Tropical Timber Market Report

Volume 24 Number 23 1st - 31st December 2020



The ITTO *Tropical Timber Market (TTM) Report*, an output of the ITTO Market Information Service (MIS), is published in English every two weeks with the aim of improving transparency in the international tropical timber market. Its contents do not necessarily reflect the views or policies of ITTO. News may be reprinted provided that the ITTO *TTM Report* is credited. A copy of the publication should be sent to ti@itto.int.

Contents

Central/West Africa 2 Ghana 3 Malaysia 4 Indonesia 5 Myanmar 6 India 8 9 Vietnam Brazil 16 Peru 18 19 Japan China 23 Europe 25 30 North America **Currencies and Abbreviations** 33 Ocean Freight Index 33 **Price Indices** 34

Top story

US furniture imports a boost to producers

Imports of wooden furniture grew for a fifth straight month in October, rising 3% to over US\$1.95 billion. Malaysia and Indonesia have benefitted. For the year to October total imports are below 2019 by just 4%.

Demand in the US for residential furniture continues to be strong according to the Smith Leonard Furniture Insights report. Year-on-year, orders in September were up 43% and this followed a 51% increase in August, a 39% increase in July and a 30% increase in June.

See page 31

Headlines

	Page
African producers see signs of orders recovering but prices easing	ig 2
New application to support Ghana Wood Tracking System	3
Raw material prices undermining Indonesia's competitiveness	5
Teak log prices soar in Myanmar	6
Brazil's sustainable wood supply initiative secures funding	17
RCEP signed – JLR assessment	22
US cuts anti-dumping duties on 21 Chinese plywood enterprises	23
Implications of UK post-Brexit Tariff Schedule on wood products	27
US hardwood plywood imports continue to rise	e 30

Central and West Africa

Signs of orders recovering but prices easing

As businesses in importing countries adapt to working with the corona virus risk trade has started to revive and some FOB price movements have been reported.

Producers report a growing interest in ovangkol for the Chinese market suggesting this could be an alternative to kevazingo/bubinga. The Chinese demand for okan for flooring production is said to be stable as is demand for belli.

Over the past few months demand for okoume has waned but, fortunately, the market in the Philippines for okoume is firm and stable. Analysts write "If not for this market, okoume production in Congo and Gabon would slow down very fast". The steady demand for okoume, andoung, gheombi and iroko in Middle East markets has been encouraging and as there are reports that stocks held in the Middle East are declining more orders are anticipated.

In contrast to Asian and Middle East demand some producers have seen easing FOB price from French importers for species such as douka and moabi easing. Similarly, importers in Belgium seem to have cooled to padouk and doussie while in Germany the market for sipo and sapelli is weak.

The only timber doing well in Europe at present is azobe but as mills switch from sawing okoume to azobe there is a risk of over-supply and a downward pressure on prices.

Cameroon under the spot light

Reports from Cameroon say more Chinese mills are closing, apparently in response to a crackdown by the authorities on mills that ignore regulations from the forest authorities. It is rumoured that as many as 50 operators in Cameroon have ceased operation.

In related news, the domestic press in Cameroon has reported on allegations from two international NGOs that Vietnamese operators in the country are suspected of smuggling timber out of the country between 2014-17. This, it is reported, is based on discrepancies in trade data whereby the value of exports from Cameroon does not match the value of imports into Vietnam.

See: https://www.businessincameroon.com/public-management/1611-11032-cameroon-vietnamese-wood-exporters-hid-over-xaf170-bln-of-export-revenues-from-the-state-in-2014-2017-report-claims

Exporters facing delays in Gabon

Exporters in Gabon say there has been no improvement in either the speed at which export documents are processed or in shipping. There have been suggestions that the slowdown in work and in implementing instructions from the Minister is related to the non-payment of forestry staff bonuses.

It has been reported that the first parcels of barcoded kevazingo sawnwood has been trucked from one of the major millers to Gabon Wood Industries in the Special Economic Zone (SEZ) for further processing.

The decision to require container stuffing be undertaken by SNBG/GSEZ and by the Operator of the SEZ NKOK has resulted in delays in shipments and many complaints have been lodged. It has been reported that the Minister invited tender bids for a second stuffing facility in the Owendo Port. Apparently five companies tendered, three are Chinese along with Bollore and Sotrasgab.

In other news from Gabon, it has been reported that the police in Moyen Ogooué Province are questioning several forestry officials in relation to the 'disappearance' of some 4,000 cubic metres of seized illegally harvested logs.

log export prices

og export prices			
West African logs	FOB	Euro per c	u.m
Asian market	LM	В	BC/C
Acajou/ Khaya/N'Gollon	265	265	175
Ayous/Obeche/Wawa	250	250	225
Azobe & ekki	275	275	175
Belli	280	280	-
Bibolo/Dibétou	215	215	-
Bilinga	275	275	-
Iroko	300	280	225
Okoume (60% CI, 40%			
CE, 20% CS) (China	220	220	220
only)			
Moabi	350	350	275
Movingui	180	180	-
Niove	160	160	-
Okan	200	200	-
Padouk	250	230	200
Sapele	260	260	200
Sipo/Utile	260	260	230
Tali	300	300	-

Sawnwood export prices

Dawnwood export prices	
West African sawnwood	FOB Euro per cu.m
Ayous FAS GMS	440
Bilinga FAS GMS	540
Okoumé FAS GMS	460
Merchantable	310
Std/Btr GMS	320
Sipo FAS GMS	420 ▼
FAS fixed sizes	-
FAS scantlings	520
Padouk FAS GMS	640
FAS scantlings	675
Strips	320
Sapele FAS Spanish sizes	
FAS scantlings	450₹
Iroko FAS GMS	575₹
Scantlings	620₹
Strips	350
Khaya FAS GMS	450 ▼
FAS fixed	500♣
Moabi FAS GMS	620
Scantlings	640
Movingui FAS GMS	420

ATIBT 'think-tank' output reported

Presentations and commentary on the 3rd ATIBT Think-Tank themed 'What future for certified companies in the Congo Basin' have been made available by the organiser, ATIBT.

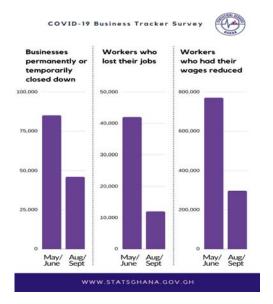
See: https://www.atibt.org/en/news/12907/report-of-the-3rd-atibt-think-tank-videoconference-november-2-3-2020

Ghana

Businesses continue to feel impact of pandemic

Even 3-4 months after the lifting of restrictions to combat COVID-19 businesses are still suffering. In August and September the Ghana Statistical Service (GSS) conducted a second survey which showed that businesses continue to feel the impact of the disruption to businesses due to COVID-19 control measures. The latest GSS survey updates an earlier exercise May and June this year.

A total of 3,658 firms were interviewed by the GSS on their operations and workforce and a summary of results are shown below.



Source:

 $https://statsghana.gov.gh/gsspublications.php?category=MjE5M \\ DQ4Nzg5MS4yNDk1/webstats/p289p3ssr9$

Secondary products account for most exports

Shipments of wood products by road and sea from Ghana are classified by the Timber Industry Development Division (TIDD) under one of three main headings Primary Products (PWP), Secondary Wood Products (SWP) or Tertiary Wood Products (TWP).

1st Qtr. 2020 exports by product classification



Data source: TIDD

Primary products (PWP), which are mainly billets (short logs), go to markets in Asia especially China and India and this group of products accounted for around 8.5% of first three quarter 2020 exports.

Secondary Wood Products (SWP) comprising sawnwood, plywood, veneer, kindling, boules and briquettes formed the bulk of wood exports accounting to close to 87% during the period January to September 2020.

Monthly export volumes dipped from 15,832cu.m in March when Ghana recorded its first COVID-19 case and restrictions were imposed to 9,307 cu.m in May 2020. Production by local mills began to ramp up from June when restrictions were eased and reached a level of 22,576 cu.m in September.

Tertiary wood products (TWP) comprising mouldings, dowels and doors represented 4.8% of total exports in the first 9 months of 2020.

Exports to the ECOWAS sub region included SWPs totalling 19,940 cu.m (against 20,612 cu.m in 2019) which helped buoy overall exports.

Nigeria is considering opening its Eastern border with Ghana which was suddenly closed for trade in August 2019 in order to stamp out smuggling. Nigeria is a leading market for Ghana's plywood and other wood products delivered by road.

New application to support Wood Tracking System

Sources of wood products from Ghana can now be public identified through a new public portal which will be linked to Ghana's Wood Tracking System (GWTS). This is to enable industries in the sector to showcase their wood products along with the information allowing tracing from the forest or plantation and along the supply chain.

The Project Coordinator from the Nature and Development Foundation (NDF), Glen Asumaning, said the portal was developed in response to complaints from the private sector who said an interface with the GWTS platform would be more useful as they could then upload their own specific information.

Stakeholders in the industry were involved in the development of the portal which is a web and mobile phone based application for easy access to the GWTS.

See: https://www.modernghana.com/news/1046557/timber-firms-get-space-on-wood-tracking-system.html

Banks financially strong to support businesses

The Governor of the Bank of Ghana, Dr. Ernest Addison, has said the Ghanaian banking sector remains financially strong and adequately capitalised to withstand adverse shocks and support the country's recovery efforts from the pandemic.

The Monetary Policy Committee (MPC) of the Bank of Ghana (BoG) has maintained its policy rate at 14.5% reflecting the health of the economy. The timber industry struggles with such high interest rates. Year-on-year inflation for November was 9.8%..

Source

https://www.ghanaweb.com/GhanaHomePage/business/Ghana-s-banking-sector-remains-highly-liquid-BoG-Governor-1118546

President re-elected

The Electoral Commission (EC) of Ghana has declared the incumbent President of Ghana H.E. Akuffo Addo, winner of the 2020 presidential election. In his acceptance speech the President promised to continue policies and programmes initiated in his first term. He also assured the nation he will continue to work extra hard to reverse the effects of COVID-19 so as to improve the lives of Ghanaians and businesses for a full economic recovery.

See: http://presidency.gov.gh/index.php/briefing-room/speeches/1844-akufo-addo-speaks-on-his-re-election-as-president-of-the-republic-of-ghana

Boule export prices

	Euro per cu.m
Black Ofram	330
Black Ofram Kiln dry	420
Niangon	555
Niangon Kiln dry	650

Export rotary veneer prices

ı	Export rotary veneer prices		
	Rotary Veneer, FOB	Euro	per cu.m
		CORE (1-1.9 mm)	FACE (>2mm)
	Ceiba	325	366
	Chenchen	540	631
	Ogea	443	590
	Essa	543	611
	Ofram	350	435

Export sliced veneer

Sliced face veneer	FOB Euro per cu.m
Asanfina	857
Avodire	573
Chenchen	950
Mahogany	1,035
Makore	871
Odum	667

Export plywood prices

Р	lywood, FOB	Euro per cu.m		
В	B/CC	Ceiba	Ofram	Asanfina
	4mm	348	580	641
	6mm	412	535	604
	9mm	377	446	560
	12mm	516	476	480
	15mm	450	338	430
	18mm	450	441	383

Grade AB/BB would attract a premium of 10%, B/BB 5%, C/CC 5% and CC/CC 10%.

Export sawnwood prices

Export sawnwood prices		
Ghana sawnwood, FOB	Euro p	er cu.m
FAS 25-100mm x 150mm up x 2.4m up	Air-dried	Kiln-dried
Afrormosia	860	925
Asanfina	465	564
Ceiba	404	600
Dahoma	503	545
Edinam (mixed redwood)	520	583
Emeri	465	590
African mahogany (Ivorensis)	886	1,070
Makore	740	910
Niangon	590	656
Odum	649	917
Sapele	720	873
Wawa 1C & Select	426	420

Malaysia

First half exports better than expected

The Malaysia Timber Industry Board (MTIB) has reported on the export performance of the timber industry in the first half of the year to see the effects of the Covid-19 pandemic on exports.

The value of exports of all wood products for the first half of this year was RM9,601 million some 9% below the first half 2019 exports of RM10,565.21 million.

The value of Malaysian wood product exports in June 2020 increased 50% month-on-month to RM1.9 billion. However, cumulative exports for the period of January to June 2020 dropped by 9%.

Sawnwood exports in June 2020 increased both in volume and in value. Cumulative exports for the period of January - June 2020 declined 36% in volume and 37% in value to 584,869 cu.m worth RM1.1 billion.

Exports of MDF in June 2020 increased month-on-month in both volume and value to 36,897 cu.m worth RM55.2 million. Cumulative exports for January-June 2020 fell 38% to 278,433 cu.m and were worth RM380.7 million.

Exports of plywood in June 2020 increased both in volume and value by 31% and 26% respectively to 116,328 cu.m however, cumulative exports for January-June 2020 declined by 48% to 790,203 cu.m and by 15% in value to RM1.5 billion.

Exports of mouldings in June increased by 48% in volume and by 46% in value however, cumulative exports for the first six months of 2020 declined year-on-year by 31% in volume and 29% in value to 83,876 cu.m worth at RM313.2 million.

Exports of veneer in June 2020 grew month-on-month by 47% in volume and 75% in value to 2,959 cu.m and RM6.2 million. In contrast, cumulative exports for 2020 January- June compared to 2019 declined in volume by 48% to 28,892 cu.m and in value by 47% (RM46.1 million).

Builders Joinery and Carpentry (BJC) exports in June 2020 jumped 21% in volume and 19% in value to 10,430,859 cu.m and RM85.4 million month-on-month. Total BJC exports in the first half of 2020 compared to the corresponding period last year dropped 12%.

Exports of wooden and rattan furniture for the period of January to June 2020 recorded mixed trends.

President of the Malaysian Furniture Council, Khoo Yeow Chong, writing in the Malaysia Furniture News Oct 2020 (no.12), said the furniture sector is recovering and he continued "statistics provided by the Malaysian External Trade Development Corporation (MATRADE) has shown that the export value from January – June 2020 was RM5.06 billion compared to January – June 2019 at RM4.92 billion, an improvement of 2.9%.

He said that while this performance is lower than anticipated "the Malaysian furniture industry remains resilient in the face of adversity under various challenges and restrictions". One particular success mentioned by Khoo was the increase in exports of wooden kitchen furniture in the first half of 2020.

See: https://56c92c85-3939-45a6-8e5e-ef7a38127127.filesusr.com/ugd/fd8b5c_c73e98f2d0da4994bed03b529f8701cc.pdf

Engineered wood promoted for construction

A Engineered Timber Product Seminar was hosted in Kuching by the Sarawak Timber Industry Development Corporation (STIDC) in collaboration with Universiti Teknologi Mara (UiTM) Shah Alam. The aim was to promote and develop engineered wood products for the use in buildings in Sarawak.

At the seminar opening the Assistant Minister of Urban Planning, Land Administration and Environment, Len Talif Salleh, said Sarawak industry needs to forge collaboration with higher institutions as well as research agencies to develop engineered timber products.

Salleh also revealed that the STIDC is collaborating with Woodsfield Glulam Sdn Bhd, a Johor-based company which specialised in producing engineered wood products and has successfully exported its products.

See: http://www.mtc.com.my/images/media/751/The_Edge.pdf

Indonesia

Raw material prices undermining competiveness

Indonesia has vast forest resources and an active wood processing sector but struggles to make a real contribution to national economic growth. This is because the price of raw materials is too high which undermines competitiveness in the domestic market and international markets according to the Executive Board of the Indonesian Furniture and Craft Industry Association (DPP HIMKI).

This issue was discussed at a recent webinar facilitated by the Indonesian Furniture and Craft Industry Association.

The webinar was attended by government officials, timber sector experts and business executives from the national timber industry. The point was made that downstream SMEs cannot afford to purchase top quality raw materials so must process low quality wood raw materials.

See: https://www.tubasmedia.com/industri-pengolahan-kayu-nasional-semakin-terpuruk/#.X8XMOMgzayI

The problem of raw material supply was raised recently by Purwadi Soeprihanto, Executive Director of the Association of Indonesian Forest Concession Holders (APHI), who said the problem of raw material supply is one of the reasons that Indonesia's furniture export performance is still behind that of Vietnam. He said furniture products from natural wood tend not to be competitive in the global market.

Purwadi also said Vietnamese manufacturers are better in terms of design so one way to raise the competitiveness of Indonesian furniture products is to accelerate the development of plantation forests.

See:

https://ekonomi.bisnis.com/read/20201204/12/1326580/ekspor-furnitur-indonesia-kalah-dari-vietnam-kok-bisa

In related news, Abdul Sobur, Chairman of the Presidium of the Indonesian Furniture and Craft Industry Association (HIMKI), said rattan furniture and craft entrepreneurs are having big problems securing raw material and that some companies have been forced to stop production.

The scarcity of rattan raw materials became extreme in Cirebon, Jakarta, Bogor, Depok, Tangerang, Bekasi, Sukoharjo, Jepara and Surabaya.

The HIMKI has asked the government to find a solution to the scarcity of rattan raw materials and to prohibit the export of raw rattan.

See: https://republika.co.id/berita/qko688349/rotan-langka-pengusaha-mebel-mengaku-sulit-beroperasi

Wood product exports recovering well

The chairman of the Association of Indonesian Forest Concession Holders (APHI), Indroyono Soesilo, said that wood product exports through to November 2020 were recorded at US\$10.13 billion which is around 5% less than in the same period last year. "At the global economic level, the Covid-19 pandemic has caused the forestry industry sector to weaken, which is marked by a decline in the export performance of forest products compared to 2019," said Indroyono.

Indroyono explained that in January 2020 exports of wood products increased 2.1% year-on-year and in February there was also a rise in the value of exports. However, beginning March exports started to drop sharply and by April there was a 4% year-on-year decline.

The worst month was May when there was an 8% decline but between June and November there were some months when there was a year-on-year rise in the value of exports.

Indroyono projects that by the end of the year, forestry product exports will reach US\$11 billion.

See: https://bisnis.tempo.co/read/1410864/ekspor-hasil-hutan-tahun-ini-turun-49-persen-karena-pandemi

https://bisnis.tempo.co/read/1410860/2-tahun-berturut-turut-ekspor-produk-kayu-olahan-turun

Exports delayed due to shortages of containers

The Furniture and Craft Industry Association has alerted the government on the scarcity of shipping containers and limited space on ships that carry exports. The container shortage has driven up shipping costs. Sobur, chairman of HIMKI explained that the problem of scarcity and rising container prices could have an impact on production rates and even result in layoffs.

See: https://www.beritasatu.com/harso-kurniawan/ekonomi/705213/kontainer-langka-industri-mebel-kesulitan-ekspor

Hopes for SME growth pinned on clustering

The Director General of Small and Medium Industries and Miscellaneous Industries in the Ministry of Industry, Gati Wibawaningsih said the Ministry of Industry is working to advance the development of SMEs in the furniture sector so they can produce for export.

In her statement she said that several strategic policies had been prepared to create good coordination among stakeholders. In particular she mentioned the development of a Material Center in Jepara, the development of furniture clusters, the development of product design, the link and match programme and the strengthening of the Timber Technical Service Unit.

Gati said that development of the Material Center in Jepara, Central Java aims to maintain the availability of raw materials and supporting materials and to facilitate the latest machines for furniture SMEs. In addition to the development of the Material Center the Ministry also has a wood and rattan Technical Implementation Unit in furniture centers that can assist SME furniture makers.

See: https://www.validnews.id/Kemenperin-Dongkrak-Performa-IKM-Furnitur-iIX

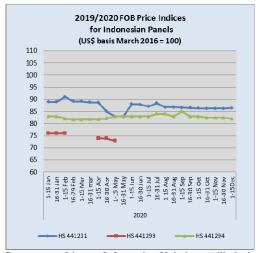
See: https://www.industry.co.id/read/77826/terkuak-ini-carakemenperin-poles-ikm-furnitur-

Indonesian state forest are for 63% of total land area

Environment and Forestry Minister, Siti Nurbaya, has reported Indonesia has more than 120 million hectares or 63% of its total land area under forest. This was stated in relation to the newly-passed job creation law. She added "More than 10% of the total area containing state forests consists of convertible production forests (HPK), which are prioritised for non-forestry development such as food estates".

The Minister explained that the focus will be on a landscape-based approach which prioritises biodiversity conservation efforts regardless of administrative boundaries.

See: https://foresthints.news/indonesian-state-forest-areas-account-for-63-of-total-land-area/



Data source: License Information Unit. http://silk.dephut.go.id/

Myanmar

Teak log prices soar

The Myanma Timber Enterprise (MTE) sold teak logs on 1 December after a suspension of sales for three months. The total quantity of teak logs sold was 713 tons, - 616 ton of SG-7 and 97 tons of SG-6.

The grade in highest demand was SG-7 and for this the average price was US\$2,566 per ton and the highest price was US\$2,940 per ton. In the August Tender the average price of SG-7 was US\$2,065.

In the calendar year 2020 MTE held Tenders in only five months (January, February, July, August and December) as a result of Covid-19 preventive measures this resulted in a shortage of logs for the industry. Currently exporters are facing a container shortage and much increased freight costs.

Teak Logs

Grade	Quantity (Ton)	Average Price (USD/Ton)
SG-6	97	3,252
SG-7	616	2,566

Data source: MTE

Non-teak hardwood logs

Non teak naraweed legs			
	Grade	Quantity (Ton)	Average price (US\$/Ton)
Kanyin	2nd	3,384	620
Pyinkado	2nd	913	850
In	2nd	94	257
Thitya	2nd	201	452
Ingyin	2nd	285	420
Total		4,877	

Data source: MTE

Covid-19 impact on wood-based SMEs

The European Forest Institute (EFI) and the Sagawa Institute of Organization Development supported a survey of members of the Wood-Based Furniture Association (WBFA) and the Myanmar Arts and Craft Association (MACA) to assess the impact of the Covid-19 control measures on their production.

Most of the enterprises surveyed are SMEs, the backbone of Myanmar's economy constituting the vast majority of formally registered enterprises in the country.

The first COVID-19 cases were observed in Myanmar in March 2020. Since then, the Government has adopted measures to contain the spread of the virus including border closures, travel restrictions and stay-home notices.

