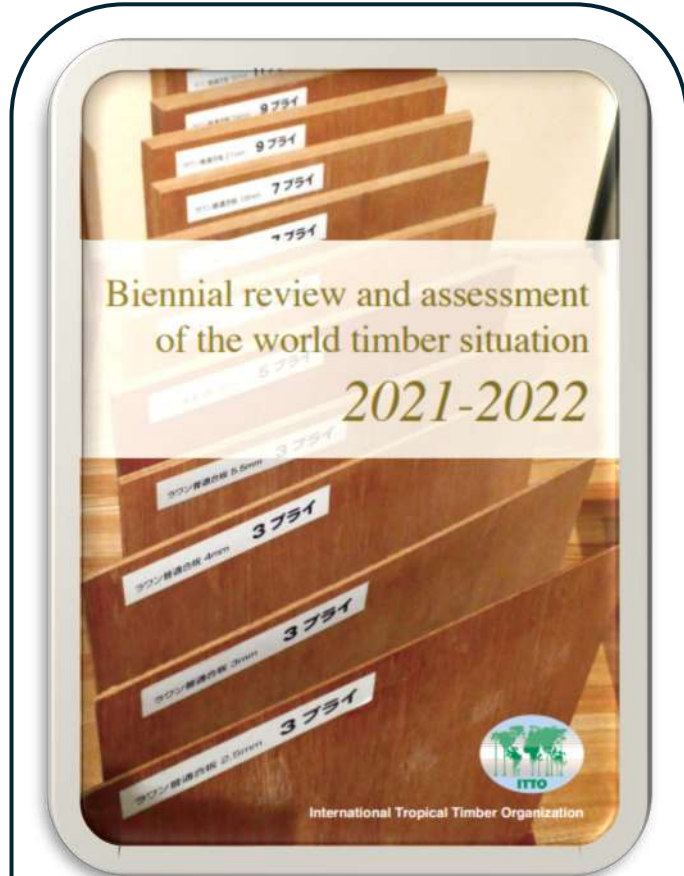


PRODUCTION, TRADE AND DEMAND OF TROP. PRIMARY WOOD PRODUCTS

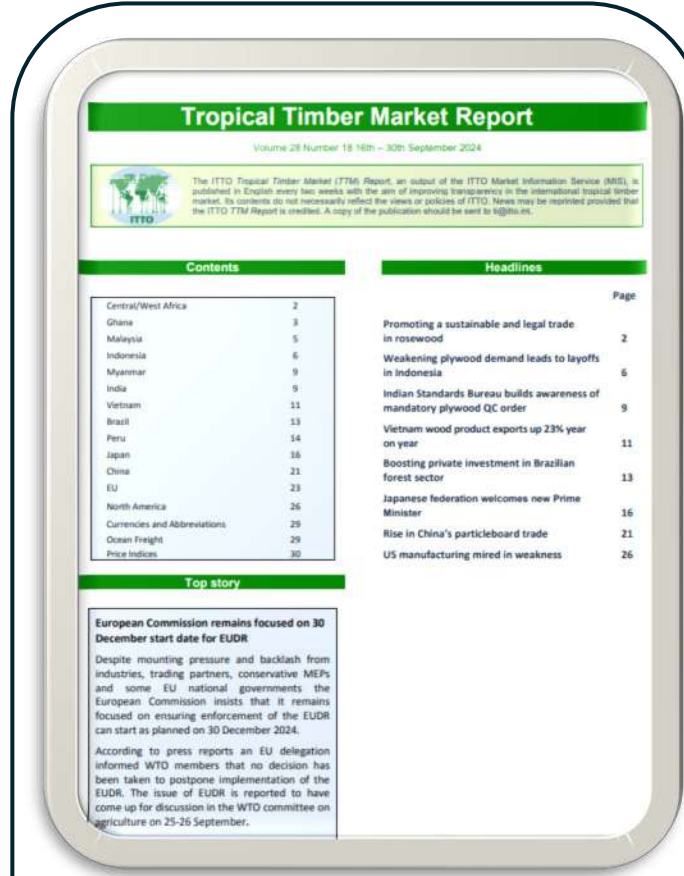
- Jean-Christophe Claudon, **ITTO Statistical Assistant**
- **ITTO International Tropical Timber Organization**
- ITTO: international organization
 - **sustainable management and conservation of tropical forests**
 - **international trade** in tropical timber from sustainably managed and legally harvested forests.
- 75 countries + EU.
- producers /consumers of tropical timber.
- 90% of the global tropical timber trade
- 80% of the world's tropical forests.



ITTO statistical work



2-year study
**LONG TERM TRENDS AND
POLICIES**



Every 15-day release
**SHORT TERM TRENDS AND
POLICIES**



Special studies
SPECIFIC NEEDS

How do we collect data?

