

DEMAND FOR LUXURY DECKS IN EUROPE AND NORTH AMERICA IS PUSHING IPÊ TO THE BRINK OF EXTINCTION ACROSS THE AMAZON BASIN & THREATENING THE FOREST FRONTIER

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SUMMARY FINDINGS

Ipê, the trade name for several high-value species in the *Handroanthus*, *Tabebuia*, and *Roseodendron* genera, is critically overexploited and at risk of extinction. Ipê populations have severely declined over the last thirty years with growing concerns about their future. At least two-thirds of the species exported as ipê from the Amazon Basin between 2017 and 2021¹ are reportedly *Handroanthus serratifolius* and *H. impetiginosus*, which are categorized as threatened with extinction on the IUCN Red List of Threatened Species, although none are currently protected under international law.

Increased demand from international markets and low levels of protection has led to at least 525 million kilograms (kg) or 470,000 cubic meters (m³) of ipê being exported from Brazil, Bolivia, Paraguay, and Peru since 2017 (Figure 1). The majority (96 percent by volume) was exported from Brazil, where all ipê is sourced from natural forests, which represent a significant risk of illegal logging. Forest Trends' analysis of exports over the last five years suggests that Brazilian ipê exports grew at least 76 percent (by volume) between the periods 2010–2016 and 2017–2021.

¹ Export shipments were assessed for the period January 22, 2017 to December 31, 2021 in line with consolidated data availability for Brazil, Paraguay, Bolivia, and Peru on Panjiva Inc. and Export Genius when the research was undertaken in January and February 2022.



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Ipê is slow growing and occurs in very low densities, requiring large areas of natural forest in which to thrive. Ipê has not shown sufficient population recovery following years of logging and is becoming rare or economically extinct in former logging regions (Schulze et al. 2008; Richardson and Peres 2016). Furthermore, it appears that in Brazil, new forest frontiers are being opened to meet the escalating demand for ipê; with most logging now occurring in the remote central and southwestern Amazon region where access and infrastructure are poor, reducing the reach of enforcement agents. Harvesting of ipê in remote forests is often the first action that then leads to additional harvesting of lower value species causing forest degradation and land clearance (Greenpeace 2018; Greenpeace 2015).

Despite the destruction associated with the trade, over 85 percent of the demand for ipê, predominantly used in exterior decking and flooring, comes from United States (US), Canadian and European markets—all countries that are committed to tackling the trade in illegal and unsustainable timber. It is also noteworthy that the value of ipê reportedly quadruples at each stage of the supply chain before it is exported, with the majority of the value and profit made by those exporting the processed product, rather than the landowners or loggers, with much lower margins for those managing the forest.² Processed ipê products, such as decking, can reach upwards of \$2,500/m³ to \$4,000/m³³ on international markets (Greenpeace 2018; ITTO February 2022).

In addition to concerns about the sustainability of the species, there have been extensive reports of illegal logging involving ipê and other high-value species across the Amazon Basin. As noted, the main consumer markets for ipê have been implementing timber import regulations prohibiting the trade in illegally harvested wood for over a decade and many governments in these jurisdictions have also prioritized the protection of the Amazon Basin in light of escalating forest loss and attendant climate impacts in recent years.

Ipê populations are ultimately threatened by the scale of both legal and illegal logging in the Amazon Basin. Timber import regulations such as the European Union Timber Regulation (EUTR), the United Kingdom (UK) Timber Regulation, and the US Lacey Act, have been unable to address the scale of escalating demand for ipê and the resulting unsustainable trade in certain tropical species.

With soaring demand and unsustainable harvesting, there are opportunities to increase national protections for ipê and ramp up enforcement capacity in the Amazon Basin to address the fraud and corruption which facilitates the laundering of illegal timber into supply chains. As part of this approach, it is critical that governments in the region are committed to environmental protection and invest in collecting data on species populations and compositions through national forest inventories, as well as implementing robust timber tracking or traceability systems to promote transparency in timber supply chains.

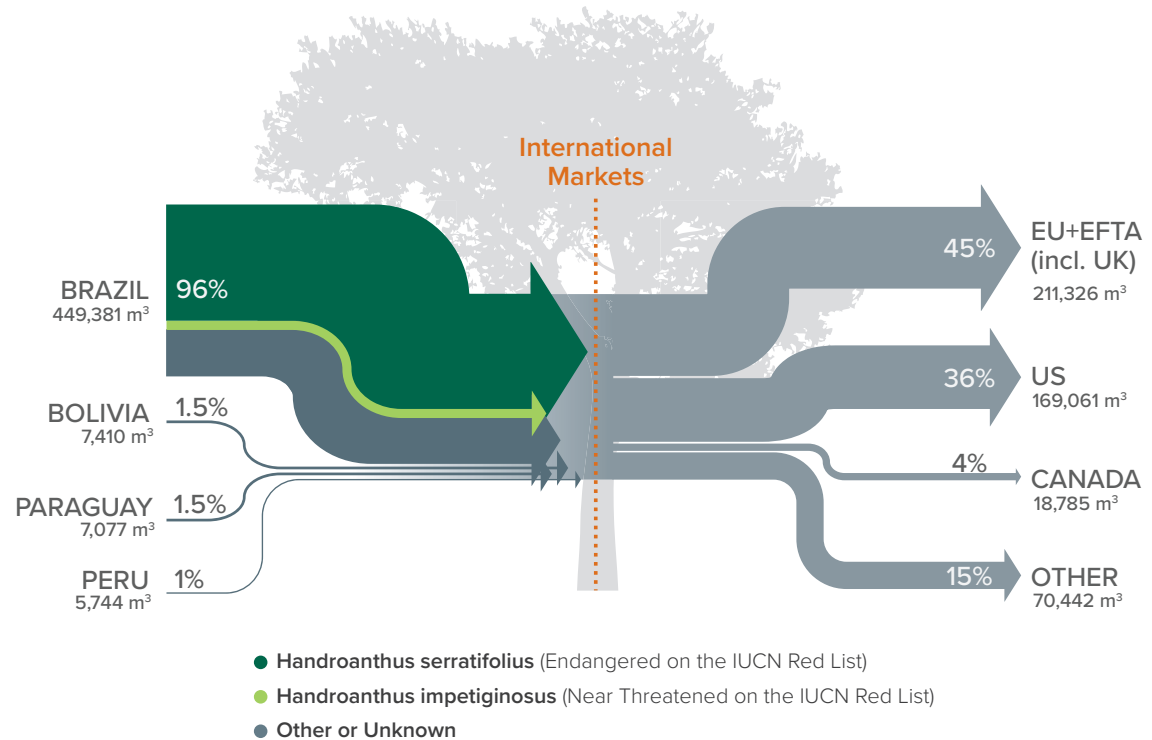
² The ITTO Market report for February 1-15 reports, in Brazil, that the domestic log price was reportedly \$236/m³ while the domestic sawn wood price was \$1,020/m³. The Free On Board (FOB) export price for decking boards was reportedly \$4,360/m³. This suggests that the majority of the value and profit is made by those exporting the processed product, rather than the landowners or loggers, with much lower margins for those managing the forest.