The pandemic is severely impacting Myanmar's economy. To better understand assess the impact on wood-based SMEs a survey was conducted in August 2020.

The results indicate:

- COVID-19 forced the majority of enterprises to stop or permanently close their business.
- COVID-19 is having a significant impact on employment and livelihood.
- 17% of respondents reduced their workforce by 50–75%, while 15.6% of respondents had to make reductions in the range of 25–50%.
- The majority of respondents have no or low access to COVID-19 relief programmes.

 The majority of respondents face shortages of raw materials.

See: https://www.euflegt.efi.int/publications/covid-19-impacts-on-wood-based-msmes-in-myanmar

Myanmar has been experiencing a second wave of COVID-19 since Aug. 16, when the country's first domestic transmission in a month was reported in the Rakhine State capital, Sittwe. Since Aug. 16, 100,057 COVID-19 cases and 2,126 deaths have been reported in the country. The country only reported 374 COVID-19 cases and six deaths between late March and mid-July. Cases have been reported in more than 200 townships across 15 regions and states.

See: https://www.irrawaddy.com/specials/myanmar-covid-19/myanmars-covid-19-cases-exceed-100000.html

Contract transparency for extractive industries

On the 1st December 2020, The President issued the order on the Contract Transparency in line with Myanmar Extractive Industries Transparency Initiative (MEITI).

According to the order, any government organizations of both union and state/region level, state-owned enterprise (SOEs) and private companies are liable to declare the contents of the contracts of the extractive industries. Such declaration must be uploaded in the website of MEITI, Ministry of Natural Resources and Environmental Conservation and Ministry of Electricity and Energy.

Since Myanmar began implementing the EITI in 2014, EITI reporting has played an important role in providing data to inform extractives sector reforms.

RECP Trade Deal

According to 'The Frontier Myanmar' the existing free trade agreements and longstanding non-trade barriers could limit the Regional Comprehensive Economic Partnership's (RCEP) impact on Myanmar' but the country may benefit from increased investment due to improved access to global value chains.

The government said Myanmar's decision to join the pact is an important development for future economic growth and the country has much to gain the media question what this deal will mean for ordinary people in Myanmar.

See:

https://www.frontiermyanmar.net/en/rcep-trade-deal-how-will-myanmar-really-benefit/

Local Investment

Domestic investment has topped Ks10 trillions over the past 4 years with most being in real estate, services and production sectors according to Myanmar Investment Commission (MIC).

A total of 575 investments have been made by Myanmar citizens in 12 sectors between 2016-17 to 2019-20 FYs.

The twelve sectors are housing development, services, manufacturing, transportation and telecommunication, tourism, power supply, industrial zone building, livestock and fishery, construction, mining, farming and oil and natural gas sectors.

Myanmar investment promotion plan is implemented with a five-year short term plan from 2016-17 FY to 2020-21 FY, a five-year medium term plan from 2021-22 FY to 2025-26 FY and a ten-year long term plan from 2026-27 FY to 2035-36 FY.

The target in the investment plan is for US\$5.8 billion over the five-year term, US\$8.5 billion in the five-year medium term plan and US\$17.6 billion in the ten-year plan.

ADB Loan for power grid

The Asian Development Bank (ADB) has approved a US\$171.27-million loan to expand electricity access in Myanmar. The loan will help Myanmar to construct 44 medium-voltage substations and 1,006 kilometres of distribution lines across Kayin state and the Ayeyarwady, East Bago, and Magway regions.

See: https://www.gnlm.com.mm/adb-approves-171-mln-loan-to-expand-electricity-access-in-myanmar/)

India

Forecasts vary but all point to better days ahead

In its Global Economic Outlook, Fitch raised India's GDP forecast to -9.4% in the current fiscal year to March 2021 from a previously projected contraction of 10.5%. The Reserve Bank of India (RBI) has also revised its forecast of economic growth for the current fiscal year to -7.5% against its earlier forecast of -9.5%.

See: https://www.fitchratings.com/research/sovereigns/global-economic-outlook-december-2020-07-12-2020

https://www.livemint.com/news/india/indian-economy-to-reach-pre-covid-levels-by-end-of-fy2022-says-niti-aayog-rajiv-kumar-11607233639258.html

Panel prices increase

Due to rising prices for raw materials such as timber and resins along with increasing labour cost, particleboard manufacturers have decided to increase prices by 10% with immediate effect.

This follows recent increases in plywood prices. Particleboard traders say they have managed to pass on the price increases to customers. As the Indian economy is beginnings to show signs of recovery demand for particleboard has risen providing the impetus for mills to lift production.

See: www.plyreporter.com (10 October magazine)

Microchips to protect sandalwood trees from theft

Beginning March 2021 land owners in Mysuru District in the southern part of the state of Karnataka will have the option to use microchip technology to protect their sandalwood trees from theft.

The technology has been jointly developed by the Bengaluru-based Institute of Science and Technology (IWST) and Hitachi India Pvt Limited. Once installed and linked to smartphones the chip allows the tree to be tracked. Forest department officials said they have got positive feedback from farmers.

Plantation teak

High freight rates have been hurting importers and the Indian government has been considering legislation to require shipping lines to provide "all-inclusive" freight rates to eliminate the practice of "surcharge stacking". This came after traders called for regulation of shipping lines as freight costs have been rising sharply.

India has been particularly affected by the global container shortage as a recovery in exports but falling imports has led to high container repositioning costs.

See: https://theloadstar.com/indias-plans-to-regulate-ocean-freight-rates-come-under-fire

Plantation teak logs ex-Brazil

i idiitatioii i	can logo ex bi
	US\$
Girth cm	FOB/Cu.m
70-79	341
80-89	372
90-99	415
100-109	450
110-119	484
120-129	553
130-139	570
140-149	614
150+	639

Plantation teak logs ex-Nicaragua

Flantation teak logs ex-ivi		
	US\$	
Girth cm	FOB/cu.m	
40-49	230	
50-59	280	
60-69	320	
70-79	380	
80-89	430	
90-99	490	
100-109	520	
110-119	560	
120-129	620	
130-139	660	
140-149	695	
150+	730	

C&F prices for plantation teak from sources other than those shown above continue to be within the same range as shown in earlier reports.

Locally milled sawnwood

Sawnwood Ex-mill	Rs per cu.ft.
Merbau	4,000-4,200
Balau	2,500-2,700
Resak	1,800-2,000 ★
Kapur	2,000-2,200
Kempas	1,550-1,750
Red meranti	1,500-1,650 ★
Radiata pine	850-850
Whitewood	850-850

Price range depends mainly on length and cross-section of sawn pieces

Myanmar teak

Importers have not replenished stocks of Myanmar teak which continues to buoy-up prices. When fresh shipments are made they will attract the new, higher freight rates which will put pressure on importers to raise prices even further.

Sawnwood (Ex-yard)	Rs. per cu.ft
Teak AD Export Grade F.E.Q.	15,000-22,000
Teak A grade	9,500-11,000
Teak B grade	7,500-9,000
Plantation Teak FAS grade	5,500-7,000

Price range depends mainly on lengths and cross-sections.

Sawn hardwood prices

Traders report positive signs in the market for hardwoods as demand is slowly rising.

Sawnwood, (Ex-warehouse) (KD 12%)	Rs per cu.ft.
Beech	1,700-1,850
Sycamore	1,800-2,000
Red Oak	2,000-2,200
White Oak	2,600-2,800
American Walnut	4,000-5,000
Hemlock STD grade	1,300-1,600
Western Red Cedar	2,300-2,450
Douglas Fir	1,800-2,000

Price range depends mainly on lengths and cross-sections.

Plywood

Domestic production and sales are improving and the price increases are holding at present as building activity is steadily increasing.

Mills in the north of the country have overcome the labour shortage as workers have now returned but some mill in the south of the country still face problems.

Domestic ex-warehouse prices for locally manufactured WBP plywood

Plywood	p.y.: 0 0 to
Ex-warehouse	Rs. per sq.ft
4mm	80.00
6mm	108.00
9mm	133.00
12mm	166.00
15mm	218.00
18mm	240.00

Domestic ex-warehouse prices for locally manufactured MR plywood

	Rs. per sq.ft	
	Rubberwood	Hardwood
4mm	43.00	61.00
6mm	61.00	77.00
9mm	77.00	94.00
12mm	94.00	111.00
15mm	111.00	134.00
19mm	130.00	150.00
5mm Flexible ply	82.00	

Vietnam

USTR virtual public hearing on Vietnam's timber industry scheduled

Further to the initiation of an investigation pursuant to Section 301 of the Trade Act of 1974, of whether Vietnam's acts, policies, and practices related to the import and use of illegal timber are unreasonable or discriminatory and burden or restrict US commerce, USTR (United States Trade Representative) has invited interested parties to submit written comments by November 12, 2020, regarding the issues in the investigation.

On 27 November, 2020 USTR announced Notice of the Public Hearing on this investigation. With this Notice, USTR will convene a virtual public hearing and accept rebuttal comments in the Section 301 investigation concerning Vietnam's acts, policies, and practices related to the import and use of illegally harvested or traded timber.

The deadlines are as follows:

 December 10, 2020, at 11:59 pm: To be assured of consideration, you must submit requests to appear at the hearing by this date. The request to appear must include a summary of the testimony.

- December 28, 2020, at 9:30 am: Hearing will be held virtually.
- January 6, 2021, at 11:59 pm: To be assured of consideration, post-hearing rebuttal comments must be submitted by this date.

According to the Notice, USTR will invite hearing testimony regarding:

- The extent to which illegal timber is imported into Vietnam.
- The extent to which Vietnamese producers, including producers of wooden furniture, use illegal timber.
- The extent to which products of Vietnam made from illegal timber, including wooden furniture, are imported into the United States.
- Vietnam's acts, policies, or practices relating to the import and use of illegal timber.
- The nature and level of the burden or restriction on U.S. commerce caused by Vietnam's import and use of illegal timber.
- The determinations required under section 304 of the Trade Act, including what action, if any,

Vietnam closer to VNTLAS implementation

On the 1st of September, 2020, the Government of Vietnam issued Decree 102/2020/N?-CP to regulate the implementation of the Vietnam Timber Legality Assurance System (VNTLAS).

Under VNTLAS, the risk of timber imported into Vietnam will be managed against criteria to define whether it comes from a rsk area and against the species.

Low risk areas are those with the flowing:

- Can issue FLEGT licenses;
- Have a national legal framework and due diligence system consistent with VNTLAS;
- Have national governance indicator from ":O" and up defined by World Bank WB based on their Worldwide Governance Indicator classification;
- Have national legal framework grade I defined by CITES;
- Have bilateral agreement with Vietnam on timber legality assurance and/or have national TLAS recognised by Vietnam.

As a further step to operate VNTLAS, on 27 November, 2020 the Ministry of Agriculture and Rural Development (MARD) issued Decision No. 4832/Q?-BNN-TCLN to announce the List of 322 timber species which have been imported into Vietnam and the List of Active Geographical Areas covering 51 countries which are exporting timber into Vietnam.

Timbers imported into Vietnam for the first time and/or from non-active geographical (risk) areas will have to undergo additional Customs formalities.

Timbers which have been imported into Vietnam *Notes:*

- 1. The List of timbers which have been imported into Vietnam wass provided by the General Department of Customs, Vietnam.
- 2. In this List, scientific names are the official names of imported timbers, the Vietnamese names are just for reference

