

perkasa

sarawak timber industry development corporation

Jul-Sept 2022

quarterly magazine



**STIDC Made The First
Bamboo Bicycle In Sarawak**

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E d i t o r i a l

The Sarawak Timber Industry Transformation and Reformation Plan aims to propel the growth of this industry. It augurs well with the Forestry and Timber Industry Master Plan 2020-2030 and the State Post COVID-19 Development Strategy (PCDS) 2030 to ensure resilience and to generate RM8 billion in export earnings by 2030.

Through these initiatives we are promoting high value-added wood-based and engineered wood products particularly furniture as well as bamboo-based products to support the local industry through innovation, state-of-the-art technology, automation and support of the industry players. In line with this, the state government is promoting planted forests to ensure sustainable supply of raw materials.

Presently, a furniture testing lab is under construction in Kota Samarahan to provide furniture testing services to meet the global standards for both domestic and international markets. The government is also collaborating with the industry players to develop furniture parks in Kuching and Tanjung Manis to woo investors to develop furniture industry for export markets. This would bring RM500 million worth of investment to Sarawak besides generating RM4 billion export earnings by 2030.

STIDC is also collaborating with Bandung Institute of Technology, Polytechnic University of Milan and UNIMAS under the Sarawak Young Designers (SayD'SignerSarawak) Programme to train and to produce world class furniture designers to support the timber industry and to produce furniture for global market.

At the same time the government through STIDC is promoting bamboo planting. The Bamboo Industry Development Masterplan was formulated in 2019 with emphasis on resource management, market development, technology adoption & commercialization, research & development, sustainable environment, capacity building, corporate social responsibility as well as policy and institutional strengthening. By 2030, Sarawak

aspires to have various bamboo-based industries to produce charcoal, pharmaceutical, cosmetic, textile, pulp and paper, food, handicraft and engineered bamboo products such as bamboo ply, strand woven bamboo and glued-laminated-bamboo. We also aim to plant at least 20,000 hectares of bamboo for industrial purposes to generate RM200 million in export earnings by 2030 and to create 5,000 employments with household income of RM36 million per year.

In consonance with this, STIDC is collaborating with research institutions such as FRIM and SIRIM as well as universities like UNIMAS, UiTM, UPM, UCTS and Swinburne in conducting research and development on local planted timber and bamboo species. The aim is to innovate production technology towards producing high value-added wood-based and bamboo-based products to generate high income.



Datu Haji Hashim bin Haji Bojet



MTC and STIDC officials visiting the site for furniture park at Demak Laut in Kuching.

Sarawak Furniture Parks Call For Investors

Sarawak is the leading producer and exporter of upstream timber products such as plywood, sawn-timber, fibreboard and door-skin. In 2021, the state exported RM3.6 billion worth of timber and timber products. More than 90% of the export items were upstream products.

Under the Timber Industry Transformation Plan, Sarawak will develop the wood-based downstream sector to produce and export value-added products particularly furniture in order to boost income for the state.

Datu Haji Hashim Bin Haji Bojet, General Manager of STIDC said, concerted efforts were made by STIDC to accelerate the development of furniture industry in Sarawak. This was evident by the

engagement session between STIDC and the Ministry of Plantation Industries and Commodities (MPIC), Malaysian Timber Council (MTC), furniture industry players and potential investors in the Peninsular Malaysia on 26 April 2022. The aim was to attract investors particularly the prominent furniture companies to become anchor companies in our furniture industry and furniture parks in Kuching and Tanjung Manis by leveraging on raw materials from planted forests and home-grown world-class furniture designers.

Describing the engagement session as fruitful, Datu Haji Hashim said, it was jointly organised by MPIC and MTC following the visit of the Honourable Datuk Willie Anak Mongin, Deputy Minister of Plantation Industries and Commodities to STIDC LPF 43 in Bintulu on 1 April 2022. The

visit aimed to facilitate STIDC in meeting investors from Malaysian Furniture Association and other associations to promote and develop Sarawak furniture parks.

He added that this initiative augured well with Sarawak Post-COVID-19 Development Strategy as well as the STIDC Timber Industry Transformation and Reformation Plan to produce more value-added wood-based products to generate RM8 billion in export earnings by 2030.

According to him, STIDC is also focussing on other value-added products such as engineered-wood products as well as plywood-based and bamboo-based products.

“Sarawak aims to certify 4.5 million hectares of long-term licensed areas and 178,000 hectares of forest plantations under the Malaysian Timber Certification Council’s (MTCC) initiative. This is to ensure sustainable supply of raw materials to support the local furniture industry”, Datu Haji Hashim said.

In accelerating the development of furniture parks, he emphasised that the government is also looking into human capital and infrastructure development.

“In addition, the Malaysian Investment Development Authority (MIDA) is offering several incentives such as the Pioneer Status and Investment Tax Allowance for companies investing in the manufacturing sector as well as the Small and Medium Enterprises (SMEs) and Reinvestment Allowance”, he said.

“STIDC will continue to work closely with other agencies such as MPIC, MTC, MTCC, MIDA, SIRIM Berhad, Malaysian Timber Industry Board (MTIB), Forest Research Institute Malaysia (FRIM), Furniture Industry Technology Centre (FITEC), Forest Department Sarawak, Sarawak Timber Association (STA), Sarawak Furniture Industry Association (SFIA), Universiti Malaysia Sarawak (UNIMAS), Universiti Teknologi MARA (UiTM), Universiti Putra Malaysia (UPM), University of Technology Sarawak (UCTS) and Swinburne University of Technology to accelerate the development of downstream industry to produce and export value-added products”, Datu Haji Hashim said.

He added that STIDC would pursue engagements with foreign investors to promote investments in wood-based and bamboo-based products such as glulam, LVL, furniture and many more in realisation of the aspiration to generate RM8 billion in export earnings by 2030.



Datuk Willie Anak Mongin (fourth right) and Datu Haji Hashim Haji Bojet (fifth right) posing with MPIC and STIDC officials during the visit to STIDC LPF 43 in Bintulu.

Sarawak Timber Industry Transformation and Reformation Plan To Generate RM8 Billion By 2030

The Honourable Datuk Amar Haji Awang Tengah Ali Hasan, Deputy Premier of Sarawak, Second Minister of Natural Resources and Urban Development, Minister of International Trade and Investment and Chairman of Sarawak Timber Industry Development Corporation (STIDC) Board of Management said the Sarawak Timber Industry Transformation and Reformation Plan was initiated by STIDC to accelerate the growth of this industry. In his address to the Malaysian Timber Council (MTC) delegates, he said this strategic initiative augured well with the Forestry and Timber Industry Master Plan 2020-2030 and the State Post COVID-19 Development Strategy (PCDS) 2030

to ensure resilience and to generate RM8 billion in export earnings by 2030. MTC was on industry engagement roadshow to Sarawak.

“These initiatives were necessary to boost high value-added wood-based and plywood products particularly furniture and engineered wood as well as bamboo-based products to support the local industry through innovation, state-of-the-art technology, automation and support of the industry players. Towards that end, the state government is promoting planted forests to ensure sustainable supply of raw materials”, he said.

He added that a furniture testing lab is under construction in Kota Samarahan to provide



Deputy Premier of Sarawak and Chairman of STIDC, Datuk Amar Haji Awang Tengah Ali Hasan (centre) receiving a memento from Chief Executive Officer of MTC, Mr. Muhtar Suhaili. Also seen are the General Manager of STIDC, Datu Haji Hashim Haji Bojet (fifth left) as well as other VIPs and MTC delegates.

furniture testing services to meet the global standards for both domestic and international markets. The government is also collaborating with the industry players to develop furniture parks in Kuching and Tanjung Manis to lure investors to develop furniture industry for export markets. This would bring RM500 million worth of investment to Sarawak besides generating RM4 billion export earnings by 2030.

Under the Sarawak Young Designers (SayD'SignerSarawak) Programme, the Deputy Premier highlighted that STIDC is collaborating with Bandung Institute of Technology, Polytechnic University of Milan and UNIMAS to train and to produce world class furniture designers to support the timber industry and to produce furniture for global market.

“At the same time the government through STIDC is promoting bamboo planting. The Bamboo Industry Development Masterplan was formulated in 2019 with emphasis on resource management, market development, technology

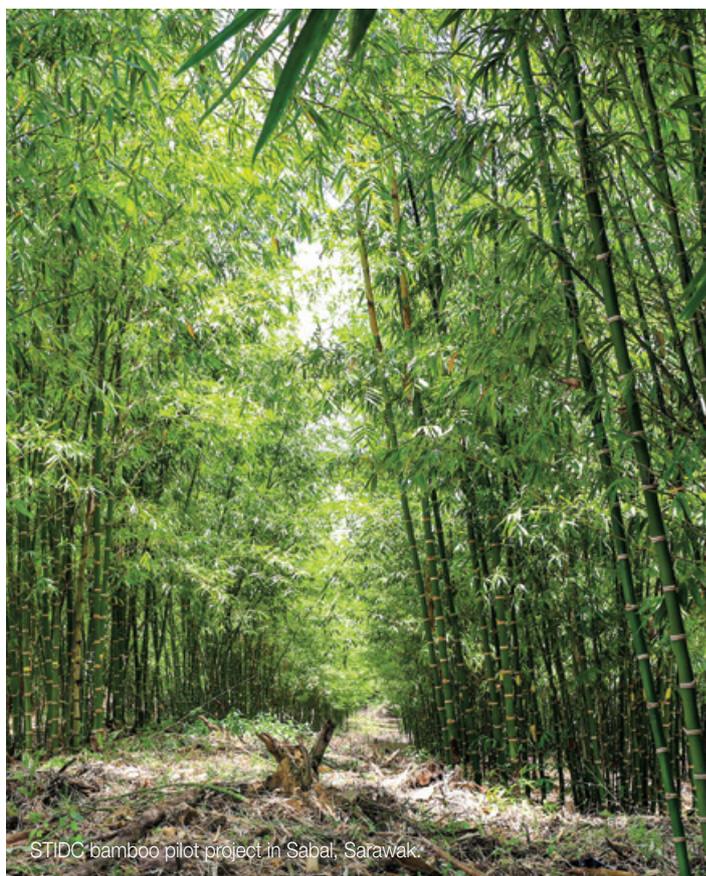
adoption & commercialization, research & development, sustainable environment, capacity building, corporate social responsibility as well as policy and institutional strengthening. By 2030, Sarawak aspires to have various bamboo-based industries to produce charcoal, pharmaceutical, cosmetic, textile, pulp and paper, food, handicraft and engineered bamboo products such as bamboo ply, strand woven bamboo and glued-laminated-bamboo. We also aim to plant at least 20,000 hectares of bamboo for industrial purposes to generate RM200 million in export earnings by 2030 and to create 5,000 employments with household income of RM36 million per year”, he said.

