

Drafted as of: October 2021

SUMMARY OF LEGALITY RISKS

Risk Score: 37.7 (Medium Risk^a)¹ Conflict State: NO² Log or Sawnwood Export Restriction in Effect: NO^b Import Regulation in Effect: NO^{3,4,5,c}

- China's domestic supply of industrial wood has failed to keep up with its industrial manufacturing capacity. To meet this deficit, China relies on significant volumes of wood product imports. Logging in China's natural forests is prohibited, and domestic plantation-grown raw material (primarily poplar, eucalyptus, masson pine, and Chinese fir) are generally considered low-risk.
- Many similar temperate natural forest species are found in the Russian Far East, North America (U.S. and Canada), northern / eastern Europe and northern China, such as oak. There is a demonstrated risk of laundering high-risk Russian Far East and Ukrainian species and falsely declaring them as having been harvested in northern Europe, North America or even China (pre-2017).
- More than half of the timber used in Chinese-made wood products has been imported from other countries both from high- and low-risk sources.
- China does not currently require traceability of wood products through its supply chain. The size and nature of the processing industry means that timber is
 regularly mixed from multiple sources with no obligation to trace back along the supply chain. This may change soon pending the forthcoming Implementing
 Regulations for China's 2019 Forest Law, or further National Forest and Grasslands Administration (NFGA) departmental rules based on the 2019 Forest Law.^b
- Enforcement actions in the European Union (EU) and U.S. have demonstrated the risk of illegal timber, laundering and species mis-declaration on products manufactured in China.

TRADE PROFILE OF FOREST PRODUCTS^{D,E,6}

Total Imports (2019): \$47.37 billion

Total Exports (2019): \$55.48 billion. \$34.80 billion (62.7%) exported to "regulated markets" ^f

SUMMARY OF HIGHEST PRODUCT-LEVEL RISKS

Exports – Top Products Exported to the US by 2019 Value $^{\rm 7}$

- Wood Furniture Seating (HS940161 & HS940169)
- Paper (HS48)
- Wood Furniture Other (HS940360)
- Other Articles of Wood (HS4421)
- Wood Furniture Kitchen (HS940340)
- Marquetry and Wood Ornaments (HS4420)
- Wood Furniture Bedroom (HS940350)
- Plywood (HS4412)
- Wood Furniture Office (HS940330)
- Joinery Products (HS4418)

—— Page 1 of 16 ——

SUMMARY OF HIGHEST SPECIES-LEVEL RISKS

Illegal logging and trade affect many timber species, but highly valuable - often rare and endangered - species that are protected under harvest and/or trade regulations are a key target and at an elevated risk for illegality. The following species are either currently, or have recently, been protected in China.

As a result of their threatened status, some Chinese timber species have been put under the protection of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

CITES-Listed Native Species (Appendix II)

- Agarwood (Aquilaria spp.)
- Rosewood (Dalbergia spp.)

• **Yew** (Taxus chinensis, Taxus cuspidata, Taxus fauna, Taxus sumatrana, Taxus wallichiana)

Since 2017, China has implemented a ban on commercial logging in its natural forests.⁸ China's timber harvest is controlled by a logging quota system. The quotas established in the country's 13th Five Year Plan (2016-2020) totaled 254 million m³, a decrease of 17 million m³ from the 12th Five Year Plan (2011-2015). Specifically, the 13th Five Year Plan included zero quotas for timber harvested in natural forests for commercial purposes.⁹ In general, all natural forest species, including Mongolian oak, birch, and pine, should be considered high-risk.¹⁰

Imported Species: More than half of the timber used in Chinese-manufactured wood products is imported^{9,11} from nearly 200 countries that span temperate, tropical, and boreal forest estates. Nearly all tropical hardwoods imported into China should be considered high-risk. Robust third-party certification can be considered as a tool to help mitigate this high-risk, but should not constitute sufficient due diligence for legality in and of itself. For temperate or boreal timber products, there is also an elevated risk that China's exported wood products might include high-risk Russian Far East, Romanian or Ukrainian species which are falsely labeled as originated from North America, Europe or even China itself.¹²

CITES-listed imported species

Appendix II

- **Agarwood** (*Aquilaria* spp., *Gyrinops* spp.) from Thailand, Indonesia, Papua New Guinea, Vietnam
- **Palo santo** (*Plectrocarpa sarmientoi* (syn.*Bulnesia sarmientoi*) from Argentina, Paraguay
- Ramin (Gonystylus spp.) from Malaysia
- **Cedar** (*Cedrela* spp.) from Brazil, Peru, Ghana (plantation)
- Ebony (Diospyros spp.) from Madagascar
- **Rosewood** (*Dalbergia* spp.) from Mozambique, Tanzania, Mexico, Nicaragua, Guatemala, Belize, Honduras.
- **Kevazingo / Bubinga** (*Guibourtia* spp.) from Central African Republic, Gabon
- **Afromosia** (*Pericopsis elata*) from Cameroon, Republic of the Congo, Democratic Republic of the Congo, Côte d'Ivoire, Ghana, Nigeria
- African cherry / pygeum (*Prunus africana*) from Democratic Republic of the Congo^{13,14,15,16,17,18,19}
- African rosewood (Pterocarpus erinaceus) from Benin, Burkina Faso, Gambia, Ghana, Guinea, Guinea-Bissau, Mali, Nigeria, Senegal.^h
- Red sandalwood (Pterocarpus santalinus) from India

- **Mukula** (*Pterocarpus tinctorius*) from Mozambique, Tanzania, Zambia²⁰
- **Mahogany** (*Swietenia macrophylla*) from Brazil, Peru, Bolivia
- Yew (Taxus spp.)-global imports

Appendix IIIⁱ

- Ash (Fraxinus mandshurica) from Russian Federation
- **Mongolian oak** (*Quercus mongolica*) from Russian Federation
- **Korean pine** (*Pinus koraiensis*) from Russian Federation, North Korea

The following list based on published reports includes some of the highest-risk imported species that are likely to be found in Chinesemade products:

Temperate Hardwoods:

- **Oak**^{21,22,23,24} (*Quercus* spp.) from the Russian Federation, Ukraine
- **Birch**²⁵ (Betula spp.) from the Russian Federation
- Ash^{26,27,28,29} (Fraxinus spp.) from the Russian Federation
- **Beech**^{30,31,32} (*Fagus* spp.) from the Russian Federation, Ukraine, Romania

Temperate Softwoods:

- **Pine**^{33,34,35,36,37,38} (*Pinus* spp.) from the Russian Federation
- Larch^{39,40} (Larix spp.) from the Russian Federation