No Scientific name Vertamese name 1 Abies spp. Gő Linh sam 2 Acacia auriculiformis (Acacia moniliformis) Gő Keo lai 3 Acacia harpophylla (Acacia harpopylla, Racosperma harpophyllum) Gő Tràm 4 Acacia mangium (Acacia glaucescens, Acacia holosenicea, Mangium montanum, Racosperma mangium) 5 Acacia melanoxylon Acer macrophyllum (Acer auritum, Acer 6 Acer macrophyllum (Acer auritum, Acer 6 Acer macrophyllum, Acer flabellatum, Acer 6 Acer macrophyllum, Acer flabellatum, Acer 6 Acer macrophyllum, Acer flabellatum, Acer 7 dittrichii, Acer epulifolium, Acer majus, Acer 9 dittrichii, Acer opulifolium, Acer majus, Acer 9 dittrichii, Acer quinquelobum) Acer rubrum (Acer coccineum, Acer carolinianum, Acer drummondii, Acer fulgens, Acer glaucum) 9 Acer saccharum (Acer hispidum, Acer palmifolium, Acer saccharophorum) 10 Acer sp. Gő Thich 11 Acer sp. Gő Phong 11 Acer sp. Gő Phong 12 Afzelia Africana (Pahudia Africana) 13 Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) 14 Afzelia pachyloba (Afzelia brieyi, Afzelia cankeri, Pahudia brieyi 15 Afzelia aguanzensis (Afzelia cuanzensis) 16 Gő Gő 17 Afzelia spp. Afzelia spp. Afzelia spp. Gő Gö Afzelia xylocarpa (Afzelia cochinchinensis, Pahudia xylocarpa) 18 Aglaia cucullata (Aglaia tripetala, Amoora ahermiana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) 19 Aglaia sp. Aglaia sp. Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii, Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) 21 Albizia ferruginea (Inga ferruginea, Inga malacophylia) 22 Alpa saman (Acacia propinqua, Calliandra saman, Inga cinerea, Mimosa saman, Samaena saman, Zygia saman) Alnus rubra (Alnus incana var. rubra, Alnus suaveolens) Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) Alnus spp. Alnus spp. Alnus spp. Gő Tràn Gő Tràn			VII - 1
2 Acacia auriculiformis (Acacia moniliformis) 3 Racosperma harpophylla (Acacia harpopylla, Racosperma harpophylla (Acacia plaucescens, Acacia holosericea, Mangium montanum, Racosperma mangium) 5 Acacia melanoxylon Acacia melanoxylon Acacia melanoxylon Acar macrophyllum (Acer auritum, Acer 6 dactylophyllum, Acer flabellatum, Acer 6 dactylophyllum, Acer flabellatum, Acer 7 dittrichii, Acer eputifolium, Acer majus, Acer 8 dittrichii, Acer oputifolium, Acer majus, Acer 8 dittrichii, Acer oputifolium, Acer majus, Acer 9 dittrichii, Acer oputifolium, Acer majus, Acer 17 dittrichii, Acer oputifolium, Acer majus, Acer 18 doctrubrum (Acer coccineum, Acer 8 dacer rubrum (Acer dummondii, Acer fulgens, Acer glaucum) 9 Acer saccharum (Acer hispidum, Acer palmifolium, Acer saccharophorum) 10 Acer sp. 11 Acer sp. 12 Afzelia Africana (Pahudia Africana) 13 Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) 14 Afzelia pachyloba (Afzelia brieyi, Afzelia Châu Phi 15 Afzelia quanzensis (Afzelia cuanzensis) 16 Afzelia quanzensis (Afzelia cuanzensis) 17 Afzelia apunzensis (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) 18 Aglaia cucullata (Aglaia tripetala, Amoora ahemiana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) 19 Aglaia sp. 20 Aglaia spectabilis (Aglaia tripetala, Amoora ahemiana, Andersonia cucullata, Aphanamixis audilchii) 21 Albizia ferruginea (Inga ferruginea, Inga malacophylla) 22 Alinus imperialis, Alnus nitens, Alnus februaria, Alnus manana paniculas, Alnus rubra var. pinnatisecta) 23 Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) 24 Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) 25 Alnus sp. 36 Trán 37 Afzelia sp. 36 Trán	No	Scientific name	Vietnamese name
Acacia harpophylla (Acacia harpopylla, Racosperma harpophyllum) Acacia mangium (Acacia glaucescens, Acacia holosericea, Mangium montanum, Racosperma Gō Tràm mangium) Acacia melanoxylon Acacia melanoxylon Acer macrophyllum (Acer auritum, Acer dectylophyllum, Acer flabellatum, Acer dectylophyllum, Acer flabellatum, Acer detrichiis, Acer leptodactylon) Acer pseudoplatanus (Acer abchasicum, Acer dittrichii, Acer opulifolium, Acer majus, Acer villosum, Acer quinquelobum) Acer rubrum (Acer coccineum, Acer acrolinianum, Acer drummondii, Acer fulgens, Acer glaucum) Acer saccharum (Acer hispidum, Acer palmifolium, Acer saccharophorum) Acer sp. Gō Thich Acer sp. Gō Phong Acer sp. Gō Thich Acer sp. Gō Thich Acer sp. Gō Gō Gō Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) Afzelia pachyloba (Afzelia brieyi, Afzelia cenkeri, Pahudia brieyi Afzelia quanzensis (Afzelia cuanzensis) Afzelia spp. Gō Gō Afzelia spp. Gō Gō Afzelia spp. Gō Gō Afzelia spp. Gō Gō Afzelia siamica, Pahudia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa (Afzelia cochinchinensis, Pahudia xylocarpa) Aglaia cucullata (Aglaia tripetala, Amoora aherniana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) Aglaia spectabilis (Aglaia gigantea, Aglaia hiemii, Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) Aglaia spectabilis (Aglaia gigantea, Aglaia hiemii, Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) Albizia ferruginea (Inga ferruginea, Inga malacophylia) Albizia saman (Acacia propinqua, Calliandra saman, Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus ripa cinerea, Mimosa saman, Samanea saman, Zygia saman) Alnus ripa cinerea, Mimosa saman, Samanea saman, Zygia saman) Alnus ripa cinerea, Mimosa sarnan, Cō Tông quán sửi Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) Alnus rubra (Alnus urbra var. pinnatisecta)	1	Abies spp.	Gỗ Linh sam
Acacia mangium (Acacia glaucescens, Acacia holosericea, Mangium montanum, Racosperma mangium) Acacia melanoxylon Acer macrophyllum (Acer auritum, Acer dactylophyllum, Acer flabellatum, Acer dittrichii, Acer opulifolium, Acer majus, Acer viliosum, Acer quinquelobum) Acer rubrum (Acer coccineum, Acer dactylophyllum, Acer opulifolium, Acer fulgens, Acer glaucum) Acer rubrum (Acer coccineum, Acer acarolinianum, Acer drummondii, Acer fulgens, Acer glaucum) Acer saccharum (Acer hispidum, Acer palmifolium, Acer saccharophorum) Acer sp. Gō Thich Acer sp. Gō Phong Acer sp. Afzelia Africana (Pahudia Africana) Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) Afzelia pachyloba (Afzelia brieyi, Afzelia zenkeri, Pahudia brieyi Afzelia quanzensis (Afzelia cuanzensis) Afzelia spp. Gō Gō Afzelia spp. Gō Gō Afzelia sylocarpa (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) Aglaia cucullata (Aglaia tripetala, Amoora aherniana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii, Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) Albizia ferruginea (Inga ferruginea, Inga malacophylla) Albizia saman (Acacia propinqua, Calliandra saman, Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus rubra (Alnus incana var. rubra, Alnus suaveolens) Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) Gō Tràn Alnus sp. Gō Tràn	2	Acacia auriculiformis (Acacia moniliformis)	Gỗ Keo lai
holosericea, Mangium montanum, Racosperma Mangium) Acacia melanoxylon Acer macrophyllum (Acer auritum, Acer dactylophyllum, Acer flabellatum, Acer pseudoplatanus (Acer abchasicum, Acer dittrichii, Acer opulifolium, Acer majus, Acer villosum, Acer quinquelobum) Acer rubrum (Acer coccineum, Acer acrolinianum, Acer drummondii, Acer fulgens, Acer glaucum) Acer saccharum (Acer hispidum, Acer palmifolium, Acer saccharophorum) Acer sp. Gŏ Thích Acer sp. Gŏ Gŏ Gŏ Afzelia Africana (Pahudia Africana) Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) Afzelia pachyloba (Afzelia brieyi, Afzelia zenkeri, Pahudia brieyi Afzelia quanzensis (Afzelia cuanzensis) Afzelia spp. Gŏ Gŏ Afzelia spp. Gŏ Gŏ Afzelia syp. Gŏ Gŏ Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa (Afzelia cochinchinensis, Pahudia xylocarpa) Aglaia cucullata (Aglaia tripetala, Amoora aherniana, Andersonia cucullata, Aphanamixis Cucullata, Buchanania paniculata) Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) Albizia ferruginea (Inga ferruginea, Inga malacophylla) Albizia saman (Acacia propinqua, Calliandra saman , Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus suaveolens) Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) Alnus rubra (Alnus rubra var. pinnatisecta)	3		Gỗ Tràm
Acer macrophyllum (Acer auritum, Acer dactylophyllum, Acer flabellatum, Acer hemionitis, Acer leptodactylon) Acer pseudoplatanus (Acer abchasicum, Acer dittrichii, Acer opulifolium, Acer majus, Acer villosum, Acer quinquelobum) Acer rubrum (Acer coccineum, Acer fulgens, Acer glaucum) Acer saccharum (Acer hispidum, Acer fulgens, Acer glaucum) Acer sp. Gŏ Thích Acer sp. Gŏ Gŏ Gŏ Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) Afzelia pachyloba (Afzelia brieyi, Afzelia candata, Pahudia bequaertii) Afzelia pachyloba (Afzelia brieyi, Afzelia candata, Pahudia bequaertii) Afzelia pachyloba (Afzelia cuanzensis) Afzelia pachyloba (Afzelia cuanzensis) Afzelia spp. Gŏ Gŏ Afzelia spp. Gŏ Gŏ Afzelia spp. Gŏ Gŏ Afzelia sylocarpa (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) Aglaia cucullata (Aglaia tripetala, Amoora aherniana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) Albizia ferruginea (Inga ferruginea, Inga malacophylla) Albizia saman (Acacia propinqua, Calliandra saman, Inga cinerea, Mimosa saman, Gŏ Gŏ Gŏ Me tây Nam Mỹ Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus februaria, Alnus rubra (Alnus nitens, Alnus februaria, Alnus rubra (Alnus nitens, Alnus februaria, Alnus rubra (Alnus rubra var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) Alnus glutinosa (Alnus nitens var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta)	4	holosericea, Mangium montanum, Racosperma	Gỗ Tràm
6 hemionitis, Acer leptodactylon) Acer pseudoplatanus (Acer abchasicum, Acer dittrichii, Acer opulifolium, Acer majus, Acer villosum, Acer quinquelobum) 8 car rubrum (Acer coccineum, Acer carolinianum, Acer drummondii, Acer fulgens, Acer glaucum) 9 Acer saccharum (Acer hispidum, Acer palmifolium, Acer saccharophorum) 10 Acer sp. Gŏ Phong 11 Acer spp. Gŏ Thích 12 Afzelia Africana (Pahudia Africana) Gŏ Gŏ 13 Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) 14 Afzelia pachyloba (Afzelia brieyi, Afzelia caudata, Pahudia bequaertii) 15 Afzelia quanzensis (Afzelia cuanzensis) Gŏ Gŏ 16 Afzelia spp. Gŏ Gŏ 17 Afzelia sylocarpa (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) 18 Afzelia sylocarpa (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) 18 Aglaia cucullata (Aglaia tripetala, Amoora aherniana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) 19 Aglaia sp. Gŏ Gò	5	· ·	Gỗ Keo đen
7 villosum, Acer quinquelobum) Gö Thich 8 Acer rubrum (Acer coccineum, Acer carolinianum, Acer drummondii, Acer fulgens, Acer glaucum) Gö Thich 9 Acer saccharum (Acer hispidum, Acer palmifolium, Acer saccharophorum) Gö Thich 10 Acer sp. Gö Phong 11 Acer sp. Gö Thich 12 Afzelia Africana (Pahudia Africana) Gö Gö 13 Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) Gö Gö 14 Afzelia pachyloba (Afzelia brieyi, Afzelia caudata, Pahudia bequaertii) Gö Gö Gö 15 Afzelia pachyloba (Afzelia brieyi, Afzelia caunzensis) Gö Gö Gö 16 Afzelia spp. Gö Gö 17 Afzelia sylocarpa (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) Gö Gö 18 Afzelia xylocarpa (Afzelia cochinchinensis, Pahudia xylocarpa) Gö Cà te 18 Aglaia cucullata (Aglaia tripetala, Amoora ahemiana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) Gö Ngàu tàu 19 Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii, Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) Gö Gòi nép 20 Albizia saman (Acacia propinqua, Calliandra saman, Inga cinerea, Mirmosa saman, Samanea saman, Zygia	6	hemionitis, Acer leptodactylon) Acer	Gỗ Thích
8 carolinianum, Acer drummondii, Acer fulgens, Acer glaucum) Gỗ Thích 9 Acer saccharum (Acer hispidum, Acer palmifolium, Acer saccharophorum) Gỗ Thích 10 Acer sp. Gỗ Phong 11 Acer spp. Gỗ Thích 12 Afzelia Africana (Pahudia Africana) Gỗ Gỡ 13 Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) Gỗ Gỡ 14 Afzelia pachyloba (Afzelia brieyi, Afzelia zenkeri, Pahudia brieyi Gỗ Gỡ 15 Afzelia quanzensis (Afzelia cuanzensis) Gỗ Gỡ 16 Afzelia spp. Gỗ Gỡ 17 Afzelia sylocarpa (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) Gỗ Gỡ 18 Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) Gỗ Cà te 18 Aglaia cucullata (Aglaia tripetala, Amoora aherniana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) Gỗ Ngâu tàu 19 Aglaia sp. Gỗ Gộ gác 20 Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) Gỗ Gộ nép gố Gỗ Gộ nép gố Gỗ Gộ nép ghananan, Inga cinerea, Mimosa saman, Samane saman, Zygia saman) Gỗ Me tây Nam Mỹ Nam Ng Namanea saman, Zygia saman)	7		Gỗ Thích
palmifolium, Acer saccharophorum) 10 Acer sp. Gỗ Phong 11 Acer spp. Gỗ Thích 12 Afzelia Africana (Pahudia Africana) Gỗ Gỗ 13 Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) 14 Afzelia pachyloba (Afzelia brieyi, Afzelia cankeri, Pahudia brieyi 15 Afzelia quanzensis (Afzelia cuanzensis) Gỗ Gồ 16 Afzelia spp. Gỗ Gồ 17 Afzelia sylocarpa (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) 18 Aglaia cucullata (Aglaia tripetala, Amoora ahemiana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) 19 Aglaia sp. Gỗ Gội gắc 20 Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) 21 Albizia ferruginea (Inga ferruginea, Inga malacophylla) 22 Samana (Acacia propinqua, Calliandra saman , Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) 23 Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus suaveolens) 24 Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) 25 Alnus sp. Gỗ Trăn	8	carolinianum, Acer drummondii, Acer fulgens,	Gỗ Thích
11 Acer spp. Afzelia Africana (Pahudia Africana) Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) Afzelia pachyloba (Afzelia brieyi, Afzelia Châu Phi Afzelia pachyloba (Afzelia brieyi, Afzelia Châu Phi Afzelia quanzensis (Afzelia cuanzensis) Afzelia quanzensis (Afzelia cuanzensis) Afzelia spp. Afzelia xylocarpa (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) Aglaia cucullata (Aglaia tripetala, Amoora ahemiana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) Albizia ferruginea (Inga ferruginea, Inga malacophylla) Albizia saman (Acacia propinqua, Calliandra saman , Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus suaveolens) Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) Gŏ Trăn Alnus sp. Gŏ Trăn	9		Gỗ Thích
12 Afzelia Africana (Pahudia Africana) 13 Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) 14 Afzelia pachyloba (Afzelia brieyi, Afzelia candata, Pahudia bequaertii) 15 Afzelia pachyloba (Afzelia brieyi, Afzelia candata, Pahudia Phi 15 Afzelia quanzensis (Afzelia cuanzensis) 16 Afzelia sypo. 17 Afzelia sylocarpa (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) 18 Aglaia cucullata (Aglaia tripetala, Amoora aherniana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) 19 Aglaia sp. 20 Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) 21 Albizia ferruginea (Inga ferruginea, Inga malacophylla) 22 Alnus asman (Acacia propinqua, Calliandra saman, Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) 23 Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus suaveolens) 24 Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) 25 Alnus sp. Gổ Trăn	10	Acer sp.	Gỗ Phong
Afzelia bipindensis (Afzelia caudata, Pahudia bequaertii) 14 Afzelia pachyloba (Afzelia brieyi, Afzelia cankeri, Pahudia brieyi 15 Afzelia quanzensis (Afzelia cuanzensis) 16 Afzelia spp. 17 Afzelia spp. Afzelia xylocarpa (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) 18 Aglaia cucullata (Aglaia tripetala, Amoora ahemiana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) 19 Aglaia sp. 20 Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) 21 Albizia ferruginea (Inga ferruginea, Inga malacophylla) 22 Saman , Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus suaveolens) 24 Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) 5 Alnus sp. 5 Alnus sp. 6 Gō Trăn	11	Acer spp.	Gỗ Thích
bequaertii) 14 Afzelia pachyloba (Afzelia brieyi, Afzelia zenkeri, Pahudia brieyi 15 Afzelia quanzensis (Afzelia cuanzensis) 16 Afzelia spp. Gỗ Gổ Afzelia sylocarpa (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) Aglaia cucullata (Aglaia tripetala, Amoora aherniana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) 19 Aglaia sp. Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) Chiza alia alia alia alia alia alia alia a	12	Afzelia Africana (Pahudia Africana)	Gỗ Gõ
zenkeri, Pahudia brieyi 15 Afzelia quanzensis (Afzelia cuanzensis) 16 Afzelia spp. Afzelia spp. Afzelia sapp. Afzelia siamica, Pahudia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) Aglaia cucullata (Aglaia tripetala, Amoora ahemiana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) Go Ngâu tàu do Aglaia spectabilis (Aglaia gigantea, Aglaia hiemii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) Albizia ferruginea (Inga ferruginea, Inga malacophylla) Albizia saman (Acacia propinqua, Calliandra saman, Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus suaveolens) Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) Gō Trăn Châu Châu Châu Châu Châu Châu Châu Châu	13		Gỗ Gõ
16 Afzelia spp. Gỗ Gồ	14		
Afzelia xylocarpa (Afzelia cochinchinensis, Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) Aglaia cucullata (Aglaia tripetala, Amoora ahemiana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) Go Ngâu tàu Aglaia sp. Aglaia spectabilis (Aglaia gigantea, Aglaia hiemii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) Albizia ferruginea (Inga ferruginea, Inga malacophylla) Albizia saman (Acacia propinqua, Calliandra saman , Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus suaveolens) Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) Gō Trăn Gō Trăn	15	Afzelia quanzensis (Afzelia cuanzensis)	Gỗ Gõ
17 Afzelia siamica, Pahudia cochinchinensis, Pahudia xylocarpa) 18 Aglaia cucullata (Aglaia tripetala, Amoora ahemiana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) 19 Aglaia sp. Gỗ Gội gác 20 Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) 21 Albizia ferruginea (Inga ferruginea, Inga malacophylla) 22 Albizia saman (Acacia propinqua, Calliandra saman , Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) 23 Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus suaveolens) 24 Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) 25 Alnus sp. Gỗ Trăn	16	Afzelia spp.	Gỗ Gõ
aherniana, Andersonia cucullata, Aphanamixis cucullata, Buchanania paniculata) Gỗ Ngâu tàu Aglaia sp. Gỗ Gội gác Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii, Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) Albizia ferruginea (Inga ferruginea, Inga malacophylla) Albizia saman (Acacia propinqua, Calliandra saman, Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus suaveolens) Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) Alnus sp. Gỗ Trăn	17	Afzelia siamica, Pahudia cochinchinensis,	Gỗ Cà te
Aglaia spectabilis (Aglaia gigantea, Aglaia hiernii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) 21 Albizia ferruginea (Inga ferruginea, Inga malacophylla) 22 Albizia saman (Acacia propinqua, Calliandra saman , Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) 23 Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus suaveolens) 24 Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) 25 Alnus sp. Gō Trăn	18	aherniana, Andersonia cucullata, Aphanamixis	Gỗ Ngâu tàu
20 hiernii , Aglaia ridleyi, Amoora gigantea, Aphanamixis wallichii) 21 Albizia ferruginea (Inga ferruginea, Inga malacophylla) 22 Albizia saman (Acacia propinqua, Calliandra saman , Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) 23 Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus suaveolens) 24 Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) 25 Alnus sp. Gō Gội nếp Gō Iatangza Gō Me tây Nam Mỹ Gō Tổng quán sùi Gō Trăn	19	Aglaia sp.	Gỗ Gội gác
malacophylla) Albizia saman (Acacia propinqua, Calliandra saman , Inga cinerea, Mirnosa saman, Samanea saman, Zygia saman) Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus suaveolens) Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) Gỗ Trăn Alnus sp. Gổ Trăn	20	hiernii , Aglaia ridleyi, Amoora gigantea,	Gỗ Gội nếp
22 saman , Inga cinerea, Mimosa saman, Samanea saman, Zygia saman) Alnus glutinosa (Alnus aurea, Alnus februaria, Alnus imperialis, Alnus nitens, Alnus quán sùi 24 Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) Cão Trăn Cão Trăn	21		Gỗ latangza
23 Alnus İmperialis, Alnus nitens, Alnus quán sùi 24 Alnus rubra (Alnus incana var. rubra, Alnus oregana, Alnus rubra var. pinnatisecta) 25 Alnus sp. Gỗ Trăn	22	saman , Inga cinerea, Mimosa saman,	
oregana, Alnus rubra var. pinnatisecta) 25 Alnus sp. Gỗ Trắn	23	Alnus imperialis, Alnus nitens, Alnus	
, , , , , , , , , , , , , , , , , , ,	24		Gỗ Trăn
26 Alnus spp. Gỗ Trăn	25	Alnus sp.	Gỗ Trăn
	26	Alnus spp.	Gỗ Trăn

27	Anadenanthera colubrine (Acacia colubrina, Mimosa colubrina, Piptadenia colubrine)	Gỗ Curupau
28	Andira inermis (Andira grandiflora, Andira jamaicensis, Geoffroea inermis, Vouacapoua inermis)	Gỗ Vân Dừa Nam Mỹ
29	Andira spp.	Gỗ KRK
30	Apuleia leiocarpa (Apoleya leiocarpa, Apuleia praecox, Leptolobium leiocarpum)	Gỗ Almendrillo
31	Aquilaria filarial (Aquilaria acuminata, Aquilaria tomentosa, Gyrinopsis acuminata, Pittosporum filarium)	Gỗ Gió bầu
32	Aquilaria malaccensis (Agallochum malaccense, Aloexylum agallochum, Aquilaria agallochum, Aquilaria moluccensis)	Gỗ Gió bầu
33	Araucaria cunninghamii (Araucaria glauca, Eutacta cunninghamii, Eutassa cunninghamii)	Gỗ Araucaria
34	Artocarpus heterophyllus (Artocarpus brasiliensis, Artocarpus maximus, Artocarpus nanca, Artocarpus philippensis)	Gỗ Mít
35	Artocarpus integer (Artocarpus integrifolius, Radermachia integra, Saccus integer)	Gỗ Mít
36	Aspidosperma sp.	Gỗ Peroba
37	Astronium lecointei (Astronium lecointei f. tomentosum, Astronium lecointei var. tomentosum)	Gỗ Cẩm lai
38	Aucoumea klaineana	Gỗ Okoume
39	Autranella congolensis (Autranella boonei, Autranella le-testui , Mimusops boonei, Mimusops congolensis, Mimusops le-testui)	Gỗ Kungulo
40	Bagassa guianensis (Bagassa sagotiana, Bagassa tiliifolia, Laurea tiliifolia, Piper tiliifolium)	Gỗ Bagassa
41	Baillonella toxisperma (Baillonella djave, Baillonella obovata, Baillonella pierriana, Mimusops djave, Mimusops obovata, Mimusops pierreana, Mimusops toxisperma)	Gỗ Moabi
42	Berlinia bracteosa Benth (Berlinia bracteosa, Berlinia platycarpa, Macroberlinia bracteosa)	Gỗ Ebiara
43	Berlinia congolensis	Gỗ Ebiara
44	Berlinia grandiflora (Berlinia heudelotiana, Berlinia laurentii, Westia grandiflora)	Gỗ Ebiara
45	Berlinia spp.	Gỗ Ebiara
46	Betula alleghaniensis (Betula excelsa, Betula lutea, Betula persicifolia)	Gỗ Phong vàng
47	Betula pendula (Betula verrucosa, Betula virgultosa, Betula aetnensis, Betula brachylepis, Betula cajanderi)	Gỗ Bạch dương
48	Betula platyphylla (Betula ajanensis, Betula tauschii, Betula latifolia)	Gỗ Bạch dương
49	Betula pubescens (Betula alba, Betula ambigua, Betula andreji, Betula asplenifolia)	Gỗ Bạch dương
50	Betula sp.	Gỗ Bạch Dương Đen
51	Betula spp.	Gỗ Bạch dương
52	Bobgunnia fistuloides (Swartzia fistuloides)	Gỗ Cẩm

_		
53	Brachystegia cynometroides	Gỗ Naga
54	Brachystegia laurentii (Macrolobium laurentii)	Gỗ Bomanga
55	Brachystegia mildbraedii (Brachystegia nzang, Cynometra pachycarpa) Buchenavia tetraphylla (Buchenavia capitata,	Gỗ Naga parallele
56	Buchenavia ptariensis, Buchenavia vaupesana, Bucida angustifolia, Lithocardium tetraphyllum, Terminalia hilariana)	Gỗ Bàng bốn lá
57	Caesalpinia paraguariensis (Acacia paraguariensis, Acacia paraguariensis, Caesalpinia melanocarpa)	Gỗ Gỗ Xanh
58	Calophyllum sp.	Gỗ CAL
59	Carallia sp.	Gỗ Săng vì
60	Careya sphaerica (Careya arborea, Barringtonia arborea, Careya orbiculata, Careya venenata, Cumbia coneanae)	Gỗ Vừng
61	Carya ovate	Gỗ Hồ đào
62	Carya sp.	Gỗ Hồ Đào
63	Cedrus sp.	Gỗ Tuyết tùng
64	Chamaecyparis obtuse (Chamaecyparis acuta, Chamaecyparis andelyensis, Chamaecyparis breviramea, Chamaecyparis keteleri, Chamaecyparis lycopodioides)	Gỗ Bách
65	Chamaecyparis sp.	Gỗ Thông Nhật
66	Chamaecyparis spp.	Gỗ Tuyết tùng
67	Chukrasia sp.	Gỗ Chua khét
68	Chukrasia tabularis (Cedrela villosa, Chukrasia chickrassa, Chukrasia nimmonii, Chukrasia trilocularis, Dysoxylum esquirolii)	Gỗ Lát hoa
69	Cinnamomum balansae	Gỗ Gù hương
70	Cinnamomum camphora (Camphora camphora, Camphora hippocratei, Camphora, hahnemannii, Cinnamomum camphoriferum, Camphora vera)	Gỗ Long lão
71	Cinnamomum porrectum (Camphora chinensis, Cinnamomum inodorum, Cinnamomum malaccense, Laurus parthenoxylon, Phoebe latifolia)	Gỗ Re hương
72	Copaifera mildbraedii (Copaifera salikounda)	Gỗ Etimoe
73	Cordia elaeagnoides (Cordia exsucca, Gerascanthus elaeagnoides)	Gỗ Bocote
74	Corymbia calophylla (Eucalyptus calophylla, Eucalyptus glaucophylla, Eucalyptus	Gỗ Bạch đàn
L	splachnicarpa)	Marri
75	Corymbia maculate (Eucalyptus maculate)	Gỗ Bạch đàn
76	Couratari spp	Gỗ Ing
78	Cunninghamia konishii (Cunninghamia kawakamii, Cunninghamia lanceolata var. konishii) Cunninghamia lanceolate (Abies batavorum,	Gỗ Sa mu

79	Abies lanceolata, Belis jaculifolia, Belis lanceolata, Cunninghamia jaculifolia)	Gỗ Sa mộc
80	Cupressus sp.	Gỗ Thông
81	Cylicodiscus gabunensis (Cyrtoxiphus staudtii, Erythrophleum gabunense)	Gỗ Lim
82	Cynometra ramiflora (Cymorium sylvestre, Cynometra bijuga, Cynometra bijuga, Cynometra carolinensis, Maniltoa carolinensis, Trachylobium verrucosum)	Gỗ Kekatong
83	Dalbergia tonkinensis	Gỗ Baswood
84	Daniellia oliveri (Paradaniellia oliveri)	Gỗ Senya
85	Daniellia spp.	Gỗ Senya
86	Detarium macrocarpum	Gỗ Amouk
87	Dialium bipindense (Dialium connaroides, Dialium fleuryi, Dialium connaroides)	Gỗ Eyoum
88	Dialium guianense (Arouna divaricata, Arouna guianensis, Dialium acuminatum, Dialium divaricatum)	Gỗ Hương huyết
89	Dialium platysepalum (Dialium ambiguum, Dialium havilandii, Dialium kingii, Dialium, maingayi, Dialium wallichii)	Gỗ Keranji
90	Dialium spp.	Gỗ Keranji
91	Dicorynia guianensis	Gỗ Sao Đen Nam Mỹ
92	Dillenia indica (Dillenia elongata, Dillenia speciosa, Dillenia indica f. elongate)	Gỗ Dil
93	Dillenia spp.	Gỗ Táo voi
94	Diospyros celebica	Gỗ Mun đen
95	Diospyros ebenum (Diospyros assimilis, Diospyros ebenaster, Diospyros glaberrima, Diospyros laurifolia, Diospyros melanoxylon, Diospyros membranacea, Diospyros timoriana)	Gỗ Mun
96	Diospyros mun	Gỗ Mun
97	Diospyros sp.	Gỗ Mun sọc
98	Diplotropis purpurea (Bowdichia guianensis, Dibrachion guianense, Diplotropis guianensis, Tachigalia purpurea)	Gỗ Kabebes
99	Dipterocarpus retusus (Dipterocarpus tonkinensis, Dipterocarpus spanoghei, Dipterocarpus austroyunnanicus, Dipterocarpus luchunensis)	Gỗ Chò Nâu
100	Dipterocarpus sp.	Gỗ Dầu
101	Dipterocarpus spp.	Gỗ Keruing
102	Dipteryx odorata (Coumarouna odorata, Coumarouna tetraphylla, Dipteryx tetraphylla)	Gỗ Lim vàng Nam Mỹ
103	Dipteryx oleifera (Coumarouna oleifera, Coumarouna panamensis, Dipteryx panamensis, Oleiocarpon panamense)	Gỗ Lim Nam Mỹ
104	Dipteryx polyphylla (Coumarouna polyphylla)	Gỗ Lim
105	Distemonanthus benthamianus(Distemonanthus laxus)	Gỗ Mouvingui
106	Duabanga grandiflora (Duabanga sonneratioides, Lagerstroemia grandiflora,	Gỗ Phay