FOREST SECTOR QUESTIONNAIRE JQ1
PRIMARY PRODUCTS
Removals and Production

Product	Unit	2022 Quantity	2023 Quantity
ALL REMOVALS OF ROUNDWOOD (WOOD IN THE ROUGH)			
ROUNDWOOD (WOOD IN THE ROUGH)	1000 m ³ b		
WOOD FUEL (INCLUDING WOOD FOR CHARCOAL)	1000 m ³ b		
Coniferous	1000 m ³ b		
Non-Coniferous	1000 m ³ b		
INDUSTRIAL ROUNDWOOD	1000 m ³ b		
Coniferous	1000 m ³ b		
Non-Coniferous	1000 m ³ b		
of which Tropical	1000 m ³ b		
SAWLOGS AND VENEER LOGS	1000 m ³ b		
Coniferous	1000 m ³ b		
Non-Coniferous	1000 m ³ b		
PULPWOOD, ROUND AND SPLIT (INCLUDING WOOD FOR PARTICLE BOARD, OSB AND FIBREBOARD)	1000 m ³ b		
Coniferous	1000 m ³ b		
Non-Coniferous	1000 m ³ b		
OTHER INDUSTRIAL ROUNDWOOD	1000 m ³ b		
Coniferous	1000 m ³ b		
Non-Coniferous	1000 m ³ b		
PRODUCTION			
WOOD CHARCOAL	1000 t		
WOOD CHIPS, PARTICLES AND RESIDUES	1000 m ³		
WOOD CHIPS AND PARTICLES	1000 m ³		
WOOD RESIDUES (INCLUDING WOOD FOR AGGLOMERATES)	1000 m ³		
of which Sawdust	1000 m ³		
RECOVERED POST-CONSUMER WOOD	1000 t		
WOOD PELLETS, BRICKETTES AND OTHER AGGLOMERATES	1000 t		
WOOD PELLETS	1000 t		
WOOD BRICKETTES AND OTHER AGGLOMERATES	1000 t		
SAWNWOOD (INCLUDING SLEEPERS)	1000 m ³		
Coniferous	1000 m ³		
Non-Coniferous	1000 m ³		
of which Tropical	1000 m ³		
VENEER SHEETS	1000 m ³		
Coniferous	1000 m ³		
Non-Coniferous	1000 m ³		
of which Tropical	1000 m ³		
WOOD-BASED PANELS	1000 m ³		
PLYWOOD	1000 m ³		
Coniferous	1000 m ³		
Non-Coniferous	1000 m ³		
of which Tropical	1000 m ³		
of which Laminated Veneer Lumber (LVL)	1000 m ³		
Coniferous	1000 m ³		
Non-Coniferous	1000 m ³		

UNECE eurostat Food and Agriculture Organization of the United Nations ITTO

JOINT FOREST SECTOR QUESTIONNAIRE

DEFINITIONS

GENERAL TERMS

Coniferous
All woods derived from trees classified botanically as Gymnospermae, e.g. *Abies* spp., *Arctostaphylos* spp., *Cedrus* spp., *Chamaecyparis* spp., *Cupressus* spp., *Larix* spp., *Picea* spp., *Pinus* spp., *Thuja* spp., *Tsuga* spp., etc. These are generally referred to as softwoods.

Non-coniferous
All woods derived from trees classified botanically as Angiospermae, e.g. *Acer* spp., *Dipterocarpaceae* spp., *Entandrophragma* spp., *Eucalyptus* spp., *Fagus* spp., *Populus* spp., *Quercus* spp., *Shorea* spp., *Swietenia* spp., *Tectona* spp., etc. These are generally referred to as broadleaves or hardwoods.

Tropical
Tropical timber is defined in the International Tropical Timber Agreement (2006) as follows: "Tropical wood for industrial uses, which grows or is produced in the countries situated between the Tropic of Cancer and the Tropic of Capricorn. The term covers logs, sawnwood, veneer sheets and plywood." For the purposes of this questionnaire tropical timber only includes non-coniferous products. Furthermore tropical sawnwood, veneer sheets and plywood shall also include products produced in non-tropical countries from imported tropical roundwood. Please indicate if statistics provided under "tropical" in this questionnaire may include species or products beyond the scope of this definition.

Year
Data are requested for the calendar year (January-December) indicated.

TRANSACTIONS

Removals
The volume of all trees, living or dead, that are felled and removed from the forest, other wooded land or other felling sites. It includes unsold roundwood stored at the forest roadside. It includes natural losses that are recovered (i.e. harvested), removals during the year of wood felled during an earlier period, removals of non-stem wood such as stumps and branches (where these are harvested) and removal of trees killed or damaged by natural causes (i.e. natural losses), e.g. fire, windblown, insects and diseases. Please note that this includes removals from all sources within the country including public, private, and informal sources. It excludes bark and other non-woody biomass and any wood that is not removed, e.g. stumps, branches and tree tops (where these are not harvested) and felling residues (harvesting waste). It is reported in cubic metres solid volume underbark (i.e. excluding bark). Where it is measured overbark (i.e. including bark), the volume has to be adjusted downward,

The Joint Forest Sector Questionnaire (https://www.itto.int/annual_review/):

- Prepared by 4 international organizations
-> ITTO, FAO, UNECE, Eurostat
- ~+70 primary wood products production and trade + trade of SPWP
 - Sent every year to 200 countries
 - Roughly 100 countries send the questionnaire back (~50%)
- Harmonization of the definitions of the products which following the World Customs Organization (WCO) Harmonized System (HS codes)

Definition of tropical timber

"Tropical timber" means tropical wood for industrial uses, which grows or is produced in the countries situated between the Tropic of Cancer and the Tropic of Capricorn.

