only a small share of the species traded as “rosewood”, and currently

comprise a fraction of the rosewood timber market. As a result, both the trade data (based on CITES permits) and World WISE seizure data (which focus on CITES listed species) capture only a portion of the legal and illegal markets respectively. Only one rosewood species is on Appendix I and cannot be commercially traded: *Dalbergia nigra*, known as “Brazilian rosewood”. Brazilian rosewood grows only in a relatively small area of Brazil, recent legal trade in this species has been extremely limited, and World WISE captures only a dozen seizures.

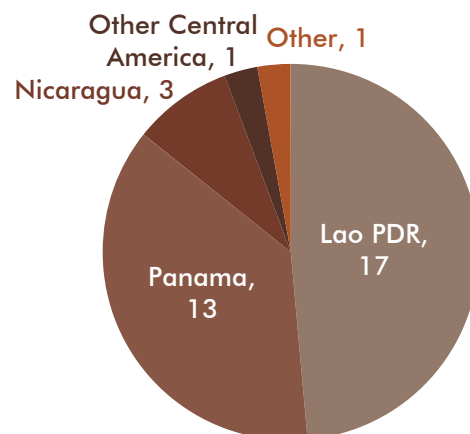
A number of species are listed on Appendix II and can be traded with the proper permits, but most of these were only added in 2013. The exception is *Pterocarpus santalinus* from India, a precious wood known as “red sanders”, which has been listed on CITES Appendix II since 2007, and, as a result, comprises most of the seizures historically. Among the 2013 listings are all 48 *Dalbergia* species of Madagascar, which have held a zero export quota since 2013. Huge seizures have been made of Malagasy rosewood, particularly *Dalbergia louvelii*, suggesting Madagascar is where much of the trade in CITES-listed rosewoods is sourced. One of the highest value rosewoods is from Southeast Asia, *Dalbergia cochinchinensis* (Siamese rosewood). The remainder come from Central America, including 2013 listed Appendix II species *Dalbergia granadillo* (granadillo), *Dalbergia retusa* (cocobolo), and *Dalbergia stevensonii* (Honduran rosewood).

National populations from Guatemala, Nicaragua, and Panama have been included in Appendix III.<sup>8</sup> In 2016, an African species, *Pterocarpus erinaceus* was added to Appendix III by Senegal.<sup>9</sup> Export permits are required for species coming from the specified source countries, and other countries are required to issue certificates of origin when exporting these species.

## Illegal trade

With regard to seizures of CITES-listed species, most have involved red

**Fig. 4** Share of global exports of CITES listed *Dalbergia* and *Pterocarpus* logs by country of export (thousands of metric tons), aggregated 2007-2015



Source: CITES Trade Database

sanders, Siamese rosewood, Malagasy rosewood, and Honduran rosewood.

The governments of China, India, Malaysia, and Singapore have seized multi-ton shipments of red sanders over the years. Detected shipments are mainly destined for China (particularly via Hong Kong, China), or the United Arab Emirates (mainly via Mumbai seaport).

Siamese rosewood has been seized by the Malay, Thai, and Vietnamese authorities. There are only three multi-ton seizures of Siamese rosewood captured in World WISE, all made in 2013:

- 30 tons seized in Bac Ninh province of Viet Nam on its way to China;
- 5.5 tons seized in Bukit Kayu Hitam, Malaysia on its way from Thailand,
- 9 tons in Phu Quoc Island, Kien Giang province of Viet Nam, coming from Cambodia.

The largest seizure of rosewood ever made, and possibly the largest seizure of wildlife ever made, was carried out by the Singapore authorities in 2014: some 3,000 tons of Malagasy rosewood. On 8 October 2015, acting on intelligence, Chinese Customs in Hong Kong intercepted a vessel from





Tanzania and found 1,100 metric tons of Malagasy rosewood.<sup>10</sup> Other remarkable recent seizures of Malagasy rosewood include:<sup>11</sup>

- In 2013 and 2014, the Malagasy government seized 14,894 logs in two seizures.
- Between February and May 2014, Mozambican authorities seized 1,087 logs and 90 metric tons of rosewood in two separate incidents.
- In February 2014, Tanzanian customs officers seized 781 logs of rosewood in six containers in Zanzibar.
- On 26 May 2014, the Kenya Wildlife Service seized 4,400 logs in 34 containers in Mom-basa, which had been loaded in Zanzibar.
- On 2 April 2014, Sri Lankan authorities seized 3,669 logs from 28 containers, weighing 420 metric tons, which had also been loaded in Zanzibar.