	Leptospartion grandiflorum)	
107	Durio spp.	Gỗ Durian
108	Dyera costulata (Alstonia costulata, Alstonia eximia, Alstonia grandifolia, Dyera laxiflora)	Gỗ Jelutong
109	Elateriospermum tapos (Elateriospermum rhizophorum) Entandrophragma angolense	Gỗ Perah
110	(Entandrophragma candolleana, Entandrophragma casimirianum, Entandrophragma gregoireianum, Entandrophragma macrophyllum, Swietenia angolensis)	Gỗ Dái ngựa
111	Entandrophragma candollei(Entandrophragma choriandrum, Entandrophragma ferrugineum)	Gỗ Xoan đào
112	Entandrophragma cylindricum(Entandrophragma cedreloides, Entandrophragma lebrunii, Entandrophragma, pseudocylindricum, Entandrophragma rufum, Pseudocedrela cylindrical)	Gỗ Xoan đào
113	Entandrophragma utile (Entandrophragma macrocarpum, Entandrophragma roburoides, Entandrophragma thomasii, Pseudocedrela utilis)	Gỗ Xoan đào
114	Erythrophleum africanum (Caesalpiniodes africanum, Gleditsia Africana)	Gỗ Lim
115	Erythrophleum fordii	Gỗ Lim xanh
116	Erythrophleum ivorense (Erythrophleum micranthum, Erythrophleum micranthum)	Gỗ Lim
117	Erythrophleum suaveolens (Erythrophleum guineense, Fillaea suaveolens)	Gỗ Lim
118	Eucalyptopsis papuana	Gỗ Mah- Malaha
119	Eucalyptus cladocalyx (Eucalyptus corynocalyx, Eucalyptus langii)	Gỗ Bạch đàn
120	Eucalyptus deglupta (Eucalyptus binacag, Eucalyptus multiflora, Eucalyptus naudiniana, Eucalyptus sarassa, Eucalyptus schlechteri)	Gỗ Bạch đàn
121	Eucalyptus diversicolor (Eucalyptus colossea)	Gỗ Bạch đàn
122	Eucalyptus grandis	Gỗ Đỏ
123	Eucalyptus marginata (Eucalyptus floribunda, Eucalyptus hypoleuca, Eucalyptus mahoganii)	Gỗ Bạch đàn úc
124	Eucalyptus obliqua (Eucalyptus procera, Eucalyptus pallens, Eucalyptus nervosa, Eucalyptus heterophylla)	Gỗ Bạch đàn
125	Eucalyptus pilularis (Eucalyptus discolor, Eucalyptus incrassata, Eucalyptus persicifolia, Eucalyptus semicorticata)	Gỗ Black butt
126	Eucalyptus sp.	Gỗ Bạch đàn
127	Eucalyptus spp.	Gỗ Bạch đàn
128	Eugenia spp.	Gỗ Kelat
129	Eusideroxylon zwageri (Eusideroxylon borneense, Salgada lauriflora)	Gỗ Chò Indonesia
130	Fagus sp.	Gỗ Dẻ gai
131	Fagus spp.	Gỗ Dẻ gai
132	Fagus sylvatica (Fagus aenea, Fagus asplenifolia, Fagus cochleata, Fagus comptoniifolia , Fagus crispa, Fagus cristata, Fagus cucullata)	Gỗ Beech
133	Falcataria moluccana (Albizia falcata, Adenanthera falcata, Adenanthera falcataria,	Gỗ Albazia

	Albizia fulva)	
	,	
134	Paraserianthes falcataria (Adenanthera falcata, Albizia eymae)	Gỗ Sengon
135	Fernandoa brilletii (Hexaneurocarpon brilletii)	Gỗ Đinh thối
136	Ficus auriculata (Covellia macrophylla, Ficus hainanensis, Ficus hamiltoniana, Ficus rotundifolia, Ficus scleroptera)	Gỗ Hillarau
137	Fokienia hodginsii (Chamaecyparis hodginsii, Cupressus hodginsii, Fokienia kawaii, Fokienia maclurei)	Gỗ Pơ mu
138	Fokienia sp.	Gỗ Pơ mu
139	Fraxinus americana (Aplilia macrophyla, Calycomelia acuminata, Fraxinoides alba, Fraxinus acuminata, Fraxinus albicans, Fraxinus biltmoreana)	Gỗ Tần bì
140	Fraxinus angustifolia (Fraxinus calabrica, Fraxinus dentata, Fraxinus elongatifolia, Fraxinus humilior, Fraxinus lentiscifolia, Fraxinus mixta, Fraxinus obtusa, Fraxinus orientalis)	Gỗ Tần bì
141	Fraxinus excelsior (Aplilia laciniata, Fraxinus acutifolia, Fraxinus amarissima, Fraxinus exoniensis, Fraxinus grandifolia)	Gỗ Ash
142	Fraxinus sp.	Gỗ Tần bì
143	Fraxinus spp.	Gỗ Tần bì
144	Garcinia latissima	Gỗ Ramin
145	Gluta renghas	Gỗ Rengas
146	Guarea cedrata (Guarea alatipetiolata, Khaya cunahailata, Trichilia cedrata)	Gỗ Bose
147	Guibourtia arnoldiana (Copaifera arnoldiana, Copaiba arnoldiana, Copaifera arnoldiana)	Gỗ Mutenye
148	Guibourtia coleosperma (Copaifera coleosperma)	Gỗ Hương đá
149	Guibourtia tessmannii (Copaifera tessmannii) Handroanthus capitatus (Tabebuia capitata,	Gỗ Bubinga
150	Tabebuia glomerata, Tabebuia hypolepra, Tecoma capitate)	Gỗ ipe
151	Tabebuia capitate (Handroanthus capitatus)	Gỗ Makagrin
152	Tabebuia serratifolia (Bignonia araliacea, Bignonia serratifolia , Handroanthus araliaceus, Handroanthus serratifolius)	Gỗ Cẩm thạch Nam Mỹ
153	Hevea brasiliensis (Hevea camargoana, Hevea granthamii, Hevea janeirensis, Hevea randiana, Siphonia brasiliensis)	Gỗ Cao su
154	Homalium caryophyllaceum (Blackwellia caryophyllacea)	Gỗ Sao xanh
155	Homalium ceylanicum (Homalium balansae, Homalium hainanense, Homalium laoticum)	Gỗ Sao xanh
156	Homalium foetidum (Astranthus foetida, Blackwellia foetida)	Gỗ Mal
157	Hopea forbesii	Gỗ Amo
158	Hopea pierrei	Gỗ Kiền kiền
159	Hymenaea courbaril (Inga megacarpa)	Gỗ Jatoba
160	Hymenaea spp.	Gỗ Gõ đỏ Nam Mỹ

	-	
161	Hymenolobium flavum	Gỗ Gõ đỏ Nam Mỹ
162	Hymenolobium spp.	Gỗ Darina
163	Intsia palembanica (Afzelia bakeri, Afzelia palembanica, Intsia bakeri, Intsia plurijuga)	Gỗ Merbau
164	Juglans nigra (Juglans nigra f. nigra, Wallia nigra)	Gỗ Óc chó
165	Juglans sp.	Gỗ Óc chó
166	Julbernardia pellegriniana (Paraberlinia bifoliolata)	Gỗ Beli
167	Juniperus virginiana (Juniperus alba, Juniperus bedfordiana, Juniperus caroliana, Juniperus dioica, Sabina fragrans, Sabina virginiana)	Gỗ Tuyết tùng
168	Khaya anthotheca (Garretia anthoteca)	Gỗ Xà cừ
169	Khaya senegalensis (Swietenia senegalensis)	Gỗ Xà cừ
170	Kokoona littoralis (Lophopetalum littorale)	Gỗ Mata Ulat
171	Kokoona spp.	Gỗ Song mã Mã Lai
172	Koompassia malaccensis (Koompassia beccariana, Koompassia borneensis)	Gỗ Kempas
173	Lagerstroemia angustifolia	Gỗ Bằng lăng
174	Lagerstroemia calyculata (Murtughas calyculata)	Gỗ Bằng lăng
175	Lagerstroemia loudonii	Gỗ Bằng lăng tía
176	Lagerstroemia flos-reginae (Lagerstroemia speciose)	Gỗ Bằng lăng
177	Lagerstroemia tomentosa (Lagerstroemia tomentosa var. caudata, Murtughas tomentosa)	Gỗ Săng lẻ
178	Lecomtedoxa klaineana (Mimusops klaineana, Nogo klaineana)	Gỗ Ogoumo
179	Liquidambar styraciflua (Liquidambar barbata, Liquidambar gummifera, Liquidambar macrophylla)	Gỗ Sap gum
180	Liriodendron sp.	Gỗ Dương vàng
181	Liriodendron spp.	Gỗ Dương
182	Liriodendron tulipifera (Liriodendron fastigiatum, Liriodendron procerum, Liriodendron truncatifolium, Tulipifera Iiriodendrum)	Gỗ Hoàng dương
183	Lophira alata (Lophira africana, Lophira barteri, Lophira macrophylla, Lophira procera, Lophira simplex, Lophira tholloni)	Gỗ Azobe
184	Lovoa trichilioides (Lovoa klaineana)	Gỗ Dibetou
185	Machaerium scleroxylon (Machaerium nyctitans var. scleroxylon)	Gỗ Morado
186	Machilus bonii (Persea bonii)	Gỗ Kháo vàng
187	Maclura tinctoria (Broussonetia plumeri, Chlorophora mollis, Fusticus glabra, Ioxylon mora, Maclura affinis, Maclura sempervirens)	Gỗ Mora
188	Manglietia fordiana (Magnolia fordiana)	Gỗ Vàng tâm
189	Talauma gioi (Magnolia gioi, Michelia gioi, Michelia hedyosperma, Michelia hypolampra, Talauma gioi, Magnolia hypolampra)	Gỗ Giổi
190	Elmerrillia papuana (Elmerrillia celebica, Elmerrillia sericea, Michelia arfakiana, Michelia celebica, Talauma papuana,Magnolia	Gỗ Bew

	tsiampacca)	
191	Mangifera indica (Mangifera	Gỗ Xoài
	austroyunnanensis)	
192	Mangifera sp.	Gỗ Xoài
193	Manilkara bidentate (Kaukenia globosa, Manilkara balata, Manilkara darienensis, Manilkara williamsii, Mimusops bidentata, Sapota mulleri)	Gỗ Bolletrie
194	Manilkara kanosiensis	Gỗ Kan
	Manilkara obovate (Chrysophyllum holtzii,	
195	Kaukenia cuneifolia, Manilkara angolensis, Mimusops angolensis)	Gỗ Mani
	Maranthes corymbosa (Exitelia corymbosa,	
196	Ferolia corymbosa, Grymania salicifolia, Maranthes speciosa, Parinari corymbosa, Petrocarya griffithiana)	Gỗ Plb
197	Marmaroxylon racemosum (Abarema	Gỗ Gevlamde
	racemosa, Pithecellobium racemiflorum, Pithecellobium racemosum)	bostamarind e
198	Martiodendron parviflorum (Martiusia parviflora)	Gỗ Căm xe
199	Martiodendron sp.	Gỗ Căm xe
200	Melia azedarach (Azedara speciosa, Azedarach odoratum, Melia angustifolia , Melia sambucina)	Gỗ Mindi
201	Milicia excels (Chlorophora excelsa, Maclura excelsa, Milicia africana, Morus excels)	Gỗ Iroko
202	Millettia laurentii	Gỗ Muồng
203	Millettia leucantha (Millettia pendula)	Gỗ Sathon
204	Morus sp.	Gỗ Dâu
205	Morus spp.	Gỗ Kuwa
206	Myroxylon balsamum (Myrospermum toluiferum, Myroxylon toluiferum, Toluifera balsamum)	Gỗ Balsamo
207	Nauclea diderrichii (Nauclea trillesii, Sarcocephalus badi, Sarcocephalus diderrichii, Sarcocephalus trillesii)	Gỗ Bilinga
208	Nauclea purpurea (Anthocephalus chinensis, Bancalus purpureus, Nauclea elliptica, Neonauclea purpurea)	Gỗ Vàng kiêng
209	Adina sessilifolia (Adina thanhoaensis, Nauclea dongnaiensis, Nauclea ovalifolia, Nauclea sericea, Neonauclea sessilifolia)	Gỗ Gáo Vàng
210	Neonauclea sp.	Gỗ Hay
211	Nothofagus pumilio (Calusparassus pumilio, Fagus pumilio)	Gỗ Lenga
212	Nyssa sp.	Gỗ Tupelo
	Nyssa sp. Ochroma pyramidale (Ochroma bicolor,	
212		Gỗ Tupelo Gỗ Balsa
	Ochroma pyramidale (Ochroma bicolor, Bombax angulata , Bombax pyramidale,	