³ All references to \$ refer to the United States dollar unless otherwise specified.



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FIGURE 1 Ipê exports from Brazil, Bolivia, Paraguay, Peru, and main consumer markets, 2017-2021 (volume in m³)



Note: Data on Bolivia's exports in 2018 are only available for the first nine months, as of writing. Data for Bolivia's 2019 exports only includes exports reported under Harmonized System (HS) code 4409 for "flooring, moulding and strips." No data was available on Bolivia's exports in 2020 or 2021.

Source: Panjiva Inc. 2022 and Export Genius 2021. Compiled by Forest Trends 2022.

In addition, we recommend that all species of timber traded as ipê are listed in the Convention on Trade in Endangered species (CITES), under which the trade in wild species of fauna and flora should be both sustainable and legally acquired. It is important that CITES is consistently and robustly implemented to ensure that the trade in listed timber species is both legal and sustainable. Any inconsistency in the oversight or methods used to determine legal acquisition for CITES traded specimens not only undermines the credibility of the Convention but also the effectiveness of other legislation.

Finally, we recommend that governments as well as the World Customs Organization, which administers the Harmonized Commodity Description and Coding System, amend Harmonized System (HS) codes used to classify traded products to increase species-specific export and import data for timber products. Identifying the species of wood in international trade is vitally important to efforts to capture and track the volume of certain species. This can help conserve species biodiversity, and tackle timber trafficking. While certain chapters and HS codes require companies to report their imports by species name, there remain significant shortcomings when it comes to the HS codes for tropical timber species.



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INTRODUCTION

Global demand for ipê, the trade name for several species in the *Handroanthus*, *Tabebuia*, and *Roseodendron* genera, appear to have skyrocketed over the last twenty-five years, with reports of exports from the Amazon Basin increasing 500 percent between 1998 and 2004 (Schulze et al. 2008) and demand escalating higher since. However, public data on the volume of ipê felled and exported have been limited, as publicly available global trade data does not consistently track species level detail, and government production figures have only been released sporadically.

Brazilian exports of *Handroanthus serratifolius*,⁴ considered to be one of the main ipê species traded, have been estimated for the period between 2010 to 2016, with the Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA) reporting that more than 180,000 m³ was exported, accounting for roughly 70 percent of all traded ipê species. This suggests that a total of 255,723 m³ of ipê was exported over the period (IBAMA 2016 in IUCN; TRAFFIC 2019). The International Union for Conservation of Nature (IUCN) has also estimated that between 2008 and 2017, 276,000 m³ of ipê was imported from Brazil into the US (IUCN and TRAFFIC 2019). Since 2017, publicly reported data on ipê production and trade from either Brazil or other Amazon Basin countries has been lacking.

At the same time, there have been escalating concerns about the population declines of Amazon Basin species, such as those traded as ipê, given high demand, slow growth rates, and low densities within natural forests. In 2008, Schulze et al. found that *Tabebuia impetiginosa* and *T. serratifolia* (synonyms for *Handroanthus impetiginosus* and *H. serratifolius*) were threatened by logging activity in Brazil and suggested that both species would benefit from additional protection under national forest legislation and international protections under the Convention on Trade in Endangered species (CITES). Even with reduced impact logging, research has shown continued and drastic population declines with no indication of population recovery over the long term (Richardson and Peres 2016).

In 2020, *Handroanthus serratifolius* and several other ipê species were assessed by the IUCN for inclusion in its Red List of Threatened Species. Many species were found to have decreasing populations accompanied by a decline of mature individuals. *Handroanthus serratifolius* was assessed as *Endangered*, with several other species traded as ipê also categorized as *Vulnerable* or *Near Threatened* (IUCN Red List 2020). The decreasing populations in the Amazon have reportedly led to ipê harvests declining or ceasing in most of the older, well-developed logging centres, while new logging frontiers in the remote central and southwestern Amazon region have opened in Brazil. Harvesting of ipê in remote forests is often the first action that then leads to additional harvesting of lower value species causing forest degradation and land clearance (Greenpeace 2018; Greenpeace 2015).

Seeking to fill an information gap, Forest Trends assessed shipment level trade data for the period 2017-2021⁵ to better understand the volume of ipê in exports reported by the Amazon Basin countries of Brazil, Peru, Bolivia, and Paraguay. Countries were chosen, and shipment

⁴ *Handroanthus serratifolius* is sometimes traded under its synonym, *Tabebuia serratifolia*.

