# Legal & sustainable logging to protect the rainforest



MAICURU HARDWOODS GmbH

### The issue

Every year tropical forests are burned and the trees are cut down as a way to gain new agricultural land. In addition, in the Amazon region, arable land and pastureland are also burned down because this is the most cost-effective, seasonal method to clear huge areas of weeds, dried vegetation and pests, resulting in a huge quantity of  $CO_2$  emissions and ultimately damaging the top soil.

Images of extensive burning and unsettling reports remain anchored in the minds of the public.<sup>1</sup>

As a result, many people boycott all tropical timber products in the belief that they are helping to fight deforestation and climate change.

In fact, those who boycott sustainable tropical wood may unknowingly be promoting the destruction of tropical forests.

Although it may sound counter-intuitive, **sustainable timber practices** actually help fight deforestation in the Amazon.

As one of the most complex ecosystems on earth, the Amazon rainforest is home to numerous animal and plant species and is also one of the **largest oxygen producers** and **carbon sinks** outside our oceans.

1

Moreover, there is also sound evidence that the appearance of many **zoonoses** (infectious diseases that can be transmitted from an animal to a human) is related to deforestation and the **destruction of habitats**.<sup>2</sup>





#### The main reasons for deforestation



No. 2: Soy

The latest chart available, published by the environmental NGO Mongabay, confirms the current figures according to the WWF.

According to the current figures from the Brazilian Institute for Space Research (Inpe) dated 15.01.2020, the destruction of the Amazon rainforest in Brazil in 2019 increased dramatically by 85% compared to the previous year. Many people do not realize that the **main drivers of deforestation in the Amazon rainforest** are beef (No.1) and soy (No.2) according to the reputable environmental association WWF (World Wildlife Fund for Nature).<sup>3</sup> Beef and soy are in fact responsible for almost 3/4 of the forest loss in the Amazon.

Even illegal logging, which is so often accused and which we must fight, accounts for only a minimal proportion of forest loss, as shown in the graphic. As a matter of fact, very often **illegal logging** is a byproduct of deforestation for agricultural or other land-use-change purposes. The following chart shows this clearly.<sup>4</sup>



### **MAICURU's responsibility and contribution**



PMFS Plano de Manejo Florestal Sustentável

Since its foundation in 2012, MAICURU Hardwoods, with headquarters in Wolfratshausen near Munich, strives to sell Brazilian hardwood only from **legal AND sustainable** forest management systems, which MAICURU's partners, Uwe Guhlich and Harel Calderon, see as key to preserving the rainforest.

Because the protection of forests is extremely important in view of today's pressing environmental issues (CO<sub>2</sub> emissions, global warming, droughts, floods, etc.), MAICURU believes it has a responsibility towards future generations and is currently working on offering its MAICURU tropical timber, not only **legally** and **sustainably**, but also **climate positive**.

To this end, MAICURU is working with Dr. Odette Deuber, Do Climate GmbH, to provide full transparency along the value chain by calculating both the Corporate and the Product Carbon Footprints.

If we really want to make a difference, then we have to work in a climate-positive way today. We hope that many other companies will follow suit.

**Harel Calderon** 



#### **Legality and transparency**



The European Timber Regulation (EUTR) prohibits the import of illegally cut wood and products made from it. It is binding for all EU member states and the timber importers involved.

- As an importer, MAICURU is obliged to document the EUTR with all necessary evidence - incl. photos with GPS data! This is checked in a particularly strict manner by the BLE (Federal Agency for Agriculture and Food) as the responsible authority.
- This legality documentation comprises an average of around 100 documents for each container and the required due diligence system accounts for approximately 60% of our working time.
- The basis for legality is guaranteed by sustainable forest management projects (PMFS for short, see below).
- As a result of our annual visits to these PMFS and the controls that have to be carried out on site, MAICURU is able to reliably prove the legal origin of the wood right from the source in the very depth of the forest.
- In addition, MAICURU also offers woods with a certification. The FSC (Forest Stewardship Council) seal of approval identifies woods that have been certified according to the FSC sustainability criteria.
- Important: the rainforest is only protected if it has economic value and the owner has the means to use the forest sparingly, sustainably and profitably.