216 Palaquium warburgianum 217 Papuacedrus arfakensis (Libocedrus arfakensis, Papuacedrus papuana var. arfakensis, Papuacedrus papuana var. arfakensis, Papuacedrus papuana var. arfakensis, Papuacedrus papuana var. arfakensis, Papulownia thyrsoidea, Paulownia rehderiana, Paulownia imperialis, Bignonia tomentosa, Paulownia imperialis, Bignonia tomentosa, Paulownia recurve) 220 Peltogyne pubescens (Peltogyne amplissima, Paltogyne paniculata subsp. pubescens) 221 Peltogyne venosa (Hymenaea venosa) 222 Peltogyne venosa (Hymenaea venosa) 223 Pericopsis elata (Afrormosia elata) 224 Gasyrrhachis var. tonkinense, Peltophorum pterocarpum auct. non, Baryxylum tonkinense) 225 Pericopsis elata (Afrormosia elata) 226 Peltersianthus macrocarpus (Combretodendron africanum, Combretodendron macrocarpum, Combretodendron viridiflorum, Petersia africana, Petersianthus minor) 226 Picea ables (Abies abies, Abies alpestris, Abies cinerea, Abies communis, Abies conica, Abies eremita) 227 Picea sp. 228 Picea sp. 230 Piros abies (Abies abia, Abies arctica, Abies crandensis) 231 Piros abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus densa var. austrokeysensis) 232 Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus densa var. austrokeysensis) 233 Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavalentei, Pinus paplanisi) 234 Pinus palmieri (Pinus adunca, Pinus californica, Pinus palmieri) 235 Pinus splustris (Pinus auturca, Pinus californica, Pinus palmieri) 236 Pinus spp. 237 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus insignis, Finus montereyensis, Pinus sirgida, Pinus strolia, Pinus turberculate) 238 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus umbraculifera, Strobus strobus, Strobus werymouthiana) 239 Pinus taedu (Pinus binatofolio, Pinus broealis, Pinus tartarica, Pinus trieseana, Pinus hagenaviensis, Pinus tartarica, Pinus trieseana, Pinus broealis, Pinus tartarica, Pinus triese			
Papuacedrus arfakensis (Libocedrus arfakensis, Papuacedrus papuana var. arfakensis, Papuacedrus papuana var. arfakensis, Papuacedrus papuana var. arfakensis, Papuacedrus papuana var. Paulownia kawakamii (Paulownia viscosa) Paulownia tomentosa (Paulownia viscosa) Paulownia imperialis, Bignonia tomentosa, Paulownia recurve) Paltogyne pubescens (Peltogyne amplissima, Paulownia recurve) Peltogyne paniculata subsp. pubescens) Peltogyne paniculata subsp. pubescens) Peltogyne venosa (Hymenaea venosa) Gō ZWK Peltogyne venosa (Hymenaea venosa) Gō Lim xet petercarpum auct. nor. Baryylum tonkinense) Petersianthus var. tonkinense, Peltophorum pherocarpum auct. nor. Baryylum tonkinense) Petersianthus macrocarpus (Combretodendron africanum, Combretodendron macrocarpum, Combretodendron viridiflorum, Petersia arfacana, Petersianthus minor) Picea abies (Abies abies, Abies alpestris, Abies cinerea, Abies communis, Abies conica, Abies eremia) Picea apluca (Abies alba, Abies arctica, Abies eremia) Picea sp. Gō Van sam Picea spp. Gō Van sam Picea spp. Gō Van sam Gō Van sam prinus abies (Picea spp. Pinus eliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) Pinus palmieri) Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavalenei, Pinus papelansis) Pinus palmieri) Pinus palustris (Pinus adunca, Pinus cavalenei, Pinus papelansis) Pinus palmieri) Pinus spp. Gō Thông Pinus spp. Pinus strobus (Pinus dunca, Pinus californica, Pinus palmieri) Pinus radiate (Pinus adunca, Pinus cavalenei, Pinus papelansis) Pinus singinis, Pinus montereyensis, Pinus sirobus, Strobus strobus, Strobus strobus, Strobus strobus, Strobus strobus dunca, Pinus frieseana, Pinus hagenaviensis, Pinus tratarica, Pinus frieseana, Pinus hagenaviensis, Pinus tersinosa) Pinus strobus (Pinus dunca, Pinus frieseana, Pinus hagenaviensis, Pinus tersinosa) Pinus strobus (Pinus dunca, Pinus frieseana, Pinus hagenaviensis, Pinus tratarica, Pinus frieseana, Pinus phoralis, Pinus tatarica, Pinus frieseana, Pinus phoralis, Pinus tatarica, Pinus			
arfakensis, Papuacedrus papuana var. arfakensis) 218 Paulownia kawakamii (Paulownia rehderiana, Paulownia thyrsoidea, Paulownia viscosa) 219 Paulownia imperialis, Bignonia tomentosa, Paulownia recurve) 220 Peltogyne pubescens (Peltogyne amplissima, Peltogyne paniculata subsp. pubescens) 221 Peltogyne venosa (Hymenaea venosa) 222 Peltogyne venosa (Hymenaea venosa) 223 Pericoapsir elata (Afrormosia elata) 224 Pericopsis elata (Afrormosia elata) 225 Pericopsis elata (Afrormosia elata) 226 Pericopsis elata (Afrormosia elata) 227 Pericopsis elata (Afrormosia elata) 228 Pericopsis elata (Afrormosia elata) 229 Pericopsis elata (Afrormosia elata) 230 Perica abies (Abies abies, Abies alpestris, Abies circaa, Abies cormita) 231 Picea apiaca (Abies abias, Abies arctica, Abies cerenita) 232 Picea glauca (Abies abia, Abies arctica, Abies cerenita) 233 Picea spp. 234 Picea spp. 235 Picea spp. 236 Vân sam 247 Picea sp. 257 Picea sp. 268 Vân sam 278 Picea spp. 289 Picea spp. 290 Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus densa var. austrokeysensis) 231 Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus palmieri) 232 Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) 233 Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) 234 Pinus spp. 235 Pinus spp. 236 Pinus spp. 237 Pinus spp. 238 Pinus spp. 239 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus sirginis, Pinus montereyensis, Pinus strobus, Strobus serrobus, Pinus tenuifolia, Pinus tuberculate) 230 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus strobus, Pinus tenuifolia, Pinus trieseana, Pinus hagenaviensis, Pinus taihangshanensis, Pinus lowendis, Pinus strobus, Pinus taihangshanensis, Pinus finus quicc 238 Pinus stenuifolia, Pinus ubraculifera, Strobus strobus, Pinus taihangshanensis, Pinus taihangshanensis, Pinus pinus quicc 239 Pinus taeda (Pinus lutea, Pinus mughoides) 240 Piptadeniastrum africanum (Pipt	216	Palaquium warburgianum	Gỗ Cep
Paulownia thyrsoidea, Paulownia viscosa) Paulownia tomentosa (Paulownia grandifolia, Paulownia imperialis, Bignonia tomentosa, Paulownia imperialis, Bignonia tomentosa, Paulownia recurve) Peltogyne pubescens (Peltogyne amplissima, Peltogyne paniculata subsp. pubescens) Peltogyne venosa (Hymenaea venosa) Gō ZWK Peltogyne venosa (Hymenaea venosa) Gō ZWK Peltogyne venosa (Hymenaea venosa) Gō Lim xet venosa (Hymenaea venosa) Peltogyne venosa (Hymenaea venosa) Gō Téch Picea sp. Gō Vân sam Pinus abies (Picea torano, Abies polita, Abies canadensis) Pinus abies (Picea polita, Pinus polita, Pinus torano) Pinus abies (Picea polita, Pinus polita, Pinus densa var. austrokeysensis) Pinus mepalensis) Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus nepalensis) Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus palustris (Pinus australis, Pinus longifolia, Pinus pinus pinisins, Pinus montereyensis, Pinus rinigida, Pinus sincigini, Pinus tuberculate) Pinus palustris (Pinus australis, Pinus longifolia, Pinus pinus pinus insignis, Pinus montereyensis, Pinus rinigida, Pinus sincigini, Pinus tuberculate) Pinus strobus (Leucopitys strobus, Pinus	217	arfakensis, Papuacedrus papuana var.	Gỗ Thông
210 Paulownia imperialis, Bignonia tomentosa, Paulownia recurve) 221 Peltogyne pubescens (Peltogyne amplissima, Peltogyne paniculata subsp. pubescens) 222 Peltogyne venosa (Hymenaea venosa) 223 Peltophorum tonkinense (Peltophorum dasyrrhachis var. tonkinense, Peltophorum pterocarpum auct. non, Baryxylum tonkinense) 224 Pericopissi elata (Afrormosia elata) 225 Pericopissi elata (Afrormosia elata) 226 Peltersianthus macrocarpus (Combretodendron africanum, Combretodendron macrocarpum, Combretodendron viridiflorum, Petersia africana, Petersianthus minor) 227 Picea abies (Abies abies, Abies alpestris, Abies cinerea, Abies communis, Abies conica, Abies eremita) 228 Picea glauca (Abies alba, Abies arctica, Abies canadensis) 229 Picea spp. 230 Pirus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus densa var. austrokeysensis) 231 Pinus elliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) 232 Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) 233 Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) 234 Pinus sp. 235 Pinus sp. 236 Thông 237 Pinus sp. 238 Pinus sp. 239 Pinus sp. 240 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus tardiate (Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) 250 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus trus tuberulate) 251 Pinus sp. 252 Pinus sp. 253 Pinus sp. 254 Pinus sp. 255 Pinus sp. 256 Thông 257 Pinus sp. 258 Pinus tarbuis (Pinus leucosperma, Pinus tineseana, Pinus hagenaviensis, Pinus resinosa, Pinus tokunagae, Pinus taihangshanensis, Pinus tokunagae, Pinus taihangshanensis, Pinus tokunagae, Pinus taihangshanensis, Pinus tokunagae, Pinus tultea, Pinus mughoides) 257 Pipadeniastrum africanum (Piptadenia africana) 258 Pinus taeda (Pinus lutea, Pinus mughoides) 259 Pinus taeda (Pinus lutea, Pinus mughoides)	218		
Paulownia imperialis, Bignonia tomentosa, Paulownia recurve) 220 Peltogyne pubescens (Peltogyne amplissima, Peltogyne paniculata subsp. pubescens) 221 Peltogyne venosa (Hymenaea venosa) 222 Peltophorum tonkinense (Peltophorum dasyrrhachis var. tonkinense, Peltophorum pterocarpum auct. non, Baryyslum tonkinense) 223 Pericopsis elata (Afrormosia elata) 224 Peltoshorum tonkinense (Peltophorum pterocarpum auct. non, Baryyslum tonkinense) 225 Pericopsis elata (Afrormosia elata) 226 Peltosianthus macrocarpus (Combretodendron africanum, Combretodendron macrocarpum, Combretodendron unidiflorum, Petersia africana, Petersianthus minor) 226 Picea abies (Abies abies, Abies alpestris, Abies cinerea, Abies communis, Abies conica, Abies eremita) 227 Picea sp. 228 Picea sp. 229 Picea sp. 230 Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus torano) 230 Pinus elliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) 231 Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus palmieri) 232 Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) 233 Pinus palustris (Pinus australis, Pinus cavileriei, Pinus palmieri) 234 Pinus palustris (Pinus autralis, Pinus californica, Pinus palmieri) 235 Pinus sp. 236 Thông 237 Pinus sp. 238 Pinus sp. 239 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus radiate (Pinus montereyensis, Pinus riyea, Pinus tenufolia, Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) 237 Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tratarica, Pinus frieseana, Pinus hagenivensis, Pinus tatarica, Pinus frieseana, Pinus Pinus sinensis, Pinus wilsonii) 239 Pinus taeda (Pinus lutea, Pinus mughoides) 240 Piptadeniastrum africanum (Piptadenia diricana) 241 Pla	219	Paulownia tomentosa (Paulownia grandifolia,	Gỗ Hộng
Peltogyne paniculata subsp. pubescens) Tim Nam Mỹ Peltogyne venosa (Hymenaea venosa) Gỗ ZWK Peltophorum tonkinense (Peltophorum dasyrrhachis var. tonkinense, Peltophorum pterocarpum auct. non, Baryxylum tonkinense) Petersianthus macrocarpus (Combretodendron africanum, Combretodendron macrocarpum, Combretodendron vindiflorum, Petersia africana, Petersianthus minor) Picea abies (Abies abies, Abies alpestris, Abies cinerea, Abies communis, Abies conica, Abies canadensis) Picea sp. Gỗ Vân sam Picea sp. Picea sp. Gổ Vân sam Picea sp. Picea sp. Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus torano) Pinus elliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus palmieri) Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) Pinus sp. Pinus sp. Pinus spp. Gổ Thông Pinus stenuifolia, Pinus umbraculifera, Strobus Strobus, Strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus sinesana, Pinus frieseana, Pinus frieseana, Pinus frieseana, Pinus frieseana, Pinus frieseana, Pinus sarensis, Pinus resinosa) Pinus sinensis, Pinus tatarica, Pinus f			
Peltogyne paniculata subsp. pubescens) Tim Nam Mỹ Peltogyne venosa (Hymenaea venosa) Gỗ ZWK Peltophorum tonkinense (Peltophorum dasyrrhachis var. tonkinense, Peltophorum pterocarpum auct. non, Baryxylum tonkinense) Petersianthus macrocarpus (Combretodendron africanum, Combretodendron macrocarpum, Combretodendron vindiflorum, Petersia africana, Petersianthus minor) Picea abies (Abies abies, Abies alpestris, Abies cinerea, Abies communis, Abies conica, Abies canadensis) Picea sp. Gỗ Vân sam Picea sp. Picea sp. Gổ Vân sam Picea sp. Picea sp. Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus torano) Pinus elliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus palmieri) Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) Pinus sp. Pinus sp. Pinus spp. Gổ Thông Pinus stenuifolia, Pinus umbraculifera, Strobus Strobus, Strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus sinesana, Pinus frieseana, Pinus frieseana, Pinus frieseana, Pinus frieseana, Pinus frieseana, Pinus sarensis, Pinus resinosa) Pinus sinensis, Pinus tatarica, Pinus f			- ~
Peltophorum tonkinense (Peltophorum dasyrrhachis var. tonkinense, Peltophorum plerocarpum auct. non, Baryxylum tonkinense) Pericopsis elata (Afrormosia elata) Petersianthus macrocarpus (Combretodendron africanum, Combretodendron macrocarpum, Combretodendron vindiflorum, Petersia africana, Petersianthus minor) Picea abies (Abies abies, Abies alpestris, Abies cinerea, Abies communis, Abies conica, Abies eremita) Picea glauca (Abies alba, Abies arctica, Abies eremita) Picea sp. Go Van sam Picea sp. Go Van sam Picea sp. Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus densa var. austrokeysensis) Pinus massoniana (Pinea massoniana, Pinus argiv, Pinus canaliculata, Pinus cavaleriei, Pinus nepalensis) Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) Pinus sp. Pinus sp. Go Thông Pinus sp. Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus teruitolia, Pinus teruitolia, Pinus resinosa) Pinus sylvestris (Pinus leucosperma, Pinus tatatrica, Pinus rieseana, Pinus hagenaviensis, Pinus resinosa) Pinus steeda (Pinus latinangshanensis, Pinus teruitolia, Pinus resinosa) Pinus taeda (Pinus lutea, Pinus mughoides) Pinus taeda (Pinus lutea, Pinus mughoides) Go Thông Pipus taeda (Pinus lutea, Pinus mughoides) Go Thông Pipus taeda (Pinus lutea, Pinus mughoides)	220		
222 dasyrrhachis var. tonkinense, Peltophorum plerocarpum auct. non, Baryxylum tonkinense) Gỗ Thêch 223 Pericopsis elata (Afrormosia elata) Gỗ Téch 224 Petersianthus macrocarpus (Combretodendron africanum, Combretodendron macrocarpum, Combretodendron vindiflorum, Petersia africana, Petersianthus minor) Gỗ Essia 225 Picea abies (Abies abies, Abies alpestris, Abies cinerea, Abies communis, Abies conica, Abies eremita) Gỗ Vân sam 226 Picea glauca (Abies alba, Abies arctica, Abies canadensis) Gỗ Vân sam 227 Picea sp. Gỗ Vân sam 228 Picea spp. Gỗ Vân sam 229 Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus torano) Gỗ Thông 230 Pinus elliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) Gỗ Thông 231 Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus nepalensis) Gỗ Thông 232 Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) Gỗ Thông 233 Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) Gỗ Thông 234 Pinus spp. Gỗ Thông 235 Pinus spp. Gỗ Thông	221	Peltogyne venosa (Hymenaea venosa)	Gỗ ZWK
Petersianthus macrocarpus (Combretodendron africanum, Combretodendron macrocarpum, Combretodendron viridiflorum, Petersia africana, Petersianthus minor) Picea abies (Abies abies, Abies alpestris, Abies cinerea, Abies communis, Abies conica, Abies cinerea, Abies communis, Abies arctica, Abies cinerea, Abies communis, Abies arctica, Abies canadensis) Picea glauca (Abies alba, Abies arctica, Abies canadensis) Gō Vân sam Picea sp. Gō Vân sam Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus torano) Pinus elliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) Pinus palustris (Pinus adunca, Pinus californica, Pinus palmieri) Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) Pinus sp. Gō Thông Pinus sp. Gō Thông Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus tersinosa) Pinus tabuliformis (Pinus leucosperma, Pinus tabuliformis (Pinus leucosperma, Pinus sinensis, Pinus taihangshanensis, Pinus taihangshanensis, Pinus taihanganaviensis, Pinus taihangshanensis, Pinus taihanganaviensis, Pinus taihangshanensis, Pinus taihanganaviensis, Pinus taihangshanensis, Pinus taihanganaviensis, Pinus daificana) Pinus taeda (Pinus lutea, Pinus mughoides) Gō Thông Piptadeniastrum africanum (Piptadenia africana) Gō Dabema	222	dasyrrhachis var. tonkinense, Peltophorum	Gỗ Lim xẹt
africanum, Combretodendron macrocarpum, Combretodendron viridiflorum, Petersia africana, Petersianthus minor) Picea abies (Abies abies, Abies alpestris, Abies cinerea, Abies communis, Abies conica, Abies ceremita) 226 Picea glauca (Abies alba, Abies arctica, Abies canadensis) 227 Picea sp. Gō Vân sam 228 Picea spp. Gō Vân sam 229 Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus torano) 230 Pinus elliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) 231 Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus nepalensis) 232 Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) 233 Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) 234 Pinus sp. Gō Thông 235 Pinus spp. Gō Thông 236 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) 237 Pinus tenuifolia, Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus tartarica, Pinus frieseana, Pinus pinus sinensis, Pinus torung Quóc pinus binatonii) 239 Pinus taeda (Pinus lutea, Pinus mughoides) Pinus taeda (Pinus lutea, Pinus mughoides) Pipus dela (Pinus lutea, Pinus mughoides) Pinus taeda (Pinus lutea, Pinus mughoides)	223	Pericopsis elata (Afrormosia elata)	Gỗ Tếch
cinerea, Abies communis, Abies conica, Abies eremita) 226 Picea glauca (Abies alba, Abies arctica, Abies canadensis) 227 Picea sp. Gỗ Vân sam 228 Picea spp. Gỗ Vân sam 229 Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus torano) 230 Pinus elliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) 231 Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus nepalensis) 232 Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) 233 Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sp. Gỗ Thông 234 Pinus sp. Gỗ Thông 235 Pinus spp. Gỗ Thông 236 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) 237 Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus resinosa) 238 Pinus tabuliformis (Pinus leucosperma, Pinus tabuliformis (Pinus leucosperma, Pinus sinensis, Pinus taihangshanensis, Pinus tokunagae, Pinus wilsoni) 239 Pinus taeda (Pinus lutea, Pinus mughoides) 240 Piptadeniastrum africanum (Piptadenia africana) 241 Platanus sp. Gỗ Thích	224	africanum, Combretodendron macrocarpum, Combretodendron viridiflorum, Petersia	Gỗ Essia
canadensis) 227 Picea sp. 228 Picea spp. 229 Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus torano) 230 Pinus elliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) 231 Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus nepalensis) 232 Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) 233 Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) 234 Pinus sp. 235 Pinus spp. 236 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus strobus, Strobus weymouthiana) 237 Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus telucosperma, Pinus tabuliformis (Pinus leucosperma, Pinus sinensis, Pinus tahangshanensis, Pinus mogalea, Pinus taleda (Pinus lutea, Pinus mughoides) 239 Pinus taeda (Pinus lutea, Pinus mughoides) 240 Piptadeniastrum africanum (Piptadenia africana) 241 Platanus sp. Gỗ Thích	225	cinerea, Abies communis, Abies conica, Abies	Gỗ Vân sam
228 Picea spp. Gỗ Vân sam 229 Pinus abies (Picea torano, Abies polita, Pinus torano) Gỗ Thông 230 Pinus elliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) Gỗ Thông 231 Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus nepalensis) Gỗ Thông 232 Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) Gỗ Thông 233 Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) Gỗ Thông 234 Pinus sp. Gỗ Thông 235 Pinus spp. Gỗ Thông 236 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus strobus, Strobus weymouthiana) Gỗ Thông 237 Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus tersinosa) Gỗ Thông 238 Pinus tabuliformis (Pinus leucosperma, Pinus sinensis, Pinus talhangshanensis, Pinus tokunagae, Pinus wilsonii) Gỗ Thông 239 Pinus taeda (Pinus lutea, Pinus mughoides) Gỗ Thông 240 Piptadeniastrum africanum (Piptadenia africana) Gỗ Dabema 241 Platanus sp. Gỗ Thích	226		Gỗ Vân sam
Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus torano) Pinus elliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus nepalensis) Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) Pinus sp. Gõ Thông Pinus sp. Gõ Thông Gổ Thông Gổ Thông Gổ Thông Pinus sp. Gổ Thông Pinus sp. Gổ Thông Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus resinosa) Pinus tabuliformis (Pinus leucosperma, Pinus tabuliformis (Pinus leucosperma, Pinus taeda (Pinus utea, Pinus mughoides) Pinus taeda (Pinus lutea, Pinus mughoides) Piptadeniastrum africanum (Piptadenia africana) Pinus sp. Gổ Thông Gổ Thông Gổ Thông Gổ Thông	227	Picea sp.	Gỗ Vân sam
torano, Picea polita, Pinus polita, Pinus torano) Pinus elliottii (Pinus heterophylla, Pinus densa var. austrokeysensis) Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus nepalensis) Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) Pinus sp. Gō Thông Thông Gō Thông Gō Thông Gō Thông Gō Thông Thong Gō Thông Finus spp. Gō Thông Gō Thông Finus strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus resinosa) Pinus tabuliformis (Pinus leucosperma, Pinus tinus tinus taliangshanensis, Pinus tokunagae, Pinus wilsonii) Pinus taeda (Pinus lutea, Pinus mughoides) Piptadeniastrum africanum (Piptadenia africana) Gō Thông Gō Dabema	228	Picea spp.	Gỗ Vân sam
var. austrokeysensis) Pinus massoniana (Pinea massoniana, Pinus argyi, Pinus canaliculata, Pinus cavaleriei, Pinus nepalensis) Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) Pinus sp. Gō Thông Gō Thông Gō Thông Gō Thông Gō Thông Gō Thông Pinus sp. Gō Thông Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus tenus tokunagae, Pinus talhangshanensis, Pinus tokunagae, Pinus wilsonii) Pinus taeda (Pinus lutea, Pinus mughoides) Piptadeniastrum africanum (Piptadenia africana) Gō Thông Gō Dabema	229	Pinus abies (Picea torano, Abies polita, Abies torano, Picea polita, Pinus polita, Pinus torano)	Gỗ Thông
argyi, Pinus canaliculata, Pinus cavaleriei, Pinus nepalensis) 232 Pinus palustris (Pinus australis, Pinus longifolia, Pinus palmieri) 233 Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) 234 Pinus sp. Gỗ Thông 235 Pinus spp. Gỗ Thông 236 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) 237 Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus telucosperma, Pinus tabuliformis (Pinus leucosperma, Pinus tabuliformis (Pinus leucosperma, Pinus sinensis, Pinus talhangshanensis, Pinus tokunagae, Pinus wilsonii) 239 Pinus taeda (Pinus lutea, Pinus mughoides) 240 Piptadeniastrum africanum (Piptadenia africana) 241 Platanus sp. Gỗ Thích	230		Gỗ Thông
Pinus palmieri) Pinus radiate (Pinus adunca, Pinus californica, Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) Go Thông Pinus sp. Go Thông Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus resinosa) Pinus tabuliformis (Pinus leucosperma, Pinus sinensis, Pinus taihangshanensis, Pinus tokunagae, Pinus wilsonii) Pinus taeda (Pinus lutea, Pinus mughoides) Piptadeniastrum africanum (Piptadenia africana) Go Thông Go Dabema	231	argyi, Pinus canaliculata, Pinus cavaleriei,	Gỗ Thông
233 Pinus insignis, Pinus montereyensis, Pinus rigida, Pinus sinclairii, Pinus tuberculate) 234 Pinus sp. Gỗ Thông 235 Pinus spp. Gỗ Thông 236 Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) 237 Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus resinosa) 238 Pinus tabuliformis (Pinus leucosperma, Pinus sinensis, Pinus taihangshanensis, Pinus fokunagae, Pinus wilsonii) 239 Pinus taeda (Pinus lutea, Pinus mughoides) 240 Piptadeniastrum africanum (Piptadenia africana) 241 Platanus sp. Gỗ Thích	232		Gỗ Thông
235 Pinus spp. Gỗ Thông Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) 237 Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus resinosa) 238 Pinus tabuliformis (Pinus leucosperma, Pinus sinensis, Pinus taihangshanensis, Pinus tokunagae, Pinus wilsonii) 239 Pinus taeda (Pinus lutea, Pinus mughoides) 240 Piptadeniastrum africanum (Piptadenia africana) 241 Platanus sp. Gỗ Thông	233	Pinus insignis, Pinus montereyensis, Pinus	Gỗ Thông
Pinus strobus (Leucopitys strobus, Pinus nivea, Pinus tenuifolia, Pinus umbraculifera, Strobus Gỗ Thông Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus resinosa) Pinus tabuliformis (Pinus leucosperma, Pinus sinensis, Pinus taihangshanensis, Pinus doctorus violungae, Pinus wilsonii) Pinus taeda (Pinus lutea, Pinus mughoides) Piptadeniastrum africanum (Piptadenia africana) Gỗ Thông Gỗ Dabema	234	Pinus sp.	Gỗ Thông
236 Pinus tenuifolia, Pinus umbraculifera, Strobus strobus, Strobus weymouthiana) 237 Pinus sylvestris (Pinus binatofolio, Pinus borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus resinosa) 238 Pinus tabuliformis (Pinus leucosperma, Pinus sinensis, Pinus taihangshanensis, Pinus tokunagae, Pinus wilsonii) 239 Pinus taeda (Pinus lutea, Pinus mughoides) 240 Piptadeniastrum africanum (Piptadenia africana) 241 Platanus sp. Gỗ Thông Gỗ Dabema	235	Pinus spp.	Gỗ Thông
237 borealis, Pinus tartarica, Pinus frieseana, Pinus hagenaviensis, Pinus resinosa) 238 Pinus tabuliformis (Pinus leucosperma, Pinus sinensis, Pinus taihangshanensis, Pinus tokunagae, Pinus wilsonii) 239 Pinus taeda (Pinus lutea, Pinus mughoides) 240 Piptadeniastrum africanum (Piptadenia africana) 241 Platanus sp. Gỗ Thông	236	Pinus tenuifolia, Pinus umbraculifera, Strobus	Gỗ Thông
238 Pinus sinensis, Pinus taihangshanensis, Pinus Gð Thông đó Trung Quốc 239 Pinus taeda (Pinus lutea, Pinus mughoides) Gỗ Thông 240 Piptadeniastrum africanum (Piptadenia africana) Gỗ Dabema 241 Platanus sp. Gỗ Thích	237	borealis, Pinus tartarica, Pinus frieseana, Pinus	Gỗ Thông
240 Piptadeniastrum africanum (Piptadenia africana) Gỗ Dabema 241 Platanus sp. Gỗ Thích	238	Pinus sinensis, Pinus taihangshanensis, Pinus	
241 Platanus sp. Gỗ Thích	239	Pinus taeda (Pinus lutea, Pinus mughoides)	Gỗ Thông
<u>'</u>	240		Gỗ Dabema
242 Platonia insignis Gỗ Pakoeli	241	Platanus sp.	Gỗ Thích
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	242	Platonia insignis	Gỗ Pakoeli

243	Platymiscium pinnatum (Amerimnon pinnatum, Platymiscium polystachyum, Platymiscium dubium, Platymiscium polystachyum)	Gỗ Cẩm Lai Châu phi
244	Platymiscium trinitatis (Platymiscium duckei, Platymiscium nigrum)	Gỗ Kunatepie
245	Platymiscium yucatanum	Gỗ Granadillo
246	Populus adenopoda (Populus silvestrii, Populus adenopoda var. adenopoda)	Gỗ Dương
247	Populus alba (Populus bolleana, Populus major, Populus nivea, Populus pseudonivea)	Gỗ Dương
248	Populus deltoids (Aigeiros deltoides, Populus angulata, Populus carolinensis)	Gỗ Bạch dương
249	Populus nigra (Aigiros nigra, Populus caudina, Populus neapolitana, Populus pyramidalis, Populus sosnowskyi, Populus thevestina)	Gỗ Dương
250	Populus sp.	Gỗ Bạch Dương
251	Populus spp.	Gỗ Dương
252	Prunus serotine (Cerasus serotina, Cerasus serotina, Prunus capuli, Prunus serotina var. serotine)	Gỗ Anh đào
253	Prunus sp.	Gỗ Anh đào
254	Pseudotsuga menziesii (Abies californica, Abies douglasii, Abies drummondii, Abies menziesii, Picea douglasii, Pinus taxifolia, Tsuga douglasii)	Gỗ Linh sam
255	Pseudotsuga spp.	Gỗ Linh sam
256	Pterocarpus brenanii	Gỗ Cotali
257	Pterocarpus erinaceus (Lingoum erinaceum, Pterocarpus adansonii, Pterocarpus africanus)	Gỗ Giáng hương Tây Phi
258	Pterocarpus indicus (Lingoum echinatum, Pterocarpus blancoi, Pterocarpus zollingeri, Pterocarpus papuanus)	Gỗ Hương mắt chim
259	Pterocarpus macrocarpus (Lingoum cambodianum, Lingoum macrocarpum, Pterocarpus cambodianus, Pterocarpus parvifolius, Pterocarpus pedatus)	Gỗ Giáng Hương
260	Pterocarpus soyauxii	Gỗ Hương
261	Pterocarpus sp.	Gỗ Hương tía
262	Pterocarpus spp.	Gỗ Hương
263	Qualea albiflora (Qualea glaberrima, Ruizterania albiflora)	Gỗ Hoogland gronfolo
264	Qualea rosea (Qualea melinonii, Qualea violacea)	Gỗ Berg gronfolo
	Quercus alba (Quercus candida, Quercus	
265	nigrescens, Quercus ramosa, Quercus repanda,	Gỗ Sồi trắng
	Quercus retusa)	
266	Quercus prinus (Quercus michauxii, Quercus houstoniana)	Gỗ Chestnut
267	Quercus petraea (Quercus adriatica, Quercus brevipedunculata, Quercus calcarea, Quercus columbaria, Quercus coriacea)	Gỗ Sồi trắng
268	Quercus robur (Quercus abbreviata, Quercus acutiloba, Quercus aesculus, Quercus altissima, Quercus bedoi)	Gỗ Sồi