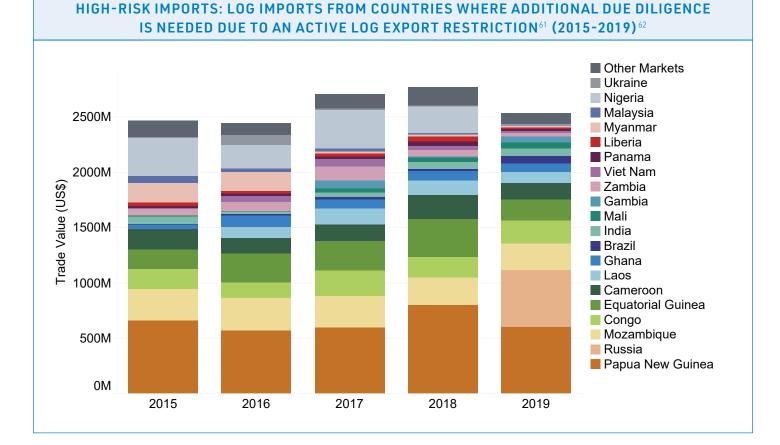
Tropical Woods:

- **Teak**^{41,42,43} (*Tectona grandis*) from Myanmar
- **Merbau**^{44,45,46,47} (*Intsia* spp.) from Papua New Guinea, Solomon Islands, Indonesia
- **Taun**⁴⁸ (*Pometia* spp.) from Papua New Guinea, Solomon Islands

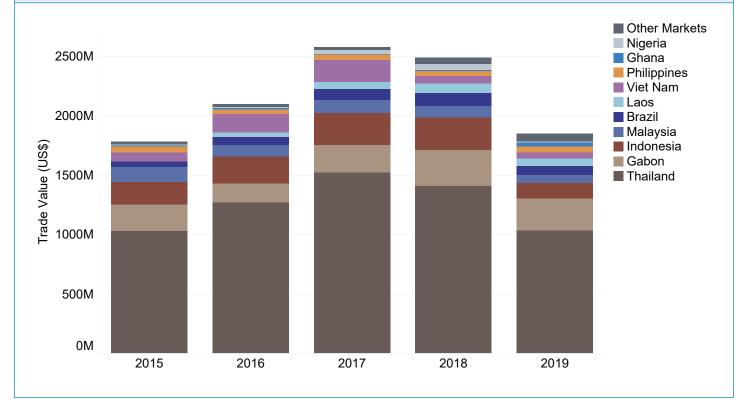
- **Bintangor**⁴⁹ (*Calophyllum* spp.) from Papua New Guinea, Solomon Islands
- **Okoume**^{50,51} (*Aucoumea klaineana*) from Equatorial Guinea, Gabon, Republic of the Congo
- **Sapelli / Sapele**^{52,53} (*Entandrophragma cylindricum*) from Cameroon, Democratic Republic of the Congo
- Ipe / Brazilian walnut⁵⁴ (Tabebuia spp.) from Brazil
- Jatoba Brazilian cherry⁵⁵ (Hymenaea courbaril) from Brazil
- Cumaru "Brazilian teak"⁵⁶ (Dipteryx spp.) from Peru

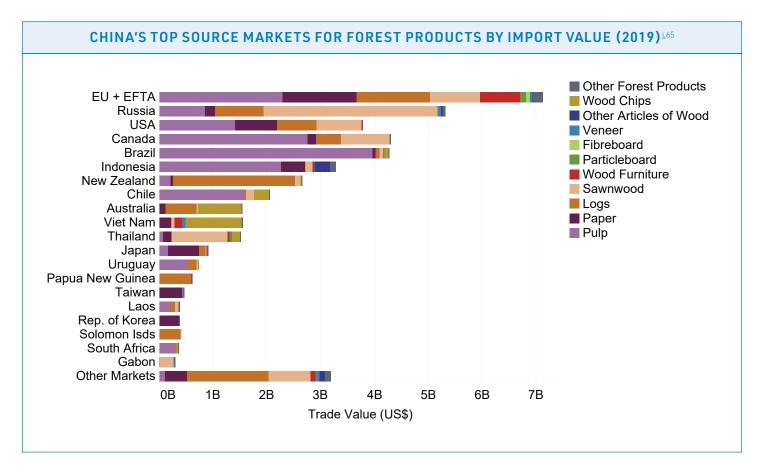
China is the destination for roughly two thirds of all tropical logs on international markets.⁵⁷ Chinese importers also source a high percentage of logs from countries with a full or partial log export restriction in place (15 percent of China's total imports of logs between 2010 and 2019 by volume, but 26 percent by value, amounting to \$30 billon),⁵⁸ which poses a risk that processed products entering the U.S. market could include timber illegally exported from the country of harvest. Historically, China has largely imported primary materials, with virtually all high-value hardwood tropical species entering in the form of logs. The proportional import of sawnwood and other more partially processed wood products has grown as supplier countries enforce log export restrictions, taxes, or quotas, and embrace other incentives to keep value-added processing within their borders. China's imports of logs from countries with active log export restrictions increased 70 percent from 2010 to 2019, and its imports of sawnwood from countries with active sawnwood export restrictions increased 150 percent over the same period.⁵⁹

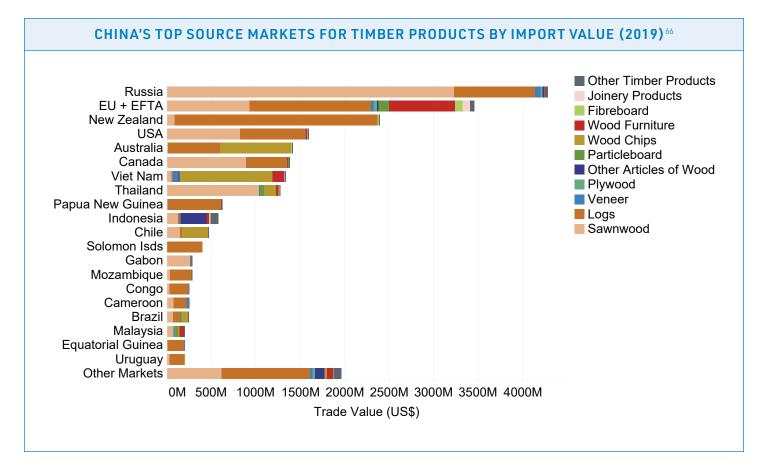
A log export restriction (LER) or sawnwood export restriction (SER) signals a need for additional risk assessment and mitigation actions to ensure that the import of logs or sawnwood from these countries does not violate the specific laws and regulations of the source country.⁶⁰