- > geographic definition
- > excludes coniferous
- > includes all non-coniferous grown in the tropical region

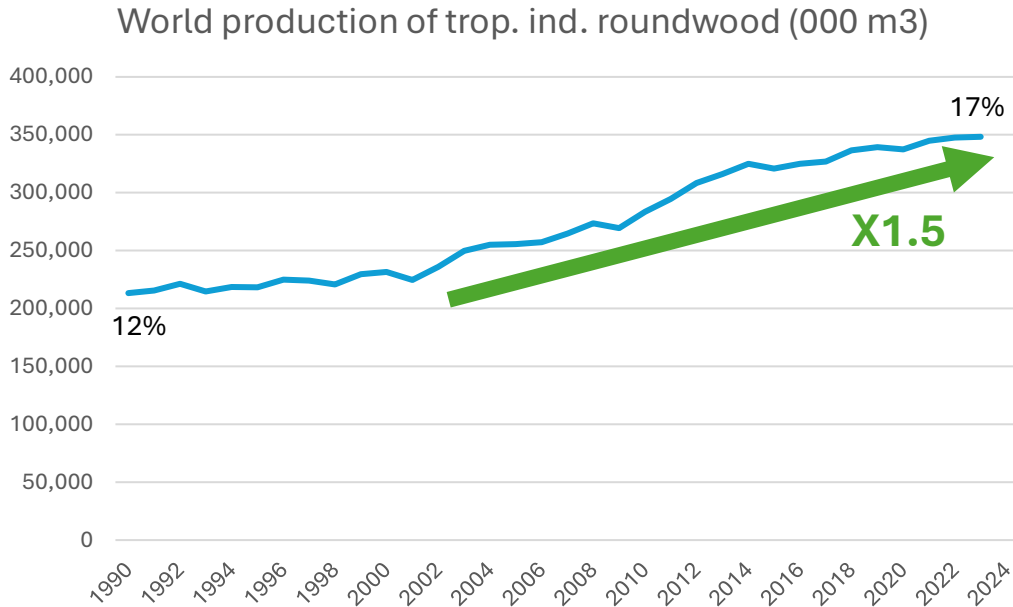


WCO does not include geographic definitions to define products.

ITTO + ATIBT + CIRAD + FAO submitted a list of **587 of tropical species list** gathered by **pilot-names, scientific names and local names**

This list is attached to the appendix of the HS nomenclature of Chapter 44.

World Production of trop. ind. roundwood



- Difficult to estimate
- 3 components (sawlogs, pulpwood, “**other industrial roundwood**” => (roundwood used for poles, piling, posts, etc.) is often underestimated as it is not reported.
- Production from **forests** stable (around 150-160 million m3)
Production from **plantations** has been multiplied by 3 over the same period.
- There is a considerable variation between regions. Ind. Trop. Roundwood comes mainly from plantations in Latin America (81% in 2021) and the Caribbean and in Southeast Asia (66%) but just one-third in Africa (30%).
- Based on our data, we don't see a sharp decrease of the production soon especially that the bulk should continue to come mainly from plantations in the future.

Country	% of world production
Malaysia	19%
Indonesia	18%
India	15%
Brazil	12%
Nigeria	4%
Rest of the World	33%

Country	% of world production
Indonesia	26%
India	14%
Viet Nam	13%
Brazil	8%
Thailand	5%
Rest of the World	34%

Trade of trop ind. rounwood recorded in the HS 2022

Wood in the rough, whether or not stripped of bark or sapwood, or **roughly squarred**

- 4403.41 -- Dark Red Meranti, Light Red Meranti and Meranti Bakau
- 4403.42 -- Teak
- 4403.49 -- Other (tropical species listed in the Annex of chapter 44)

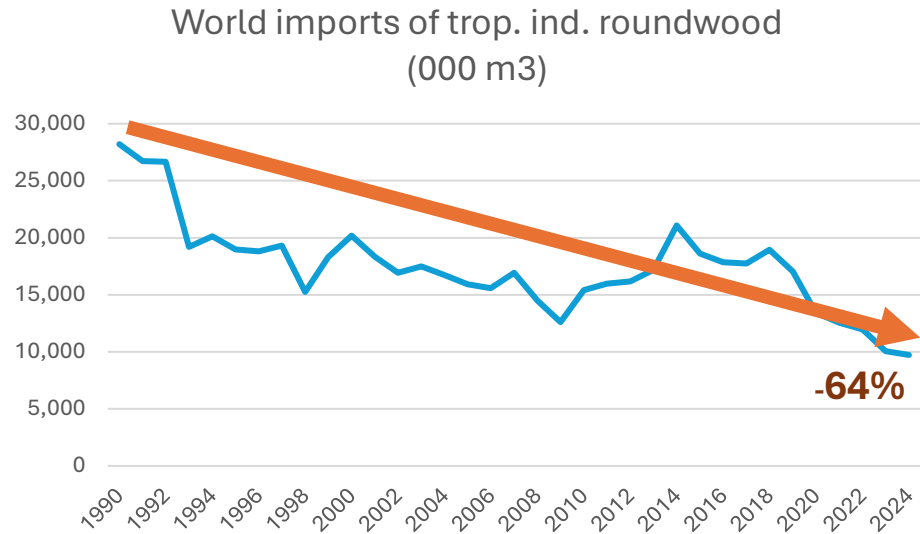
+

- 4403.99 -- Other (not listed in the HS codes. If from tropical countries -> counted as tropical)