World WISE data on seizures from Latin America are more limited, although a number of incidents involving between 10 and 30 metric

tons were reported by Mexico. In addition, media reports contain several notable seizures:

- In April 2014, 13 containers (200 cubic metres) of cocobolo (*Dalbergia retusa*) were seized in Panama disguised as scrap on their way to Hong Kong, China.<sup>12</sup>
- Some 92 tons of Honduran rosewood (*Dalbergia stevensonii*) in four forty-foot shipping containers declared as rubber waste were seized in Hong Kong, China in December 2014.<sup>13</sup>

According to World WISE, the vast majority of CITES-listed rosewood seized was destined for China.

## Species under national control, but not currently CITES-listed

But while trade in CITES-listed rosewoods is relatively small, the rosewood furniture market is immense, often involving closely-related species of *Dalbergia* and *Pterocarpus* that are not yet CITES-listed. Three species in particular appear to have become prominent in the trade:

- Burmese rosewood (*Dalbergia oliveri*), or “tamalan”, a mid-class wood from Southeast Asia;
- Burmese padauk (*Pterocarpus macarocarpus*), a slightly cheaper wood from Southeast Asia; and,
- African rosewood (*Pterocarpus erinaceus*), or “kosso”, a low-end wood from West Africa.<sup>14</sup>

While not CITES-listed, the harvesting of these woods is either illegal or highly regulated in the source countries, out of keeping with large exports.

Most Southeast Asian countries have recognised the threat of deforestation and have taken measures to restrict or prevent logging of endangered woods. All logging of wild species has been banned in Thailand since 1989.<sup>15</sup> In Myanmar, both tamalan and padauk are reserved species, and harvest is illegal without permission

of the Ministry of Environmental Conservation and Forestry.<sup>16</sup> In both Cambodia and Lao People’s Democratic Republic, both tamalan and padauk are protected species.<sup>17</sup>

Kosso has been placed on CITES Appendix III by Senegal, effective 9 May 2016. It is also protected under national law in most West African source countries (Table 1). Its legal status is ambiguous in two countries in particular: Togo and Nigeria. At present, while Togo has a Forest Code (2008), it has not yet issued a list of protected species. As of 21 May 2015, however, the transport of kosso is prohibited by Ministerial Declaration.<sup>18</sup> In Nigeria, there appears to be a standing log export ban (1976), but log exports are recorded.<sup>19</sup>

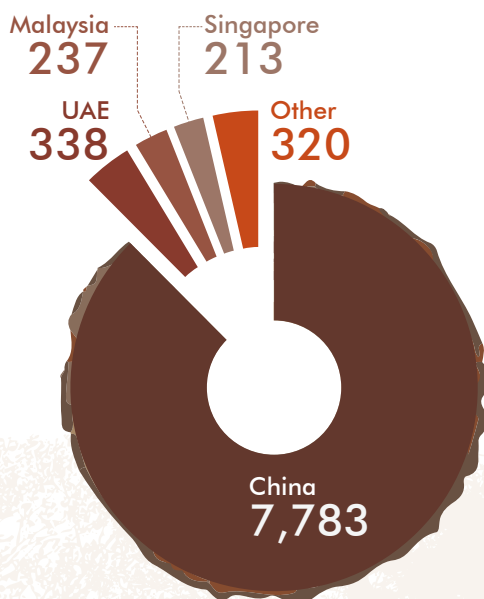
The export data are complicated to interpret because in both Southeast Asia and West Africa, the exporting country is not necessarily the source country. For example, based on field work in the region, most of the rosewood exported from Gambia appears to be of Senegalese origin.<sup>20</sup> Similarly, about half of the rosewood exported from Benin appears to come from Nigeria.<sup>21</sup>

In addition to logging bans, most of the source countries for these woods have log export bans in place (Table 2). These bans were implemented due to concerns about the extremely rapid rate at which the species was being stripped from these countries. In response, timber brokers have repeatedly relocated their operations to neighboring states where bans were not yet in place. The logging of *Pterocarpus erinaceus* is particularly worrying because it is a fire-resistant and nitrogen-fixing species that grows in arid areas, without which desertification becomes a risk. In addition, in both Southeast Asia and West Africa, rosewood is sourced from areas where insurgents are active, and so may be seen as a source of conflict finance.