In tandem with this he said STIDC is collaborating with research institutions such as FRIM and SIRIM as well as universities like UNIMAS, UiTM, UPM, UCTS and Swinburne in conducting research and development on local planted timber and bamboo species. The aim is to innovate production technology towards producing high value-added

wood-based and bamboo-based products to generate high income.

Meanwhile, MTC pledged to collaborate with STIDC in promoting high value-added timber products to achieve the national export target of RM28 billion by 2030 and hoped to co-operate with the related state agencies particularly STIDC, Forest Department Sarawak and Sarawak Timber Association in addressing international trade barriers in order to facilitate forest certification initiatives and timber trade in the global market.

Also present were Datu Sr. Zaidi Bin Haji Mahdi (Permanent Secretary of the Ministry of Urban Development and Natural Resources), Datu Haji Hashim Haji Bojet (General Manager of STIDC), Mr. Muhtar Suhaili (Chief Executive Officer of Malaysian Timber Council), Mr. Jack Anak Liam (Deputy Director of Forest Sarawak), Ms. Annie Ting (Chief Executive Officer of Sarawak Timber Association), Malaysian Timber Council delegates and management members of STIDC and Harwood Timber Sdn Bhd.



STIDC bamboo pilot project in Sabal, Sarawak.



STIDC General Manager, Datu Haji Hashim Haji Bojet showing one of the prototype bamboo bicycles made by STIDC. Also seen is his Deputy, Hajjah Haluyah binti Awi (fourth right)



The bamboo bicycle trainer, Prof Weiren Zeng (second left) together with STIDC officials, showing the prototype bamboo bicycles.

STIDC Made The First Bamboo Bicycle In Sarawak

A history was created when the first ever bamboo bicycle of Sarawak was made. The bamboo bicycle is made of Bambusa nana (buluh Thai Silk) due to its availability, durability and practicality.

Bamboo bicycle making is in realisation of the Sarawak Bamboo Industry Development Masterplan to add value to bamboo products and to complement the identified bamboo-based industries namely bamboo charcoal, engineered bamboo board, food and handicraft.

Bamboo bicycle making shows that bamboo has huge potential and economic value that are yet to be fully tapped by entrepreneurs and communities.

STIDC in collaboration with a bamboo bicycle maker from China is producing made-in Sarawak bamboo bicycle.

The first batch three-month bamboo bicycle making pilot project focussed on training STIDC personnel to produce four prototype bicycles. Their knowledge and skill would be passed on to entrepreneurs and communities.

Based on market research, bamboo bicycle could fetch between RM10,000 to RM20,000 per unit. The lightweight of a bamboo bicycle is between 9.1-13kg depending on its quality compared with aluminium road bike and high-end carbon road bike which is between 8-9kg and 6.8kg respectively. Based on research, with good care and proper treatment the lifespan of a bamboo bicycle is between 10 to 20 years.

Bamboo bicycle is good because bamboo is renewable and sustainable. It is also environmental-friendly as it reduces energy

consumption. Each unit could reduce up to five kilograms of carbon dioxide.

To ensure long-term protection, the bamboo goes through various processes such as heat treatment, boiling, pressure treatment or chemical preservation. The bikes are sprayed with polyurethane coating to protect the frame against the weather elements. There are two main coating colours including Stained Matt Clear Coating and Glossy Clear Coating.

STIDC aspires to produce and market affordable bamboo bicycles of different categories. Plans are also in the pipeline to collaborate with cycling clubs in order to promote bamboo bicycles.

It is hoped that the local entrepreneurs and communities would explore this new business opportunity in order to generate employments and revenue.



STIDC General Manager, Datu Haji Hashim Haji Bojet testing the bamboo bicycle.



Wood verification in progress.

STIDC Provides Wood Verification Services

Sarawak Timber Industry Development Corporation (STIDC) being the timber grading authority in Sarawak has the expertise and provides wood verification services to the public.

Wood verification is conducted by competent timber inspectors. Every timber inspector is provided with Timber Inspector Competency Card after passing the Wood Identification (WI), Sarawak Log Grading Rules (SLGR) and Malaysian Grading Rules for Sawn Hardwood Timber (MGR) courses



and examinations. Only those having the card are authorised to conduct wood verification and grading of sawn timber on behalf of STIDC as stipulated in the Timber Grading Regulations (2008).

The Fourth Schedule (Regulation 10) of the Timber Grading Regulations (2008) states the fees for grading, check grading, inspection and timber identification. Grading fee is RM10.00 per cubic metre subject to a minimum fee of RM500.00 per grading. Check grading fee is RM1.00 per cubic metre subject to a minimum fee of RM50.00 for each checking or each certificate issued. Inspection fee is RM5.00 per cubic metre subject to a minimum fee of RM250.00 per inspection. Timber identification fee is RM10.00 per sample or subject to a minimum fee of RM50.00.

Industry players and individuals requiring our services are kindly requested to contact the Quality Control Section, STIDC at +6082-47300 or log on www.sarawaktimber.gov.my



STIDC General Manager, Datu Haji Hashim Haji Bojet (right) attending to a trade enquiry on bamboo cosmetics by an Italian businessman.

Overwhelming trade enquiries received to explore business opportunities in the wood-based and non-wood-based sectors of Sarawak

Sarawak Timber Industry Development Corporation (STIDC) participated in the High-Level Dialogue on ASEAN-Italy Economic Relations to explore business collaborations with Italian and ASEAN counterparts.

“There were overwhelming trade enquiries to explore business opportunities in the wood-based and non-wood-based sectors of Sarawak during the B2B meetings. This strategic initiative augured well with the Forestry and Timber Industry Master Plan 2020-2030 and the State Post COVID-19 Development Strategy (PCDS) 2030 to ensure resilience and to generate RM8 billion in export earnings from the wood-based sector by 2030”, Datu Haji

Hashim Haji Bojet, General Manager of STIDC said.

ASEAN member countries represent the fifth largest economy in the world and are poised to become the fourth largest by 2030.

Italy and ASEAN member countries benefit from a partnership formalised in 2020 when Italy was conferred the status of development partner of ASEAN.

Italy is the third largest global trading partner among the European Union member states for Malaysia. Malaysians generally perceived the Italian investments as creating quality jobs for the locals.

Last year 75 manufacturing projects with Italian participation were

implemented across Malaysia. Valued at USD363.8 million, those projects created 4,320 job opportunities for the locals.

Various topics were discussed during the dialogue such as Macroeconomic outlook of ASEAN post pandemic scenario; Green technologies for sustainable future; e-Economy, smart technologies and 4.0 value chains; Aerospace and Security for resilience; and Investment opportunities and co-operation tools between Italy and ASEAN countries.

Held on 5-6 July 2022 in Kuala Lumpur, the dialogue was jointly organised by The European House – Ambrosetti and Associazione Italia – ASEAN, Malaysian Investment Development Authority (MIDA) and Italian Trade Agency (ITA).

STIDC General Manager, Datu Haji Hashim Haji Bojet (second right) and his team attending to a trade enquiry by a Thai company on biochar water filter.



Sarawak To Develop Engineered Wood Plant

STIDC signed a Memorandum of Understanding (MoU) with Woodsfield Glulam Manufacturing and Tilling Timber Pty Ltd to conduct feasibility study for a joint venture investment to develop an engineered wood plant in Sarawak.

Deputy Premier of Sarawak and Chairman of STIDC, Datuk Amar Haji Awang Tengah Ali Hasan witnessed the MoU signing ceremony in Melbourne. General Manager, Datu Haji Hashim Haji Bojet signed on behalf of STIDC while Woodsfield Glulam Manufacturing and Tilling Timber Pty Ltd were represented by their respective Managing Directors, Mr. Eddie Ling Lee Tee and Mr. Glenn Tilling.

This strategic collaboration augured well with the efforts to transform the wood-based industry of Sarawak by promoting high value-added products using raw materials from planted forests besides encouraging green development and carbon storage. It was also in line with the Post-COVID-19 Development Strategy 2030 to ensure economic prosperity, social inclusivity and environmental sustainability.

Datu Haji Hashim disclosed that the project would bring \$40 million worth of investment and was projected to generate the annual earnings of \$26 million.

“STIDC will play its role to facilitate investment and to provide raw materials. Tilling Timber Pty Ltd and Woodsfield Glulam Manufacturing on the other hand will develop and secure the market and transfer technology on engineered wood manufacturing”, he said.

Woodsfield Glulam Manufacturing pioneered the introduction of glulam technology in Malaysia using tropical hardwood timber.

Record from the Forest Department of Sarawak showed that the state has planted more than 520,000 hectares of fast-growing tree species including *Acacia* spp., *Eucalyptus* spp., and several indigenous species such as *Kelempayan (Neolamarckia)*, *Batai (Paraserianthes falcataria)*, *Rubber (Hevea brasiliensis)*, *Meranti (Shorea species)*, *Kapur (Dryobalanops spp.)* and *Keruing (Dipterocarpus spp.)*. More than 40 licences were issued in tandem with the aspiration to plant one million hectares of trees by 2025.