⁵ Export shipments were assessed for the period January 22, 2017 to December 31, 2021 in line with consolidated data availability for Brazil, Paraguay, Bolivia, and Peru on Panjiva Inc. and Export Genius when the research was undertaken in January and February 2022.



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descriptions assessed, based on the availability of customs data (see Annex I). As such, this report provides a minimum and conservative estimate of the volume of ipê exported from four Amazon Basin countries in the five-year period between 2017 and 2021.

FINDINGS

Sustainability concerns:

1 The volume of ipê exported to international markets has markedly increased over the last decade.

Forest Trends found that over 525 million kg (or 469,613 m³) of ipê timber products were exported from Bolivia, Brazil, Paraguay, and Peru between 2017 and 2021 (Table 1). The majority of ipê is exported from Brazil, which accounted for 96 percent of the trade (based on volume).

TABLE 1 Exports of ipê from four Amazon Basin countries (kg), 2017-2021 (where data were available)⁶

Export shipment origin	2017 (exports of ipê gross weight in kg)	2018 (exports of ipê gross weight in kg)	2019 (exports of ipê gross weight in kg)	2020 (exports of ipê gross weight in kg)	2021 (exports of ipê gross weight in kg)	Total ipê exported from Amazon Basin country 2017-2021 in kg
Brazil	87,187,674	105,569,461	111,241,831	113,467,665	85,840,269	503,306,900
Bolivia	3,418,301	2,769,407*	2,111,358**	no data	no data	8,299,066
Paraguay	2,189,880	1,862,929	1,378,681	1,032,876	1,462,341	7,926,707
Peru	1,090,333	1,325,507	1,295,620	1,033,687	1,688,535	6,433,683
TOTAL	93,886,188	111,527,304	116,027,490	115,534,228	78,638,888	525,966,355

Source: Panjiva 2022 and Export Genius 2021. Compiled by Forest Trends 2022

Ipê exports increased 24 percent between 2017 and 2019 before plateauing in 2020 as the COVID-19 pandemic hit parts of the region and several trading partners. Regional exports of ipê in 2021 appear to have declined, largely driven by a reduction in Brazil's exports.

Overall, roughly 77 percent of ipê exports were classified as flooring or decking (HS code 4409), with 19 percent exported as sawnwood (HS code 4407). Around 4 percent of the ipê tracked was exported under other product categories or HS codes including joinery, particleboard, veneer, and plywood. Paraguay was the only country where more ipê was exported as sawnwood than flooring.

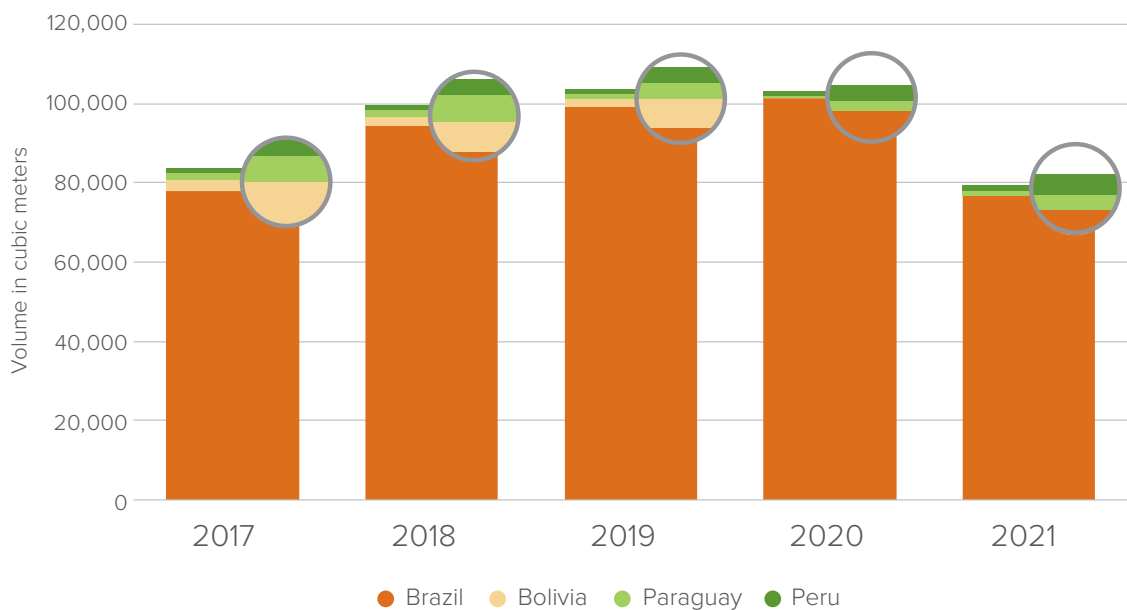
⁶*Data on Bolivia's exports in 2018 are only available for the first nine months as of writing. **Data for Bolivia's 2019 exports only includes exports reported under Harmonized System (HS) code 4409 for "flooring, moulding and strips." No data was available on Bolivia's exports in 2020 or 2021.



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Brazil's IBAMA released ipê export data for the period between 2010 and 2016 in cubic meters. To compare with the volumes exported in the period between 2017 and 2021, Forest Trends converted the gross weight data reported in the shipment data obtained from Panjiva Inc. and Export Genius to cubic meters using published weight and density data for ipê (1120 kg/m³).⁷ Using this conversion, we estimate that at least 469,613 m³ was exported from the four countries in the period between 2017 and 2021 (Figure 2 and Annex II).

FIGURE 2 Exports of ipê from four Amazon Basin countries (m³), 2017-2021 (where data were available)⁸



Data from IBAMA suggest that Brazil exported a total of 255,723 m³ of all ipê species between 2010 and 2016. Forest Trends analysis shows that Brazil exported at least 449,381 m³ between 2017 and 2021 in shipments that were listed as *only* containing products of ipê and therefore excludes shipments of ipê mixed with other species. This suggests that Brazilian ipê exports grew at least 76 percent (by volume) between the periods 2010-2016 and 2017-2021 (Figure 3).