## Southeast Asia

Southeast Asian countries have long been afflicted by illegal logging,

**Fig. 5** Share of rosewood seizures by country identified as destination (metric tons), aggregated 2007-2015



Source: World WISE

**Table 1** Logging protections for kosso in some West African countries

SOURCE COUNTRY	PROTECTION	LEGAL FRAMEWORK
Benin	Felling prohibited	Décret No 96-271 <i>Portant modalités d'application de la Loi N093-009 du 2 Juillet 1993</i> (Article 25) (1996)
Burkina Faso	Felling prohibited	Arrêté 'No 2004-019/MECV (Article 44) (2004)
Gambia	Kosso protected under Schedule 2	Forest Regulations 1998
Ghana	Felling and export ban	Ministerial declaration, 23 July 2014
Guinea-Bissau	Logging moratorium	Ministerial declaration, 1 April 2015
Mali	Felling prohibited	Loi No 95-004 <i>Fixant les conditions de gestion des ressources forestières</i> (Article 17) (1995)
Nigeria	Determined by state	Varies by state; species specific protections or logging bans in some
Senegal	Kosso "partially protected": quota; for domestic use only	Décrète: TITRE I Du domaine forestier national ARTICLE R.63; Arrêté fixant les modalités d'organisation de la campagne d'exploitation forestière (2014-2015)
Togo	Transport of kosso prohibited	Note de Service No. 0251 MERF/SG/DRF, issued 21 May 2015

**Table 2** Log export bans in top rosewood source countries

COUNTRY	YEAR OF LOG EXPORT BAN	ROSEWOOD SPECIES IMPLICATED
Cambodia	1992, 2006 <sup>22</sup>	<i>Dalbergia oliveri</i> <i>Pterocarpus macrocarpus</i> <i>Dalbergia cochinchinensis</i>
Lao People's Democratic Republic	1999	<i>Dalbergia oliveri</i> <i>Pterocarpus macrocarpus</i> <i>Dalbergia cochinchinensis</i> <i>Millettia leucantha</i>
Myanmar	2014	<i>Dalbergia oliveri</i> <i>Pterocarpus macrocarpus</i> <i>Millettia leucantha</i>
Viet Nam	1992	<i>Dalbergia oliveri</i> <i>Pterocarpus macrocarpus</i> <i>Dalbergia cochinchinensis</i> <i>Dalbergia tonkinensis</i>
Ghana	1994	<i>Pterocarpus erinaceus</i>
Nigeria	1976	<i>Pterocarpus erinaceus</i>

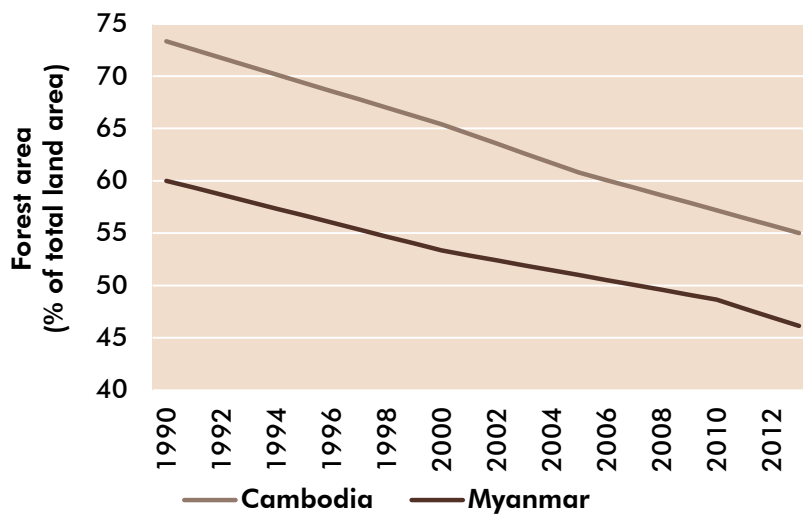
which is why some log export bans extend back to the early 1990s. Based on the seizure data, it appears that Thailand and Viet Nam continue to be targetted for their high value species. In terms of volume, however, the primary source countries today appear to be the poorest in the region: Cambodia, Lao People's Democratic Republic and Myanmar. While Lao People's Democratic Republic remains widely forested,<sup>23</sup> forest cover has declined dramatically in Cambodia

and Myanmar in the last 25 years (Fig. 6). The situation in Myanmar is complicated by the fact that large swathes of the forested area of the country are host to non-state armed groups.<sup>24</sup>