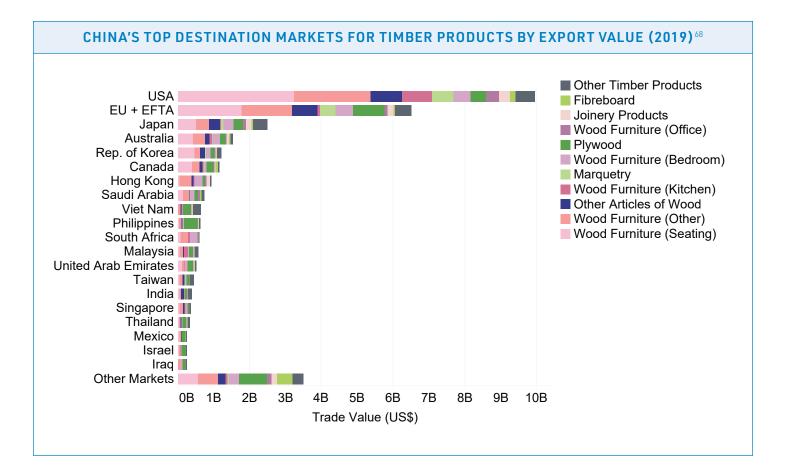
HIGH-RISK IMPORTS: SAWNWOOD IMPORTS FROM COUNTRIES WHERE ADDITIONAL DUE DILIGENCE IS NEEDED DUE TO AN ACTIVE SAWNWOOD EXPORT RESTRICTION⁶³ (2015-2019)⁶⁴











FORESTRY SECTOR

Forested Area: 220 million ha (13.8% protected)^{69,70}

Deforestation Rate: -0.93% annually (net reforestation)⁷¹ **Forest Ownership:**⁷²

- 123 million ha publicly owned (57%)
- 87 million ha privately-owned (43%)

Certified Forests:

- FSC Certification: 1.04 million ha (2019)⁷³
- PEFC Certification: 2.04 million ha (2019)⁷⁴
- Double FSC-PEFC Certification: 198 thousand ha (2019)⁷⁵

Domestic Production:⁷⁶

- Logs: 181.70 million m³ (2019)
- Wood Fuel: 159.97 million m³ (2019)
- Wood Chips: 148.38 million m³ (2019)
- Sawnwood: 90.24 million m³ (2019)
- Plywood: 63.86 million m³ (2019)
- Fibreboard: 58.83 million m³ (2019)
- Particleboard: 33.89 million m³ (2019)
- Veneer: 3.03 million m³ (2019)
- Paper: 277.93 million metric tonnes (2019)
- Pulp: 31.13 million metric tonnes (2019)
- Recovered Wood 2.00 million metric tonnes (2019)
- Charcoal: 1.62 million metric tonnes (2019)

TIMBER LEGALITY

• China's domestic supply of industrial wood has failed to keep up with its industrial manufacturing capacity. To meet this deficit, China relies on significant volumes of wood product imports. Logging in China's natural forests is prohibited, and domestic plantation-grown raw material (primarily poplar, eucalyptus, masson pine, and Chinese fir) are generally considered low-risk.

Over the past two decades, the Chinese government has introduced a series of strict domestic forest protection measures. This culminated in a complete ban on commercial logging in natural forests in 2017.⁷⁷ Exemptions for thinning and maintenance procedures have also decreased. Since the ban, availability of Chinese hardwood species, such as Mongolian oak and birch, has decreased dramatically,⁷⁸ and there is limited availability of species from natural forests, such as oak, birch, pine, and larch.

Plantations supply the majority of domestically produced timber (poplar, eucalyptus, masson pine and Chinese fir).^{79,80}

 Many similar temperate natural forest species are found in the Russian Far East, North America (U.S. and Canada), northern / eastern Europe and northern China, such as oak. There is a demonstrated risk of laundering high-risk Russian Far East and Ukrainian species and falsely declaring them as having been harvested in northern Europe, North America or even China (pre-2017).

There has been an increase in importing these types of hardwood species from other countries, notably the Russian Federation and Ukraine. This is likely to increase the risk that species will be mis-declared as having been sourced from a lower-risk country in North America or Europe.⁸¹ Thus, there is a high risk of laundering Russian Far East species through China, particularly pine, larch, oak, ash and birch.^{82,83,k}

Preliminary studies in Northeastern China conclude that as the natural forest logging ban restricted processors' access to local timber sources, furniture makers have instead switched to timber imported both overland from the Russian Federation, and via seaport from other markets.⁸⁴

• The majority of timber used in Chinese-made wood products has been imported from other countries – both from high- and low-risk sources.

China is the world's largest importer of wood products and buys the highest amount of timber from countries at risk for illegal logging.^{85, 86, 87,88,89,90,91,92,93,94,95,96,97,98,99,100,101,102,101} China has yet to enact mandatory measures blocking illegal timber imports which means that there is considerable risk of illegal timber being found in processed products such as plywood, joinery and other furniture products.¹⁰² The revised P.R.C. Forest Law came into effect on July 1, 2020. As of October 2021, the implementing regulations have been drafted, but not released for comment. Because the Law itself contains no clear requirement for importers to provide evidence of legal timber sourcing, enforcement will not begin until implementing regulations are finalized.

A significant portion of China's logs and sawnwood imports come from countries with well-documented risks of illegal logging and which rank high globally for governance challenges and corruption.¹⁰³ Among China's major high-risk log suppliers in 2019 were the Russian Federation (accounting for 12.5 percent of the total volume of logs imported by China), Papua New Guinea (5.4 percent), the Solomon Islands (3.9 percent), Equatorial Guinea (1.1 percent), the Republic of the Congo (1.1 percent), Cameroon (0.9 percent) and Mozambique (0.7 percent).¹⁰⁴ The Russian Federation alone comprises 43 percent of logs imported by China from high-risk countries, by volume, with the above-mentioned seven countries accounting for 87 percent of logs imported from high-risk countries.¹⁰⁵

China sources more than 91 percent of sawnwood imports from the Russian Federation (48.1 percent), the EU + EFTA Member States (12.7 percent), Canada (12.0 percent), Thailand (9.4 percent), the U.S. (4.3 percent), the Ukraine (2.3 percent), Chile (1.7 percent) and Gabon (1.4 percent).¹⁰⁶

In total, 50 percent of China's total timber product imports are sourced from high-risk countries. This represents a decrease over a decade's time, though the absolute volume of imports from countries with governance challenges rose significantly during this period.¹⁰⁷ A more marked shift from higher- to lower-risk source countries occurred in the five years prior, from 2005-2009.¹⁰⁸

Timber Legality (continued)

The World Bank lists many as fragile and conflict-affected situations,¹⁰⁹ indicating significant challenges for respective governments to maintain rule of law. Complicity of government officials in corruption in many states compromises the enforcement of laws and regulations relating to forest protection and management and suggests an increased risk of buying illegal wood.¹¹⁰

• China does not currently require traceability of wood products through its supply chain. The size and nature of the processing industry means that timber is regularly mixed from multiple sources with no obligation to trace back along the supply chain. This may change soon pending the forthcoming implementing regulations for China's 2019 Forest Law, or further National Forest and Grasslands Administration (NFGA) departmental rules based on the 2019 Forest Law.