In addition to the ipê-specific shipments tracked, an additional 45.8 million kg or 40,893 m³ of mixed species, including ipê, was exported from the four Amazon Basin countries between 2017 and 2021. The other species mixed with the ipê included cumaru (*Dipteryx* spp.), jatoba (*Hymenaea courbaril*), massaraduba (*Manilkara bidentata*) and garapa (*Dinizia excelsa*), among others. It was not possible to estimate the specific ipê volume within these shipments.

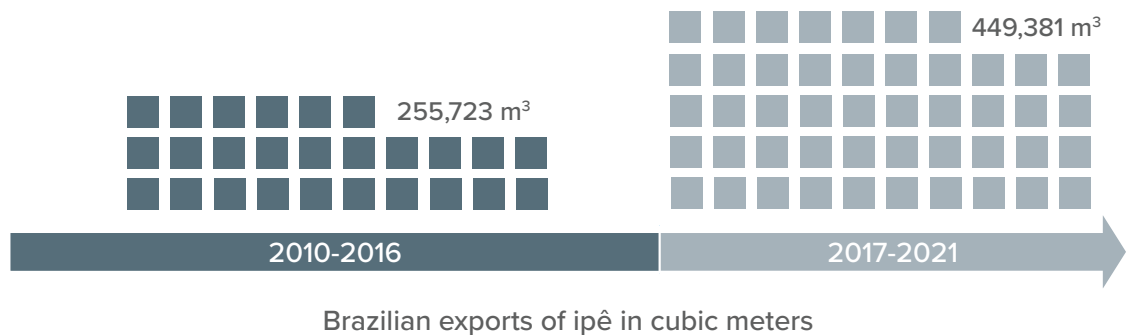
⁷ To convert kg to m³ for ipê, Forest Trends referred to the ITTO Lesser Used Species website, where a density of 1120 kg/m³ is referenced for air dried samples. See <http://www.tropicaltimber.info/specie/ipe-tabebuia-serratifolia/#lower-content>.

⁸ *Data on Bolivia's exports in 2018 are only available for the first nine months as of writing. **Data for Bolivia's 2019 exports only includes exports reported under Harmonized System (HS) code 4409 for "flooring, moulding and strips." No data was available on Bolivia's exports in 2020 or 2021.



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FIGURE 3 Brazil's exports of ipê (m³), 2010-2021



Source: IBAMA, 2016 in IUCN and TRAFFIC, 2019; Panjiva 2022; Export Genius 2021. Compiled by Forest Trends 2022.

2 Consumer demand is greatest for ipê species that have declining populations and are increasingly threatened or endangered.

At least 64 percent of the ipê tracked as part of this analysis was self-reported in the shipment description field to be *Handroanthus serratifolius*,⁹ which was categorized as *Endangered* by the IUCN Red List of Threatened Species in 2020. At least 28 percent of the exports by weight were either only reported as ipê or another generic common name which did not include any information on the botanical name. There is a high likelihood that these exports are either also *Handroanthus serratifolius* or *Handroanthus impetiginosus* (assessed as *Near Threatened* with a declining population by the IUCN Red List of Threatened Species). Roughly 6 percent was described as *Handroanthus impetiginosus*. Just 2 percent of shipments (by weight) reported other ipê species by their botanical names (Annex II).

As such, there is a high risk that the species exported as ipê from Brazil, Bolivia, Paraguay, and Peru to consuming markets are *Handroanthus serratifolius* or *Handroanthus impetiginosus*, both of which are showing population declines and are assessed as threatened or near threatened with extinction by the IUCN Red List.

Legality concerns:

1 Ipê is at an elevated risk for illegal logging, and fraud and corruption are common in many Amazon Basin countries where ipê grows, with reports that illegal ipê can be laundered into supply chains.

In addition to concerns about the sustainability of the species, there have been extensive reports of illegal logging involving ipê and other high-value species across the Amazon Basin. In 2018, researchers published evidence that high-value species, particularly ipê, were being illegally logged in Brazil at higher rates than other less valuable species using fraudulently

⁹ *Handroanthus serratifolius* is sometimes traded under its synonym, *Tabebuia serratifolia*.



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obtained logging permits across Pará State (Brancalion et al. 2018). Logging for timber and clearing forest to grow marijuana are also driving illegal logging in Paraguay's protected areas. Mongabay and La Nación report that the preferred tree species for timber traffickers in Paraguay include ipê (named as *Tabebuia lapacho*) (Benítez 2020).

Reports have suggested that some companies are circumventing the law and laundering illegal ipê into supply chains by fraudulently obtaining the necessary paperwork. This is achieved through an initial fraudulent over-estimation of the volume of ipê (or other high value species) than truly exist, which artificially inflates the number of trees contained in the authorized forest management area or in the logging plans. This allows the operator to "top up" their timber consignment with illegally extracted timber from other forest areas, including protected areas, while using official documents. Greenpeace's series of investigations in Pará, Mato Grosso, and Rondônia since 2014 suggest that official documentation is not, in and of itself, sufficient to guarantee the legal origin of ipê (as well as other high value species) sourced from the Amazon (Greenpeace 2014, 2017, 2018).

Recent reporting from InSight Crime further highlights that bribery and corruption also facilitate the laundering of illegal timber in Peruvian supply chains. The details described by which the Patrones network was able to operate shows corruption and bribery related to police officers (Bargent 2020). Furthermore, Mongabay Latam reports that between 2005 and 2020 over 600 Peruvian officials in thirteen regions approved more than 1,300 forest management plans that contained false information, facilitating the laundering of illegal timber into supply chains (Rastro 2021).