In recent years, attention has focused on the high-value, CITES-listed Siamese rosewood (*Dalbergia cochinchinensis*), which is found in Cambodia, Lao People's Democratic Republic, Thailand and Viet Nam. Harvesting of this species is prohibited under national law throughout

much of its range<sup>26</sup> and it has become increasingly rare, however.<sup>27</sup> The harvesting of Burmese rosewood (*Dalbergia oliveri*) and Burmese padauk (*Pterocarpus macrocarpus*), which are not CITES-listed, seems to have filled the void. As noted above, these species are recognized as endangered, and so are protected under national law in all range states, but not under CITES.<sup>28</sup>

Illegal logging affects each country differently. In Cambodia, for example, rosewood may be harvested when

**Fig. 6** Share of land area under forest cover, 1990-2013Source: World Bank<sup>25</sup>

land is cleared under Economic Land Concessions or other development projects. Several of these concessions were recently cancelled, in part due to illegal logging.<sup>29</sup> Legitimate salvage from development projects may be used to “launder” wood illegally harvested elsewhere.<sup>30</sup> There also appear to be issues around the auctioning of seized rosewood, a practice that has been banned in Thailand since 2007.<sup>31</sup> Illegal cross-border harvesting and the sourcing of timber from protected areas have been reported.<sup>32</sup>

Trafficking of tamalan and padauk contrary to national laws appears to have increased dramatically in recent years. For example, seizures of both species in Myanmar spiked in the financial year 2013-2014.<sup>33</sup> Crack-downs in the region appear to have resulted in a decline in exports around April 2014, based on import statistics of destination countries.

### West Africa

The situation in West Africa is equally problematic. Demand for “kosso”, *Pterocarpus erinaceus*, has taken the region by storm. Exports of logs from certain countries in West Africa went from nothing in 2010 to hundreds of millions of dollars by 2015.<sup>34</sup> The rapidity of this development has caught the region off guard, and many countries are still struggling to take

account of it.

This windfall has not accrued to a single nation. It would appear that traders are moving from one West African country to another, adjusting their procurement as local supplies run out or once the relevant government increases regulation. Due to free movement within the Economic Community of West African States (ECOWAS),<sup>35</sup> the source country and the exporter may differ.

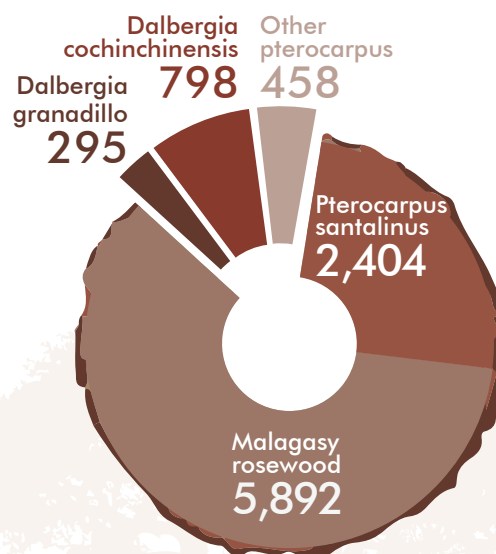
Between 2011 and the middle of 2013, Gambia, a country with little

previous history of commercial forestry and no commercial forests left within its borders, began exporting large volumes of logs. The source of the wood appears to have been the Casamance region of Senegal, and since Senegal has a longstanding export ban, this timber was illegally exported to Gambia.<sup>36</sup> Exports fell back after a log export ban was imposed, and a series of West African countries stepped up to fill the void, most recently, Nigeria. As in South-east Asia, it appears salvage permits are used to launder illegally felled rosewood.<sup>37</sup>

Since illegal timber trade on this scale is new to many countries in the region, some are only now mounting enforcement efforts. INTERPOL's Operation Log saw the seizure of over US\$200 million in illegally harvested kosso and other woods in 2015.