Approximately 96,000 hectares of these planted forests were certified under the Malaysian Timber Certification Scheme (MTCS). MTCS was affiliated to the Programme for the Endorsement of Forest Certification (PEFC) which promotes sustainable forest management through independent third-party certification.

Harvesting of planted forests of Sarawak started in 2011 with 4,726 cubic metres of logs and increased to 1.68 million cubic metres in 2020. 413,805 cubic metres of *Acacia mangium* worth \$32,890,520 were exported to Indonesia.

Subsequently, production of timber from natural forests dropped to 2.42 million cubic metres in 2020 compared to 9.61 million cubic metres in 2011.

Acacia mangium planted in Sarawak originated from north Australia, Papua New Guinea and East Indonesia (Maluku and Irian Jaya). It usually occurs in lowland areas below 100 metres above sea level. It could grow up to 30 metres in height. It is commonly used to make furniture, cabinets, door frames, mouldings, pulp and paper and light construction.

Also present were the Deputy Minister of International Trade and Investment of Sarawak, Datuk Malcolm Mussen Lamoh, Director of Economic Planning Unit, Datu Abdullah Zaidel, Acting Permanent Secretary of the Ministry of International Trade and Investment, Dzulkornain Masron, Malaysian High Commissioner to Australia, Dato Roslan Abdul Rahman and Consul General of Malaysia to Melbourne, Mazita Marzuki.

Datuk Amar Haji Awang Tengah (seventh from left) witnessing the exchange of the signed MOU between Datu Haji Hashim (eighth left), Mr. Eddie Ling (fifth left) and Mr. Glen (fourth right).



Commercial Timber Species Of Sarawak

Sarawak is covered with diverse tropical rainforests and blessed with rich natural resources including timber. Some of the tropical timber were identified as commercial timber species.

Examples of the Commercial Timber Species of Sarawak are Rengas (*Gluta spp.* and *Melanochyla spp.*), Resak (*Vatica spp.* and *Cotylelobium spp.*), Ramin / Melawis (*Gonystylus spp.*), Selunsor (*Tristania spp.*) and Sepetir (*Copaifera palustris*, *Sindora spp.*).

Details of the commercial timber species of Sarawak are documented and displayed at the Timber Museum, Wisma Sumber Alam, Petra Jaya, Kuching.

RENGAS

Gluta spp. and *Melanochyla spp.*

Anatomy

Pores : Simple perforation; medium size or moderately large; few to moderately few; mostly in radial multiples of up to 4; interspersed with solitary vessels; tyloses present.

Wood Parenchyma : Apotracheal : Predominantly in irregularly spaced bands. • Paratracheal : Narrowly surrounding the vessels.

Rays : Very fine, not visible to naked eyes except when locally swollen due to horizontal canals.

Physical Properties

Colour

- Heartwood : Red blood; dark red or golden yellow.
- Sapwood : Light pink-brown, well-defined.

Grain : Interlocked; occasionally straight.

Texture : Moderately coarse to fairly fine and even.

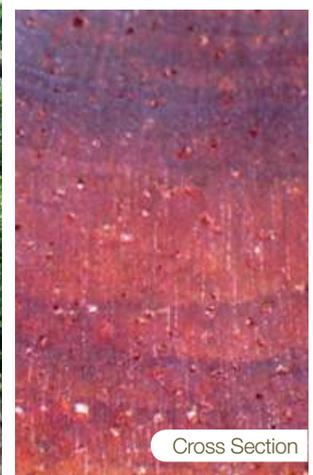
Other Features : Figure - Wood attractively streaked with interspersed layers of blood red and golden yellow colours.

Confusable Woods : Pitch and Assam.

Common Uses : Decorative works; joineries; furniture; counter tops; favourite wood for Chinese weighing scales; walking sticks etc.



Texture



Cross Section



RAMIN (MELAWIS)

Gonystylus spp.

Anatomy

Pores : Simple perforation; medium size; moderately few; solitary and in radial pairs; also multiple of up to 4.

Wood Parenchyma : Paratracheal - Conspicuously aliform and occasionally confluent.

Rays : Very fine and not visible to naked eyes.

Physical Properties

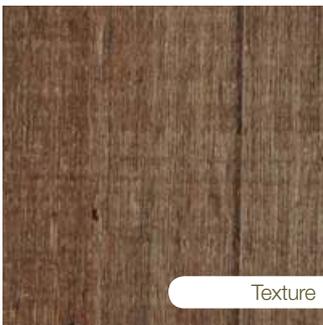
Colour

- Heartwood : Cream white weathering to pale straw.
- Sapwood : Cannot be differentiated from heartwood.

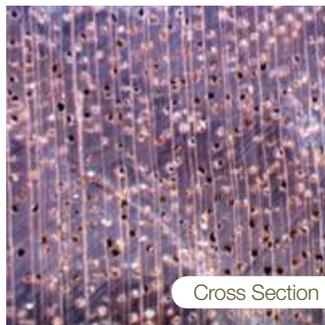
Grain : Shallowly interlocked.

Texture : Moderately fine and even.

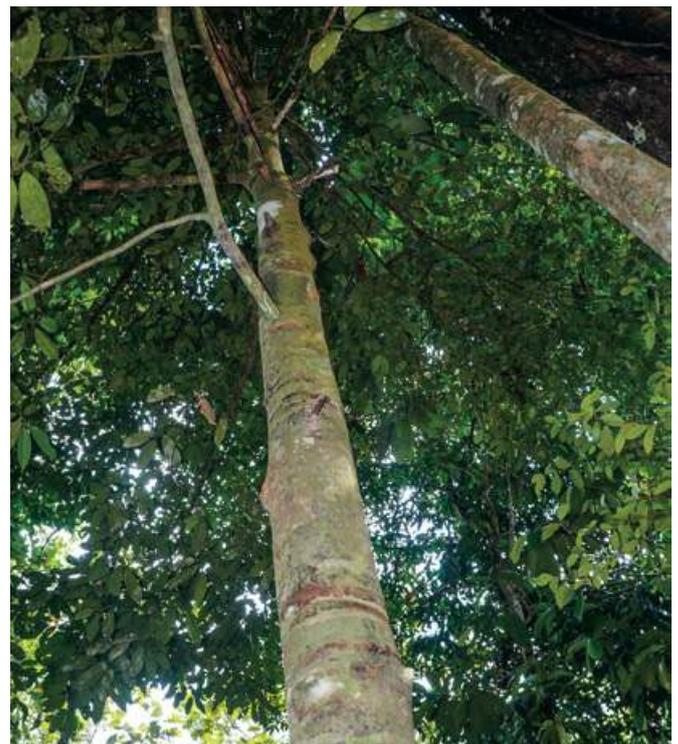
Common Uses : Furniture; interior joineries; panelling; T-squares; rulers; straight edges. In temperate regions, Ramin is excellent for interior joineries; door making; flooring; picture frames; mouldings; dowels etc.



Texture



Cross Section



RESAK

Vatica spp. and Cotylelobium spp.

Anatomy

Pores : Simple perforation; small; numerous and crowded; exclusively solitary; evenly distributed and without clear arrangement.

Wood Parenchyma Apotracheal : Apotracheal : Diffused strand or irregularly spaced short narrow lines extending from ray to ray. • Paratracheal : Indistinct vasicentric.

Rays : Two distinct sizes - broader type, distinct to naked eyes.

Physical Properties

Colour

- Heartwood : Yellow brown or light brown when freshly cut, turning to chocolate brown when exposed or seasoned.
- Sapwood : Lighter in colour and well defined in *Cotylelobium spp.* but not generally so in *Vatica spp.*

Grain : Straight or only shallowly interlocked.

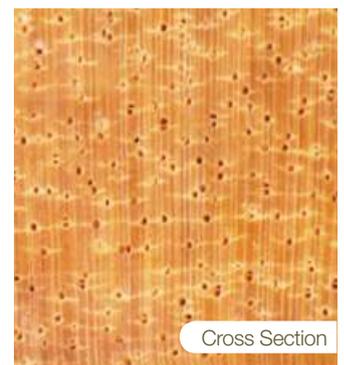
Texture : Fine and even.

Confusable Woods : Penyau.

Common Uses : Heavy constructions; beams, posts, joints, bridges, Crossarms.



Texture



Cross Section



Texture

Cross Section

SELUNSOR

Tristania spp.

Anatomy

Pores : Simple perforation, small, moderately numerous without any clear arrangement with a tendency to form oblique lines, leaving empty space in between pores. Tyloses sometimes present.

Wood Parenchyma Apotracheal : Not distinct.

Rays : Very fine, not visible to naked eyes.

Physical Properties

Colour

- Heartwood : Purple brown, dark brown and sometimes with a grayish tinge.
- Sapwood : Pink brown or red brown.

Grain : Interlocked and sometimes wavy.

Texture : Fine and even. The wood is siliceous.

Common Uses : This is a very hard and durable timber suitable for heavy construction, and bridge. Its spike holding properties for railway sleepers is very good.

SEPETIR

Copaifera palustris, Sindora spp.

Anatomy

Pores : Simple perforation; medium size; few to moderately few; solitary interspersed with radial pairs and multiple of up to 4 in clusters evenly distributed.

Wood Parenchyma : Apotracheal : Irregularly spaced concentric bands. • Paratracheal : Vasicentric with tendency to aliform.

Rays : Moderately fine; visible to naked eyes.

Physical Properties

Colour

- Heartwood : Greyish pink-brown, reddish brown or golden brown with alternatively dark coloured streaks.
- Sapwood : Light grey brown with a pink tinge.