Currently, there is no mandatory, robust Chain-of-Custody system that would trace wood material sourced in producer countries and processed into finished product within China. There are a large number of wood processing factories in China (more than 100,000) and many are operated by Small and Medium Enterprises (SMEs) specialized in a single stage of production.¹¹¹ Timber imported from multiple countries is often mixed during processing, and the components making up a single product typically change ownership many times before being exported, with little or no traceability between stages.^{112,113} An initial survey of Chinese importers of African timber, for example, found that little progress has been made to shift towards legal sourcing. Less than half of all surveyed importers, for example, could easily identify the country or countries from which they imported timber. Only 14 percent of respondents were aware of whether they were importing Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)-listed species, and less than a quarter of companies had dedicated staff for supply chain transparency, due diligence, and/or corporate social responsibility (CSR).¹¹⁴

This means that even where a certificate or document verifying the legality of the timber product is available, there is a risk that it may not verify the legality of the actual timber being purchased.^{115,116} In the absence of mandatory, enforceable legislation, however, there are few better solutions in China to trace illegal timber imports.

Over the past ten years China has also developed several voluntary standards for verifying timber legality, purportedly as a stepwise approach towards eventual mandatory legislation.^{117,118,119} The China Timber Legality Verification System (2011) designated both government- and industry association-led pathways for demonstrating legality. The China Legality Verification Standard, developed in 2015, introduced a due diligence element; later, the China National Forest Product Industry Association (CNFPIA) developed a separate standard applicable to their member companies. While these tools have improved capacity within Chinese industry, they remain voluntary, with no consequences for non-compliance.^{120,121}

Despite the reduced risk of illegal timber harvesting for domestic Chinese plantation timber, the mixing of legally- and illegally-sourced timber from different sources during processing suggests an elevated risk of illegality for a wide range of manufactured products.

• Enforcement actions in the EU and U.S. have demonstrated the risk of illegal timber, laundering and species misdeclaration on products manufactured in China.

In the U.S., Lumber Liquidators, Inc. was sentenced in 2016 under the Lacey Act for illegal importation of wood that had been illegally logged in the Russian Far East, manufactured into flooring in China, and then shipped to the U.S. under false declarations of origin.¹²²

The government of the United Kingdom (UK) conducted an enforcement project on plywood sourced from China in 2015, noting that plywood is potentially high-risk, "due to long supply chains and the species used in production, being derived from illegally logged sources, notably Africa."¹²³ Of 13 products tested, 9 did not match the declaration supplied by each company regarding the species contained within the plywood, which suggests a heightened risk for illegal timber entering a supply chain.¹²⁴

Enforcement officials and the private sector in the U.S. and EU are increasingly aware of these risks. According to surveys of government agencies about enforcement activities from October 2015 to September 2016, China was the most frequently identified source country implicated in non-compliance actions (such as corrective action requirements, injunctions, and/or financial penalties). China was also the source country most frequently cited as being affected by changed buyer behavior among operators and/or traders related to perceived due diligence risk.^{125,126} These market requirements have put pressure on Chinese exporters, prompting some industry associations to develop tools for members to ensure legal sourcing and supply

Timber Legality (continued)

chain tracking.¹²⁷ An additional survey involving detailed interviews conducted in 2020 with 72 EU Timber Regulation (EUTR) operators across five EU Member States and the UK (34 of which were sourcing from China), shed light on the types of changes that operators have made since the EUTR came into force. China was specifically referenced as a country that operators had stopped sourcing from since the EUTR came into effect. Twenty companies reported undertaking risk mitigation measures on timber sourced from China in 2019. Many noted concerns with laundering of high-risk species from tropical forested countries, with several companies highlighting that there is "no way to ensure credible Due Diligence".¹²⁸

REPORTS & ADDITIONAL RESOURCES

A list of relevant reports and additional online tools to complement this country report are also available at the IDAT Risk website: https://www.forest-trends.org/fptf-idat-home/

Key Reading:

- Environmental Investigation Agency. 2013. "Liquidating the Forests: Hardwood Flooring, Organized Crime, and the World's Last Siberian Tigers." Environmental Investigation Agency.
- Pillet, Nicholas and Michael Sawyer. 2015. "EUTR: Plywood imported from China." United Kingdom National Measurement Office.
- United Nations Environment World Conservation Monitoring Centre. 2018. "People's Republic of China Country Overview to Aid Implementation of the EUTR." United Nations Environment World Conservation Monitoring Centre.
- Global Witness. 2018. "A Major Liability: Illegal logging in Papua New Guinea threatens China's timber sector and global reputation." Global Witness.

METHODOLOGY & TERMINOLOGY NOTES

- ^a Risk scores reflect Preferred by Nature's Timber Risk Assessment which measures the risk of illegality occurring in 21 areas of law relevant to timber legality, as well as Forest Trends' national governance scores which provides an average relative governance and corruption risk score for 211 countries globally. Preferred by Nature's scores have been flipped to ensure compatibility with Forest Trends' national governance scores, where higher scores are associated with greater governance and corruption challenges. An average of both the Preferred by Nature and Forest Trends scores has been calculated for 66 countries where both are available as of 2021. For all other countries, the risk score reflects Forest Trends' national governance scores. Countries scoring less than 25 are considered "Lower-Risk," countries scoring between 25 and 50 are "Medium-Risk" and countries scoring above 50 are "Higher-Risk." It is important to note that it is possible to source illegal wood from a well-governed, "Lower-Risk" state and it is also possible to source legal wood from a "Higher-Risk" country. As such, the risk scores can only give an indication of the likely level of illegal logging in a country and ultimately speaks to the risk that corruption and poor governance undermines rule of law in the forest sector.
- ^b In principle, exports of logs or sawnwood are not encouraged. The Ministry of Commerce (MofCOM) and General Administration of Customs (Customs) publish a catalogue of "commodities subject to export license" each year. For the 2020 catalogue, sawnwood is included as well as 42 other product categories. Sawnwood exporters need to apply to MofCOM or a local competent commerce authority entrusted by MofCOM to obtain export licenses. Exporters are also required to obtain certificates stating that the volume of export is within quota.
- ^c China's revised Forest Law (2019) states that "Timber trading and processing enterprises shall establish ledgers to record input and output of raw materials and products. No entity or individual may purchase, process, or transport timber that is clearly known to be felled piratically, indiscriminately, or illegally." (Article 65; unofficial translation). Implementing regulations, expected in 2022, may clarify whether and how this provision applies to imports.
- ^d The term "forest products" is used to refer to timber products (including furniture) plus pulp and paper. It covers products classified in the Combined Nomenclature under Chapters 44, 47, 48 and furniture products under Chapter 94. While the term "forest products" is often used more broadly to cover non-timber and non-wood products such as mushrooms, botanicals, and wildlife, "forest products" is used to refer to timber products plus pulp and paper in this dashboard.