### Analysis

Estimating the size of the flow of illegal rosewood requires clarity on how illegality is defined. Looking strictly at CITES listed species, World WISE documents the seizure of almost 10,000 metric tons of protected rosewoods between 2005 and 2015.<sup>38</sup> Based on media reports, it appears that many seizures have taken place

**Fig. 7** Share of global rosewood seizures by species (metric tons), aggregated 2005-2015

Source: World WISE



in Asia and possibly Latin America that are not recorded in World WISE, possibly because not all countries class timber as “wildlife”. Based on media reports, it appears that many seizures have taken place in Asia and possibly Latin America that are not recorded in World WISE. Timber seizures are often recorded by a separate authority than other wildlife seizures, and so may be omitted in regular reporting.

Looking more broadly at illegally harvested or exported logs would produce a different result. Discrepancies in the trade data indicate that many countries are exporting rosewood logs of species not listed in the CITES appendices, contrary to their own national laws. The volumes involved could be much greater than the flow in CITES listed species.

Rosewood illustrates the limitations of a species-specific approach to wildlife protection. Timber traders evade CITES controls by finding substitute species, and the buying rush on these unprotected woods can devastate populations before controls can be put in place. Furthermore, it is very difficult for front line inspectors to distinguish different species of wood in the many forms it might appear, and misdeclaration of species has been detected.<sup>39</sup> At present, there is generally no legal basis for most importing countries to respect the laws of exporters, and thus large volumes of illegally sourced wood may be entering legal markets.