Grain : Straight or shallowly interlocked.

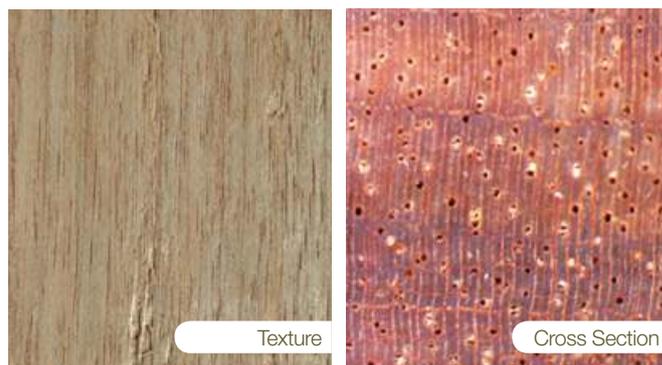
Texture : Moderately fine and even.

Other Features : Growth ring clearly demarcated by terminal bands of wood parenchyma containing vertical oil canals.

Confusable Woods : Kumpang

Differentiation : By presence of vertical oil canals contained in the terminal layers of wood parenchyma.

Common Uses : Streaked wood for high grade cabinet works; picture frames; fancy handles; trays; walking sticks; general joineries and carpentry.



Texture

Cross Section

Table 1
Export Summary Of Timber And Timber Products From Sarawak

Products	2022* January - June			2021* January - June			% Change 2022 / 2021	
	Volume (M³)	FOB Value (RM'000)	Value %	Volume (M³)	FOB Value (RM'000)	Value %	Volume	Value
PLYWOOD	422,502	1,186,504	57.60	526,758	1,042,672	56.70	(19.79)	13.79
LOGS	230,979	229,530	11.14	293,950	255,195	13.88	(21.42)	(10.06)
SAWNTIMBER	76,090	153,909	7.47	84,897	156,138	8.49	(10.37)	(1.43)
FIBREBOARD	96,329	234,136	11.37	82,884	146,614	7.97	16.22	59.69
VENEER	1,143	2,616	0.13	16,878	23,122	1.26	(93.23)	(88.68)
DOORSKIN	15,146	40,830	1.98	19,284	43,535	2.37	(21.46)	(6.21)
LAMINATED BOARD/FLOORING	4,049	20,448	0.99	4,529	17,421	0.95	(10.58)	17.38
PARTICLEBOARD	10,796	11,188	0.54	4,202	3,270	0.18	156.93	242.13
DOOR PANELS & FRAMES	5,289	8,044	0.39	4,769	7,686	0.42	10.91	4.66
MOULDING	1,047	2,685	0.13	1,924	4,968	0.27	(45.56)	(45.96)
OTHER PRODUCTS*	10,180	16,713	0.81	13,778	19,242	1.05	(26.11)	(13.14)
OTHER PRODUCTS**[Units]	1,259,633	30,697	1.49	1,503,960	23,890	1.30	(16.25)	28.49
BRIQUETTE & CHARCAOL (Tonne)	1,953	4,737	0.23	3,780	8,147	0.44	(48.34)	(41.85)
WOOD PELLETS [Tonne]	12,091	7,123	0.35	673	247	0.01	1697.65	2778.35
WOODCHIP [Tonne]	227,147	110,759	5.38	197,211	86,788	4.72	15.18	27.62
TOTAL (m³) (RM)	873,549	2,059,920	100	1,053,851	1,838,934	100	(17.11)	12.02

***Other Timber Products:**

- Blockboard
- Chopping Board
- Densified Wood
- Dowels
- Finger jointed
- Lamin Board
- Laminated beam/post
- Laminated Veneer Cross Band (LVB)
- Laminated Veneer Lumber (LVL)
- Railways sleepers
- Wood Panels
- Wooden Fences
- Wooden Handle
- Wooden Lattice
- Wooden stakes

****Other Timber Products:**

- Furniture & Furniture parts

Notes:

- > Fibreboard include MDF and HDF
- > Total of volume (m³) does not includes woodchips (tonne) and other product (units)
- > a = actual data & total does not include application/permit to transport goods within the Federation [Customs Declaration Form No.3 (CDF3)]
- > p = preliminary data & total does not include application/permit to transport goods within the Federation [Customs Declaration Form No.3 (CDF3)]

Export Value (%) Of Major Timber & Timber Products From Sarawak (RM'000) : 2022 / 2021

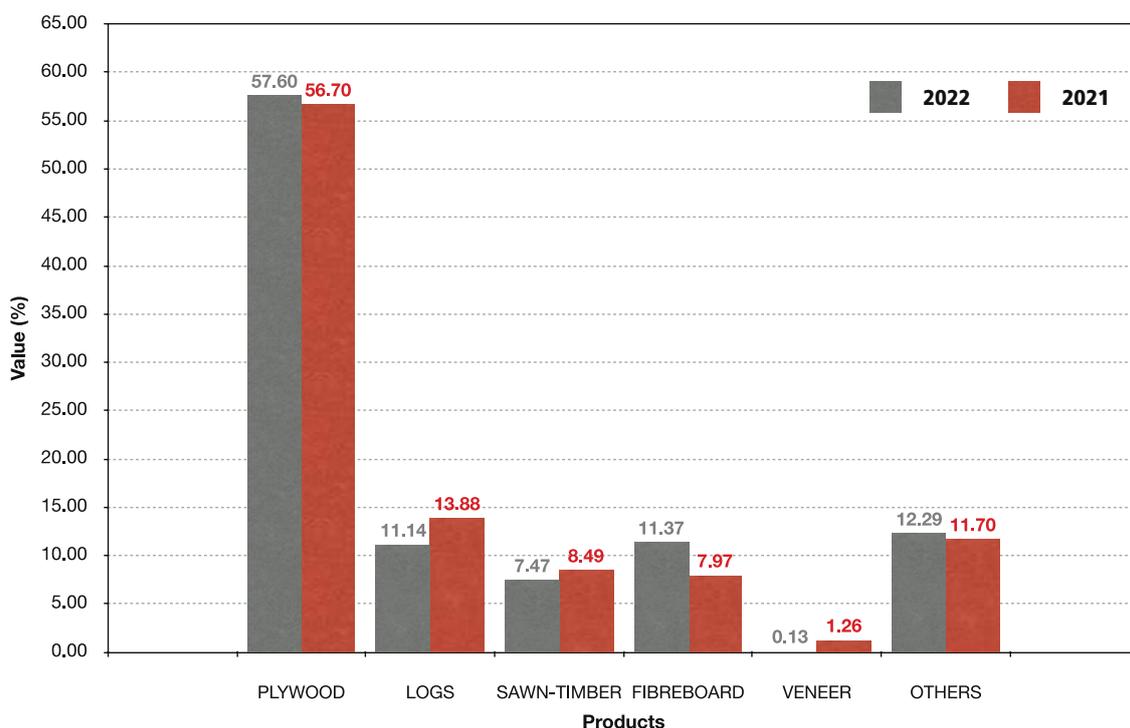


Table 2
Export Of Plywood By Country Of Destinations

Destinations	2022 ^p January - June			2021 ^a January - June			% Change 2022 / 2021	
	Volume (M ³)	FOB Value (RM'000)	Value %	Volume (M ³)	FOB Value (RM'000)	Value %	Volume	Value
JAPAN	347,555	994,832	83.85	369,898	765,354	73.40	(6.04)	29.98
MIDDLE EAST	22,345	44,804	3.78	60,585	95,043	9.12	(63.12)	(52.86)
UNITED STATES	11,043	44,243	3.73	21,043	49,759	4.77	(47.52)	(11.08)
KOREA	15,391	38,036	3.21	22,506	37,346	3.58	(31.61)	1.85
TAIWAN	16,447	35,701	3.01	32,334	50,842	4.88	(49.13)	(29.78)
PHILIPPINES	2,456	8,483	0.71	1,585	3,598	0.35	55.02	135.78
VIETNAM	1,572	5,638	0.48	1,623	4,128	0.40	(3.17)	36.57
AUSTRALIA	1,329	4,300	0.36	3,832	10,102	0.97	(65.32)	(57.43)
INDIA	953	3,645	0.31	2,812	6,500	0.62	(66.09)	(43.92)
BRUNEI DARUSSALAM	1,643	2,235	0.19	2,608	3,774	0.36	(36.99)	(40.78)
OTHERS*	1,767	4,586	0.39	7,933	16,225	1.56	(77.72)	(71.73)
TOTAL	422,502	1,186,504	100	526,758	1,042,672	100	(19.79)	13.79

***Other Destinations:**

- HONG KONG
- MEXICO
- THAILAND
- DJIBOUTI
- CHINA
- SINGAPORE
- NEW ZEALAND
- MALDIVES
- CANADA
- PAPUA NEW GUINEA
- BANGLADESH