- ^e Except where otherwise specified, all trade statistics and chart data is sourced from the General Administration of Customs, P.R. China, compiled and analyzed by Forest Trends.
- ^f Regulated markets reflect countries and jurisdictions that have developed operational measures to restrict the import of illegal timber. As of 2021, this included the U.S., Member States of the European Union (as well as Iceland, Liechtenstein, Norway, the United Kingdom, and Switzerland), Australia, Canada, Colombia, Indonesia, Japan, Malaysia, South Korea, and Vietnam. Some measures are more comprehensive in scope, implementation, and enforcement than others.
- ⁹ According to official data, in 2018, China's total wood product supply was 387 million m³ RWE. Of this, 84 million m³ RWE was national (domestic) timber output, and 303 million m³ RWE was imported forest products.
- ^h All range States of this species have been referred to the CITES Standing Committee (the technical body of CITES responsible for the implementation of the Convention) for further consideration based on documented, widespread and pervasive illegal trade. The species/ country combinations that have been included in the Review of Significant Trade (the process that ensures trade is both sustainable and legal) include Benin, Burkina Faso, Gambia, Ghana, Guinea-Bissau, Mali, Nigeria, Sierra Leone due to unsustainable levels of international trade. Trade in this species should be subject to increased risk assessment / due diligence as there is a high likelihood that there will be zero export quotas for all range states set by the Conference of the Parties in November 2022. Current zero export quota for all specimens from Nigeria.
- ⁱ Species in Appendix III are listed unilaterally by a country (not by a vote by all Parties) to gain international cooperation in controlling trade in their native species and are not subject to the same controls as those in Appendix II. For example, the Russian Federation listed *Fraxinus mandshurica*, *Quercus mongolica* (both in 2014) and *Pinus koraiensis* (2010) on Appendix III these species need CITES export permits from the Russian CITES Management Authority when exported from the Russian Federation, but only need certificates of origin if exported from another range State or another Party. If *Fraxinus mandshurica* is exported from Japan or China where it is also native it would only need certificates of origin, and not a CITES export permit.
- ^j All references to "EU + EFTA" signify the 27 Member States of the European Union, as well as the United Kingdom, Iceland, Liechtenstein, Norway and Switzerland.
- ^k Much of the published evidence for laundering Russian Far East timber as having been harvested in China, is dated prior to China's commercial logging ban in natural forests (2017). Following the 2017 ban, any shipments of temperate natural forest species harvested within China should be demonstrably plantation-grown and within the export quotas for logs and sawnwood.

WORKS CITED

- ¹ Forest Trends. 2021. "Global Illegal Defor4estation and Associated Trade (IDAT) Risk Data Tool—Summary of Data and Methodology." Forest Trends. Accessed November 2, 2021. Unpublished.
- ² World Bank Group's Fragile, Conflict and Violence Group. 2020. "Harmonized List of Fragile Situations." World Bank Group's Fragile, Conflict and Violence Group. Accessed June 30, 2020.
- ³ Norman, Marigold and Jade Saunders. 2017. "Regulating the Trade in Illegal Timber." Forest Trends. Accessed August 22, 2019. https://www.forest-trends.org/wp-content/uploads/2017/08/doc_5634.pdf
- ⁴ Hoare, Alison. 2020. "Chatham House Forest Policy Assessment China." Chatham House. Accessed July 31, 2020. https://forestgovernance.chathamhouse.org/media/data-download/Forest-Policy-Assessment-China.pdf
- ⁵ ClientEarth. 2020. "China introduces new law to safeguard forests and improve governance." ClientEarth. https://www. clientearth.org/china-introduces-new-law-to-safeguard-forests-and-improve-governance/
- ⁶ Government of the People's Republic of China. "Customs Statistics." General Administration of Customs. Accessed June 30, 2020. http://43.248.49.97/indexEn
- ⁷ Government of the People's Republic of China, "Customs Statistics."
- ⁸ Sun, Xiufang, Kerstin Canby, and Lijun Liu. 2016. "China's Logging Ban in Natural Forests." Forest Trends. Accessed August 22, 2019. https://www.forest-trends.org/wp-content/uploads/imported/chinas-logging-ban-innaturalforests-final-3-14-2016-pdf.

- ⁹ Government of the People's Republic of China. "The 13th Five-year Plan for Economic and Social Development of the People's Republic of China (2016-2020)." NDRC. https://en.ndrc.gov.cn/policies/202105/P020210527785800103339. pdf
- ¹⁰ United Nations Environment World Conservation Monitoring Centre. 2018. "People's Republic of China Country Overview to Aid Implementation of the EUTR." UNEP-WCMC. Accessed August 22, 2019. https://www.unep-wcmc. org/system/dataset_file_fields/files/000/000/564/original/Country_overview_China_03_10_2018.pdf?1563350973
- ¹¹ Forest Trends. 2017. "China's Forest Product Imports and Exports 2006-2016: Trade Charts and Brief Analysis. Forest Trends. https://www.forest-trends.org/wp-content/uploads/2017/08/doc_5627.pdf
- ¹² UNEP-WCMC. 2018. "Russian Federation Country Overview to Aid Implementation of the EUTR." United Nations Environment World Conservation Monitoring Centre. Accessed August 22, 2019. https://ec.europa.eu/environment/ forests/pdf/Country_overview_Russian_Federation_03_10_2018.pdf
- ¹³ Center for International Environmental Law. 2015. "Using CITES to Protect Afrormosia in Democratic Republic of Congo (DRC)." CIEL. https://www.ciel.org/project-update/using-cites-to-protect-afrormosia-in-democraticrepublic-of-congo-drc/
- ¹⁴ International Union for Conservation of Nature. 2019. "IUCN and TRAFFIC Analyses of the proposals to amend the CITES Appendices at the 18th Meeting of the Conference of the Parties." International Union for Conservation of Nature, and TRAFFIC. Accessed August 22, 2018. https://portals.iucn.org/library/sites/library/files/documents/ CITES-007-2019-En.pdf.
- ¹⁵ Government of Cameroon, Décret 99/781/PM du 13 Octobre 1999.
- ¹⁶ Global Witness, "Exporting Impunity."
- ¹⁷ Preferred by Nature. 2017. "Timber Legality Risk Assessment Côte d'Ivoire." Preferred by Nature. Accessed August 22, 2019. https://www.nepcon.org/sites/default/files/library/2017-11/NEPCon-TIMBER-CoteD%27Ivoire-Risk-Assessment-EN-V1.2.pdf.
- ¹⁸ Forest Legality Initiative. 2014. "Risk Tool Republic of Congo." Forest Legality Initiative. Accessed August 22, 2019. https://forestlegality.org/risk-tool/country/republic-congo.
- ¹⁹ Preferred by Nature. 2017. "Timber Legality Risk Assessment Ghana." Preferred by Nature. Accessed August 22, 2019. https://www.nepcon.org/sites/default/files/library/2017-12/NEPCon-TIMBER-Ghana-Risk-Assessment-EN-V1.2.pdf.
- ²⁰ Environmental Investigation Agency. 2021. "The Network of Institutional Patronage Behind Forest Looting." EIA, September 16. https://eia-global.org/blog-posts/20210908-mukulagate
- ²¹ Environmental Investigation Agency. 2012. "Appetite for Destruction: China's Trade in Illegal Timber." Environmental Investigation Agency. Accessed August 22, 2019. https://eia-international.org/wp-content/uploads/EIA-Appetitefor-Destruction-lo-res1.pdf
- ²² Smirnov, D.Y. et al. 2013. "Illegal logging in the Russian Far East: global demand and taiga destruction." World Wildlife Fund. Accessed August 22, 2019. https://www.worldwildlife.org/publications/illegal-logging-in-the-russian-far-eastglobal-demand-and-taiga-destruction
- ²³ Environmental Investigation Agency. 2013. "Open Door: Japan's Continuing Failure to Prevent Imports of Illegal Russian Timber." Environmental Investigation Agency. Accessed August 22, 2019. https://content.eia-global.org/ posts/documents/000/000/337/original/Open_Door_ENG.pdf?1468593913
- ²⁴ Milakovsky, Brian. 2016. "Illegality Risk in Sourcing from Russia and Ukraine Presentation for April 2016 TREE workshop." Forest Trends and World Wildlife Fund. Accessed August 22, 2019. https://www.forest-trends.org/ wpcontent/uploads/imported/2a-illegality-risk-in-sourcing-from-russia-and-ukraine_tree-pdf.pdf
- ²⁵ EIA, "Appetite for Destruction."
- ²⁶ EIA, "Appetite for Destruction."
- ²⁷ Smirnov et al., "Illegal logging in the Russian Far East."
- ²⁸ EIA, "Open Door."