## Endnotes

- Under the Harmonized System, ‘tropical wood’ refers to the following trade names: Abura, Acajou d’Afrique, Afrormosia, Ako, Alan, Andiroba, Anigré, Avodiré, Azobé, Balau, Balsa, Bossé clair, Bossé foncé, Cativo, Cedro, Dabema, Dark Red Meranti, Dibétou, Doussié, Framiré, Freijo, Fromager, Fuma, Geronggang, Ilomba, Imbuia, Ipé, Iroko, Jaboty, Jelutong, Jekuitiba, Jongkong, Kapur, Kempas, Keruing, Kosipo, Kotibé, Koto, Light Red Meranti, Limba, Louro, Maçaranduba, Mahogany, Makoré, Mandioqueira, Mansonia, Mengkulang, Meranti Bakau, Merawan, Merbau, Merpauh, Mersawa, Moabi, Niangon, Nyatoh, Obeche, Okoumé, Onzabili, Orey, Ovengkol, Ozigo, Padauk, Paldao, Palissandre de Guatemala, Palissandre de Para, Palissandre de Rio, Palissandre de Rose, Pau Amarelo, Pau Marfim, Pulai, Punah, Quaruba, Ramin, Sapelli, Saqui-Saqui, Sepetir, Sipó, Sucupira, Suren, Teak, Tauari, Tiama, Tola, Virola, White Lauan, White Meranti, White Seraya, Yellow Meranti. See <http://www.wcoomd.org/-/media/WCO/Public/Global/PDF/Topics/Nomenclature/Instruments%20and%20Tools/HS%20Nomenclature%20Older%20Edition/2002/HS%202002/0944E.ashx?db=web>
- “Rosewood” is most frequently identified with padauk or palisander.
- EC 2014. Economisti Associati, CSIL and Demetra for DG Enterprise and Industry, “Study on the EU furniture market situation and a possible furniture products initiative”, European Commission, Brussels (November 2014). Available from [http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item\\_id=7918&lang=en&title=Study-on-the-EU-furniture-market-situation-and-a-possible-furniture-products-initiative-](http://ec.europa.eu/growth/tools-databases/newsroom/cf/itemdetail.cfm?item_id=7918&lang=en&title=Study-on-the-EU-furniture-market-situation-and-a-possible-furniture-products-initiative-). Accessed 30 January 2015.
- Elaborated from EC 2014, op cit.
- Ibid.
- See, for example, M. Amoah, G. Becker and L. Nutto, “Effects of log export ban policy and dynamics of global tropical wood markets on the growth of the timber industry in Ghana”, *Journal of Forest Economics*, vol. 15, No. 3 (August 2009), pp. 167–185.
- See, for example, Derek Schuurman and Porter P. Lowry II, “The Madagascar rosewood massacre” *Madagascar Conservation and Development*, vol. 4, No 2 (December 2009), pp. 98–102.
- Ibid, pp 99.
- Dalbergia tucurensis* of Nicaragua, *Dalbergia tucurensis* of Guatemala, *Dalbergia calycina* of Guatemala, *Dalbergia cubilquitzensis* of Guatemala, *Dalbergia glomerata* of Guatemala and *Dalbergia darienensis* of Panama.
- See CITES notification: <https://cites.org/sites/default/files/notif/E-Notif-2016-008.pdf>
- CITES Management Authority of Hong Kong China, *in litt*.
- UNODC Wildlife Seizures Database.
- Panama America, “Decomisan millonaria carga de madera ‘cocobolo’”, 8 April 2014. Available from: <http://www.panamaamerica.com.pa/content/decomisan-millonaria-carga-de-madera-cocobolo>
- See press release, “HK Customs foils largest recent case of suspected wood logs smuggling,” 17 December 2014: [http://www.customs.gov.hk/en/publication\\_press/press/index\\_id\\_1270.html](http://www.customs.gov.hk/en/publication_press/press/index_id_1270.html)
- See online methodological annex for details.
- See CITES document CoP16 Prop. 60, entitled “Consideration for of proposals for amendment of Appendices I and II”: <https://cites.org/sites/default/files/eng/cop/16/prop/E-CoP16-Prop-60.pdf>
- Nyi Nyi Kyaw, Director General, Myanmar Forest Department, ‘Myanmar Timber Trade and Rosewood Policies’, presentation to the International Workshop on Promoting Legal and Sustainable Trade and Investment of Forest Products, 26 March 2014, Shanghai.
- See monographs of the Cambodia Tree Seed Project, a product of a bilateral agreement between the Royal Government of Denmark and the Royal Government of Cambodia: <http://www.treeseedfa.org/doc/Monographs/Pterocarpusmacrocarpus.pdf>; <http://www.treeseedfa.org/doc/Monographs/Dalbergiaoliveri.pdf>; and the UNODC report: [http://www.unodc.org/documents/southeastasiaandpacific/2014/10/trade-timber/Criminal\\_Justice\\_Responses\\_to\\_the\\_Illegal\\_Trade\\_in\\_Timber\\_in\\_South\\_East\\_Asia\\_v7.pdf](http://www.unodc.org/documents/southeastasiaandpacific/2014/10/trade-timber/Criminal_Justice_Responses_to_the_Illegal_Trade_in_Timber_in_South_East_Asia_v7.pdf)
- Government of Togo, Note de Service No. 0251 MERF/SG/DRE, issued 21 May 2015.
- As per the document “National export bans and restrictions” of the Forest Legality Alliance, a multi-stakeholder initiative led by the World Resources Institute: [http://declaration.forestlegality.org/files/fla/Export\\_bans\\_restrictions\\_2012\\_06.pdf](http://declaration.forestlegality.org/files/fla/Export_bans_restrictions_2012_06.pdf)  
In Nigeria, the forests are administered by the state in which they fall, and there is great diversity in the policies between Nigerian states. For example, in Taraba State, kosso is a protected species and logging is forbidden. In Kogi State, kosso may be logged under license, but there was recently a moratorium on kosso logging. In Cross River State, all logging is forbidden, while in other states, only a license is required.
- See online methodological annex for details of this research.
- Ibid.
- Royal Government of Cambodia (2006) Sub-Decree No. 131 on Specific Forest Products-By-products or NTFPs, Article 3, [http://www.cambodiainvestment.gov.kh/content/uploads/2012/03/Sub-Decree-131-on-Forest-and-Non-Timber-Forest-Products-Allow-For-Export-andImport\\_061128.pdf](http://www.cambodiainvestment.gov.kh/content/uploads/2012/03/Sub-Decree-131-on-Forest-and-Non-Timber-Forest-Products-Allow-For-Export-andImport_061128.pdf)
- See World Bank on-line data: <http://data.worldbank.org/indicator/AG.LND.FRST.ZS>
- See the work of the United Nations Office for the Coordination of Humanitarian Affairs: <http://www.unocha.org/myanmar>
- See World Bank on-line data: <http://data.worldbank.org/indicator/AG.LND.FRST.ZS>  
According to the World Bank definition “Forest area is land under natural or planted stands of trees of at least 5 meters in situ, whether productive or not, and excludes tree stands in agricultural production systems (for example, in fruit plantations and agroforestry systems) and trees in urban parks and gardens.”
- According to CITES document CoP16 Prop. 60, entitled “Consideration for of proposals for amendment of Appendices I and II”: <https://cites.org/sites/default/files/eng/cop/16/prop/E-CoP16-Prop-60.pdf> (page 6): “D. cochinchinensis is listed as Category A (general restrict): restricted timber No. 53 by Thai Forest Act, B.E. 2484. In Thailand, logging of natural forest trees has been prohibited nationwide since 1989. No harvest of the species is legal in Thailand. Harvesting this species is also banned by Cambodian Forestry Law 2002