269	Quercus rubra (Erythrobalanus rubra, Quercus acerifolia, Quercus ambigua, Quercus angulizana, Quercus borealis, Quercus cuneata, Quercus maxima, Quercus sada)	Gỗ Sồi
270	Quercus sp.	Gỗ Sồi trắng
271	Quercus spp.	Gỗ Sồi
272	Santalum lanceolatum	Gỗ Landal
273	Sassafras albidum (Laurus sassafras, Sassafras officinalis, Sassafras variifolium)	Gỗ Sassafras
274	Sequoia sempervirens (Condylocarpus sempervirens, Gigantabies taxifolia, Schubertia sempervirens, Sequoia pyramidata, Sequoia religiosa, Steinhauera semperviren, Taxodium nutkaense)	Gỗ Đỏ
275	Shorea glauca	Gỗ Lauan
276	Shorea hypochra	Gỗ Sến Bo bo
277	Shorea obtuse	Gỗ Cà Chít
278	Shorea roxburghii (Anthoshorea harmandii, Hopea floribunda, Shorea attopoensis, Shorea floribunda, Shorea harmandii, Shorea saigonensis, Shorea talura)	Gỗ Sến đỏ
279	Shorea spp.	Gỗ Meranti
280	Parashorea stellate (Shorea stellate)	Gỗ Selanga batu
281	Simarouba amara (Quassia alatifolia, Quassia dioica, Quassia glauca, Simarouba opaca, Zwingera amara)	Gỗ Xoan rừng
282	Sindora cochinchinensis (Sindora siamensis, Galedupa cochinchinensis, Galedupa siamensis)	Gỗ Gõ mật
283	Sindora maritima (Sindora siamensis var. maritima)	Gỗ Gụ
284	Sindora spp.	Gỗ Gụ
285	Sindora tonkinensis (Sindora tonkinensis)	Gỗ Lau
286	Sophora sp.	Gỗ Dâu
287	Staudtia kamerunensis (Staudtia kamerunensis var. gabonensis)	Gỗ Niove
288	Swartzia benthamiana (Tounatea benthamiana, Tounatea rosea, Tunatea benthamiana, Tunatea rosea)	Gỗ Itikkiboroballi
289	Swietenia macrophylla (Swietenia belizensis, Swietenia candollei, Swietenia tessmannii)	Gỗ Dái Ngựa
290	Swietenia mahagoni (Cedrela mahagoni, Swietenia acutifolia, Swietenia mahogani, Swietenia mahogoni)	Gỗ Dái Ngựa
291	Swintonia spp.	Gỗ Merpauh
292	Symplocos ferruginea (Symplocos cochinchinensis var. cochinchinensis, Symplocos ferruginea, Symplocos ferruginifolia, Symplocos javanica, Symplocos cochinchinensis)	Gỗ Kháo
293	Syzygium chanlos (Eugenia chanlos)	Gỗ Guw
294	Tectona grandis (Jatus grandis, Tectona theca, Theka grandis)	Gỗ Tếch

295	Terminalia chebula (Buceras chebula,Myrobalanus chebula, Myrobalanus gangetica, Terminalia acuta, Terminalia gangetica, Terminalia zeylanica)	Gỗ Chiêu liêu
296	Terminalia tomentosa	Gỗ Chiêu liêu
297	Testulea gabonensis Gỗ Izon	
298	Tetraberlinia bifoliolata (Berlinia bifoliolata, Julbernardia bifoliolata, Westia bifoliolata)	Gỗ Ekaba
299	Thuja plicata (Libocedrus craigiana, Libocedrus gigantea,Thuja asplenifolia, Thuja californica,Thuja douglasii)	Gỗ Tuyết tùng
300	Thuja sp.	Gỗ Tuyết tùng
301	Thujopsis dolabrata (Libocedrus dolabrata, Platycladus dolabrata, Thuja dolabrata, Thujopsis atrovirens, Thujopsis laetevirens)	Gỗ Nhai bách
302	Tieghemella Africana (Baillonella africana, Dumoria africana, Lecomtedoxa vazii, Tieghemella joliyana)	Gỗ Makore
303	Tilia Americana (Tilia americana var. americana)	Gỗ Đoạn
304	Tilia mandshurica (Tilia pekingensis)	Gỗ Đoạn Mãn Châu
305	Tilia sp.	Gỗ Đoạn
306	Triplochiton scleroxylon (Samba scleroxylon)	Gỗ Samba
307	Tristania spp.	Gỗ Selunsur
308	Tsuga canadensis (Abies americana, Abies canadensis, Abies curvifolia, Abies pectinata, Picea canadensis, Pinus americana , Pinus Canadensis)	Gỗ Veneer Hemlock
309	Tsuga heterophylla(Abies albertiana, Abies bridgesii, Abies heterophylla, Abies microphylla, Pinus pattoniana, Tsuga albertiana)	Gỗ Độc cần
310	Tsuga spp.	Gỗ Thiết sam
311	Tulipa sp.	Gỗ Hoàng dương
312	Tupelo sp.	Gỗ Tupelo
313	Ulmus rubra (Ulmus crispa, Ulmus fulva, Ulmus pendula, Ulmus pubescens)	Gỗ Du đỏ
314	Ulmus spp.	Gỗ Du
315	Vatairea guianensis (Andira amazonum, Andira bracteosa, Ormosia pacimonensis, Vatairea surinamensi, Vuacapua amazonum)	Gỗ Gele kabbes
316	Vataireopsis spp.	Gỗ Maka kabbes
317	Vernicia fordii (Aleurites fordii)	Gỗ Ngô đồng
318	Vitex cofassus (Vitex monophylla)	Gỗ Bình linh nhót
319	Vitex pubescens (Vitex arborea, Vitex puberula, Wallrothia articulata, Vitex pinnata)	Gỗ Bình linh
320	Vochysia guianensis (Vochysia excelsa, Vochysia melinonii, Vochysia paraensis)	Gỗ Mawsi kwari

321	Vochysia tomentosa (Cucullaria tomentosa) Xylia xylocarpa (Acacia xylocarpa, Inga	Gỗ Wana kwari
322	xylocarpa, Mimosa xylocarpa, Xylia dolabriformis)	Gỗ Căm xe

Brazil

Start-up develops equipment to identify tree hollows

Trees and large timber sections with hollows or internal decay have inferior structural integrity. Felling trees with undetected hollows can result in the tree collapsing during cutting or fall in an unexpected direction. In the construction sector the use of wood without evaluation of its strength properties can cause poorly executed projects or accidents.

A Brazilian start-up in partnership with the State University of Campinas has developed ultrasound equipment designed and manufactured in Brazil for detecting hollows/decay in timber. The equipment is portable and suitable for use for tree inspection and evaluation of sawnwood.

The equipment detects the existence and extent of hollows and deteriorated areas in trees, logs or timber and contributes to wood character classification according to the Brazilian technical standard NBR 15521 which establishes guidelines for the classification of wood by ultrasound.

Furniture production shows signs of slowing

Since the resumption of production in May 2020 the pace of increase in output of furniture has been decreasing according to the Brazilian Institute of Geography and Statistics (IBGE).

In June the level increased 30% compared to May, in July the increase month-on-month was 19%. In August month-on-month increase was just 5% which seems to signal that output will not recovery fully in 2020. In September the increase was only 1% compared to August and in October there was a slight decline compared to September.

The level of furniture production in the first 10 months of the year registered a decline of 6.5% in comparison to the same period in 2019.

Furniture sales, on the other hand, continue to increase. In the last four months of the year furniture sales almost doubled recovering about 50% of losses in March, April and May.

It is noteworthy that although the pace of sales growth has slowed there is optimism that demand will be sustained in the coming months.

Brazil and US update trade and economic cooperation protocol

The governments of Brazil and the United States recently signed (October, 2020) an addendum to the bilateral Agreement on Trade and Economic Cooperation (ATEC) established in 2011.

The new trade package includes non-tariff issues related to technical cooperation and exchange of experiences, trade facilitation and economic cooperation mechanisms, good regulatory practices and also anti-corruption measures.

The Brazilian Ministry of Foreign Affairs stated that the signing of the trade package is part of a context of Brazilian foreign trade policy in which the main objective is to create an economic environment favorable to business and the stronger competitive insertion of Brazil in the international economy.

The Protocol text has three annexes. The first annex in the Agreement deals with export, import and customs transit of goods. This aims to reduce the bureaucracy and encourage the use of digital technologies in the processing of exports and imports. The second annex refers to regulatory practices, processes, systems, tools and methods internationally recognised for improving the quality of regulation. The third annex deals with anticorruption efforts by Brazil and the United States, including international anti-corruption cooperation.

See: https://ustr.gov/about-us/policy-offices/press-office/press-releases/2020/october/united-states-and-brazil-update-agreement-trade-and-economic-cooperation-new-protocol-trade-rules

Sustainable wood supply initiative secures funding

The Federal Government has announced details of an agreement on a euro 25.5 million project to be supported by the German bank Kreditanstalt für Wiederaufbau (KfW). The focus will be on expanding sustainable practices in the meat, soybean and wood supply chains in the Amazon.

The Brazilian Ministry of Foreign Affairs and Ministry of Agriculture, Livestock and Supply (MAPA) stated that resources will be allocated to the "Innovation in Agricultural Supply Chains for Forest Conservation in the Legal Amazon" programme, launched at the end of last year which includes the nine states of the Amazon region.

MAPA will be responsible for implementing the project in partnership with the Inter-American Institute for Cooperation on Agriculture (IICA) while the Ministry of Foreign Affairs will coordinate "fruitful technical and financial cooperation between Brazil and Germany aimed at sustainable development".

The initiative comes at a time when deforestation in the Amazon is being discussed in Brazil. Forest fires in the Amazon region, for example, increased in October and the number of fires rose 25% in the first 10 months of 2020 compared to the previous year according to the National Institute for Space Research (INPE).

The funds will be used to combat deforestation, forest fires among other activities to increase the effectiveness of forest protection.

Domestic log prices

Brazilian logs, mill yard, domestic	US\$ per cu.m
lpê	165
Jatoba	83
Massaranduba	74
Miiracatiara	79
Angelim Vermelho	74
Mixed redwood and white woods	62

Source: STCP Data Bank

Domestic sawnwood prices

Brazil sawnwood, domestic (Green ex-mill)	US\$ per cu.m
lpé	691
Jatoba	337
Massaranduba	334
Muiracatiara	302
Angelim Vermelho	299
Mixed red and white	198
Eucalyptus (AD)	152
Pine (AD)	100
Pine (KD)	125

Source: STCP Data Bank

Domestic plywood prices (excl. taxes)

Parica	US\$ per cu.m
4mm WBP	379
10mm WBP	324
15mm WBP	269
4mm MR.	310
10mm MR.	235
15mm MR.	212

Prices do not include taxes. Source: STCP Data Bank

Prices for other panel products

Domestic ex-mill price	es US\$ per cu.m	
15mm MDParticleboar	ard 153	
15mm MDF	188	

Source: STCP Data Bank

Export sawnwood prices

_	xport sawriwood prices	
	Sawnwood, Belem/Paranagua Ports, FOB	US\$ per cu.m
	Ipe	1,490
	Jatoba	872
	Massaranduba	853
	Muiracatiara	876
	Pine (KD)	162

Source: STCP Data Bank

Export plywood prices

Pine plywood EU market, FOB	US\$ per cu.m
9mm C/CC (WBP)	257
12mm C/CC (WBP)	252
15mm C/CC (WBP)	228
18mm C/CC (WBP)	217

Source: STCP Data Bank

Export prices for added value products

Expert prices for added value products			
FOB Belem/Parana	gua ports	US\$ per cu.m	
Decking Boards	Ipê Jatoba	3,038 1,450	

Source: STCP Data Bank

Peru

Plantations programme – potential for job creation

It is estimated that up to 30,000 direct and indirect jobs could be generated through the Financing Programme for Forest Plantations by the National Forest and Wildlife Service (SERFOR).

During a recent webinar the SERFOR Director of Promotion and Competitiveness, Marco Llanos, said the approx. US\$13 million plantation programme will establish 16,500 ha. of plantations and the jobs that will be generated will help the economy recover.

He mentioned that only land owners who have registered their forest plantations in the National Registry of Plantations administered by SERFOR will have access to the plantation fund. The other criterion mentioned was that prospective beneficiaries should not have outstanding debts with AGROPERU and should not have been sanctioned by the Agency for the Supervision of Forest Resources and Wild Fauna (OSINFOR).

Offering of timber harvesting concessions in Ucayali

SERFOR recently made public details of the areas and shortened process for the granting of forest harvesting concessions within the Permanent Production Forest of the Ucayali Region.

In presenting details of the process the Regional Government pointed out that it is imperative that the forest heritage be protected and safeguarded as it is under constant threat from illegal activities exacerbated by the social pressure on communities throughout the Peruvian Amazon.

Minimal reduction in deforestation in Peruvian Amazon forests

In 2029 the loss of Amazonian humid forests reached 148,400 hectares. This was only 4% less than in 2018 according to data presented by SERFOR in December this year.

The minimal reduction in deforestation warrants more intensive work by the various institutions said SERFOR. Ten regions with Amazonian forests achieved modest decline in deforestation.

Among the regions that reduced their forest loss the following stand out: San Martín (48% less), Amazonas (22% less), Loreto (11.6% less), Huánuco and Madre de Dios (9.6% less and 8.9% less, respectively). However, in Ucayali, Junín and Pasco deforestation increased in 2019 compared to 2018.

Export sawnwood prices

Peru sawnwood, FOB Callao Port	US\$ per cu.m
Pumaguiro 25-50mm AD	
Mexican market	647-659
Virola 1-2" thick, length 6'-12' KD	
Grade 1, Mexican market	584-612
Grade 2, Mexican market	498-523
Cumaru 4" thick, 6'-11' length KD	
Central American market	973-987
Asian market	1048-1074
Ishpingo (oak) 2" thick, 6'-8' length	
Spanish market	561-582
Dominican Republic	694-704★
Marupa 1", 6-11 length KD	
Grade 1 Asian market	569-598

Domestic sawnwood prices

Peru sawnwood, domestic	US\$ per cu.m
Mahogany	-
Virola	241-265
Spanish Cedar	342-355
Marupa (simarouba)	237-242

Export veneer prices

Veneer FOB Callao port	US\$ per cu.m
Lupuna 3/Btr 2.5mm	221-249
Lupuna 2/Btr 4.2mm	234-266
Lupuna 3/Btr 1.5mm	219-228

Domestic plywood prices (excl. taxes)

tance profit con prices (exem taxes)	
Iquitos mills	US\$ per cu.m
122 x 244 x 4mm	512
122 x 244 x 6mm	519
122 x 244 x 8mm	522
122 x 244 x 12mm	528
Pucallpa mills	
122 x 244 x 4mm	503
122 x 244 x 6mm	511
122 x 244 x 8mm	516
122 x 244 x 8mm	521

Export plywood prices

Export plywood prices			
Peru plywood, FOB Callao (Mexican market)	US\$ per cu.m		
Copaiba, 2 faces sanded, B/C, 8mm	349-379		
Virola, 2 faces sanded, B/C, 5.2mm	487-511		
Cedar fissilis, 2 faces sanded, 5.5mm	766-783		
Lupuna, treated, 2 faces sanded, 5.2mm	396-419		
Lupuna plywood			
B/C 15mm	449-495		
B/C 9mm	379-399		
B/C 12mm	350-360		
B/C 8mm	466-487		
C/C 4mm	389-425		
Lupuna plywood B/C 4mm Central Am.	391-407		

Domestic prices for other panel products

Peru, domestic particleboard	US\$ per cu.m
1.83m x 2.44m x 4mm	282
1.83m x 2.44m x 6mm	230
1.83m x 2.44m x 12mm	204

Peru, FOB strips for parquet

Cabreuva/estoraque KD12% S4S, Asian

market

Cumaru KD, S4S

Swedish market

Asian market

Cumaru decking, AD, S4S E4S, US market

Pumaquiro KD Gr. 1, C&B, Mexican market

VS\$ per cu.m

1327-1398

986-1119

1089-1119

1089-1119

1204-1237

Japan

2x13x75cm, Asian market

544-577

756-822

More money to keep recovery on track

Quinilla KD, S4S 2x10x62cm, Asian market

Japan's Cabinet has approved an additional economic package worth 73.6 trillion yen (US\$707 billion) to keep the economy on a recovery track. The package includes extensions of subsidy programmes aimed at promoting domestic travel (currently suspended), spurring consumption and helping companies maintain employment as well as incentives for digitalization and carbon reduction. The government estimates the stimulus measures will boost Japan's GDP by around 3.6%.

To boost tourism and as a trial for the August Tokyo Olympics, Japan plans to eventually accept small group tours. In March a center for monitoring the health of visitors from overseas will be established and visitors will be required to register their passport numbers with the center and report daily updates on their health condition for two weeks.

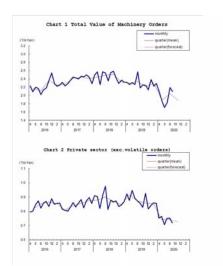
Forecast machinery orders

Orders for new machinery placed by Japanese companies with Japanese makers are indicators of how businesses perceive of short to medium term prospects. The latest Cabinet Office survey of machinery orders received by 280 manufacturers operating in Japan fell by 4.4% in September from the previous month on a seasonally adjusted basis.

In the third quarter of this year there was an increase of around 8% compared with the previous quarter with October orders rising further and November orders rising 8%. There was a 22% rise in November orders from overseas but domestic orders dropped 15% according to the Japan Machine Tool Builders' Association.

The Cabinet Office has said for the final quarter of 2020 the value of machinery orders is forecast to decline.

See: https://www.esri.cao.go.jp/en/stat/juchu/2020/2009juchue.html

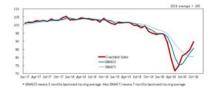


Source: Cabinet Office, Japan

Business conditions improving says Cabinet Office

The Cabinet Office index of business conditions for November continued its upward trend rising 5 points from the previous month to 89.7 against the 2015 base of 100. The November month-on-month rise was the second-largest increase since records started in January 1985. The business index reflects improvements in the Japanese economy which has trended higher for 5 months.

See: https://www.esri.cao.go.jp/en/stat/di/di-e.html

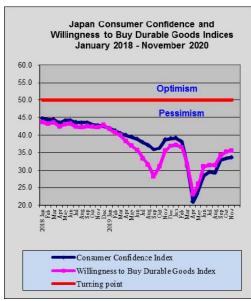


Source: Cabinet Office, Japan

Consumer confidence up in November

Cabinet Office data shows consumer confidence in Japan improved for the third consecutive month in November but the pace of improvement slowed. The rapid rise in coronavirus infections, especially towards the end of November dented sentiment. The Cabinet Office maintained it earlier assessment saying that consumer confidence "remains bearish but continues to show signs of picking up."

Of the four component indicators, overall livelihood and income growth improved, while employment worsened. The indicator on willingness to buy durable goods remained unchanged.

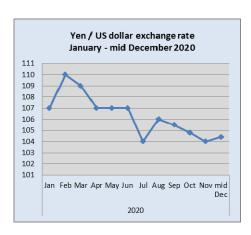


Data source: Cabinet Office, Japan

Yen holds steady against the US dollar

The yen/US dollar exchange rate has remained within a very narrow range throughout the year. In early December the dollar strengthened to above yen 104 as a result of signals of a swift introduction of a corona relief package in the US. Currently the yen remains steady at around 104 to the dollar.

The yen/dollar exchange rate this month appears to have been driven chiefly by stock movements rather than risk sentiment.



Low interest rates and more time in the home drives interior improvements

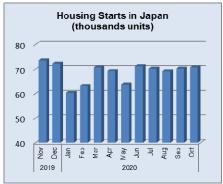
As is happening in other countries the response of people having to spend more time at home has been to focus on making home more comfortable.

In Japan this has translated into spending on interior improvements, new furniture and creation of home-office spaces with purchases of office furniture. The current low interest rates have provided an opportunity to finance home improvements.

The housing market has got a boost from changes in tax structures for home loan borrowers established to support housing demand which has suffered due to the pandemic.

In the first nine months of 2020, housing starts in Japan fell over 10% compared to the same period in 2019. In a depressed market it has come as a surprise that the average price of existing condominiums in Tokyo rose by around 4% in the third quarter of this year while the average price of new condos fell by the same amount in sharp contrast to the 14% increase last year.

See: https://www.globalpropertyguide.com/news-japans-housing-market-remains-fragile-4161



Data source: Ministry of Land, Infrastructure, Transport and Tourism, Japan

Furniture imports

First 3 quarter 2020 imports

The decline in consumer spending on durable goods in the first three quarters of this year impacted demand for furniture but not by as much as expected. The value of imports of wooden office furniture (HS940330) was down 8% from the same period in 2019. The lower than expected decline could be explained by spending to adjust home furnishing to the work-from-home style of work.



Data source: Ministry of Land, Infrastructure, Transport and Tourism, Japan

There was a much more severe decline in the value of imports of wooden kitchen furniture (HS940340) in the first three quarters of 2020 compared to the modest decline in office furniture imports. The value of kitchen furniture imports was down 15% year-on-year in the first three quarters of 2020.

In contrast to the lower value of imports of both office and kitchen furniture, imports of bedroom furniture (HS940350) in the first three quarters of this year rose 6% compared to the same period in 2019. One possible explanation for the rise in imports/demand for bedroom furniture is the trend among those foreseeing work-fromhome continuing to relocate.

Office furniture imports (HS 940330)

September office furniture imports

Year-on-year the value of wooden office furniture imports fell 5% but month-on-month the value of September imports were down 22%.

	Imports Sep 2020 Unit, 000's	Imports Aug 2020
	Yen	Unit, 000's Yen
S. Korea	260	-
China	108,800	136,473
Taiwan P.o.C	2,121	868
Vietnam	2,903	3,704
Thailand	-	-
Malaysia	6,634	16,132
Indonesia	-	542
UAE	-	-
Sweden	-	-
Denmark	724	1,373
UK	2,879	-
Netherlands	-	-
Belgium	-	-
France	-	526
Germany	1,180	6,745
Switzerland	-	-
Portugal	19,357	14,065
Italy	4,307	9,100
Poland	17,094	21,122
Austria	-	-
Turkey	-	-
Lithuania	325	1,892
Slovakia	1,025	1,018
Canada	•	2,010
USA	3,649	3,261
Mexico	683	773
Brazil	-	1,567
Australia	-	-
Total	171,941	221,171

Data source: Ministry of Finance, Japan

The main shipper, China saw exports fall but still accounted for 63% of all wooden office furniture imports followed by Portugal (11% and Poland (10%). Malaysia was within the top 20 shippers in August and September but September exports to Japan dropped sharply.

Kitchen furniture imports (HS 940340)

September kitchen furniture imports

Two suppliers, the Philippines and Vietnam accounted for around 80% of the value of September imports of wooden kitchen furniture into Japan. Other shippers appearing in the top 20 were Italy (4%) and Thailand (3%).

Year-on-year, the value of September 2020 wooden kitchen furniture imports were largely unchanged but month-on-month there was a 9% rise in the value of imports with exporters in Vietnam accounting for most of the rise.