According to statistics of the Peruvian government agency charged with supervising and auditing the harvest and conservation of forest (Organismo de Supervisión de los Recursos Forestales-OSINFOR), *Tabebuia* spp. was the second most likely species to be illegally harvested (without a license) in the Ucayali region, one of three main producing regions in the Amazon. Between 2015 and 2021, roughly 17,354 m³ of ipê was reportedly illegally harvested (OSINFOR 2022). The region of Ucayali is associated with high rates of noncompliance, including reports of falsified licenses and corruption (Forest Trends 2020).

Since 2020, the Peruvian Forest and Wildlife Service (SERFOR) was expected to implement a timber tracking and traceability system to help address issues with illegal logging and laundering of illegal timber into supply chains. However, as of the first quarter of 2021, just 12 of the 1,420 valid forest management plans and only 15 sawmills had been incorporated into the new system (Forest Trends, 2020; SERFOR, 2021).

There are widespread reports of corruption within the government agencies tasked with managing the forest sector in Bolivia, with illegal harvests of high commercial value species such as morado (*Machaerium scleroxylon*), tipa (*Tipuana tipu*), guaya, tajibo (ipê, *Tabebuia* spp.), and mara (mahogany, *Swietenia macrophylla*) most likely to be accompanied by fraudulent or falsified documents (Salinas 2019).

Concerns around the scale of fraud led to INTERPOL issuing a "Purple Notice" in August 2016 (an international alert/request for cooperation) on illegal timber trading activities in Brazil's Pará State (ClientEarth 2016). The companies listed in the Notice made approximately 28 million Brazilian Real (\$8 million) exporting illegal timber cut under false forest management plans in 2015 to Europe and the US (Global Wood Markets Info 2016). At least some of the illegal timber was found to be ipê.



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2 Despite several high-profile regional operations, enforcement remains generally limited in capacity across the Amazon Basin and, in the case of Brazil, has been weakened further under the current political administration.

Fraud and illegal logging have generally been detected in isolated operations carried out by the enforcement agencies, which can only cover a very small fraction of forest (Brancalion et al. 2018). For example, Operation Archimedes uncovered systemic fraud and illegal logging, including 475 m³ of illegal *Handroanthus* sawn timber in Brazil (IUCN and TRAFFIC 2019). In Peru, Operation Amazonas led by the Customs and Taxation agency Superintendencia Nacional de Aduanas y de Administración Tributaria (SUNAT), with support from INTERPOL and the World Customs Organization, resulted in seizures estimated at 213,982 m³ of illegal timber, with a value of around \$26.6 million in 2014 (OSINFOR 2015), including a small volume of ipê.

In Brazil, the probability that illegal logging will result in penalties has been estimated at less than 0.08 percent (Preferred by Nature 2017). Reports also suggest a weakening of penalties over the last few years. In 2020, IBAMA issued 20 percent fewer fines compared with 2019, amounting to a 42 percent reduction in the fines issued for “flora” specific violations in the Amazon region (Spring 2021). There have been consistent reports that many fines are never paid (only 5 percent of fines imposed by the relevant authorities have been paid) or are eventually forgiven. Human Rights Watch suggest that fines for illegal logging in the Brazilian Amazon have been effectively suspended since October 2019 (2020).

Furthermore, in the case of Brazil, there has reportedly been a “deepening of measures adopted since 2019 to eliminate environmental regulations, on the one hand, and to abdicate from environmental management, on the other” (Observatório do Clima 2021). At least 57 pieces of legislation have been approved since 2019 that weaken environmental laws, from relaxing forest protections to declassifying the toxicity of pesticides. Almost half of the legislation, 27 bills, were passed during the height of Brazil’s COVID-19 pandemic, from March to September 2020 (Vale et al. 2021).

Concerns about the weakening of laws that govern Brazil’s timber trade were raised in 2019 when Brazil reportedly exported “thousands of cargoes of wood [from Pará State]...without authorization from the federal environment agency [IBAMA], increasing the risk that they originated from illegally deforested land” (Spring 2020). IBAMA Superintendent for Pará State had issued a retroactive export license for five containers of timber that had subsequently been held by customs authorities in the US, Belgium, and Denmark when the shipments did not include the IBAMA authorization to export. IBAMA subsequently revoked the requirement for companies to apply for export authorization from IBAMA (Maisonnave 2021) which led, in May 2021, to an announcement that Ricardo Salles, Brazil’s Minister of Environment, Eduardo Bim, the Director of IBAMA, and at least eight other officials, were the target of a Brazilian police operation investigating the extent to which corruption had been involved in the decisions that led to the export authorization requirement being revoked (Mendes 2021). In June 2021, Brazil’s Supreme Court authorized an additional investigation of Salles for obstruction of justice related to the largest ever seizure of illegal timber in March 2021 (Williams 2021). Salles resigned in June 2021.



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Demand for ipê from the Amazon Basin: Who is buying?

At least 85 percent of the ipê exported from Brazil, Bolivia, Peru, and Paraguay was destined for the US, Canada, and Europe, where ipê sawnwood or decking is used for exterior flooring products and residential decking (Brancalion et al. 2018).

IBAMA data for Brazil's exports of *Handroanthus serratifolius* between 2010 and 2016 identified ten main consumer markets, including the US, France, Belgium, the UK, the Netherlands, Portugal, and Denmark (CoP18 Proposal 49 2019, withdrawn).