+

All non coniferous from tropical countries
(e.g. 4403.98 eucalyptus from Brazil)

World trade of trop. ind. roundwood (\$2.5 billion)



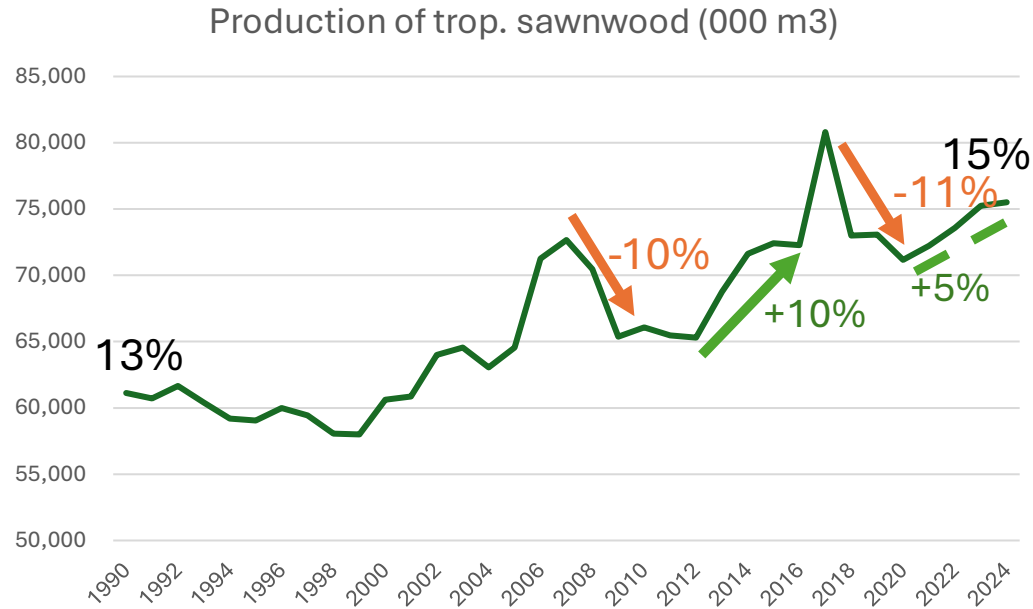
Trade of ind. Tropical roundwood largely declined overtime.

- **Trade restrictions** imposed by importer and by exporter countries to limit exports of the unprocessed products in to move to more added value products (sawnwood/veneer/plywood).
- **Depletion of the resources** (Africa, Myanmar, Lao).
- **4 countries** import the bulk of these logs nowadays.

Country	% of world Exports	Country	% of world Imports
Malaysia	72%	Japan	40%
Myanmar	5%	Rep. of Korea	15%
Gabon	4%	Taiwan P.O.C.	12%
PNG	4%	EU	11%
Cameroon	3%	Thailand	6%
Rep. of Congo	2%	India	5%
Rest of the world	10%	China	4%
		Rest of the world	19%

Country	% of world Exports	Country	% of world Imports
PNG	27%	China	63%
Solomon Isl.	20%	India	18%
Brazil	18%	Portugal	9%
Malaysia	8%	Viet Nam	7%
Rep. of Congo	6%	Rest of the world	2%
Cameroon	5%		
Rest of the world	16%		

World Production of trop. sawnwood



- Production of trop sawnwood was multiplied by 1.22
- In 1990, it is estimated that production of trop. sawnwood represented just 13% of world production of sawnwood. This share has been relatively stable over the last 34 years.
- Production of trop sawnwood strongly depends on world GDP's variation.

Between 2007 and 2009, production declined by 10% (in 2009 world GDP declined by -1.4%)

Between 2017 and 2020, production declined by 11% (in 2020 world GDP declined by -2.9%)

Country	% of world production
India	24%
Brazil	18%
Indonesia	15%
Malaysia	14%
Nigeria	4%
Japan	3%
Rest of the world	21%

Country	% of world production
India	31%
China	20%
Thailand	7%
Viet Nam	7%
Malaysia	5%
Brazil	4%
Rest of the world	25%

- By the past prod. of sawnwood always recovered from global crisis (between 2012 to 2017). Nevertheless, since the end of COVID, production has seemed to stall.

Tropical sawnwood in the HS codes is as follows:

Wood that has been produced from both domestic and imported roundwood, either by sawing lengthways or by a profile-chipping process and that exceeds 6 mm in thickness.

