

75% of exclusive hardwood may be illegally harvested

October 26 2023



Ipê forest, Brazil. Credit: Chalmers/Daniel Beltrá

The tropical wood type ipê is popular for building exclusive wooden decks, and in North America and Europe, the demand for the material has increased sharply.



Now, a study from Chalmers University of Technology, Sweden, shows that more than three-quarters of all ipê from the top producing region in Brazil could have been harvested illegally. "The study reveals where in the chain the greatest risks lie. It can be a tool to counteract illegal logging," says Caroline S.S. Franca, Ph.D. student at Chalmers.

Ipê is one of the world's hardest woods. It is therefore particularly suitable for building balconies, conservatories, stairs or piers. Demand for the exclusive, tropical wood has increased steadily in recent years, especially on European, American and Canadian markets. In Brazil, the country of origin for 96% of all ipê on the market, exports have increased by over 76% in volume over the past decade.

This development means an increased risk of illegal logging of ipê, which in November 2022 was included on the Cites list of species threatened by overexploitation due to its popularity and increasing demand through international trade.

"Some products from the rainforest are more valuable and therefore more vulnerable to illegal logging. Ipê is at the top of that list. At the same time, ipê trees grow slowly, which means that regrowth takes a long time. The risk of extinction is real, and today there are no reliable figures on the amount of remaining trees and the damage to existing stands that has already been done," says Caroline S.S. Franca, Ph.D. student in Physical Resource Theory at Chalmers.

Mapping where risks are greatest

Caroline S.S. Franca is the lead author of a research study on the risks for illegal logging of ipê in Brazil, which was published in *Nature Sustainability*. In the study, "Quantifying timber illegality risk in the Brazilian forest frontier," the researchers analyzed extensive amounts of data to identify where in the supply chains there are significant risks that



logging has taken place illegally.

The conclusion is that more than three-quarters of all ipê from Pará—the top producing state of this wood in Brazil and a major source of exports—in the period 2009–2019 may have been illegally harvested.

"In the study, we see, for example, that 16% of the ipê that ends up on the market is harvested without proper permits, and that landowners claim that they have felled more ipê on their land than is likely to exist on the stated area. We also show that there is more wood in circulation than the official production figures indicate," she says.

Paving the way for better enforcement and practices

"We know that illegal logging is driving forest degradation, and is linked to organized crime, conflict and the destruction of forest-dependent local communities," continues Caroline S.S. Franca, adding that "degradation of Amazon forests does not only affect the <u>local environment</u> and the ecological diversity of the rainforest, it is also as large of a contributor to climate change as outright deforestation."

She hopes that her research results can contribute to an increased awareness of the extent of illegal logging among decision-makers and actors in the supply chain, as well as among consumers.

"The <u>novel methods</u> developed in the study, exploring existing patterns in the data for transactions and approvals of ipê exploration have an enormous potential both to improve forest control systems in Brazil, as well as to support supply-chain actors in their efforts to make timber sourcing more responsible and sustainable," says Marco Lentini, a co-author of the study with a long-standing experience working on <u>sustainable forest management</u> in the Brazilian Amazon.



The information already exists, now there is political will to use it

Recent numbers form Brazil's <u>forest</u> monitoring system shows that deforestation in the Amazon have been almost halved in 2023, compared to last year. Brazilian President Luiz Inácio Lula da Silva also initiated the so-called Belém Declaration—an alliance among eight South American countries to combat the deforestation of the Amazon, adopted on August 8, 2023.

"This declaration is a welcome expression of renewed political will to reduce deforestation," comments Martin Persson, co-author of the ipê study and a Chalmers researcher with extensive experience of research on the devastation of the Amazon.

But he also emphasizes that the danger is far from over, and that the declaration itself will not lead to change.

"Halting deforestation and <u>forest degradation</u> requires concrete policy measures. And what we point out in our study is that there is already data and information that can be used by authorities to get to those who harvest forests illegally," he says.

Important for consumers to ask questions

There is a certification for sustainably produced wood, FSC, which can serve as a guide for consumers who want to avoid buying non-sustainable or illegally harvested wood. But regardless of whether the wood has an FSC certification or not, Caroline S.S. Franca emphasizes that it is always important to ask a few basic questions before buying.

"Where exactly does the wood come from? Is there documentation of



the origin of the wood and its path through the production chain? As a consumer, you have a greater opportunity to make an informed decision if you get answers to those questions," she says.

More about the ipê market

- Brazil is the country of origin for 96% of all ipê on the market.
- Brazil's exports of ipê have increased by over 76% in volume between the period 2010—2021.
- 85% of the demand for ipê comes from European, American and Canadian markets. 45% of exports go to Europe.
- Since 2017, at least 525,000 metric tons, or 470,000 cubic meters of ipê, have been exported from Brazil, Bolivia, Paraguay and Peru.
- At least two-thirds of the species exported as ipê from the Amazon region in 2017–2021 are on the <u>IUCN list</u> of species threatened with extinction. Ipê is also on <u>the list</u> of species threatened by overexploitation due to international trade.

FSC, the Forest Stewardship Council, works to ensure that the world's forests are managed more sustainably. With FSC-controlled wood, the risk of the wood coming from unacceptable sources, such as illegally harvested wood or wood from forests with endangered high conservation values, is limited.

More information: Caroline S. S. Franca et al, Quantifying timber illegality risk in the Brazilian forest frontier, *Nature Sustainability* (2023). DOI: 10.1038/s41893-023-01189-3

Provided by Chalmers University of Technology



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