Forest Trends found that EU and EFTA¹⁰ countries (including the UK) purchased 45 percent of all ipê species (by volume) exported between 2017 and 2021. While there are documented exports to at least 19 European Union Member States and the UK, over 80 percent of Europe's ipê shipments by volume entered the EU market through four Member States: France, Belgium, Spain, and Portugal. France particularly has emerged as a hub for Amazon Basin species entering into the EU, and we estimate that French importers' demand for Brazilian ipê increased 84 percent by volume for the period 2017-2021, compared with previously reported IBAMA figures for 2010-2016.¹¹ Belgian imports from Brazil have also increased (by as much as 70 percent), while the Netherlands and the UK have seen significant declines in direct imports in the last five years compared with the 2010-2016 period (35 percent decrease in the case of the Netherlands and 95 percent decrease in the case of the UK).

The US purchased roughly 36 percent of the ipê exports based on volume over the period, with Canada purchasing 4 percent during the same span. While the US market consumed less than the EU as a whole, the US remains the primary single global buyer of ipê. We estimate that US consumption of ipê from Brazil has increased 126 percent for the period 2017-2021, compared with previously reported IBAMA figures for 2010-2016.

The majority of the remaining ipê exports were destined for Israel, China, the Republic of Korea, Japan, and India. While IBAMA figures for Brazilian exports of *Handroanthus serratifolius* between 2010 and 2016 do not include data for all countries, Japanese and Chinese demand appears to have remained largely consistent across the last decade.

Notably regulations to tackle the trade in illegal wood have now been operational for several years in most of these markets including across the EU (through the European Union Timber Regulation), in the US (through the US Lacey Act) and in Canada (through the Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act). Implementation and enforcement modalities are now well established in these jurisdictions (Forest Trends 2017). More recently, Japan put in place a law to encourage legal wood imports, and the Republic of Korea has developed a regulation to exclude illegal wood imports, while Indonesia and Vietnam have committed to excluding illegal timber from their imports as a key component

¹⁰ All references to "EU + EFTA" signify the 27 Member States of the EU, as well as the UK, Iceland, Liechtenstein, Norway, and Switzerland.

¹¹ Forest Trends estimated percentage increases based on the assumption that the data published by IBAMA on the volume of exports of *Handroanthus serratifolius* represented roughly 70 percent of all ipê species exports. As such, Forest Trends compared the volume of all ipê products exported to a country in our analysis of shipment level data for 2017-2021 with the IBAMA export data which was inflated to account for the other ipê species exported that are not *Handroanthus serratifolius*. For example, IBAMA data suggested that 31,062.10 m³ of *Handroanthus serratifolius* was exported to France for the period 2010-2016. That figure was assumed to only represent 70 percent of the trade, so Forest Trends calculated an estimate of the total ipê species exports (31,062.10/70*100= 44,374 m³), which was then compared with the data assessed for the 2017-2021 period for the percentage change figures in this section.



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of the timber legality assurance systems that underpin Forest Law Enforcement Governance and Trade (FLEGT) Voluntary Partnership Agreements (VPAs) (Forest Trends 2019).

In total, despite significant evidence of illegality in production, 90 percent of all ipê tracked in this study was exported to markets with timber import regulations designed to exclude illegal timber from their jurisdictions. In light of escalating forest loss and the attendant climate impacts in recent years, many leaders in these jurisdictions have also prioritized Amazon Basin protection.

Concerns surrounding illegal logging and trade involving natural forest species, such as ipê, have been raised in the context of timber import regulation enforcement. For example, in September 2019, the EU Member States developed a common enforcement position related to timber sourced from Brazil and published some specific guidelines for operators. This common enforcement position specifically concludes that high value species, “particularly ipê,” increase the risk of illegal timber harvest when sourcing from Brazil and that under the EU Timber Regulation, species harvested in natural forests in the Brazilian Amazon Basin should generally be considered by operators to have a “non-negligible” risk of illegality and that due diligence needs to be assessed on a case-by-case basis (EC 2020).

Many companies are themselves reporting concerns about the risks of sourcing from the region, particularly Brazil. In 2020, Forest Trends interviewed seventy-two operators importing timber into five EU Member States and the UK to better understand how industry sourcing practices have evolved with implementation of the EUTR since 2013 (Forest Trends 2021). Over half of the importers interviewed for that study were importing from Brazil with at least twelve reporting that ipê was one of their main species traded. Brazil was the source country most frequently cited as being perceived as “high risk” for illegal sourcing by importers. Many of the companies interviewed appear willing to import plantation species from Brazil but are increasingly concerned about ipê and other high-value natural forest species. Some companies reported plans to cease importing ipê in the future, while a few referenced shifting their import routes to avoid importing into certain jurisdictions.

While the volume of ipê exports from Brazil, Bolivia, Peru, and Paraguay plateaued in 2020 and appears to have declined slightly in 2021, the last five years saw 76 percent more ipê (by volume) exported from Brazil than in the period 2010-2016. There is increasing evidence that ipê populations are threatened by the scale of both legal and illegal logging in the Amazon Basin. Certified ipê is an option, but while there are 2.3 million hectares of certified forest in Bolivia, Brazil, and Peru with ipê (either *Tabebuia* spp. or *Handroanthus* spp.) listed in their certified forest management units (according to data from the Forest Stewardship Council certificate database), ipê requires large areas of natural forest in which to thrive and only occurs in low densities. This means that the actual percentage of certified ipê in trade is low and is not increasing at the pace of escalating demand.

It is clear that timber import regulations alone, such as the European Union Timber Regulation (EUTR), the UK Timber Regulation and the US Lacey Act, focused on eradicating illegal trade, are not able to address the scale of the demand for ipê and the resulting unsustainable trade in certain tropical species.



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The Convention on International Trade in Endangered Species (CITES) and efforts to improve international protections for ipê

CITES is a multilateral environmental agreement with 184 member countries. Its aim is to ensure that international trade in species of wild animals and plants does not threaten their survival. While CITES is legally binding on the member countries or “Parties,” it does not replace national laws. Instead, it provides a framework to be respected by each Party, which must adopt its own (domestic) legislation to ensure that CITES is implemented at the national level.