- 4407.21 -- Mahogany (*Swietenia* spp.)
- 4407.22 -- Virola, Imbuia and Balsa
- 4407.23 -- Teak
- 4407.25 -- Dark Red Meranti, Light Red Meranti and Meranti Bakau
- 4407.26 -- White Lauan, White Meranti, White Seraya, Yellow Meranti and Alan
- 4407.27 -- Sapelli
- 4407.28 -- Iroko
- 4407.29 -- Other (tropical species listed in the Annex of chapter 44)

+

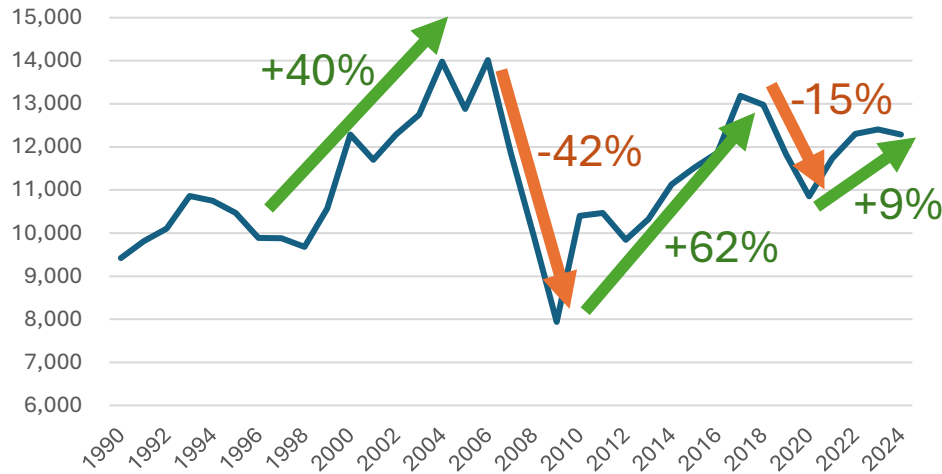
- 4407.99 -- Other (not listed in the HS codes. If from tropical countries -> counted as tropical)

+

All non coniferous from tropical countries (e.g. 4407.91 oak)

World trade of trop. sawnwood (\$5.1 billion)

World exports of trop. sawnwood (000 m3)

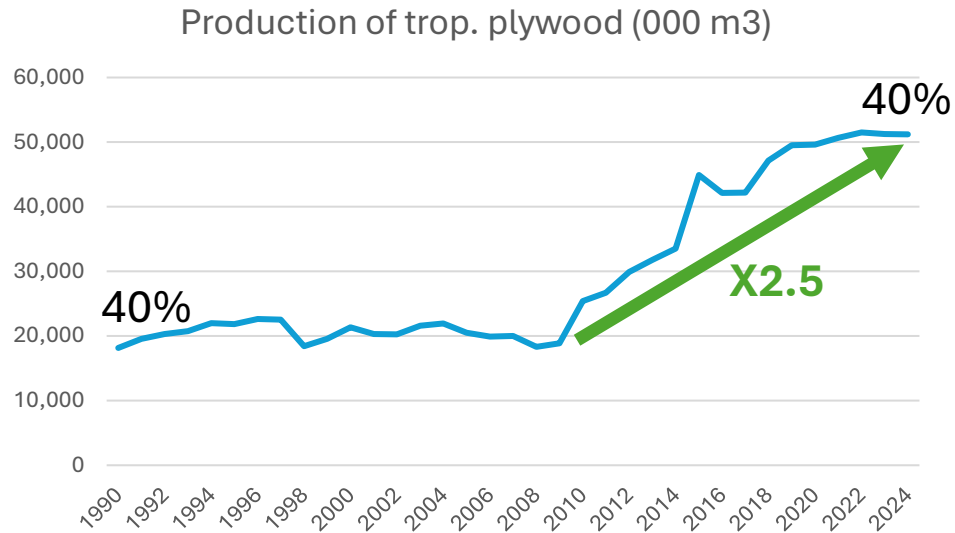


- Exports are highly dependent on the world GDP, even more than production. Between 1998 and 2006, exports of trop. sawnwood jumped by 40% boosted by the world economic growth while it dropped by 42% between 2006 to 2009 due to the financial crisis.
- There was a strong recovery between 2009 to 2018 (+62%) then a strong decline during the COVID period (-15%) then some recovery (+9%) after COVID.
- As for the production of trop. sawnwood, world exports have been stalling over the recent 3-4 years...

Country	% of world Exports	Country	% of world Imports
Malaysia	55%	EU	31%
Indonesia	7%	Thailand	16%
Singapore	6%	Japan	14%
Côte d'Ivoire	6%	Singapore	9%
Brazil	4%	Rep. of Korea	7%
Paraguay	3%	Taiwan POC	4%
Rest of the world	18%	Rest of the world	19%

Country	% of world Exports	Country	% of world Imports
Thailand	42%	China	62%
Malaysia	10%	Viet Nam	7%
Gabon	8%	EU27	6%
Cameroon	7%	India	5%
Philippines	5%	Kenya	2%
DRC	3%	USA	2%
Rest of the world	26%	Rest of the world	16%