**Export Value (%) Of Plywood To Major Destinations
: 2022 / 2021**

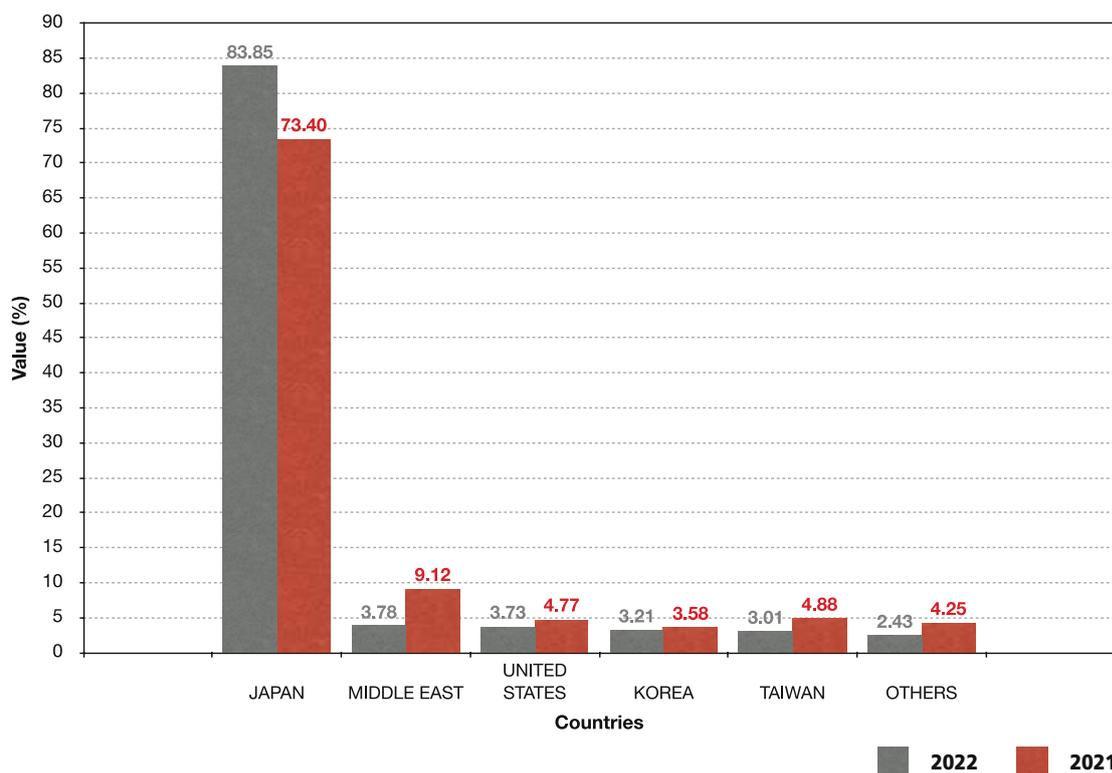


Table 3
Export Of Logs By Country Of Destinations

Destinations	2022 ^a January - June			2021 ^a January - June			% Change 2022 / 2021	
	Volume (M ³)	FOB Value (RM'000)	Value %	Volume (M ³)	FOB Value (RM'000)	Value %	Volume	Value
INDIA	212,900	209,206	91.15	253,833	218,490	85.62	(16.13)	(4.25)
TAIWAN	12,116	13,299	5.79	27,514	25,063	9.82	(55.96)	(46.94)
JAPAN	5,963	7,026	3.06	7,894	8,300	3.25	(24.46)	(15.35)
VIETNAM	-	-	-	4,709	3,343	1.31	(100.00)	(100.00)
TOTAL	230,979	229,530	100	293,950	255,195	100	(21.42)	(10.06)

Export Value (%) Of Logs To Major Destinations
: 2022 / 2021

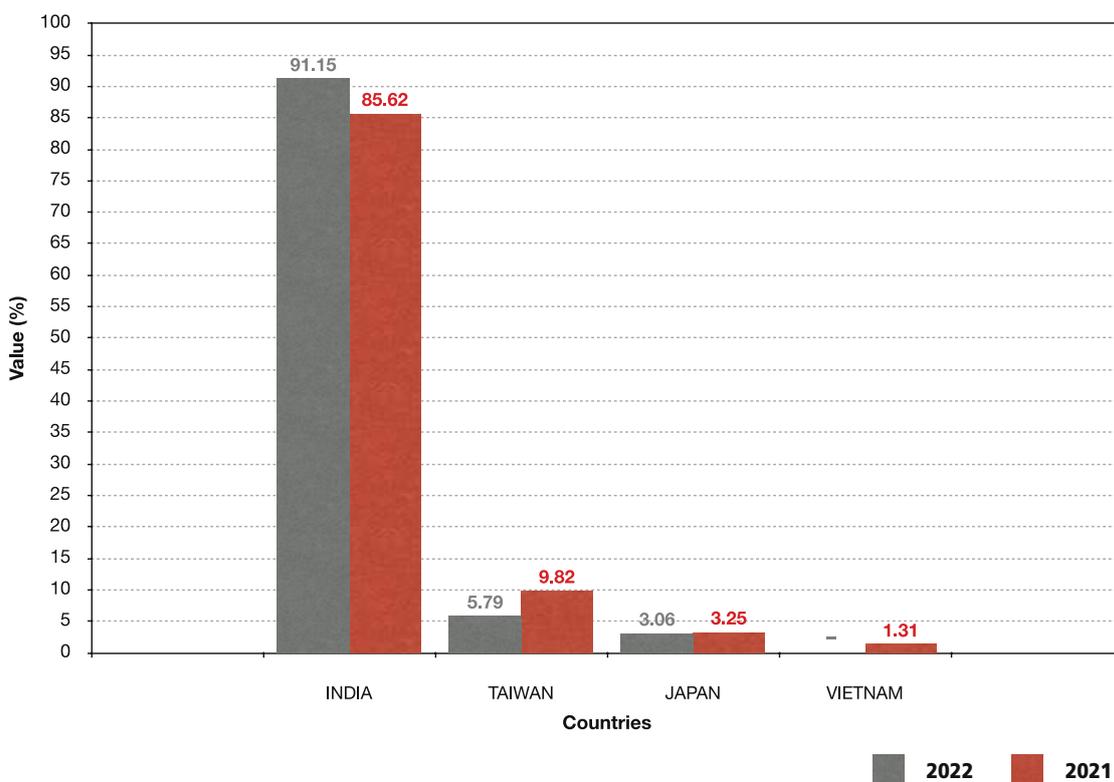


Table 4
Export Of Sawn-Timber By Country Of Destinations

Destinations	2022 ^p January - June			2021 ^a January - June			% Change 2022 / 2021	
	Volume (M ³)	FOB Value (RM'000)	Value %	Volume (M ³)	FOB Value (RM'000)	Value %	Volume	Value
MIDDLE EAST	25,689	62,479	40.59	26,392	54,925	35.18	(2.66)	13.75
TAIWAN	11,730	25,583	16.62	12,350	22,561	14.45	(5.02)	13.40
PHILIPPINES	15,829	24,745	16.08	26,180	44,711	28.64	(39.54)	(44.66)
THAILAND	8,243	11,875	7.72	5,722	7,935	5.08	44.07	49.65
JAPAN	3,978	11,226	7.29	3,169	7,830	5.01	25.52	43.37
CHINA	6,671	9,693	6.30	4,559	6,215	3.98	46.31	55.96
KOREA	2,590	5,049	3.28	2,759	4,516	2.89	(6.11)	11.81
SOUTH AFRICA	295	878	0.57	1,233	2,404	1.54	(76.08)	(63.48)
SRI LANKA	391	766	0.50	1,407	3,070	1.97	100.00	100.00
SINGAPORE	290	514	0.33	442	541	0.35	100.00	100.00
OTHERS*	382	1,101	0.72	684	1,430	0.92	(44.13)	(23.03)
TOTAL	76,090	153,909	100	84,897	156,138	100	(10.37)	(1.43)

***Other Destinations:**

- MAURITIUS
- UNITED STATES
- MALDIVES
- INDIA
- AUSTRALIA
- PAKISTAN
- BEUNEI DARUSSALAM
- SEYCHELLES

**Export Value (%) Of Sawn-Timber To Major Destinations
: 2022 / 2021**

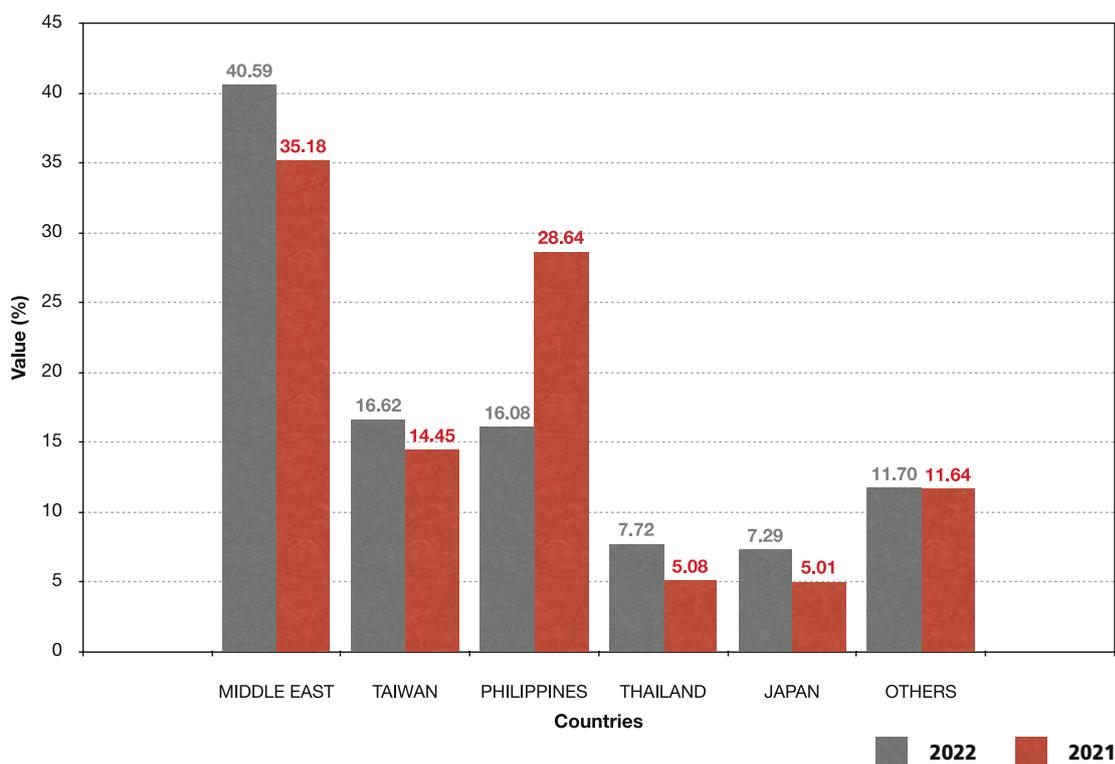


Table 5
Export Of Fibreboard By Country Of Destinations

Destinations	2022* January - June			2021* January - June			% Change 2022 / 2021	
	Volume (M ³)	FOB Value (RM'000)	Value %	Volume (M ³)	FOB Value (RM'000)	Value %	Volume	Value
JAPAN	66,258	168,667	72.04	53,043	99,513	67.87	24.91	69.49
PHILIPPINES	14,563	32,851	14.03	13,545	22,809	15.56	7.51	44.03
INDONESIA	6,209	11,722	5.01	5,633	7,576	5.17	10.23	54.73
VIETNAM	4,192	9,836	4.20	5,375	8,907	6.07	(22.01)	10.43
TAIWAN	1,738	3,963	1.69	1,596	2,593	1.77	8.89	52.87
KOREA	1,764	3,277	1.40	1,610	2,451	1.67	9.55	33.69
OTHERS*	1,604	3,820	1.63	2,081	2,767	1.89	(22.92)	38.10
TOTAL	96,329	234,136	100	82,884	146,614	100	16.22	59.69