Parties to the Convention monitor and control relevant trade by requiring all imports, exports, and re-exports of specimens of species covered by the Convention to be authorized through a global licensing system. The parties must record all trade in listed species and report it annually to the CITES Secretariat. This information is made public through the online CITES trade database managed by the UN Environment Programme World Conservation Monitoring Centre (UNEP WCMC). In addition, the parties must designate at least one management authority responsible for licensing and at least one scientific authority responsible for assessing the effects of proposed and actual trade on the status of the species.¹²

As such, the two tenets of CITES are that 1) trade in wild species of fauna and flora should be sustainable and 2) legally acquired. To authorize the export of a specimen of a CITES-listed species, a national management authority must be satisfied that the specimen has been “legally acquired” and, in the case of species listed in Appendices I and II, that the relevant national scientific authority has advised that the proposed export will not be detrimental to the survival of the species. However, a lack of guidance on how to assess the legality requirement led to a wide variation in the level of implementation amongst Parties. To address this issue, Parties adopted a resolution on Legal Acquisition Findings¹³ in 2019, containing steps the Management Authority could take to verify legality of a CITES-listed specimen prior to authorizing export. Forest Trends and the Center for International and Environmental Law (CIEL) produced a handbook to support Parties in making legal acquisition findings (2022). In addition, amendments to another resolution on Compliance and Enforcement¹⁴ set forth recommendations for importing Parties to scrutinize the legality of imports rather than relying on documents as de facto proof of legality.

Several Parties to CITES have raised concerns about the increasing level of international trade in species of timber traded as ipê – trade that appeared to be detrimental to the survival of the species in the wild as well as being subject to increasing levels of illegality. In 2018, Brazil’s IBAMA drafted a report showing that 92 percent of Brazil’s ipê is sold on international markets and suggested that the wood species should be included in CITES to address the scale of commercialization (lg 2020). A proposal to list the genera *Handroanthus*, *Tabebuia*, and

¹² Species covered by the convention are listed in three Appendices. Appendix I lists species currently threatened with extinction; trade in specimens of these species is permitted only for very limited purposes and requires an export and import permit. Appendix II lists species not necessarily threatened with extinction in the immediate term but in which trade must be controlled in order to avoid “utilization incompatible with their survival.” All parties to the Convention are required to control trade in species listed in Appendices I and II in accordance with Articles III and IV of the convention, respectively, and follow the guidance of resolutions adopted by the Conference of the Parties (CoP), which meets every three years. Appendix III lists species that are protected in at least one country that has asked other CITES parties for assistance in controlling trade in those species.

¹³ The resolution is available at <https://cites.org/sites/default/files/document/E-Res-18-07.pdf>.

¹⁴ The resolution is available at <https://cites.org/sites/default/files/document/E-Res-11-03-R18.pdf>.



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Roseodendron in Appendix II was submitted by Brazil to the 18th Meeting of the Conference of the Parties (CoP), with an annotation that meant that logs, sawn wood, plywood, and veneer would be subject to a regulation of trade. This proposal was subsequently assessed by TRAFFIC and IUCN, who stated that it met the trade and biological criteria for a CITES listing. However, several months before the meeting of the CoP in 2019, Brazil, under a new administration, withdrew the proposal and the genera remain unlisted. In 2020, several media outlets in Brazil reported evidence that the federal government had withdrawn the proposal following significant industry pressure and a direct request from Minister Ricardo Salles (lg 2020; O GLOBO 2020; Observatório do Clima 2021).

NEXT STEPS

We recommend that all species of timber traded as ipê are listed in the Convention on Trade in Endangered species (CITES), which is designed to ensure the trade in wild species of fauna and flora should be both sustainable and legally acquired. It is important that CITES is consistently and robustly implemented to ensure that the trade in listed timber species is both legal and sustainable; any inconsistency in the oversight or methods used to determine legal acquisition for CITES traded specimens not only undermines the credibility of the Convention but also the effectiveness of other legislation.

In addition, there are also clear opportunities to increase national protections for ipê and ramp up enforcement capacity in the Amazon Basin itself to address the fraud and corruption which facilitates the laundering of illegal timber into supply chains. As part of this approach, it is critical that governments in the region are committed to environmental protection and invest in collecting data on species populations and compositions through national forest inventories, as well as implementing robust timber tracking or traceability systems to promote transparency in the timber supply chain. Detailed forest inventories will allow more accurate assessments of a species population, such as ipê, and facilitate decision making around when to act to prevent a population decline. This national level data should be transparently reported and shared with other governments and key stakeholders, for example, through the Amazon Cooperation Treaty Organization (ACTO), aimed at the promoting of sustainable development within the Amazon Basin.

Finally, we recommend that governments as well as the World Customs Organization, which administers the Harmonized Commodity Description and Coding System, amend Harmonized System (HS) codes used to classify traded products to increase species-specific export and import data for timber products. Identifying the species of wood in international trade is vitally important to efforts to capture and track the volume of certain species. This can help conserve species biodiversity, and tackle timber trafficking. While certain chapters and HS codes require companies to report their imports by species name, there remain significant shortcomings when it comes to the HS codes for tropical timber species.



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ANNEXES

Annex I: Methodology for estimating ipê trade volume

To determine a minimum and conservative estimate of the volume of ipê exported from four Amazon Basin countries in the period between 2017 and 2021, Forest Trends used shipment level data purchased from two private customs data providers: Panjiva Inc. and Export Genius.

Shipping records contain more information than public international trade datasets such as UN Comtrade or Eurostat. For example, shipment record data provides information on the importer, supplier, port, and the product through a description field, which may include information on the species. These detailed datasets therefore allow a more comprehensive analysis of the species used in products. While some of this information is collected by the US Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) through the Lacey Act declaration requirement, or by Customs Authorities, the data is not made publicly available.