World Production of trop. plywood

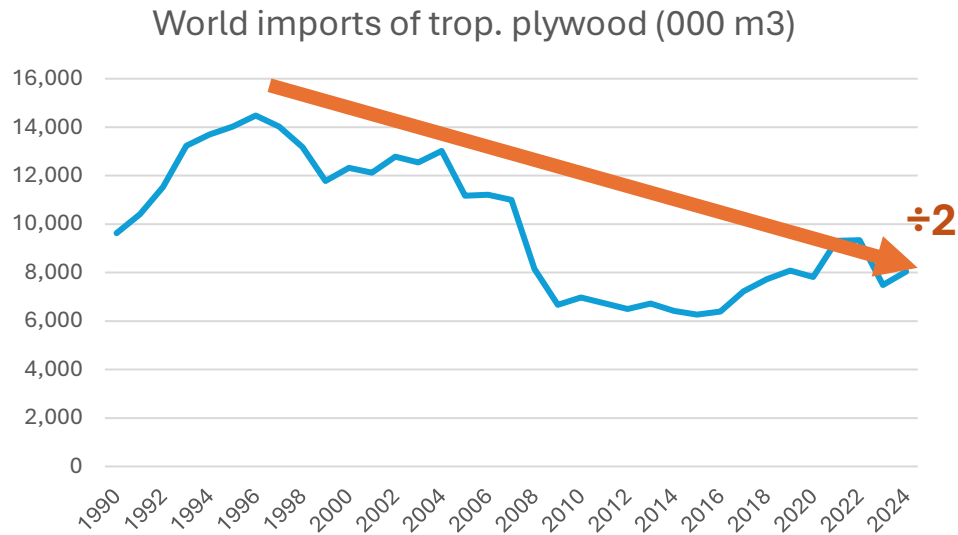


- Tropical plywood production was relatively stable between 1990 and 2008, and then it surged from 2008 reaching 51 million m3 in 2024.
- From 2008, Chinese production surged from 4 million m3 to 27 million m3. Most Chinese production is intended to cover the domestic consumption (building construction, wooden furniture manufacturing automobile manufacturing and shipbuilding).
- India's production has largely increased as well and between 2022 and 2024, production is estimated to have been multiplied by 6 from 2 million m3 to 12 million m3. Like China, most of the tropical plywood is aimed to the domestic market.
- Indonesia and Malaysia's productions are aimed at the export markets.

Country	% of world production
Indonesia	45%
Japan	25%
Malaysia	8%
Brazil	4%
Taiwan P.O.C.	4%
Rep. of Korea	3%
Rest of the world	12%

Country	% of world production
China	53%
India	23%
Indonesia	8%
Viet Nam	6%
Malaysia	2%
Rest of the world	7%

World trade of trop. plywood (\$6.5 billion)



- Japan was the dominating importer of trop. plywood in 1990.
- Its consumption and production of trop. plywood has dwindled in the recent years:
 - reduced availability of South Sea plywood
 - the expansion of domestic wood use
 - consumers concerns about the environmental consequences of using tropical hardwoods.
- The USA's imports of tropical plywood has been exponential and was multiplied by 3 between 2017 and 2023 to reach 3 million m3.
- Most of it used to come from China but after the implementation of antidumping measures, imports from Viet Nam started to accelerate.

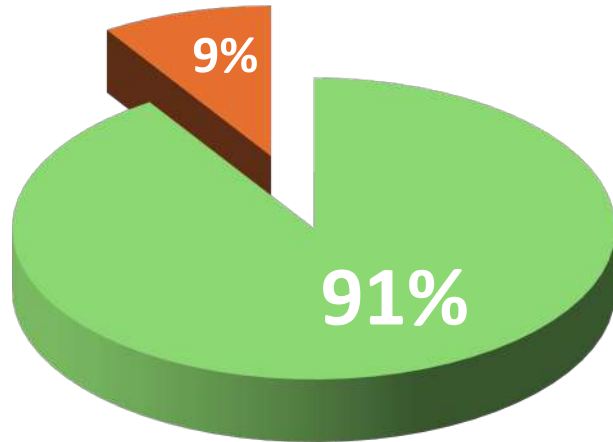
Country	% of world Exports	Country	% of world Imports
Indonesia	77%	Japan	29%
Malaysia	10%	China	12%
Rest of the world	13%	USA	12%
		EU	12%
		Rep. of Korea	8%
		Hong Kong	6%
		Rest of the world	21%

Country	% of world Exports	Country	% of world Imports
Indonesia	31%	USA	26%
Viet Nam	18%	Japan	20%
Malaysia	16%	Malaysia	17%
China	6%	Rep. of Korea	8%
Rest of the world	29%	EU27	7%
		Taiwan P.O.C.	3%
		Rest of the world	18%