In order to improve our legality and sustainability due diligence we have engaged a company to assist us with the satellite monitoring of the harvesting areas.



As you can see on the satellite image, some areas are severely deforested around the PMFS, while only a very small percentage of the trees were felled inside the PMFS as planned adhering to the map (see the small pink dots). This is proof that a well-managed PMFS protects the forest.

The PMFS is framed by a light green line. The concentrated pink pixels outside of the PMFS show deforestation zones.

#### Far left:

Display of the period during which deforestation is monitored.



# Sustainability and PMFS (sustainable and responsible forest management)



PMFS satellite display

The **PMFS (Plano de Manejo Florestal Sustentável)** is one of the most sustainable systems of forest management in tropical regions.

The aim of the PMFS, with which MAICURU has exclusively worked since the beginning, is to benefit from nature's resources in the least invasive and destructive way in order to preserve the forest ecosystem and allow it to **regenerate completely and naturally** over a period of 25-35 years after the initial removal of individual trees.

The rainforest that is sustainably managed also contributes to **preserving the biodiversity** and regional and global climate balance primarily by maintaining the hydrological cycle and carbon sinks.

#### How does a PMFS work?



PMFS access and fencing

- The PMFS, which are developed mostly on private land, are carefully prepared in accordance with environmental regulations. It takes about 4 years from the moment the Prior Authorization for a Technical Analysis (APAT) is issued by the Authorities until the first timber harvest can take place.
- The PMFS are fenced in and protected from outside illegal access.
- Based on the "forest inventory", a "tree log of the PMFS" is created to record each individual tree.
- Each tree is subsequently transferred to the forest map, which shows the entire area to scale.

	A	В	С	D	E	F	G
1	FAIX 🚽	NUM_ARVOI -	NM_POPUL4		comp tora 1 🗸	Diam m tora 1 🧅	VOL tora 1 🧅
60	15	338	Cumaru	Corte	7,667	1,031	6,398
61	15	340	Cumaru	Remanescente	5,000	0,360	0,510
62	15	344	Faveira-ferro	Corte	5,000	0,993	3,870
63	15	346	Ipê	Remanescente	5,667	0,346	0,531
64	15	355	Faveira-ferro	Corte	8,333	0,562	2,069
65	15	356	Faveira-ferro	Corte	5,667	0,855	3,254
66	15	361	Ipê	Corte	8,333	0,565	2,091
67	15	364	Faveira-ferro	Corte	6,000	0,864	3,517
68	15	366	Faveira-ferro	Porta Sementes	5,667	0,761	2,580
69	15	369	Ipê	Porta Sementes	8,667	0,548	2,041
70	15	374	Faveira-ferro	Porta Sementes	5,333	0,700	2,052
71	16	377	Cumaru	Porta Sementes	5,667	0,586	1,527
72	16	387	Faveira-ferro	Porta Sementes	5,333	0,553	1,283
73	16	395	Ipê	Porta Sementes	8,000	0,498	1,557
74	16	396	Ipê	Corte	9,000	0,876	5,419
75	16	398	Ipê	Corte	9,000	0,697	3,434
76	16	402	Ipê	Corte	9,000	0,879	5,456
77	16	406	Faveira-ferro	Porta Sementes	5,000	0,539	1,140
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## The forest map and its meaning



Esplanadas Área de P. Permanente Árvores Abatidas (Tocos) Árvores Proibidas de Corte Árvores para Abate

- Arvores para Abate
   Arvores Porta Sementes
   Árvores Remanescentes
  F-01 Faixas
- Árvores Abatidas (Tocos)
   Tree stumps (either from a previous harvest of timber or from naturally overturned trees)
- Arvores Proibidas de Corte
   Trees for which there is a prohibition of felling
- = Árvores para Abate
   = Trees selected for felling (timber harvesting)
- = Árvores Porta Sementes
   = trees carrying seed capsules, which have been exempted from felling
- Arvores Remanescentes
   Other trees, for example those that are still too young and are therefore excluded from a timber harvest



River courses and faixas = stripes

The stripes are used to divide up the woodland and in the map itself each individual tree are marked with a coloured dot and a tree number.