	Imports Sep 2020	Imports Aug 2020
	Unit, 000's Yen	Unit, 000's Yen
China	146,196	141,782
Taiwan P.o.C	406	1,496
Vietnam	540,136	473,210
Thailand	32,767	55,759
Malaysia	13,152	11,270
Philippines	571,434	520,243
Indonesia	6,326	15,537
Sweden	-	411
Denmark	-	229
UK	1,324	1,436
Netherlands	-	-
France	-	-
Germany	1,903	12,876
Spain	-	-
Italy	49,043	11,890
Finland	691	-
Austria	-	-
Romania	2,406	1,562
Turkey	-	-
Lithuania	-	-
Czech Rep.	-	-
Canada	1,554	7,385
USA	1,866	-
Total	1,369,204	1,255,086

Data source: Ministry of Finance, Japan

Bedroom furniture imports (HS 940350)

September bedroom furniture imports (HS 940350)

As indicated above, there was a rise in the value of imports of wooden bedroom furniture in the first three quarters of 2020.

	Sep 2020 Unit, 000's Yen	Aug 2020 Unit, 000's Yen
S. Korea	-	-
China	1,330,602	1,414,988
Taiwan P.o.C	1,481	5,948
Vietnam	681,691	726,235
Thailand	57,787	51,292
Malaysia	80,963	79,617
Philippines	-	-
Indonesia	16,595	13,179
Sweden	1,888	2,420
Denmark	1,348	278
UK	-	-
Netherlands	-	-
Belgium	-	-
France	268	-
Germany	330	-
Switzerland	-	1,203
Portugal	-	-
Italy	7,569	18,321
Poland	25,132	18,972
Austria	-	895
Hungary	-	-
Greece	-	-
Romania	660	-
Turkey	5,606	2,675
Latvia	626	310
Lithuania	-	2,421
Belarus	-	-
Bosnia Herzegovina	-	-
Canada	-	-
USA	6,753	1,037
Total	2,219,299	2,339,791

Data source: Ministry of Finance, Japan

Year-on-year the value of September imports was up 20% while month-on-month the value of imports fell 5%.

There was a strong recovery in the value of imports following the steep drop in the first quarter of this year. In the second and third quarters the value of imports was consistently higher than in the same period in 2019. Around 90% of the value of September wooden bedroom furniture imports is accounted for by those from China (60%) and Vietnam (31%).

Malaysia once again features as a significant shipper in September and has maintained its share of the value of imports to Japan at around 4%.

Trade news from the Japan Lumber Reports (JLR)

The Japan Lumber Reports (JLR), a subscription trade journal published every two weeks in English, is generously allowing the ITTO Tropical Timber Market Report to reproduce news on the Japanese market precisely as it appears in the JLR.

For the JLR report please see: https://jfpj.jp/japan_lumber_reports/

RCEP signed

Effective date is undecided yet but early start is aimed. Duty will be reduced step by step on 91% of industrial products and agricultural and marine products by participating countries. RCEP was initially proposed by ASEAN in 2011.

Main members are Indonesia, Malaysia, Singapore, Thai, Philippines, Vietnam, Myanmar, Laos, Cambodia, Brunei, India, Australia, New Zealand, Korea, China and Japan. These nations cover about 50% of global population, about 30% of global GDP and trade.

Japan has concluded Japan-ASEAN EPA or TPP 11 with 13 nations except for Korea and China so for these 13 nations, duty on wood products will not be reduced or abolished but China and Korea are two nations with EPA for the first time. Japan imports 151.3 billion yen of laminated lumber, wood products for construction and kitchen parts from China a year and 1.7 billion yen of fiber board, particleboard and lumber from Korea.

With RCEP, duty on 30 items from China and 63 items from Korea are either reduced or abolished but they are minor items so there is not much influence. Duty on major items of plywood, lumber, laminated lumber and particleboard is unchanged from current rate.

It is agreed with China that export duty of 2% on softwood plywood, 3% on processed wood will be abolished after 11 years since RCEP effective date. For Korea, 8% duty on wood products like window, door, beam and piling will be abolished after ten years. This includes precut materials so Japanese traditional post and beam style house export will be promoted when they become duty free.

China stops import of Australian logs

The Chinese government stopped import of Australian logs since early November. Reason is that log fumigation is not satisfactory but true reason is recent deteriorating political relationship between two nations.

About 2,800,000 cbms of Australian logs are imported to China for the first eight months of this year. Annual import volume would be about 4,000,000 cbms, which is fourth largest source for China behind New Zealand, Germany and Russia. By this measure, Chinese users look for substituting sources and the most likely source is New Zealand then Russia and European countries and possibly Japan.

Export prices of New Zealand radiata pine logs for China in November are US\$123-125 per cbm C&F and December prices seem to be higher because of supply in New Zealand would decline due to Christmas vacation. Then the prices would be much firmer if China wants additional volume to replace Australian log supply.

It is reported that log inventory in Shanghai is three million cbms, which is low compared to past level with active shipments so the Chinese log buyers will be busy looking for substituting supply sources.

Domestic logs and lumber

It is full log harvest season now but nationwide log supply is less than usual years. Meantime, lumber orders have been active in October and November so sawmills are actively purchasing logs. Therefore, logs for lumber manufacturing are tight everywhere and the prices are firming.

There are sawmills, which are not able to run in full capacity because of log shortage so lumber supply is tight. Lumber delivery to precutting plants is tight-roping. Sawmills are hurriedly intending to increase the sales prices.

Lumber prices are higher than last summer but not high enough to cover high log cost. Reasons of tight log supply are price drop in summer, demand drop of logs and plywood mills and wood chip plants continue curtailing the production.

Cypress is firming everywhere. Cypress log prices have been at high level with 19,000-20,000 yen per cbm. Cedar log prices for post cutting are unchanged at 12,000- 13,000 yen but in Kyushu and Northern Kant where large mills are, they are as high as 15,000 yen. Lumber demand now is the most active after corona virus epidemic started in last spring.

3 meter KD 105 mm post prices were less than 40,000 yen until middle of August but they are now 48,000-50,000 yen with the highest spot price of 52,000 yen.

4 meter KD cypress105mm sill prices are 58,000-61,000 yen from bottom price of 55,000 yen in last summer. 3 meter KD cypress 105 mm post prices are now 57,000-58,000 yen by sudden increasing orders from bottom of 50,000 yen in last summer. These seem to be ceiling prices.

China

US cuts anti-dumping duties on 21 Chinese plywood enterprises

In response to a request from Chinese hardwood plywood enterprises the US Department of Commerce has reviewed the anti-dumping duties imposed on 21 Chinese manufacturers and exporters of hardwood plywood and decided to adjust the tariff rates imposed on these 21 enterprises.

These hardwood plywood enterprises now face a 14.95% anti-dumping duty rates, a countervailing duty rates of 23% and a USTR 301 investigations and duty rates of 25% according to the US Decorative Hardwoods Association.

Other Chinese exporters of hardwood plywood did not provide documentation for the application of a separate rate so the anti-dumping duty rate for them remained unchangs at 183.36%.

The names of the 21 hardwood plywood enterprises that have benefitted from the change can be found at: https://www.cnwood.cn/news/show-19400.html

China bans timber imports from additional Australian States

According to China Customs, timber imports from Tasmania and South Australia have been banned as a result of pests detected in imported logs. Warning Notices issued to suspend the import of logs from Queensland and Victoria were issued on 31 October and 11 November 2020. Recently, Shanghai, Ningbo, Xiamen and Qingdao customs intercepted live forest pests in imported logs from Tasmania and South Australia.

The Notices say in order to prevent introduction of harmful organisms and protect agricultural and forestry production in China it is hereby decided to suspend the import of logs from Tasmania and South Australia in accordance with relevant provisions of the Law of the People's Republic of China on Import and Export Animal and Plant Quarantine and its Implementation Regulations as well as the International Standard for Phytosanitary Measures.

See: https://www.sohu.com/a/437033185_154247

Air pollution – Timber enterprises cut or cease production

An orange alert for heavy air pollution has been issued in Lanshan District of Linyi City, Shandong Province and an emergency response to the severe air pollution was implemented on 5 December 2020. Emission reduction measures such as restricting or halting manufacturing were introduced. More than 5,000 enterprises have been required to cut or stop production of which 46 are plywood enterprises, 46 particleboard enterprises, 10 fibreboard enterprises and 312 furniture manufacturing enterprises. These enterprises release VOCs during their manufacturing processes.

A date for lifting the restrictions has not been announced as this will depend of air pollution measurements.

As limits on production are a regular occurrence during the autumn and winter months when air pollution becomes serious companies have to adjust their production and marketing to avoid losing market share.

See: https://dy.163.com/article/FTFR96JM0517NPTF.html

In related news, dozens of wood panel enterprises in Hebei Province will also cease production. The affected cities are in the centre and southern parts of Hebei Province such as Shijiazhuang, Langfang, Cangzhou, Baoding, Hengshui, Xingtai, Handan, Dingzhou and Xinji.

See: http://www.wood168.net/src/newsdetail.asp?this=53746

Serious container congestion at some ports

It has been reported container cargo trains carrying timber from Russia to Manzhouli, Erlian and Alashankou Ports have stopped and this had disrupted the movement of containers and resulted in container congestion at Manzhouli, Erlian and Alashankou Ports.

See: https://www.sohu.com/a/436286179_813805

Imported wood bonded processing zone in Wuhan City

The first bonded processing zone for timber in Yangluo Port, Wuhan City, Hubei Province was officially launched and put into operation recently. The new Zone handles timber such as scots pine and spruce logs mainly from Russia, Germany and the Netherlands. After processing at the Yangluo Port Zone timber shipments will be transported to enterprises in Wuhan City and other areas.

Imported logs arriving by boat enter the zone quickly through Yangluo Port wharf which reduces the logistics and transportation cost for enterprises. Previously imported logs were transported to Wuhan by rail. While this was fast the transportation cost per container was around RMB5,000. Imported timber transported by boat to Wuhan City has cut transportation costs.

See:

 $http://www.whxg.gov.cn/ztzl_50/xgkgzbq/zbqjs/202012/t202012\\04_1526334.html$

Workshop - Application and design of Japanese wood products

A Workshop on the Application and Design of Japanese Indoor and Outdoor Wood Products sponsored by the Japanese Wood Export Association was held in Guangzhou City to promote technological exchanges and trade in indoor and outdoor wooden building products.

The volume of Japanese log exports to China from January to July 2020 rose 11% to 760,000 cubic metres, including 660,000 cubic metres of Japanese cedar and 90,000 cubic metres of cypress.

The volume of Japanese sawnwood exports between January and July 2020 grew 3% to 90,000 cubic metres, including 50,000 cubic metres of Japanese cedar and 20,000 cubic metres of cypress. The value of Japanese timber exports to China fell 7.6% to 19.2 billion yen.

See

http://www.yuzhuwood.com/news/details_ff808081758ba07a0175cfc6ce9f1489.htm

National standard on wood plastic flooring

According to the People's Republic of China announcement No.26 (2020) a national standard on wood/plastic flooring GB/T24508-2020 has been released by the National Standardization Technical Committee of Forestry Biomass Materials. The new national standard on wood/plastic flooring will be effective as of 1 June 2021.

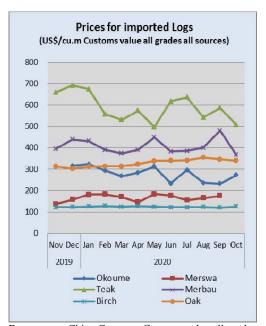
See.

http://www.yuzhuwood.com/news/details_ff80808175f7d3b6017636dabdf10cf7.htm

Average imported log prices US\$/cu.m CIF

Average imported log prices covicuin on			cu.iii Oii
	2020	2020	2020
	Aug	Sep	Oct
Okoume	236	232	272
Merswa	165	175	
Teak	542	586	508
Merbau	401	480	367
Birch	123	121	126
Oak	355	346	339

Data source: China Customs. Customs value all grades, all sources

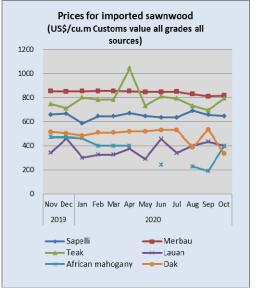


Data source: China Customs. Customs value all grades, all sources

Average imported sawnwood prices US\$/cu.m CIF

7 troi ago importoa	-	u p::000 00	yyroann on
	2020	2020	2020
	Aug	Sep	Oct
Sapelli	689	655	645
Merbau	828	809	815
Teak	729	693	792
Lauan	401	436	401
African mahogany	229	191	398
Oak	387	533	337

Data source: China Customs. Customs value all grades, all sources



Data source: China Customs. Customs value all grades, all sources

Europe

Major implications for timber trade as Brexit endgame nears

The long drawn-out process of the UK breaking ties with the EU, which started with the referendum of July 2016, is finally in the endgame. Since formally leaving the bloc on 31 January 2020, the UK's relationship with the EU has been governed by the Withdrawal Agreement. This has allowed the UK to continue on the same terms it had with the EU prior to departure during a so-called `transition period'.

This transition period will come to an end on 31st December and it is only then that the full impact of the UK's departure from the EU, which so far has been muted by the transition arrangements, not to mention the pressing effects of the COVID-19 pandemic during 2020, will become apparent.

The effects will be particularly dramatic if the EU and UK fail to reach agreement on a deal to govern trade relations from 1st January.

At the start of December, there much optimism that a deal could be finalised before the end of the month.

On 6th December, the Guardian, a UK newspaper, reported "a major breakthrough in negotiations on the rights of European fleets to fish in UK waters", one of the very few remaining hurdles in the text of a trade agreement extending to over 600 pages which, according to the Irish government is "97% done"

However, the most challenging hurdle was left till last. This is the "level playing field" with the EU demanding wide-ranging powers to unilaterally impose so-called "lightening tariffs" when it judges that the UK government is failing to keep up with future EU rules and regulations.

The UK government has rejected this "ratcheting clause" as a threat to sovereignty and instead argues that the EU should be empowered to implement more limited and specifically targeted tariffs after a process of independent arbitration has determined a real threat of material injury to EU trade and industry.

Speaking to EU leaders late on the evening of Thursday 10th December, Ursula von der Leyen, President of the European Commission, said that Britain exiting the transition period without a trade and security deal is now the most likely outcome.

On Sunday 13th December, the EU and UK subsequently agreed that talks towards a possible trade agreement should continue until the very last minute on 31st December. However, at the same time, Boris Johnson, the UK Prime Minister, reaffirmed his view that the UK and the EU will be unable to finalise a trade agreement in that time and that a "no deal" Brexit is "the most likely thing now".

Irrespective of whether a trade deal is agreed, the UK will be leaving the EU single market from 1st January. This means that there will no longer be "frictionless" trade between the UK and EU. New customs controls and procedures will lead to longer lead times and higher transaction costs, even under the most favourable scenarios for a trade relationship.

This combined with the high levels of uncertainty, made worse by decisions having been delayed until the very last minute, are already contributing to significant trade disruption between the EU and the UK. This is also likely to feed through into slower economic growth in the short and medium term.

The effects of the economic disruption will fall much more heavily on the UK than the EU. However some individual EU countries, such as Ireland, Belgium and the Netherlands, are likely to suffer more than others. For the timber trade, the additional economic shock of Brexit, coming on top of the very severe and on-going disruption created by the COVID-19 pandemic, will likely lead to a decline, or at least much slower growth, in the overall size of market.

Taking a more positive view, there is some expectation that large government stimulus measures in both the EU and the UK, combined with commitment on both sides to "build back better" with a strong focus on enhanced environmental performance, may mitigate some of the worst effects of the combined COVID-Brexit downturn. For tropical suppliers, new opportunities may arise in the UK market from a "no deal" outcome.

This would lead to UK imports of timber products from EU countries, which dominate UK trade, being treated on the same terms as imports from other countries with no trade agreement with the UK. The relative competitiveness of EU-based hardwood suppliers that currently benefit from completely frictionless trade with the UK may be reduced in the UK market.

The potential opportunities are more significant in the hardwood sector because the UK, unlike the EU, does not have a large domestic hardwood resource. Manufacturing capacity for a large range of wood products - such as kiln dried lumber, panels, joinery, and furniture - is also much more restricted in the UK than in the EU.

There may also be some significant disruption of the trade between UK distributors and large hardwood traders in continental Europe — notably in Belgium and the Netherlands - with potential to encourage once again more direct imports of tropical woods into the UK.

Worst year for UK economy in more than 300 years

While there may be new opportunities created for some wood products suppliers to the UK at the end of the transition period, it seems very unlikely that these opportunities will be enough to offset the severe disruption to the wider market and implied reduction in overall consumption, at least in the short to medium term.

The end of the transition period comes at a time when the UK economy already shows signs of extreme fragility. Britain experienced its steepest recession on record earlier this year as coronavirus restrictions crushed economic activity. The latest data from the Office for National Statistics (ONS) shows that UK GDP grew for the sixth month in a row in October, but by only 0.4%, down from 1.1% in September.

The total size of the UK economy was still 7.9% below its February pre-pandemic level in October. The slowing recovery came before lockdown rules were tightened once again in November in an effort to forestall a second wave of the virus. The UK may well be in recession in the fourth quarter of this year, pulling the economy into a double-dip downturn.

The Confederation of British Industry forecasts a 1.7% fall in UK GDP in the fourth quarter, meaning a total contraction of 11.1% for the whole of 2020, the worst year for the UK economy since 1709.

The UK Treasury's independent spending watchdog, the Office for Budget Responsibility (OBR), said in its latest report, released in November, that a failure to reach a free trade deal with the EU would knock 2% points off UK GDP growth in 2021. That would reduce growth next year from 5.5% to 3.5%, significantly hampering the UK's recovery from the massive shock of this year's pandemic.

The OBR main forecast, which assumes an EU deal is agreed and that vaccines against the pandemic are effective by summer 2021, sees the UK economy returning to its pre-crisis level by the end of 2022. However, a nodeal Brexit would push that back until the end of 2023.

According to OBR, the short-term impact of no-deal is due to various temporary disruptions to cross-border trade, while there would be lasting damage from higher structural unemployment, lower investment and harm to productivity growth.

EU economy likely more resistant than UK to COVID-Brexit downturn

The economic effects of both the pandemic and Brexit on the EU, while significant, are muted compared to the UK. The EU's Autumn 2020 Economic Forecast released on 5 November projects that the euro area economy will contract by 7.8% in 2020 before growing 4.2% in 2021 and 3% in 2022.

This projection already factors in the potential for a "no deal" Brexit. According to the EU, one "technical assumption" in making the forecast was that "given the lack of clarity on future trade relations, there will be no deal between the EU and UK and the two will trade on WTO Most Favoured Nation (MFN) rules from 1 January 2021 onwards".

Another technical assumption, that public health measures will remain in force to some degree throughout 2021 and 2022, may be too pessimistic. The signs that several vaccines are effective and will soon be approved for use in some European countries imply there is scope for a better outcome.

The direct effects of a no deal Brexit on total EU-UK trade were assessed in research published in November by Allianz, one of the world's largest insurance and asset management companies. For the UK, Alliance estimates an immediate 15% fall in the total value of exports. At present, 47% of all UK exports are destined for the EU, making it the UK's single largest market.

On the EU side, the damage is much less both proportionally and in absolute terms. Only 4% of all of the EU's exported goods and services ended up in the UK last year. Nevertheless, the impact is still significant. According to Allianz, a no deal could cost around EUR33bn in annual EU exports, with Germany (EUR8.2bn), the Netherlands (EUR4.8bn) and France (EUR3.6bn) hit the hardest in absolute terms.

The Halle Institute for Economic Research has forecast that EU companies exporting to Britain could lose more than 700,000 jobs if no trade deal is agreed.

Border checks on UK wood imports from EU will disrupt just-in-time trade

Until the end of this year, trucks can just roll into the UK from the European continent with no checks. This changes from 1st January 2021. Irrespective of whether or not there is a deal as any goods arriving into the UK from the EU will be treated as an import and traders will have more work to do.

New controls at the UK border with the EU are expected to add delays to the supply chain, as product origins are checked and relevant duties applied. This is likely to have a significant impact on `just-in-time' procurement which in turn will slow down progress and add to costs of manufacturing and on projects across numerous sectors.

In the UK construction sector, the major driver of UK timber demand, the turnaround time for delivery to building sites in Central London was previously only two days. Already there is considerable congestion at UK ports as distributors of all commodities and products are rushing to build stocks before the end of the year. This, combined with COVID related supply problems, has greatly increased lead times which now extend to weeks instead of days.

Due to tightening operating conditions and sawmill shutdowns throughout the pandemic, combined with a surge in demand for timber for DIY and garden projects during the lockdown period, timber stockholdings in the UK builders' merchant sector are already much lower than usual at this time of year.

The UK Timber Trade Federation issued a warning early in December that the overall tight timber supply conditions in the country will continue "certainly into Q2 2021, if not longer". It was also noted that "companies can no longer expect to get what they need through just-intime buying".

UK timber companies that used to rely on frictionless trade with the EU are now having to adjust to the need for customs checks. The UK hardwood sector, which is already sourcing globally, is generally better prepared than the softwood sector where there is huge reliance on EU suppliers.

However, there are now many UK trading companies having to apply for the first time for a so-called Economic Operators Registration and Identification (EORI) number which identifies businesses or operators that export or import to the EU. They are having to familiarise themselves with the customs codes and duties applied to traded products and with new VAT procedures. They are being advised by both UK government and the TTF to hire customs agents and logistics specialists.

Implications of UK post-Brexit Tariff Schedule on wood products

From 1st January the UK will implement a new "Global Tariff" regime which closely mirrors the existing EU tariff regime. The tariff codes exactly match those used in the EU's "Combined Nomenclature". The UK General System of Preferences (GSP) will provide trade preferences to the same developing countries as the EU GSP.

The main point of difference between the UK and EU schedule, at least initially, is that it reduces tariffs on UK imports of a range of products, including some wood products. The UK is either reducing or totally removing tariffs for certain industries which are important in the EU, and therefore partially protected through EU tariffs, but which have little presence in the UK.

For wood products, the UK has a very long tradition of fulfilling its wider wood needs through imports, much more so than elsewhere in the EU, and is therefore more inclined to reduce wood import tariffs.

This is of no account for quite a few wood products. The EU already imposes zero-tariffs on all logs and rough sawn timber, together with all finished wood furniture, as well as for all types of wood fuel, including chips, pellets, charcoal, sleepers, tools, shuttering, shingles and shakes, posts and beams, glulam, tableware and kitchenware.