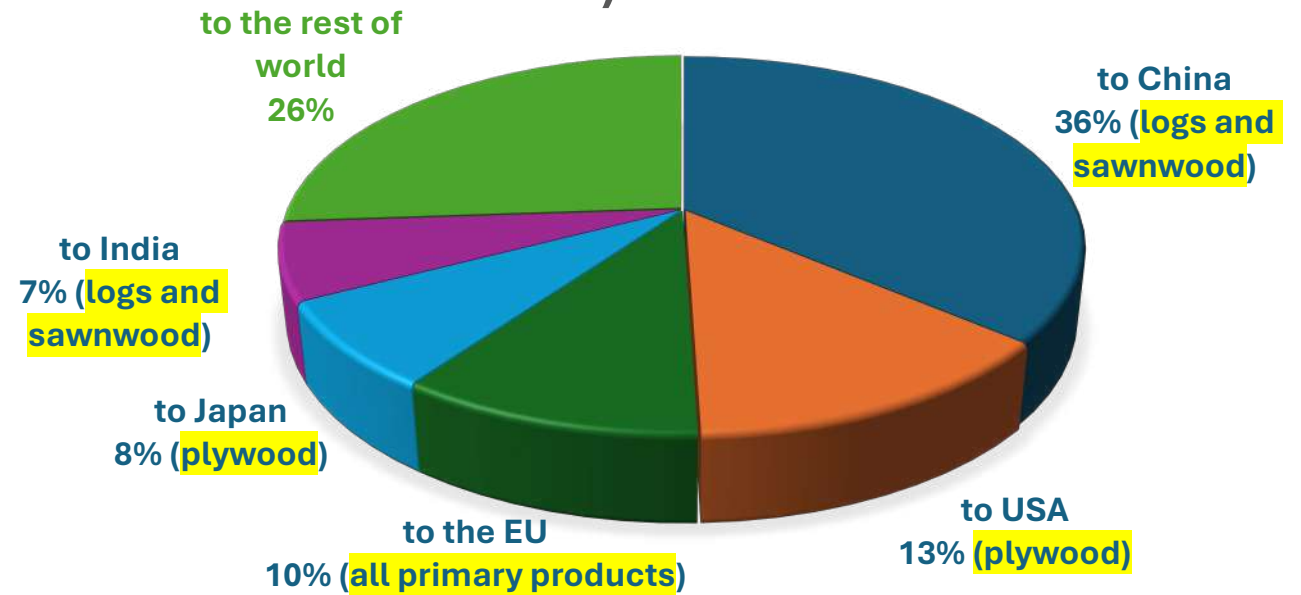
To summarize: world consumption of trop. timber

Tropical primary wood products Used Where?

■ Domestic consumption ■ Export



PRIMARY TROP. WOOD PRODUCTS NET EXPORTED FROM TROP. COUNTRIES (IN RWE) :



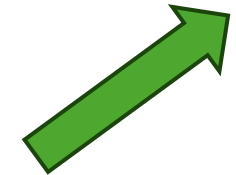
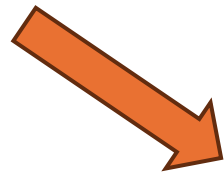
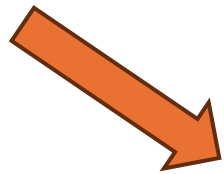
Forecasting 2024 (000 m3)

China	2023	2024	Variation
Trop. ind. Logs	6 239	5 916	-5%
Trop. sawn.	6 910	7 380	7%
Trop. veneer	2 060	2 400	16%
Trop. plywood	18	18	0%

EU	2023	2024	Variation
Trop. ind. Logs	1 033	995	-4%
Trop. sawn.	891	730	-18%
Trop. veneer	252	202	-20%
Trop. plywood	607	572	-6%

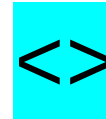
Japan	2023	2024	Variation
Trop. ind. Logs	38	40	6%
Trop. sawn.	66	63	-4%
Trop. veneer	10	8	-21%
Trop. plywood	1 532	1 648	8%

USA	2023	2024	Variation
Trop. ind. Logs	7	5	-31%
Trop. sawn.	271	254	-6%
Trop. veneer	18	16	-12%
Trop. plywood	2 035	2 147	6%



- One of the lowest GDP forecast over the last 30 years for 2024 (IMF 4.8%.)
- China to 'significantly increase' debt to revive growth.
- The Chinese economy faces strong deflationary pressures due to a sharp real estate market downturn and frail consumer confidence.
- The central government will help local governments tackle their debt problems, offer subsidies to people with low incomes, support the property market and replenish state banks' capital, among other measures.

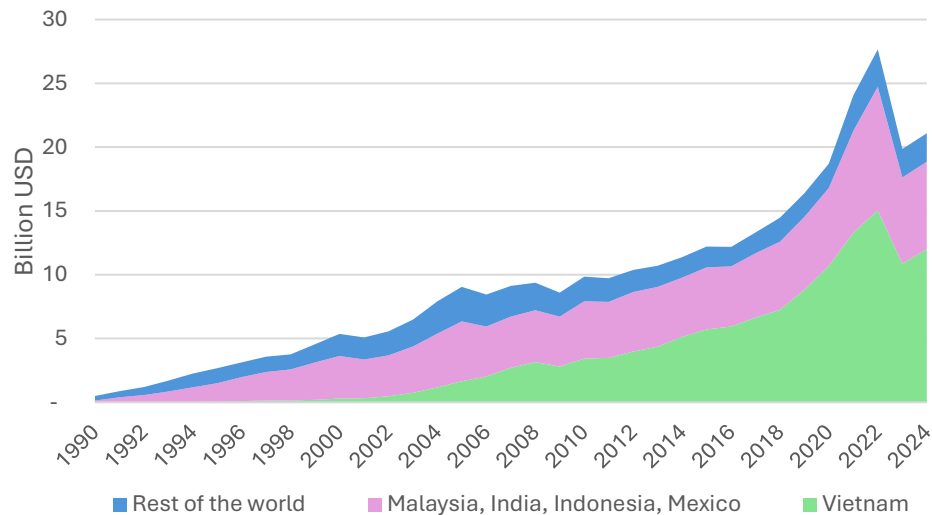
- EU tropical wood import quantity heading for an historic low.
- Uncertain economic conditions in the region.
- Low consumer confidence.
- Following heavy expenditure on COVID recovery measures between 2020 and 2023, European Governments now have little room to support demand with extra spending of their own.
- Much concern around the EU economy is now focused on one country, Germany, traditionally the region's industrial powerhouse.
- GDP growth of Germany expected to be 0% in 2024.