***Other Destinations:**

- UNITED STATES
- AUSTRALIA
- INDIA
- BRUNEI DARUSSALAM
- CHINA
- CANADA
- THAILAND

Export Value (%) Of Fibreboard To Major Destinations
: 2022 / 2021

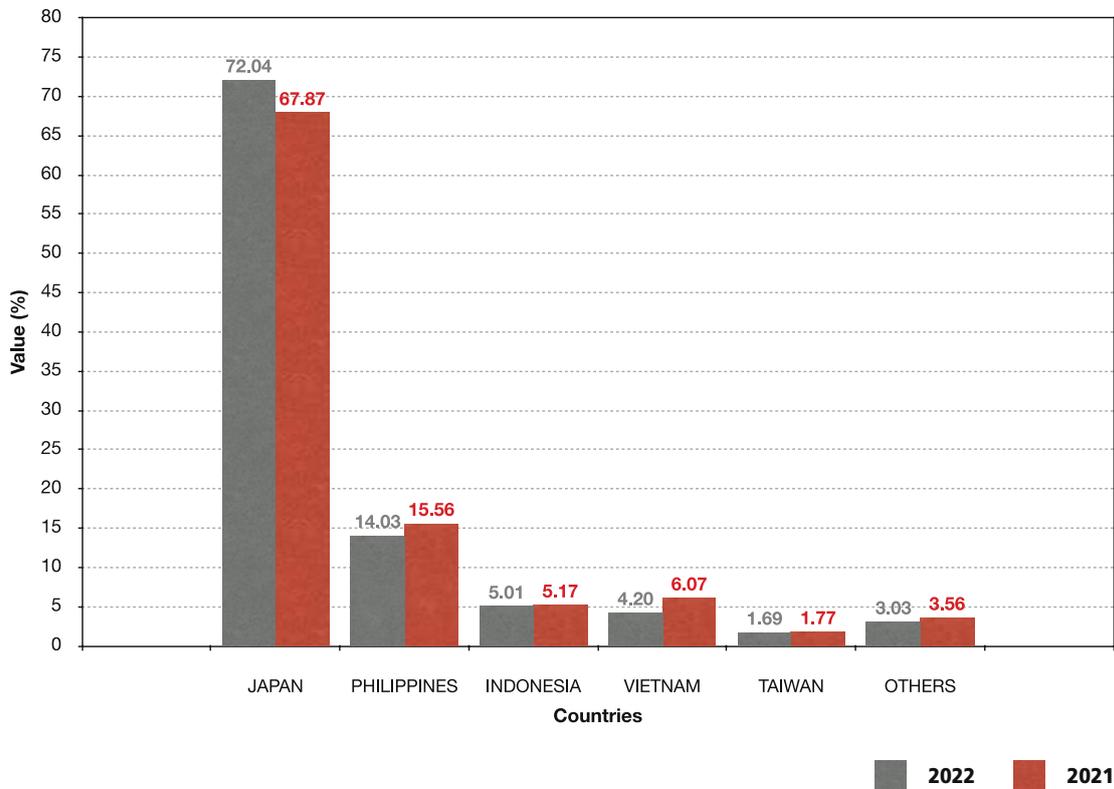


Table 6
Export Of Veneer By Country Of Destinations

Destinations	2022 ^p January - June			2021 ^a January - June			% Change 2022 / 2021	
	Volume (M ³)	FOB Value (RM'000)	Value %	Volume (M ³)	FOB Value (RM'000)	Value %	Volume	Value
CHINA	552	887	33.92	2,155	2,524	10.92	(74.38)	(64.84)
JAPAN	216	592	22.61	2,412	4,942	21.37	(91.06)	(88.03)
KOREA	204	416	15.91	3,094	5,013	21.68	(93.40)	(91.70)
AUSTRALIA	63	338	12.91	338	672	2.91	(81.37)	(49.74)
VIETNAM	88	335	12.80	-	-	-	100.00	100.00
BRUNEI DARUSSALAM	20	48	1.85	-	-	-	100.00	100.00
OTHERS*	-	-	-	8,880	9,971	43.12	(100.00)	(100.00)
TOTAL	1,143	2,616	100	16,878	23,122	100	(93.23)	(88.68)

***Other Destinations:**

- INDIA
- PHILIPPINES
- TAIWAN

**Export Value (%) Of Veneer To Major Destinations
: 2022 / 2021**

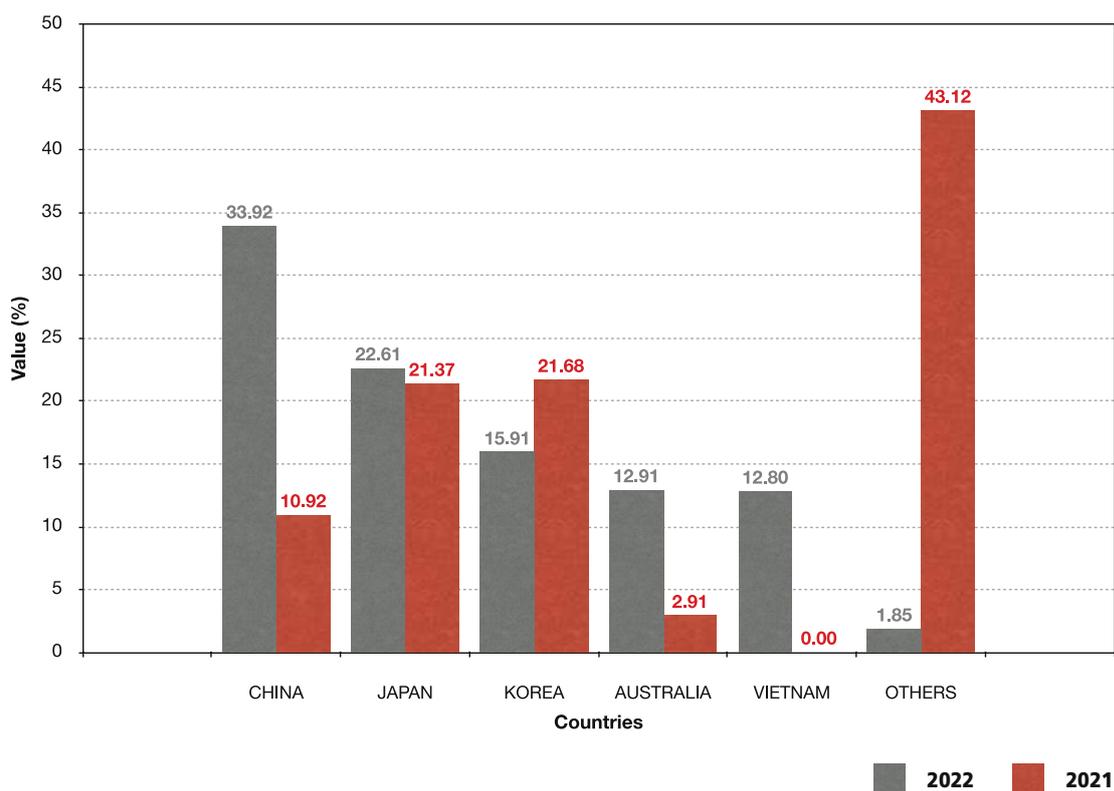


Table 7
Export Of Doorskin By Country Of Destinations

Destinations	2022* January - June			2021* January - June			% Change 2022 / 2021	
	Volume (M ³)	FOB Value (RM'000)	Value %	Volume (M ³)	FOB Value (RM'000)	Value %	Volume	Value
PAKISTAN	9,665	25,379	62.16	11,407	24,565	56.43	(15.27)	3.32
INDIA	2,878	7,681	18.81	3,903	8,789	20.19	(26.27)	(12.61)
PHILIPPINES	861	2,635	6.45	1,116	2,818	6.47	(22.83)	(6.49)
TAIWAN	837	2,233	5.47	589	1,346	3.09	42.00	65.91
SOUTH AFRICA	463	1,512	3.70	1,342	3,676	8.44	(65.52)	(58.86)
THAILAND	181	640	1.57	95	281	0.64	89.74	128.13
GUATEMALA	138	392	0.96	583	1,447	3.32	(76.40)	(72.90)
INDONESIA	91	260	0.64	156	386	0.89	(41.60)	(32.82)
OTHERS*	32	98	0.24	91	228	0.52	(64.97)	(57.12)
TOTAL	15,146	40,830	100	19,284	43,535	100	(21.46)	(6.21)