However, the UK is reducing tariffs for many wood products where these are imposed including:

The EU tariff of 2.5% that applies to all "sanded" sawnwood to be reduced to zero in the UK.

The EU tariff of 2% specific to tropical hardwood that is "planed" to be reduced to zero in the UK.

The EU tariff on veneers, which ranges between 3% to 6% depending on degree of processing and species, to be reduced to zero in the UK.

The EU 7% tariff on some plywood, including with outer ply of some (but not all) tropical hardwoods (4412110/44123190), other hardwood (44123300/4412400), and softwood (44123900), to be reduced to 6% in the UK.

The EU 7% tariff on MDF and other fibreboard, OSB and other particle board to be reduced to 6% in the UK.

The EU 2.5% tariff on picture frames and similar products made of tropical wood, to be reduced to 2% in the UK.

The EU 3% tariff on wooden doors and door frames, windows and window frames, parquet flooring panels, which applies to all wood species including tropical wood, to be reduced to 2% in the UK.

The EU's 3% tariff on statuettes and jewelry and cutlery boxes made specifically of tropical wood, to be reduced to 2% in the UK.

The EU 4% tariff on wood packing cases, boxes, crates, box pallets and similar, to be reduced to zero in the UK.

The EU 5.6% tariff on bamboo and rattan furniture to be reduced to 4% in the UK.

The EU 2.7% tariff on wooden furniture components to be reduced to 2% in the UK.

The UK is retaining the existing 10% EU tariff on tropical hardwood plywood defined under 44123110 (that is faced with dark red meranti, light red meranti, white lauan, sipo, limba, obeche, okoumé, acajou d'Afrique, sapelli, virola, mahogany "Swietenia spp.", palissandre de Rio, palissandre de Para or palissandre de rose).

Other wood products where the UK will retain the existing EU tariff are: laminates and veneered panels under 441294 and 441299, for which there is a tariff of 6% or 10% depending on the exact specification; bamboo plywood which will continue to be subject to a 10% tariff; and wood marquetry, subject to a 4% tariff.

The EU applies a quota system to just one wood product, allowing up to 650,000m3 of coniferous plywood to be imported duty-free each year after which 7% duty is applied. The UK will also apply a quota to this product in 2021, allowing the first 170,000 m3 of coniferous plywood to be imported duty free, after which 6% duty will be applied.

A key issue to be resolved through the on-going negotiations between the EU and UK is whether suppliers in the EU and UK will be subject to tariffs when trading with each other. In the event of "no deal" trade between the EU and UK will be on World Trade Organisation (WTO) Most Favoured Nation (MFN) rules.

Under these rules both partners would be obliged to apply the same tariffs on trade with each other as they do on trade with other WTO members where there is no comprehensive trade agreement.

Under a no-deal Brexit, UK imports from the EU will be subject to the same tariffs (and a quota system in the case of softwood plywood) as UK imports from countries outside the EU. Even if the UK simply adopts the EU's existing tariff schedule, non-EU suppliers would now be trading on a level playing field with EU suppliers.

The exception to this would be suppliers in countries that have signed a Free Trade Agreement (FTA) with the EU but not subsequently with the UK. Like EU suppliers, they would now face tariffs that were previously not applicable for their trade with the UK. In practice this problem is mitigated by the UK's ambitions to sign its own FTA's with non-EU countries as soon as possible.

Amongst tropical countries, the EU has signed FTAs with Singapore (in 2019) and Vietnam (in August this year).

There is also an "Association Agreement" with Central American countries (Honduras, Nicaragua, Panama, Costa Rica, El Salvador, Guatemala) and "Stepping-Stone Economic Partnership Agreements" with Ghana and Cote d'Ivoire, in place for several years offering lower tariffs.

The EU has also negotiated an FTA with the Mercosur countries (of which Brazil and Paraguay are tropical wood suppliers), but there has been resistance to ratification on the EU side, particularly from the French government. An EU-Mexico FTA is under negotiation.

The UK is trying to replicate these deals as soon as possible. The UK agreed to replicate the "Association Agreement" with Central American countries in August 2019. The "Stepping Stone Agreement" with Côte d'Ivoire was replicated in November this year providing immediate duty-free, quota-free access to all goods exported from the Côte d'Ivoire into the UK.

The UK signed an FTA with Singapore on 10th December and another with Vietnam on the next day, 11th December. The latter will see 99% of tariffs between the two countries eliminated after seven years.

Cash flow: another potential obstacle in UK-EU trade

Irrespective of decisions taken with regard to duties on UK trade with the EU from 1st January, the UK timber trade has expressed concern about the implications of the UK's departure from the EU single market for cash flow. For all internal EU transactions, VAT is not charged on the supply of goods between businesses from another EU country by the supplier. Instead, a business recipient is required to charge itself VAT, known as acquisition VAT, which is typically an accounting transaction on the VAT return.

When the UK leaves the EU VAT area on 1st January, it becomes a third country in relation to EU trade. This means that while the EU exporter will still not charge VAT, the UK importer is obliged to pay VAT to UK tax authorities at the point of import alongside any applicable customs duties. Given the huge volumes of timber involved, this has raised concerns amongst UK importers over the cash flow implications.

The UK government has sought to mitigate this concern with the introduction of "postponed accounting" for import VAT. This will shift the VAT accounting and payment away from the border and back to the VAT return.

To further reduce concerns about cash flow and other procedural delays immediately after the UK leaves the single market on 1st January, the UK government has also stated that for the first 6 months (until 30 June 2021) there will be no need to make immediate import declarations for goods imported from the EU at the UK border.

However importers wishing to benefit from this system of delayed declarations will need to be pre-approved by the UK tax authorities. Looking longer term, with the UK government keen to facilitate more global trade, it is possible these procedures for delayed accounting of VAT and duties for imports from the EU for pre-approved traders may be applied to imports from all countries.

In October, the UK government also published plans for the creation of a number of Free-ports which, it is claimed, "will improve upon both the UK's existing customs arrangements". Firms will be able to import goods into a UK Freeport without paying tariffs, process them into a final good and then either pay a tariff on goods sold into the domestic market, or export the final goods without paying UK tariffs.

The Freeport plans include a package of tax reliefs on investment by businesses within Freeport tax sites and measures to speed up planning processes to accelerate development in and around Free-ports

Phytosanitary controls extended to UK imports from **EU** countries

Another significant impact of the UK's exit from the EU single market on 1st January will be the requirement for phytosanitary certificates, which currently apply to a range of wood products imported into the EU, to be extended to UK's imports from other EU countries (and vice versa).

The direct effect of this on tropical wood products is limited by the fact that existing EU phytosanitary controls on commercial timber products apply almost exclusively to temperate woods since these give rise to by far the greatest risk to the health of European forests.

However, the indirect effects of phytosanitary certification on trade flows can be significant since requirements for certification, which may include specific treatments and in some cases limit trade to wood from narrowly defined regions, can greatly increase costs and limit access to raw material.

The phytosanitary rules are often complex, subject to change in response to ongoing monitoring of pest outbreaks, and frequently lead to temperate hardwood products from outside the EU being held up at ports for additional inspections or returned to the seller for compliance failures.

Notable commercial wood species requiring phytosanitary certificates for EU imports include: oak from the United States; maple, birch, aspen, ash and walnut from North America, Russia and Asia; cherry from Asia; and coniferous wood with bark from all locations.

The UK is mirroring the EU plant health regulations in its own plant health legislation with the result that, from 1st January, specific requirements for phytosanitary certification will be extended to UK imports from EU countries as well as from non-EU countries.

UK wood products imports from the EU to be subject to phytosanitary certification for the first time from 1st January include walnut from all EU countries, and all wood products of a range of hardwood species including maple, alder, birch, beech, ash, plane, poplar, willow, lime and elm from Austria, France, Finland, Germany and Italy. All coniferous wood product imports into the UK from Spain and Portugal will also be controlled to prevent spread of pine wood nematode.

Another change relates to wood packaging material (WPM) moving between the UK and the EU, including Switzerland and Liechtenstein, which moves freely without checks and controls in the EU single market. From 1st January 2021 all WPM moving between the UK and the EU must meet ISPM15 international standards by undergoing heat treatment and marking.

All WPM may be subject to official checks either upon or after entry to the EU or UK. This requirement is already in place for WPM moving into the EU and UK from the rest of the world.

It is noteworthy that there are no new phytosanitary controls on UK imports of EU oak products and UK trade of softwood products will continue largely as now, as woods with bark will face plant health controls, while processed woods fully debarked, except from Portugal and Spain, may be imported unheeded without certificates.

UK-EU timber products trade subject to due diligence From 1st January, the EUTR will be replaced in the UK by

the UK Timber Regulation (UKTR). The scope of UKTR, in terms of regulated 'timber and timber products' is the same as EUTR.

The requirements established for an "Operator" in the EUTR, defined as the first placer of the timber and timber product on the EU market, will apply to the first placer on the UK market in UKTR. UKTR obligations are identical to EUTR, requiring operators to exercise due diligence to ensure negligible risk of illegal harvest when placing products on the UK market.

The "Green Lane" for products covered by FLEGT licenses and CITES certificates imported directly into the UK apply equally to UKTR. However, if a product is imported into the EU with a FLEGT license or a CITES certificate and then subsequently shipped to the UK, the UK operator would be required to undertake due diligence with respect to that timber.

This highlights that the most significant change with respect to the scope of the UKTR relative to EUTR is that it imposes due diligence requirements on all UK timber and timber product imports, including those from inside the EU. The same of course applies to (much more modest) EU imports from the UK.

As the representative of one large UK hardwood importer noted when discussing the new UKTR at the online London Hardwood Club (LHC) meeting on 9th September "it will be interesting to see how well due diligence is being carried out in other EU countries.

It is possible that UK regulators will conclude that some products accepted as compliant to EUTR due diligence requirements do not meet UKTR requirements. A concern in relation to EUTR is that enforcement is not uniform across the EU and UK importers will now have to take that into account in their due diligence".

Another issue raised at the LHC meeting related to commercial confidentiality. It was suggested that the need to identify the source of wood products to mitigate risk under UKTR may present another obstacle to UK hardwood importers buying from EU distributors. EU operators may be reluctant to identify their overseas suppliers to their customers in the UK. The same applies to UK distributors selling into the EU.

To support UK importers implement the UKTR, the Timber Trade Federation has developed a free interactive toolkit. The toolkit runs through the due diligence process step by step, providing guidance on information gathering (what questions to ask and data sources to use) and on risk identification. It generates a pdf report of the due diligence steps undertaken with respect to individual products that can be used for compliance purposes.

The TTF is continuously updating the toolkit in response to feedback and as new guidance and due diligence tools and information sources are made available.

The toolkit can be downloaded at $\underline{\text{https://ttf.co.uk/download/ttf-due-diligence-toolkit/}}$

Potential for duplication of standards and testing regimes

Until the end of 2020, the quality of construction goods, materials and products are controlled by EU regulations, specifically the CE mark. To avoid any short term uncertainty, the UK government has indicated that CE marked products will continue to be recognised in the UK market until 31st December 2021.

However, from 1st January 2022, manufacturers wanting to supply the UK construction sector will have to use a new UKCA (UK Conformity Assessment) mark in place of the CE mark.

It is still uncertain at this stage, in the absence of a trade deal, the extent to which the UKCA will harmonise to the CE to allow goods to pass the equivalent CE standard without any need for further testing.

Without harmonisation of standards and mutual recognition of Notified Bodies (NB), manufacturers will have to duplicate testing of construction products for the UK and EU markets, adding significant cost and delays.

North America

Tropical hardwood imports held steady in October

Imports of sawn tropical hardwood rose only 2% in October as imports for 2020 continue to lag far below those of 2019. The 13,491 cubic metres imported was more than 38% below the volume imported in October of last year. Year-to-October imports remain down 36% from 2019.

Imports from Ecuador and Malaysia each rose by 39% in October, yet they remain the two countries whose exports to the US are down the most for the year.

Year-to-October imports from Ecuador are down 68% while imports from Malaysia are off by 44%.

First 10 month sawnwood imports (vol.)

	% Change 2019-20
Ecuador	-68%
Brazil	-14%
Cameroon	-37%
Malaysia	-44%
Congo (Brazzaville)	-22%
Peru	0%
Indonesia	-12%
Ghana	-21%
Cote d'Ivoire	104%

Data source: US Census Bureau, Foreign Trade Statistics

Balsa import volumes rose in October by 29% but were still only about one-third of what they were for October of last year. Balsa imports are down 67% year-to-October. Similarly, imports of Keruing, while rising 39% in October, are down 49% year-to-October.

Canadian imports of tropical hardwood rose 7% in October but are down 16% year-to-October.

Hardwood plywood imports continue to rise

Imports of hardwood plywood rose by 17% in volume in October, the strongest month of 2020 at 254,178 cubic metres. Imports from China rose 76% to the highest level since January and for the first month this year outpaced volume from a year ago.

Year-to-October imports from China are down 43%. Imports from Indonesia also surged in October and are now up 32% for the year to October. Total US hardwood plywood imports remain up 3% year-to-October.

First 10 month hardwood plywood imports (vol.)

	% change
	2019-20
China	-43%
Indonesia	32%
Malaysia	4%
Cambodia	-8%
Vietnam	16%
Ecuador	38%

Data source: US Census Bureau, Foreign Trade Statistics

Veneer imports still weak despite rebound

While US imports of tropical hardwood veneer grew by 15% in October, imports for the month were less than half of the previous October. Year-to-October imports are down 31%. Imports from Italy and India recovered somewhat from September's poor numbers but imports from Cote d'Ivoire and Ghana both fell by about half.

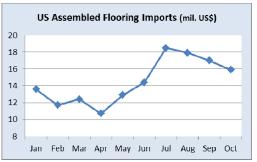
Imports from nearly all major trading partners are down by more than one-third year-to-October. However, imports from Cameroon had more than doubled by October.

Hardwood flooring imports end growth streak

Imports of hardwood flooring fell by 1% in October ending a streak of four months of steady gains. Imports for the month were more than 10% below the previous October as imports remain down from 2019. Year-to-October imports are down by 27%.

Imports from China rose 17% in October but are down 54% year-to-October.

Imports of assembled flooring panels fell 7% in October, retreating for a third straight month. Despite the decline, imports were nearly 18% higher than the previous October and year-to-October totals moved ahead by 6%. Imports from Thailand saw their best month since January, nearly doubling from the previous month.



Data source: US Census Bureau, Foreign Trade Statistics

Moulding imports bounce back

Imports of hardwood moulding rose 24% in October, climbing back from the worst month in more than 10 years. Imports from Malaysia rose 143% to their highest level since May 2019, while imports from Canada grew by 28%. Despite the gains, October imports were down more than 8% from last October and year-to-October imports are behind by 16%. Imports from Brazil dropped by 34% in October and are down 53% year-to-October.

Growth in wooden furniture imports continues

Imports of wooden furniture grew for a fifth straight month in October, rising 3% to over US\$1.95 billion. Imports from China rose by 13% in October but are down 38% year-to-October. Imports from Malaysia fell by 7% in October but remain ahead by 50% year-to-October. Total imports are behind 2019 by 4% year-to-October.

Demand for residential furniture continues to be strong according to the Smith Leonard Furniture Insights report.

New orders in September were up 43% over September 2019 orders. This followed a 51% increase reported in August, a 39% increase in July and a 30% increase in June. Orders were up for 91% of the participants for the month of September.

The September increase brought year-to-October orders up to an 11% increase over the same period last year. Some 56% of surveyed manufacturers and distributors are now reporting increased orders year-to-October after the significant declines reported in March and April.

Cabinet sales rise

A press release from the Kitchen Cabinet Manufacturers Association's (KCMA)on its monthly Trend of Business Survey, participating cabinet manufacturers reported an increase in overall cabinet sales of 9.8% for October 2020 compared to the same month in 2019. Custom sales are up 7.7%, semi-custom increased 7.9%, and stock sales increased 11.6%.

When looking at the month-on-month comparison, cabinet sales increased as well. Overall sales were up 2.3% in October 2020 compared to September 2020. Custom sales increased 1.1%, semi-custom sales increased 5.7% and stock sales increased 0.4%.

Overall, 2020 year-to-October cabinet sales are up 0.5% when compared to the same time period in 2019. Custom sales decreased 1.5%, semi-custom sales decreased 3.9% and stock sales increased 4.1%.

See: https://www.kcma.org/news/press-releases/october_2020_trend_of_busines_press_release

Employment growth slowed sharply in November

Data from the Department of Labour shows US non-farm payrolls increased by just 245,000 in November, well below Wall Street estimates as rising coronavirus cases coincided with a considerable slowdown in hiring. The November gain represented a pronounced slowdown from the 610,000 positions added in October.

In all, the economy has brought back 12.3 million of the 22 million jobs lost in the first two months of the crisis. There are still 10.7 million Americans considered unemployed, compared with 5.8 million in February. The total of permanent job losers remained at 3.7 million in November but is up 2.5 million from February.

The November job gains would be considered strong under normal circumstances, but the pandemic has left millions of Americans out of work from jobs lost in the early stages of the crisis. The total represents the slowest job growth since the employment recovery began in May.

Resurgence of COVID-19 slowing manufacturing growth

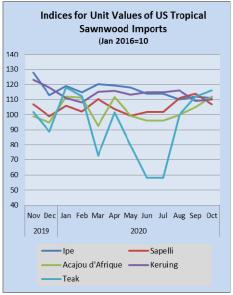
Economic activity in the manufacturing sector grew in November with the overall economy notching a seventh consecutive month of growth according to the latest Manufacturing ISM® Report On Business.

Of the 18 manufacturing industries surveyed, 16 reported growth in November, including the Wood Products and Furniture and Related Products industries.

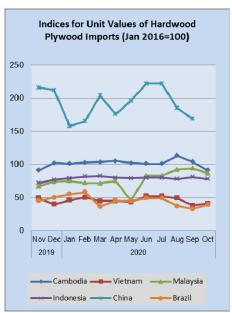
The November Manufacturing Index registered 57.5%, down 1.8 percentage points from the October reading of 59.3%.

ISM Chairman, Timothy Fiore, said "The manufacturing economy continued its recovery in November. Survey Committee members reported that their companies and suppliers continue to operate in reconfigured factories but absenteeism, short-term shutdowns to sanitize facilities and difficulties in returning and hiring workers are causing strains that will likely limit future manufacturing growth potential."

See: https://www.ismworld.org/supply-management-news-and-reports/reports/ism-report-on-business/pmi/november/



Data source: US Census Bureau, Foreign Trade Statistics Note: Unit values are based on Customs value and exclude shipping, insurance and duties



Data source: US Census Bureau, Foreign Trade Statistics Note: Unit values are based on Customs value and exclude shipping, insurance and duties

Disclaimer: Though efforts have been made to ensure prices are accurate, these are published as a guide only. ITTO does not take responsibility for the accuracy of this information.

The views and opinions expressed herein are those of the correspondents and do not necessarily reflect those of ITTO

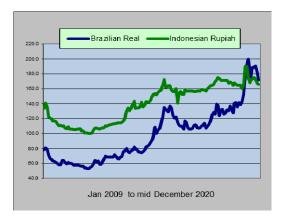
Dollar Exchange Rates

As of 10 December 2020

Brazil	Real	5.0661
CFA countries	CFA Franc	540.91
China	Yuan	6.5467
Euro area	Euro	0.8257
India	Rupee	73.741
Indonesia	Rupiah	14080
Japan	Yen	104.02
Malaysia	Ringgit	4.0515
Peru	New Sol	3.49
UK	Pound	0.756
South Korea	Won	1091.80

Exchange rate indices (US\$, Dec 2003=100)



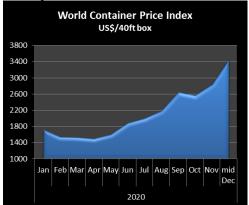


Abbreviations and Equivalences

Arrows ♣ ♠	Price has moved up or down
BB/CC etc	quality of face and back veneer
BF, MBF	Board foot, 1000 board foot
Boule	bundled boards from a single log
TEU	20 foot container equivalent
CIF	Cost insurance and freight
C&F CNF	Cost and freight
cu.m cbm	cubic metre
FAS	First and second grade of sawnwood
FOB	Free-on board
Genban	Sawnwood for structural use in house building
GMS	General Market Specification
GSP	Guiding Selling Price
Hoppus ton	1.8 cubic metre
KD, AD	Kiln dried, air dried
Koku	0.28 cubic metre or 120 BF
LM	Loyale Merchant, a grade of log parcel
MR, WBP	Moisture resistant, Weather and boil proof
MT	Metric tonne
OSB	Oriented Strand Board
PHND	Pin hole no defect
QS	Qualite Superieure
SQ,SSQ	Sawmill Quality, Select Sawmill Quality

Ocean Container Freight Index

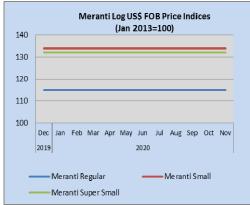
January - mid December 2020



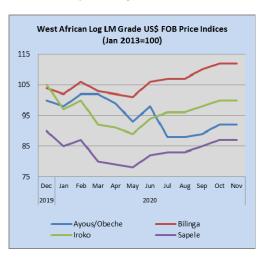
Data source: Drewry World Container Index

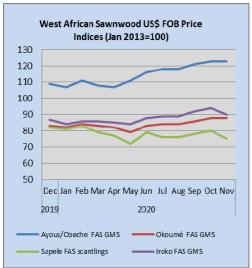
Price indices for selected products

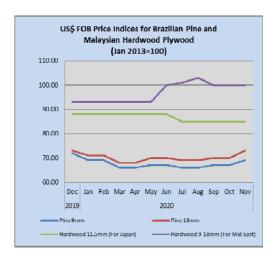
The following indices are based on US dollar FOB prices



Note: Sarawak logs for the Japanese market









Note: Jatobá is mainly for the Chinese market.

To have a free copy of this twice-monthly ITTO Market Information Service bulletin emailed to you on the day of production, please register at:

http://www.itto.int/en/mis_registration/