- Housing starts for first half of 2024 Total starts are 4.5 % less than January to June, 2023. There is a possibility that the annual starts could be below 800,000 units this year.
- The newly appointed Prime Minister Ishiba is expected to come up with a stimulus package immediately.
- P.M. Ishiba said that he will be trying to pull Japan out of years of deflation.
- P.M. Ishiba is also emphasising distribution of wealth to workers and calling for the national average minimum wage to rise to 1,500 yen per hour within this decade.
- GDP IMF 0.3% in 2024

- US consumer sentiment is rising in 2024.
- Americans' outlook on the economy has improved for the second straight month in September, bolstered by lower prices for long-lasting goods such as cars and furniture and the prospect of interest rate cuts by the Federal Reserve.
- GDP growth of the USA expected to be 2.8% in 2024.

A few words on exports from furniture from trop. countries (\$21 billion)



- In 1990, exports of wooden furniture from tropical timber represented only **6% of total wooden furniture exports.**
- Over the last 30 years, this share has strongly increased to reach **24% in 2024.**
- Vietnam is a major exporter of wooden furniture.
- Its exports were negligible in 1990 (0.004% of total wooden furniture exports).
- Nowadays, Vietnam is the **biggest exporter of wooden furniture** among the tropical countries. Its exports represent 13% of the total exports of wooden furniture in the world and 56% of the total exports of furniture from tropical countries.
- Mexico, Malaysia, Indonesia and India represent 32% of the furniture exports from tropical countries.
- The biggest market of the **“tropical” furniture remains the US.**
- 90% of Vietnam exports of wooden furniture go to the US. The US is expected to import around **\$15 billion worth of wooden furniture from tropical countries** (around $\frac{3}{4}$ of their exports of furniture) in 2024.

A few words on EU Deforestation Regulation (EUDR)

- The EUDR is set to come into force at the end of 2024.
 - Due diligence of the importers to ensure that no imported timber is implicated in deforestation or forest degradation.
 - Businesses must provide the geolocation coordinates of the plot of land from which commodities originate.
- Pressure on the EU to delay implementation of the EU Deforestation Regulation (EUDR) has continued to mount.
- Australia and Brazil. Their latest contention is that the mapping undertaken by the European Observatory to identify deforested and degraded forest land, and which will be one of the pillars of EUDR enforcement, cannot be taken as definitive.
- Australia: differences between their 2023 Forests of Australia map and that of the European Observatory (different definitions)
- Canada and Columbia have also questioned the validity of the mapping.
- International collaboration is needed
- Enforcement of EUDR will have financial implications on producers (compliance systems).
- 'How EU do-goodery risks harming Africa's small farmer' (*The Economist*) coffee Ethiopia and Uganda-> struggling to provide geolocation coordinates for the millions of plots of land where coffee was grown for the EU market.
- Adding to the complexity of the situation, the African supply chains in coffee and cocoa (another commodity covered by the EUDR) are highly complex, pooling and mixing beans from multiple sources.

To complement this presentation



1990-2020 period

https://www.itto.int/technical_report/



To 2050

https://www.itto.int/technical_report/



Industries trend in tropical Countries and China

<https://www.itto.int/gti/>

Biennial review statistics

Home / Biennial review statistics

Updated: 2024/08/05 Next update: July 2025

ITTO reports the production and the trade of primary wood products. Historical data can found from 1990. Our data is collected through the [Joint Forest Sector Questionnaire](#) in partnership with [Eurostat](#), the [FAO Forestry Department](#), and the [UNEPF Timber Section](#). The data is also published and analyzed along with coverage of trade flows, species trade, price trends, secondary processed wood products (SPWP) and other trends in the tropical timber sector in the [Biennial Review and Assessment of the World Timber Situation](#).

Countries	Groupings	Products	Flows	Years
<ul style="list-style-type: none"> Afghanistan Albania Algeria American Samoa Andorra Angola Anguilla Antarctica Antigua and Barbuda Argentina Armenia (from 1992) Aruba Australia Austria Azerbaijan (from 1992) 	<ul style="list-style-type: none"> World + World > ITTO Consumers + ITTO Consumers > ITTO Producers + ITTO Producers > All tropical countries + All tropical countries > EU27 + EU27 > Africa + Africa > ITTO Africa + ITTO Africa > Asia-Pacific + 	<ul style="list-style-type: none"> Ind. roundwood Ind. roundwood (C) Ind. roundwood (NC.T) Sawnwood Sawnwood (C) Sawnwood (NC) Sawnwood (NC.T) Veneer Veneer (C) Veneer (NC) Veneer (NC.T) Plywood Plywood (C) Plywood (NC) 	<ul style="list-style-type: none"> Production Quantity Imports Quantity Imports Value Imports Unit Value Exports Quantity Exports Value Exports Unit Value 	<ul style="list-style-type: none"> 2023 2022 2021 2020 2019 2018 2017 2016 2015 2014 2013 2012 2011 2010 2009

Show data Clear selections Download data Show superscripts Definitions

ITTO Statistical Database

https://www.itto.int/biennial_review/