This information can also be found in the logging protocol, e.g. in line 76 Faixa 16, tree number 402, wood species Ipê (see previous page).

- Based on this forest map, an annual logging permit (POA) is issued. This POA also indicates logging quantity allowed.
- This permit includes requirements and obligations, which are regularly controlled by inspections of the Brazilian environmental authority IBAMA or federal state authorities.
- In the PMFS, only a limited amount of wood may be extracted (maximum 30m<sup>3</sup> of wood per hectare) – within maximum 2 years per terrain.
- Tree condition and biodiversity must always be taken into account by the PMFS: For example, it is not permitted to cut down fruit-bearing trees or trees that are still too young and cannot be harvested.
- In addition, PMFS also includes permanently protected areas such as river courses which are a primary source of food and water for animals.
- Each terrain will only be commercially available again 25-35 years after the last timber harvest to allow it to regenerate completely. Until then, existing roads become only partly accessible or blocked due to naturally falling trees, embankments or the dredging of deep hollows to discourage transit.
- After the selected timber has been harvested, that section of the tropical rainforest must remain untouched for the flora and fauna to continue flourishing.



#### **On-site checks**



Ipê stem 402, GPS coordinates: S 09 ° 39'42" W 61 ° 26'59" taken on 08<sup>th</sup> October 2019





Ipê root stump 402, GPS coordinates: S 09 ° 42'15" W 61 ° 30'23" taken on 08. October 2019

Every autumn, MAICURU sets off on a journey to the sawmills and logging areas in the rainforest for about 2-3 months.

During this journey, which is sometimes arduous and not without danger, we cover a good 20,000 km by off-road vehicle.

Over the years we have visited and carefully checked more than 250 sawmills for quality, legality and the overall impression of reliability.

Today MAICURU works with 15-20 sawmills that Uwe Guhlich can confidently say produce legal and sustainable goods.

MAICURU considers it it's duty and responsibility to be personally convinced of the legal origin of the timber by actively supervising the suppliers and their felling areas on site.

Over the last 8 years MAICURU has also observed that these annual visits have raised awareness of the importance of legality for many of the suppliers.

The following pictures illustrate the on-site checks:

- ► First of all, we randomly select 3-5 logs at the sawmill's round timber yard and note down the tree numbers in order to compare them on site in the felling area.
- Then we drive to the PMFS which is usually a day's trip away from the sawmill.
- The root stumps are somewhat deep in the forest and can only be found with the help of the forest map.
- The previously noted tree numbers on the root stumps are compared with the forest inventory list (see above). The purchase is only made if all the details match!

#### Conditions on site:

We walk about 5 km daily in the tropical rainforest in 30°C heat and 90%+ humidity and where we can be threatened by scorpions, snakes and even jaguars.





### **Practiced social responsibility in the PMFS**



Sustainable forest management in the PMFS creates new jobs and stabilizes social structures, as it provides livelihoods for entire families:

The fathers work in the forest, the mothers cook for the staff and the children are taken to school or taught locally in many PMFS.

This helps fight poverty and rural exodus/migration!



Accommodation for forest workers and their families.



Many sawmills support the construction of schools for the children of the families working in the PMFS.

# A few impressions of the MAICURU trips to the impact areas



It's a tough drive to the sawmills.

This bridge is a real challenge.





A forestry worker points at a young lpê tree that grew from the seeds of a nearby seed bearing lpê.