- ²⁹ Milakovsky, "Illegality Risk in Sourcing from Russia and Ukraine."
- ³⁰ Milakovsky, "Illegality Risk in Sourcing from Russia and Ukraine."
- ³¹ Neslen, Arthur. 2018. "Romania breaks up alleged €25m illegal logging ring." The Guardian, May 31. Accessed August 22, 2019. https://www.theguardian.com/environment/2018/may/31/romania-breaks-up-alleged-25m-illegal-logging-ring
- ³² Environmental Investigation Agency. 2017. "Illegal Logging in Rodna Mountains National Park, Northern Romania, October 2017." Environmental Investigation Agency. Accessed August 22, 2019. https://content.eia-global.org/ posts/documents/000/000/686/original/Illegal_Logging_in_Rodna_Mountains_National_Park_Ocz2017. pdf?1511580913
- ³³ UNEP-WCMC, "Russian Federation Country Overview to Aid Implementation of the EUTR."
- ³⁴ EIA, "Appetite for Destruction."
- ³⁵ Smirnov et al., "Illegal logging in the Russian Far East."
- ³⁶ EIA, "Open Door."
- ³⁷ Milakovsky, "Illegality Risk in Sourcing from Russia and Ukraine."
- ³⁸ World Wildlife Fund. 2007. "The Russian-Chinese Timber Trade: Export, Supply Chains, Consumption, and Illegal Logging." World Wildlife Fund. Accessed August 22, 2019. http://www.enpi-fleg.org/site/assets/files/1449/ therussianchinesetimbertrade.pdf.
- ³⁹ Sun et al., "China's Logging Ban in Natural Forests."
- ⁴⁰ Brukhanov, Alexander, et al. 2003. "The Russian-Danish trade in wood products and illegal logging in Russia." World Wildlife Fund. Accessed August 22, 2019. https://www.researchgate.net/publication/315780017_The_Russian-Danish_trade_in_wood_products_and_illegal_logging_in_Russia.
- ⁴¹ EIA, "State of Corruption."
- ⁴² Environmental Investigation Agency. 2020. The Croatian Connection Exposed. Importing illegal Myanmar teak through Europe's back door. EIA, May 28. https://eia-international.org/wp-content/uploads/EIA-report-The-Croatian-Connection-Exposed-spreads.pdf
- ⁴³ Norman, Marigold. 2020. "How has the EU enforced the common position on teak imports from Myanmar?" Forest Trends. Accessed July 31, 2020. https://www.forest-trends.org/publications/how-has-the-eu-enforced-thecommonposition-on-teak-imports-from-myanmar/.
- ⁴⁴ EIA, "Appetite for Destruction."
- ⁴⁵ Global Witness. 2018. "Paradise Lost: How China can help the Solomon Islands protect its forests." Global Witness. Accessed August 22, 2019. https://www.globalwitness.org/en/campaigns/forests/paradise-lost/.
- ⁴⁶ Greenpeace. 2007. "Merbau's Last Stand: How Industrial Logging Is Driving the Destruction of the Paradise Forests of Asia Pacific." Greenpeace. Accessed August 22, 2019. https://www.greenpeace.org/eastasia/Global/eastasia/ publications/reports/forests/2007/merbau-report.pdf.
- ⁴⁷ Global Witness. 2017. "Stained Trade: How U.S. Imports of Exotic Flooring from China Risk Driving the Theft of Indigenous Land and Deforestation in Papua New Guinea." Global Witness. Accessed August 22, 2019. https://www. globalwitness.org/en/campaigns/forests/stained-trade/.
- ⁴⁸ Global Witness, "Stained Trade."
- ⁴⁹ Greenpeace. 2006. "Sharing the Blame: Global Consumption and China's Role in Ancient Forest Destruction." Greenpeace. Accessed August 22, 2019. https://www.greenpeace.org/eastasia/Global/eastasia/publications/ reports/forests/2006/sharing-the-blame.pdf.
- ⁵⁰ Wenbin, Huang, and Xiufang Sun. 2013. "Tropical Hardwood Flows in China: Case Studies of Rosewood and Okoumé." Forest Trends, World Agroforestry Centre, and the Center for International Forestry Research. Accessed August 22, 2019. https://www.forest-trends.org/wp-content/uploads/imported/tropical-hardwood-flows-in-chinav12_12_3_2013-pdf.pdf.