The majority of the data were sourced from Panjiva Inc., where Forest Trends queried all exports for the timeframe by species, using queries based on eleven common names and misspellings for "ipê." This query followed research focused on assessing the species composition of flooring/decking products more broadly, which had provided significant insight into the names often used in different export data, as well as common misspellings.

Forest Trends downloaded data for roughly 35,000 shipments from Panjiva Inc. These data were then assessed for relevance with "ipê shipments," only "counted" or included in the analysis if they clearly listed wood or furniture in the product description field, as well as a common name for ipê or a recognized botanical name. This categorization was then reviewed to ensure that the data only captured relevant ipê shipments. In addition, shipments originating in one of the four focus countries and destined for another (e.g., reported in Paraguay's exports as destined for Brazil) were excluded due to a risk of duplication in Brazil's exports. Shipments that mentioned ipê as well as other species, such as cumaru, jatoba, massaranduba, etc., were also counted separately as a "mix."

Data for Bolivia's exports are limited on Panjiva Inc., with data only available for 2017 and the first nine months of 2018 at the time of writing (February 2022). Forest Trends had purchased Bolivia's flooring (HS code 4409) exports for 2019 from Export Genius, publishing data on the species composition and sourcing risks in December 2021. Forest Trends supplemented Bolivia's Panjiva Inc. data for 2017 and 2018 with the volume of ipê flooring exported in 2019 from that analysis. As such, Bolivia's data for the 2017-2021 period remains incomplete.

Forest Trends ultimately calculated the gross weight of ipê exports in kilograms, as reported in the export data. The analysis could not determine whether the shipments listed as "ipê" were in fact ipê, and all shipment description fields self-reported by the exporter that listed ipê were included in the analysis. It is therefore possible that some of the shipments may, in fact, have been other species that have been mis-declared. Exporters are not mandated to list species information on shipping manifests, except for products produced with CITES-



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listed species. Thus, some shipment record data does not list information on species. This type of analysis therefore misses shipments of ipê that were not declared in the shipment description field. In analyzing Brazil’s flooring exports over time, for example, Forest Trends found that about 5 percent of the volume did not have any species information in their shipment description field. In Bolivia’s case, roughly 35 percent of flooring exports (based on the overall weight in kg) did not include any species information. As such, Forest Trends presents a conservative, minimum estimate of the volume of ipê exported from Bolivia, Brazil, Peru, and Paraguay over the period 2017 and 2021 and the analysis is incomplete and limited by the availability of data.

Annex II: Exports of ipê from four Amazon Basin countries (in m³), 2017-2021 (where data were available)¹⁵

Export shipment origin	2017 (exports of ipê m ³)	2018 (exports of ipê m ³)	2019 (exports of ipê m ³)	2020 (exports of ipê m ³)	2021 (exports of ipê m ³)	Total ipê exported from Amazon Basin country 2017-2021 (m ³)
Brazil	77,846	94,258	99,323	101,310	76,643	449,381
Bolivia	3,052	2,473*	1,885**	no data	no data	7,410
Paraguay	1,955	1,663	1,231	922	1,306	7,077
Peru	974	1,183	1,157	923	1,508	5,744
TOTAL	83,827	99,578	103,596	103,156	70,213	469,613

Source: Panjiva 2022 and Export Genius 2021. Compiled by Forest Trends 2022

¹⁵ *Data on Bolivia’s exports in 2018 are only available for the first nine months as of writing. **Data for Bolivia’s 2019 exports only includes exports reported under Harmonized System (HS) code 4409 for “flooring, moulding, and strips.” No data was available on Bolivia’s exports in 2020 or 2021.



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Annex III: Exports of ipê by species name listed in the product description field

Ipê species/ description provided in customs data	2017 (kg)	2018 (kg)	2019 (kg)	2020 (kg)	2021 (kg)	Total (kg)	% of total
<i>Tabebuia/ Handroanthus serratifolia</i>	54,935,369	66,985,987	74,434,838	78,120,919	59,695,707	334,172,820	64
Ipê	26,160,882	31,990,226	27,679,527	23,677,362	16,931,869	126,439,867	24
<i>T./H. impetiginosa</i>	1,064,093	3,799,161	7,130,266	9,151,859	8,270,014	29,415,393	6
Ipe-“<i>Tabebuia spp.</i>”	5,599,774	2,916,260	1,090,660	689,887	783,109	11,079,689	2
Tajibo	1,457,736	1,413,183	1,988,774	68,428	29,980	4,958,102	1
Lapacho	1,251,624	1,137,177	705,297	453,568	727,051	4,274,717	1
<i>T./H. roseoalba</i>	959,571	925,451	653,591	679,250	723,375	3,941,238	1
<i>T./H. capitata</i>	701,147	461,998	888,684	458,206	275,364	2,785,399	1
<i>T./H. vellosi</i>	149,918	391,265	476,283	1,206,012	362,258	2,585,736	1
Guayacan	733,982	434,404	418,464	441,370	422,546	2,450,766	0.5
<i>T./H. incana</i>	472,309	414,631	68,189	351,339	54,748	1,361,216	0.3
<i>T./H. barbata</i>	281,308	127,555	154,593	69,783	234,462	867,701	0.2
Brazilian walnut	no data	202,642	157,811	44,856	155,965	561,274	0.1
<i>T./H. chrysantha</i>	86,642	65,410	117,371	no data	73,089	342,512	0.1
Tahuari	no data	135,221	22,500	16,109	102,448	276,277	0.1
<i>T./H. heptaphylla</i>	6,818	27,796	no data	105,281	149,160	289,055	0.1
<i>T./H. avellanadae</i>	25,014	98,936	22,579	no data	no data	146,529	0.03
<i>T./H. chrysotricha</i>	no data	no data	18,064	no data	no data	18,064	0.004



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