On the way to a Cumaru root stump. You can see how much the vegetation around the stump has already (over) grown.



Wood was harvested here 1 year ago – a new green is already growing.



The IBAMA\* is in control.

\*Brazilian Institute for Environment and Renewable Natural Resources, which carries out regular inspections.







Uwe and Milena Guhlich at the quality control in the sawmill: Manual inspection of first-class Ipê decking boards for the European market.

Having a clear conscience because we have done our best is essential for us or we would not be able to continue our work year after year with this extraordinary commitment.
 And if we don't, it would be even worse for the rainforest.

**Uwe Guhlich** 

#### **MAICURU's vision!**

- The work of the entire MAICURU team is embedded in the deep conviction that forests are the key to a future worth living and that they must be managed in an ecologically and socially sustainable manner - as achieved in the PMFS.
- The MAICURU team strives for a market differentiation based on values such as honesty, sustainability, transparency and trust. The goal is a cultural rethinking that recognizes the integrity and intrinsic value of biodiversity and healthy forest landscapes.
- MAICURU pursues this vision and shares it with its partners and customers.

Together we want to initiate a movement that not only fulfills the legality requirements but that also **demands sustainable sourcing that preserves biodiversity**!







#### **Other note-worthy facts**

Hardwoods such as Cumaru, Ipê and Itaúba are ideal for outdoor use due to their high resistance to wood-destroying fungi and insects (durability class 1). Any domestic wood of lower durability class would probably have to be replaced three times in the life of a deck, which is not very sustainable!

Wood is the only naturally renewable building material.

2. In addition: the use of biomass in construction is one way of promoting sustainable building materials. The production of cement and steel releases large amounts of CO<sub>2</sub>.

On the other hand, in construction when using wood, which is composed of over 40% carbon, the carbon remains stored in the wood rather than being released into the atmosphere.

This is why forests are carbon sinks. In addition, with sustainable practice, new trees naturally grow in the place of the harvested wood and store even more carbon in their trunks and roots. In this way, sustainable wood management and use not only helps to maintain the carbon sink of the forest and keep it alive for future generations, but also helps continuous storing of carbon in the wood used in the manufacture of furniture, construction, etc.

We all know it is ALWAYS crucial to take a critical look at the ORIGIN of (tropical) wood, but we should also do the same with supposedly native woods. Often, the name of a type of wood seems domestic, when in reality its origin is anything but national, legal or sustainable. For example, larch sounds local, but it could actually come from Siberia, a boreal forest zone in which growth takes place very slowly and where legality and sustainability unfortunately are receding as a result of rising corruption practices.

4. By supporting local businesses and populations, MAICURU helps prevent poverty, crime and rural exodus, leaving a positive impact on the community and the environment.

#### In conclusion

The key issue for MAICURU is not only to comply with the law by following the due diligence required by the European Timber Trade Regulation (EUTR), but to go above and beyond ensuring that its suppliers meet sustainable forest management practices.

You can also find this and other information at: www.maicuru.com

#### Sources:

- <sup>1</sup>Reflecting on a Tumultuous Amazon Fire Season: https://earthobservatory.nasa.gov/images/146355/reflecting-on-a-tumultuous-amazon-fire-season
- <sup>2</sup> Research report on the importance / application of a one-health approach with regard to potential zoonotic pathogens in the Amazon region:
- https://www.researchgate.net/publication/261064881\_A\_'One\_Health'\_Approach\_to\_Predict\_Emerging\_Zoonoses\_ in\_the\_Amazon <sup>3</sup>What are the biggest drivers of tropical deforestation?
- https://www.worldwildlife.org/magazine/issues/summer-2018/articles/what-are-the-biggest-drivers-of-tropical-deforestation
- <sup>4</sup> Reasons for deforestation in the Brazilian Amazon https://www.abenteuer-regenwald.de/bedrohungen/fleisch-soja