- ⁵¹ Environmental Investigation Agency. 2019. "Toxic Trade: Forest Crime in Gabon and the Republic of Congo and Contamination of the US Market." Environmental Investigation Agency. Accessed August 22, 2019. https://content. eia-global.org/posts/documents/000/000/830/original/Toxic_Trade_EIA-web.pdf?1553480150
- ⁵² Government of Cameroon. 1999. Décret 99/781/PM du 13 Octobre 1999: régime des forêts, de la faune et de la pêche. October 13, 1999. http://gfbcam.com/download/decret-99781pm-du-13-octobre-1999-regime-des-forets-delafaune-et-de-la-peche/.
- ⁵³ Global Witness. 2015. "Exporting Impunity: How Congo's rainforest is illegally logged for international markets." Global Witness. Accessed August 22, 2019. https://www.globalwitness.org/en/campaigns/democratic-republiccongo/exporting-impunity/
- ⁵⁴ Greenpeace. 2018. "Imaginary Trees, Real Destruction: How Licensing Fraud and Illegal Logging of Ipe Trees are Causing Irreversible Damage to the Amazon Rainforest." Greenpeace. Accessed August 22, 2019. https://storage. googleapis.com/planet4-international-stateless/2018/03/b91d03c3-greenpeace-report_imaginary-trees-realdestruction_march-2018.pdf.
- ⁵⁵ Greenpeace. 2013. "The Amazon's Silent Crisis." Greenpeace. Accessed August 22, 2019. https://www.greenpeace. org/usa/wp-content/uploads/legacy/Global/usa/planet3/PDFs/SilentCrisisTimberReport.pdf.
- ⁵⁶ Environmental Investigation Agency. 2018. "Destination China: A companion briefing to Moment of Truth." Environmental Investigation Agency. Accessed August 22, 2019. https://content.eia-global.org/posts/ documents/000/000/698/original/PeruChinaBrief_ENG.pdf?1517965010.
- ⁵⁷ Global Witness. 2019. "Lessons from China's Global Forest Footprint: How China can rise to a global governance challenge." Global Witness. Accessed July 31, 2020.
- ⁵⁸ EU FLEGT Facility. 2020. Analysis of China's Trade with the European Union and FLEGT VPA Countries 2010-2019. European Forestry Institute (EFI). https://www.euflegt.efi.int/in/publications/analysis-of-china-s-trade-with-theeu-and-vpa-countries-2010-2019
- ⁵⁹ EU FLEGT Facility, "Analysis of China's Trade with the European Union and FLEGT VPA Countries 2010-2019."
- ⁶⁰ Forest Trends. 2020. "Known Forest Product Export Restrictions, as of June 2020." Forest Trends. Accessed August 22, 2019. https://www.forest-trends.org/known-log-export-bans/
- ⁶¹ Forest Trends, "FPER."
- ⁶² Government of the People's Republic of China, "Customs Statistics."
- ⁶³ Forest Trends, "FPER."
- ⁶⁴ Government of the People's Republic of China, "Customs Statistics."
- ⁶⁵ Government of the People's Republic of China, "Customs Statistics."
- ⁶⁶ Government of the People's Republic of China, "Customs Statistics."
- ⁶⁷ Government of the People's Republic of China, "Customs Statistics."
- ⁶⁸ Government of the People's Republic of China, "Customs Statistics."
- ⁶⁹ FAO. 2020. "Global Forest Resources Assessment 2020." Food and Agriculture Organization of the United Nations. Accessed July 31, 2020. http://www.fao.org/3/ca9825en/CA9825EN.pdf.
- ⁷⁰ FAO. 2020. "Global Forest Resources Assessment 2020, China." Food and Agriculture Organization of the United Nations. https://www.fao.org/3/ca9980en/ca9980en.pdf
- ⁷¹ FAO, "Global Forest Resources Assessment 2020."
- ⁷² FAO, "Global Forest Resources Assessment 2020, China."
- ⁷³ Accessed August 22, 2019. https://fsc.org/sites/fsc.org/files/2019-12/Facts_and_Figures_2019-12-04.pdf.
- ⁷⁴ Programme for the Endorsement of Forest Certification. 2020. "PEFC Global Statistics. Data: March 2020." Programme for the Endorsement of Forest Certification. Accessed August 22, 2019. https://cdn.pefc.org/pefc.org/ media/2020-05/1a524ab5-1ba2-4185-8f8a-9cb16e29150e/22b08b97-31c0-5a60-8ac2-a3d2fb0e9868.pdf.

- ⁷⁵ Forest Stewardship Council and the Programme for the Endorsement of Forest Certification. 2020. "Double Certification FSC and PEFC – 2019 Estimation." Forest Stewardship Council, and the Programme for the Endorsement of Forest Certification. Accessed August 22, 2019. https://cdn.pefc.org/pefc.org/media/2020-01/de73c4e1-7a28-46d2-b71db86100497b9d/f995b54a-aab1-52af-a47e-83ddc9825712.pdf.
- ⁷⁶ FAO. 2020. "FAOSTAT." Food and Agriculture Organization of the United Nations. Accessed November 3, 2021. http:// www.fao.org/faostat/en/#data/RF.
- ⁷⁷ Sun et al., "China's Logging Ban in Natural Forests."
- ⁷⁸ Thiel, Anne and Xiufang Sun. 2016. "China's Logging Ban Impacts Not Just Its Own Forestry Industry, but Others around the World as Well." Forest Trends. Accessed August 22, 2019. https://www.forest-trends.org/blog/chinaslogging-ban/
- ⁷⁹ EU FLEGT Facility. 2019. "Analysis of China's Trade with the EU and VPA countries, 2007-2017." EU FLEGT Facility. Accessed June 30, 2020. https://www.euflegt.efi.int/in/publications/analysis-of-china-s-trade-with-the-eu-andvpa-countries-2007-2017
- ⁸⁰ National Forestry and Grasslands Administration. 2018. China Forestry and Grassland Development Annual Report." NFGA.
- ⁸¹ UNEP-WCMC, "China, Country Overview to Aid Implementation of the EUTR."
- ⁸² UNEP-WCMC, "China, Country Overview to Aid Implementation of the EUTR."
- ⁸³ Environmental Investigation Agency. 2013. "Liquidating the Forests: Hardwood Flooring, Organized Crime, and the World's Last Siberian Tigers." Environmental Investigation Agency. Accessed August 22, 2019. https://content. eia-global.org/posts/documents/000/000/609/original/EIA_Liquidating_the_Forests.pdf?1479504214.
- ⁸⁴ Forest Trends, forthcoming.
- ⁸⁵ Smirnov et al., "Illegal logging in the Russian Far East."
- ⁸⁶ EIA, The Rosewood Racket, 2017.
- ⁸⁷ Richer, 2014.
- ⁸⁸ EIA, Organised Chaos, 2015.
- ⁸⁹ EIA, Routes of Extinction, 2014.
- ⁹⁰ Global Witness, "Stained Trade."
- ⁹¹ EIA, "Toxic Trade."
- ⁹² EU FLEGT Facility. 2019. "Analysis of China's Trade with the EU and VPA countries, 2007-2017." EU FLEGT Facility. Accessed June 30, 2020.https://www.euflegt.efi.int/in/publications/analysis-of-china-s-trade-with-the-eu-andvpa-countries-2007-2017
- ⁹³ EU FLEGT Facility, "Analysis of China's Trade with the European Union and FLEGT VPA Countries 2010-2019."
- ⁹⁴ EIA, "Liquidating the Forests."
- ⁹⁵ Shi, Yi. 2019. "How Illegally Harvested Timber Is 'Greenwashed' in China." Sixth Tone, January 16. Accessed August 22, 2019. https://www.sixthtone.com/news/1003369/how-illegally-harvested-timber-is-greenwashedin-china#.
- ⁹⁶ Global Witness. 2018. "A Major Liability: Illegal logging in Papua New Guinea threatens China's timber sector and global reputation." Global Witness. Accessed August 22, 2019. https://www.globalwitness.org/en/campaigns/ forests/majorliability-illegal-logging-papua-new-guinea-threatens-chinas-timber-sector-and-global-reputation/.
- ⁹⁷ United Nations Office on Drugs and Crime. 2013. "Transnational Organized Crime in East Asia and the Pacific: A Threat Assessment." United Nations Office on Drugs and Crime. Accessed August 22, 2019. https://www.unodc.org/res/cld/ bibliography/transnational-organized-crime-in-east-asia-and-the-pacific-a-threat-assessment_html/TOCTA_EAP_ web.pdf