- No.35. In Lao P.D.R, the Prime Ministerial Order No-17/PM of 2008 explicitly prohibits harvesting all domestic *Dalbergia* species. In addition, Prime Minister's Order No 010/PM of 2011 bans the exploitation, trading and export of *D. cochinchinensis* wood. In Vietnam, *D. cochinchinensis* was listed as group IIA protected species under Forest Law in 2006.
- Later, it has been placed in danger of extinction at level EN A1a, c, d in 2007. As a result, it is prohibited to exploit, dispatch or store the wood, according to Vietnamese government decision 32/2006/ND-CP.
- 27 According to the Governments of Thailand and Viet Nam: "Due to its vulnerability to extinction from over-exploitation of the natural population, *D. cochinchinensis* has become rare and the species is disappearing from most of its natural habitat. As few efforts have yet been made for commercial plantation, all the trade timbers are from illegal logging of wild populations." See CITES CoP 16 Prop 60 op cit: <https://cites.org/sites/default/files/eng/cop/16/prop/E-CoP16-Prop-60.pdf> (page 2).
- 28 See, for example, the Cambodian Forestry Administration's monograph on padauk: <http://www.treeseedfa.org/doc/Monographs/Pterocarpusmacrocarpus.pdf>
- And for Myanmar, *ITTO Tropical Timber Market Report*, Vol 18 No.8, 16th-20th Apr 2014.
- 29 See A/HRC/21/63/Add.1, Report of the Special Rapporteur on the situation of human rights in Cambodia, Surya P. Subedi, Addendum: A human rights analysis of economic and other land concessions in Cambodia. 24 September 2012. The report also notes (paragraph 148), "Illicit logging continues, due to the granting of land concessions... High value trees, mostly endangered species such as various species of rosewood, have disappeared from some areas."
- 30 See, for example, the Twenty-second Report of the International Environmental and Social Panel of Experts, Nam Theun 2 Multipurpose Project, 8th May 201, and previous reports.
- 31 See CITES CoP 16 Prop 60 op cit: <https://cites.org/sites/default/files/eng/cop/16/prop/E-CoP16-Prop-60.pdf>
- 32 For example, see Sarinda Singh, 'Borderland practices and narratives: illegal cross-border logging in northeastern Cambodia'. *Ethnography*, Vol 15, No 2, 2014, pp. 135-159.
- 33 Kyaw 2014, op cit.
- 34 This can be seen in UN COMTRADE data, as captured by International Trade Centre Trade Map database, product: 440399 Logs, non-coniferous nes and product: 440349 Logs, tropical hardwoods nes.
- 35 ECOWAS is comprised of Burkina Faso, Cape Verde, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.
- 36 Based on fieldwork in 2015 conducted for this report in six West African countries. See online methodological annex for details.
- 37 See, for example, Government of Ghana, Ministry of Lands and Natural Resources, "Felling, Harvesting And Exportation Of Rosewood Banned.": [http://ghana.gov.gh/images/documents/ban\\_on\\_rosewood\\_harvesting.pdf](http://ghana.gov.gh/images/documents/ban_on_rosewood_harvesting.pdf)
- 38 See online methodological annex for details.
- 39 For example, World WISE captures over 100 incidents in which Siamese was seized in Thailand over the years due to misdeclaration of species. In addition, Chinese Customs reports arresting 10 people in two cases in 2014 for misdeclaring the species of some 1700 tons of red sanders as unprotected woods: See the statement of the Government of China: <http://www.customs.gov.cn/publish/portal0/tab69398/info733528.htm>