***Other Destinations:**

- VIETNAM
- NEPAL
- MIDDLE EAST

Export Value (%) Of Doorskin To Major Destinations
: 2022 / 2021

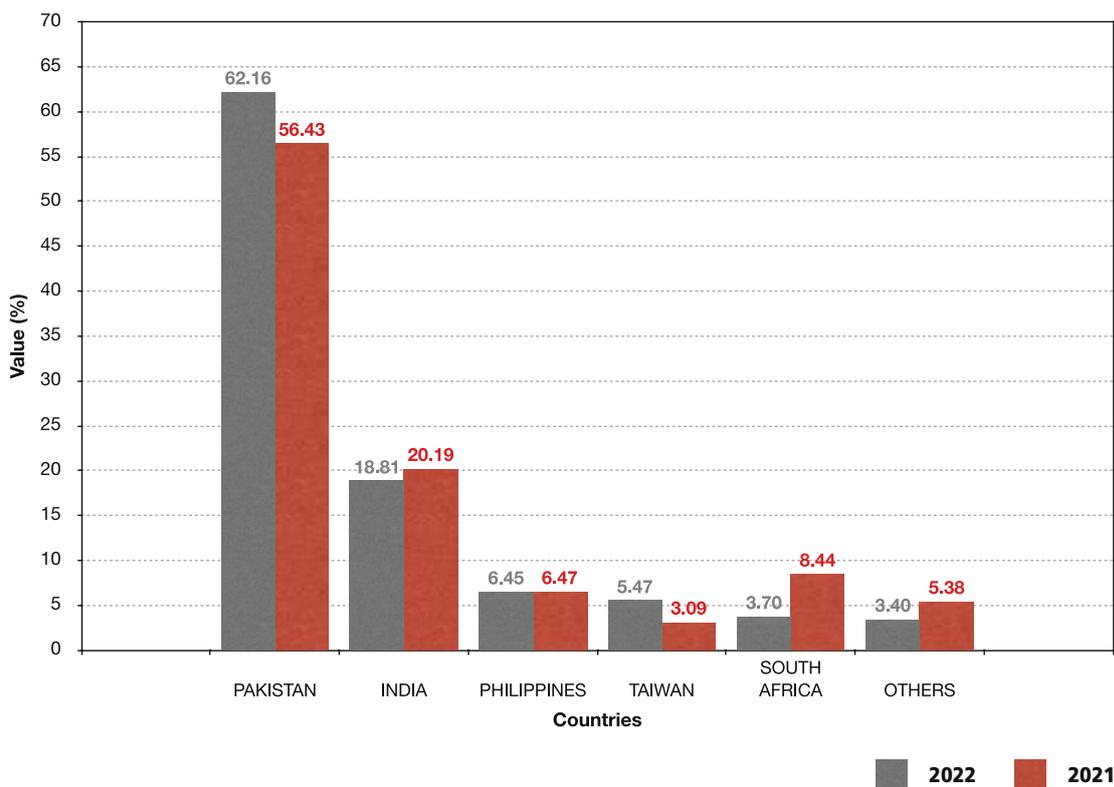


Table 8
Export Of Laminated Board / Flooring By Country Of Destinations

Destinations	2022 ^P January - June			2021 ^A January - June			% Change 2022 / 2021	
	Volume (M ³)	FOB Value (RM'000)	Value %	Volume (M ³)	FOB Value (RM'000)	Value %	Volume	Value
UNITED STATES	3,318	17,672	86.42	2,844	12,307	70.64	16.66	43.60
TAIWAN	415	1,151	5.63	678	1,441	8.27	(38.76)	(20.08)
VIETNAM	133	598	2.92	699	2,644	15.18	(80.91)	(77.38)
AUSTRALIA	50	334	1.63	-	-	-	100.00	100.00
INDONESIA	45	217	1.06	23	81	0.47	95.60	167.53
EU	31	201	0.98	102	334	1.92	(69.50)	(39.71)
OTHERS*	56	274	1.34	182	614	3.53	(69.18)	(55.39)
TOTAL	4,049	20,448	100	4,529	17,421	100	(10.58)	17.38

***Other Destinations:**

- INDIA
- KOREA
- MACAU
- SINGAPORE

**Export Value Of Laminated Board / Flooring To Major Destinations
: 2022 / 2021**

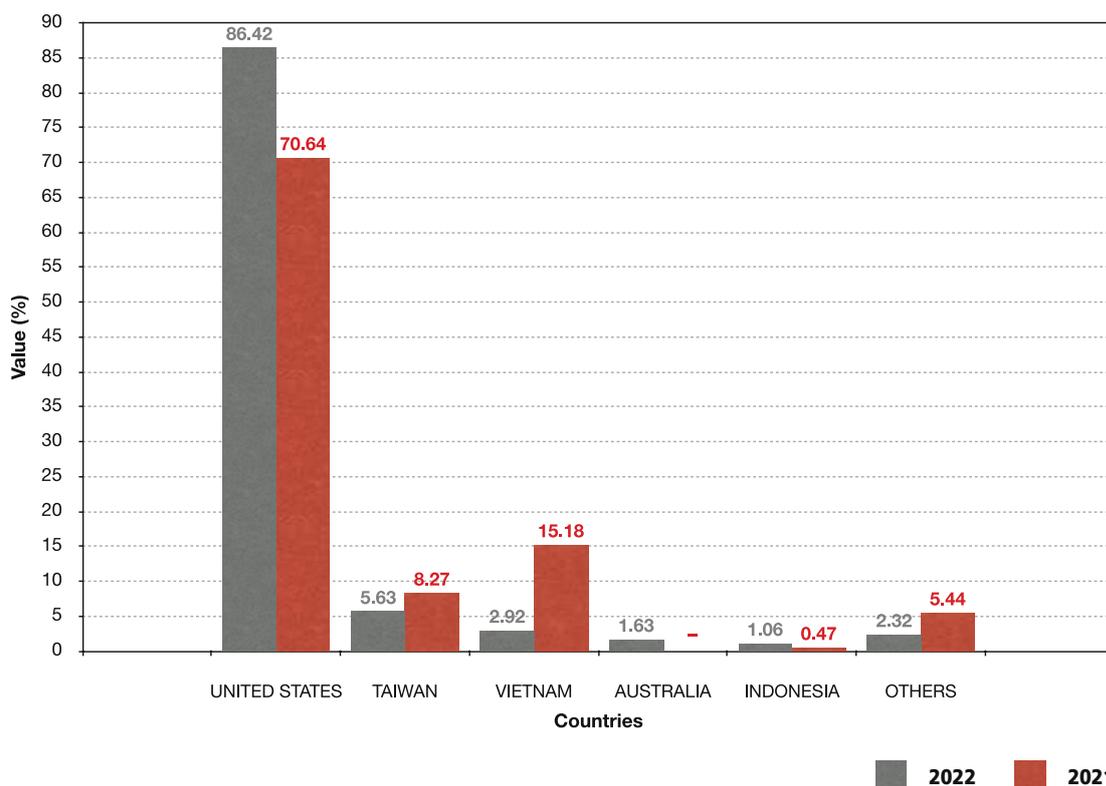


Table 9
Export Of Particle Board By Country Of Destinations

Destinations	2022 ^a January - June			2021 ^a January - June			% Change 2022 / 2021	
	Volume (M ³)	FOB Value (RM'000)	Value %	Volume (M ³)	FOB Value (RM'000)	Value %	Volume	Value
JAPAN	6,004	6,522	58.29	674	562	17.19	791.41	1060.05
INDONESIA	2,609	2,430	21.72	1,850	1,448	44.27	41.05	67.88
PHILIPPINES	2,041	2,119	18.94	529	435	13.31	285.62	386.75
VIETNAM	107	79	0.71	527	288	8.82	(79.67)	(72.59)
CHINA	34	38	0.34	21	17	0.52	59.37	122.49
KOREA	-	-	-	601	520	15.89	(100.00)	(100.00)
TOTAL	10,796	11,188	100	4,202	3,270	100	156.93	242.13