- ⁹⁸ Environmental Investigation Agency. 2014. "First Class Crisis: China's Criminal and Unsustainable Intervention in Mozambique's Miombo Forests." Environmental Investigation Agency. Accessed August 22, 2019. https:// eiainternational.org/wp-content/uploads/First-Class-Crisis-English-FINAL.pdf.
- ⁹⁹ International Institute for Environment and Development. 2015. "Exploring options to improve practice for Africa's largest exporter of timber to China." International Institute for Environment and Development, Terra Firma, and Menezes, Espada & Serra. Accessed August 22, 2019. https://pubs.iied.org/pdfs/G03947.pdf
- ¹⁰⁰ Global Witness, "Lessons from China's Global Forest Footprint."
- ¹⁰¹ Wellesley, Laura. 2014. "Trade in Illegal Timber: The Response in China. A Chatham House Assessment." Accessed July 31, 2020. https://www.chathamhouse.org/sites/default/files/publications/ research/20141210IllegalTimberChinaWellesley.pdf.
- ¹⁰² UNEP-WCMC, "China, Country Overview to Aid Implementation of the EUTR."
- ¹⁰³ Forest Trends, IDAT Risk, 2020.
- ¹⁰⁴ Government of the People's Republic of China, "Customs Statistics."
- ¹⁰⁵ Government of the People's Republic of China, "Customs Statistics."
- ¹⁰⁶ Government of the People's Republic of China, "Customs Statistics."
- ¹⁰⁷ EU FLEGT Facility, "Analysis of China's Trade with the European Union and FLEGT VPA Countries 2010-2019."
- ¹⁰⁸ Government of the People's Republic of China, "Customs Statistics."
- ¹⁰⁹ World Bank list of fragile and conflict-affected situations (FCS) 2020.
- ¹¹⁰ Forest Trends, IDAT Risk, 2020.
- ¹¹¹ UNEP-WCMC, "China, Country Overview to Aid Implementation of the EUTR."
- ¹¹² Preferred by Nature, 2017. "Timber Legality Risk Assessment China." Preferred by Nature. Accessed August 22, 2019. https://www.nepcon.org/sites/default/files/library/2017-11/NEPCon-TIMBER-China-Risk-Assessment-EN-V1.2.pdf.
- ¹¹³ UNEP-WCMC, "China, Country Overview to Aid Implementation of the EUTR."
- ¹¹⁴ Forest Trends, forthcoming.
- ¹¹⁵ UNEP-WCMC, "China, Country Overview to Aid Implementation of the EUTR."
- ¹¹⁶ Poynton, Scott. 2013. "Chain of custody nonsense from FSC & PEFC: protecting income streams rather than the world's forests." Mongabay. July 10. Accessed August 17, 2020. https://news.mongabay.com/2013/07/chain-ofcustodynonsense-from-fsc-pefc-protecting-income-streams-rather-than-the-worlds-forests/.
- ¹¹⁷ Brack, Duncan. 2014. "China's Overseas Investment in Forestry and Industries with High Impact on Forests: Official Guidelines and Credit Policies for Chinese Enterprises Operating and Investing Abroad." Forest Trends. Accessed September 14, 2020. https://www.forest-trends.org/publications/chinese-overseas-investment-in-forestryandindustries-with-high-impact-on-forests/.
- ¹¹⁸ Wellesley, "Trade in Illegal Timber."
- ¹¹⁹ Dong, Ke. 2017. "Overview of CTLVS Development." Presentation, Forest Legality Week 2017, Washington, DC, October 18, 2017. https://forestlegality.org/document/overview-ctlvs-development.
- ¹²⁰ Ke, "Overview of CTLVS Development."
- ¹²¹ Friends of the Earth. 2017. "Investing in a Green Belt and Road? Assessing the Implementation of China's Green Credit Guidelines Abroad." Friends of the Earth. Accessed September 14, 2020. https://foe.org/resources/investinggreenbelt-road-assessing-implementation-chinas-green-credit-guidelines-abroad/.
- ¹²² Government of the United States, Department of Justice. 2016. "Lumber Liquidators Inc. Sentenced for Illegal Importation of Hardwood and Related Environmental Crimes." Accessed November 5, 2021. https://www.justice.gov/ opa/pr/lumber-liquidators-inc-sentenced-illegal-importation-hardwood-and-related-environmental

- ¹²³ Shi, "How Illegally Harvested Timber Is 'Greenwashed' in China."
- ¹²⁴ Pillet, Nicholas and Michael Sawyer. 2015. "EUTR: Plywood imported from China". NMRO. Accessed September 21, 2020. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/402325/Chinese_Plywood_Research_Report.pdf.
- ¹²⁵ Forest Trends. 2016. "Timber Regulation Enforcement Exchange: Newsletter Spring 2016." Forest Trends. Accessed July 31, 2020. https://www.forest-trends.org/wp-content/uploads/imported/newsbrief.pdf.
- ¹²⁶ Forest Trends. 2016. "Timber Regulation Enforcement Exchange: Newsletter Fall 2016." Forest Trends. Accessed July 31,2020. https://www.forest-trends.org/wp-content/uploads/2018/04/doc_5494.pdf.
- ¹²⁸ CTWPDA. 2020. "Timber Legality Checklists." Developed for members at the Global Sustainable Hardwood Trade Conference, Huzhou, Zhejiang province, November 2020.
- ¹²⁹ Forest Trends. 2021. "How is the European Union Timber Regulation Impacting Industry Due Diligence and Sourcing Practices?" Forest Trends. https://www.forest-trends.org/publications/how-is-the-european-union-timberregulation-impacting-industry-due-diligence-and-sourcing-practices/

Forest Trends shall not be liable for any indirect, incidental, consequential, special, punitive or other similar damages, including but not limited to loss of revenues, lost profits, lost data or business interruption or other intangible losses (however such losses are qualified), arising out of or relating in any way to any party's reliance on the information contained in the Dashboards.



This Timber Legality Country Risk Dashboard (Dashboard) was drafted by Forest Trends and funded by a grant from the United States Department of State, Bureau of Oceans and International Environmental and Scientific Affairs. The opinions, findings, and conclusions stated herein are those of the authors and do not necessarily reflect those of the United States Department of State or any other party. The United States supports efforts to raise awareness of and combat global illegal logging and associated trade. This dashboard contributes to these ongoing efforts.

The Dashboards have been compiled from publicly available information sources to support risk assessments on the legality of timber products entering international supply chains. The Dashboards are for educational and informational purposes only. The Dashboards have been drafted with input from the Environmental Investigation Agency (EIA) and are subject to external peer review. The Dashboards will be updated periodically based on newly available information.