Export Value Of Particle Board To Major Destinations
(RM'000) : 2022 / 2021

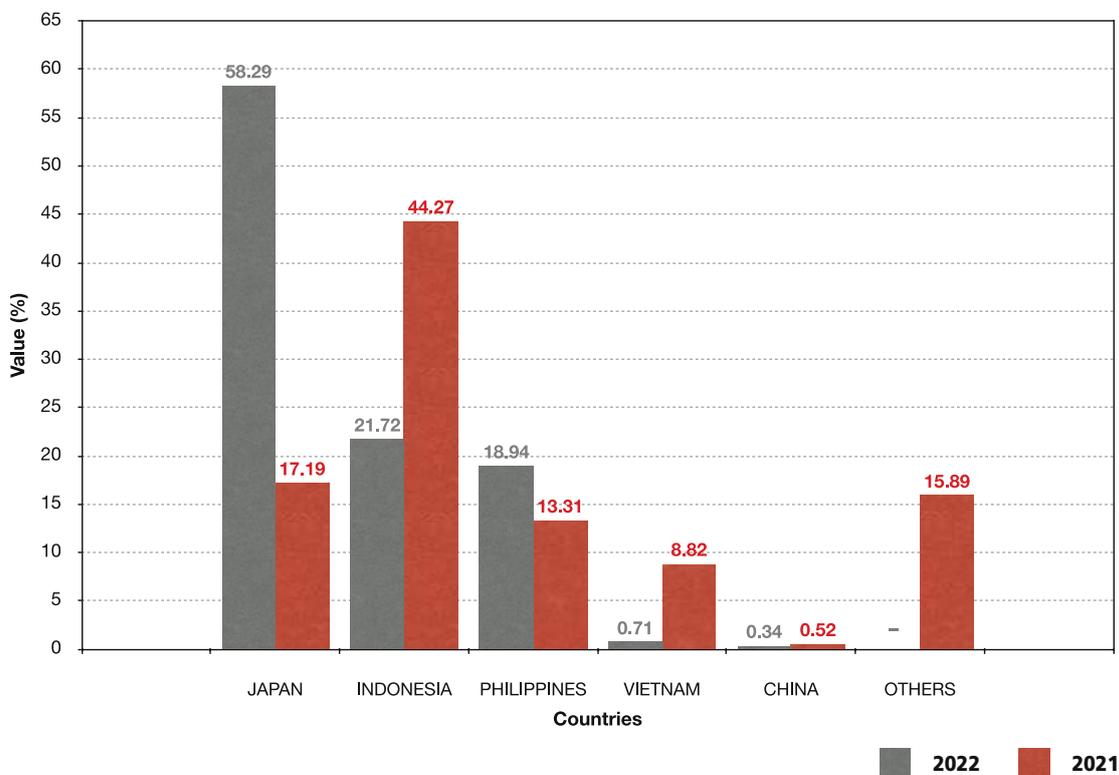


Table 10

Export Of Door Panel & Frame By Country Of Destinations

Destinations	2022 ^p January - June			2021 ^a January - June			% Change 2022 / 2021	
	Volume (M ³)	FOB Value (RM'000)	Value %	Volume (M ³)	FOB Value (RM'000)	Value %	Volume	Value
JAPAN	5,224	7,815	97.15	4,709	7,489	97.45	10.93	4.34
THAILAND	33	193	2.40	26	157	2.04	25.33	22.96
BRUNEI DARUSSALAM	32	36	0.45	33	39	0.51	(3.49)	(8.49)
TOTAL	5,289	8,044	100	4,769	7,686	100	10.91	4.66

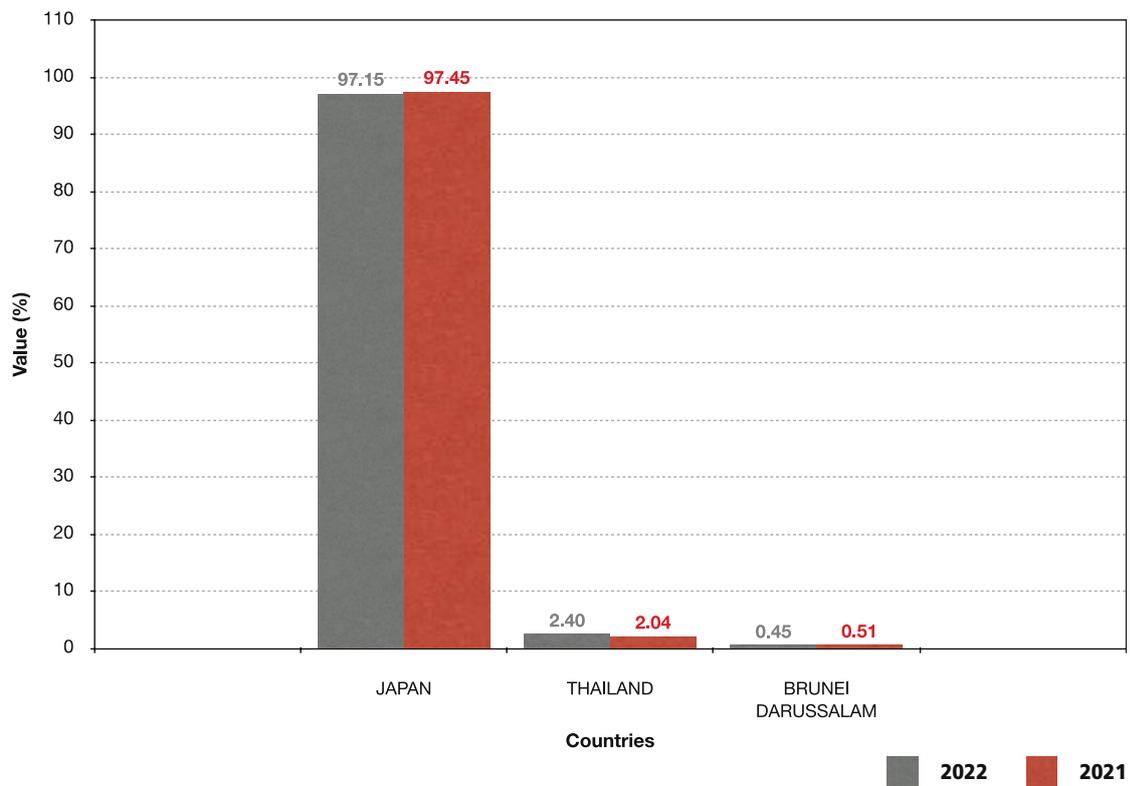
**Export Value (%) Of Door Panel & Frame To Major Destinations
: 2022 / 2021**

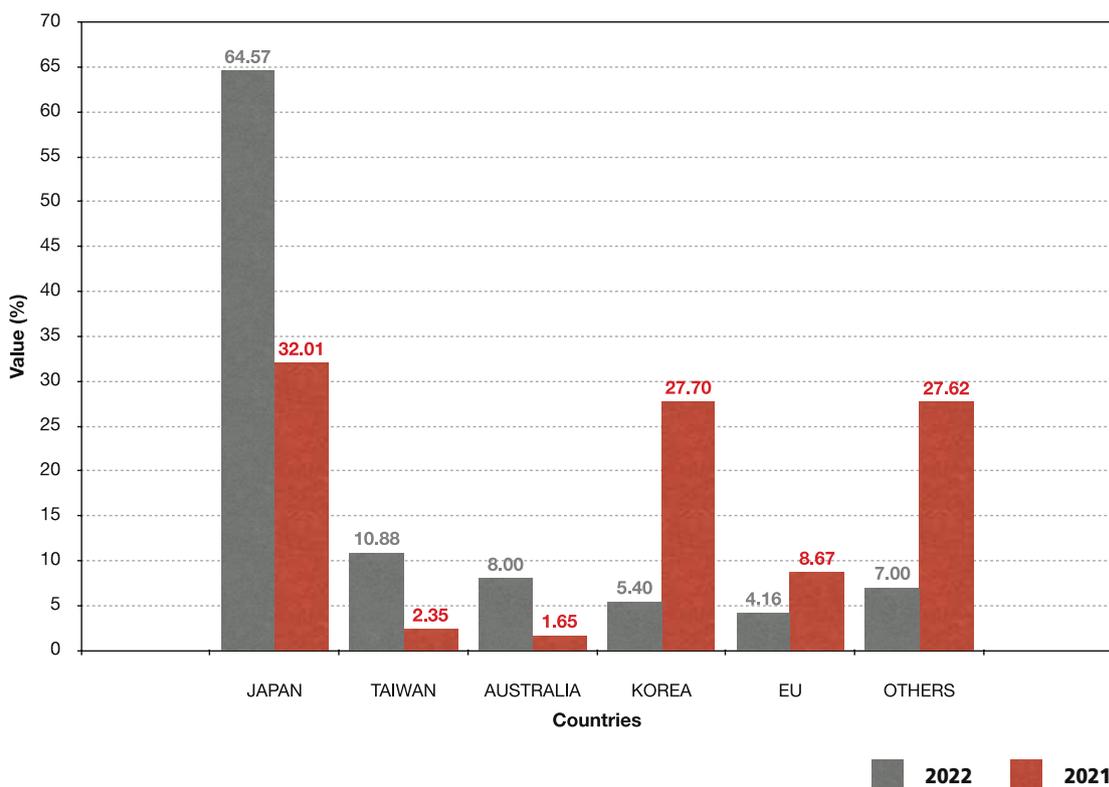
Table 11
Export Of Moulding By Country Of Destinations

Destinations	2022* January - June			2021* January - June			% Change 2022 / 2021	
	Volume (M³)	FOB Value (RM'000)	Value %	Volume (M³)	FOB Value (RM'000)	Value %	Volume	Value
JAPAN	750	1,734	64.57	664	1,590	32.01	12.95	9.03
TAIWAN	130	292	10.88	56	117	2.35	134.03	150.06
AUSTRALIA	39	215	8.00	20	82	1.65	97.72	162.58
KOREA	63	145	5.40	651	1,376	27.70	(90.38)	(89.47)
EU	23	112	4.16	44	431	8.67	(47.79)	(74.07)
SEYCHELLES	19	85	3.18	-	-	-	100.00	100.00
SOUTH AFRICA	19	78	2.90	62	236	4.76	(68.56)	(67.06)
UNITED STATES	5	25	0.92	75	517	10.41	(93.43)	(95.25)
OTHERS*	-	-	-	353	618	12.45	(100.00)	(100.00)
TOTAL	1,047	2,685	100	1,924	4,968	100	(45.56)	(45.96)

*Other Destinations:

- CHINA
- MALDIVES

Export Value Of Moulding To Major Destinations
: 2022 / 2021



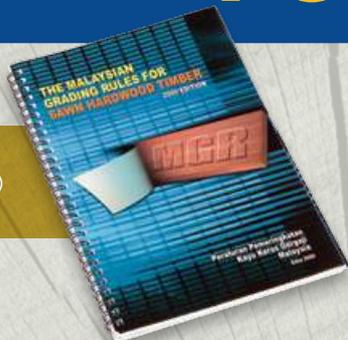
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**to us,
Nothing Should**

go to

WASTE



Utilising technology and innovations for timber products are the hallmarks of STIDC's continuous pursuit of excellence for the timber industry and rightly, nothing should go to waste. In this aspect, STIDC has strived to make use of every part of the log for useful purposes and further enrich downstream industries for the benefit of the State and its people, now and for the future. STIDC firmly believes that forest resources should be optimally utilised for a sustainable future.

**PERBADANAN KEMAJUAN PERUSAHAAN KAYU SARAWAK
Sarawak Timber Industry Development Corporation (STIDC)**

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