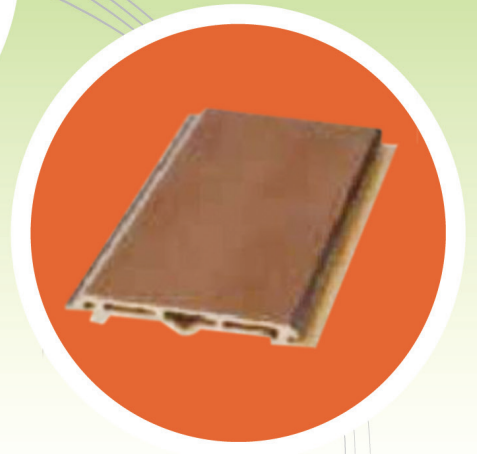
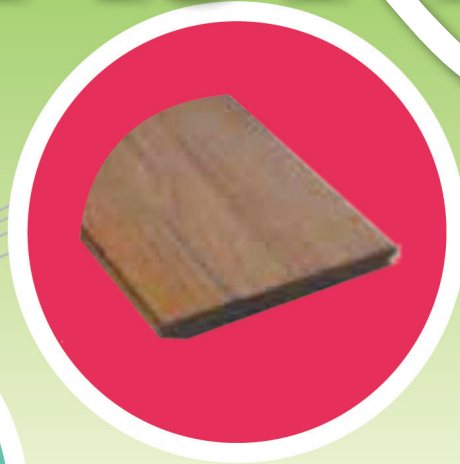




MASKAYU



TIMBER MISSION TO THAILAND
INTERNATIONAL BAMBOO SEMINAR :
TRANSFORMING THE BAMBOO
INDUSTRY IN MALAYSIA



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Cover : Technically known as fibre-reinforced plastics or wood plastic composites (WPC), WPC generally comprises two components: a reinforcement fibre and a polymer binder. Read pages 22-24 for information on WPC.



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TIMBER MISSION TO THAILAND

Thailand is an important export market for Malaysian timber products and an established trade partner in ASEAN. Malaysia's export of timber and timber products to Thailand in 2014 was valued at RM603 million. Major timber products exported included logs, sawntimber, plywood, BJC, furniture, particleboard and MDF. Malaysia also imported timber and timber products from Thailand and its import in 2014 was valued at RM347 million. The main products imported were sawntimber, plywood, furniture, veneer, mouldings and BJC.

Besides having a thriving and active timber industry, Thailand also has a vibrant forestry sector, particularly its plantation forestry. Apart from its Teak and Pine plantations which predominate in the north and rubber plantations in the south, Thailand has also successfully planted Eucalyptus trees in the north east and central parts of the country.

Datuk Himmat Singh, Secretary-General of the Ministry of Plantation Industries and Commodities (MPIC) led a Timber Technical Mission to Thailand from 25-28 May to see the potential of Eucalyptus as a forest plantation species and to enhance collaboration in the timber sector between Malaysia and Thailand. The four-day programme included a timber roundtable discussion and visits to the Royal Forest Department of Thailand, Thailand Creative and Design Centre and Siam Cement Group's Eucalyptus plantation.

At the Royal Forest Department of Thailand, the Malaysian delegation was welcomed and briefed by the Director-General, Dr. Teerapat Prayurasiddhi, who expressed hope for more cooperation in forestry matters between both countries. According to him, Thailand is also promoting forest plantations as the government was now working with private companies to expand forest plantations in Thailand. Besides Eucalyptus, the Thai Government was also trying to grow Teak and Rosewood where 12 million Rosewood seedlings and 10 million Teak seedlings were available for planting. In the southern part of Thailand, bamboo is being cultivated for the fishery industry where more than 60 million seedlings are being distributed to the private and government sectors.

Mr. Vitoon Luangviriyasaeng also gave a presentation on Eucalyptus planting in Thailand. In his presentation, he stated that Eucalyptus was introduced in Thailand more than 40 years ago for the fuel and power industry. The three main species of Eucalyptus introduced in Thailand were *Eucalyptus camaldulensis*, *Eucalyptus tereticornis* and *Eucalyptus urophylla*. The utilisation of Eucalyptus in Thailand are for fuel wood, chipwood, MDF, pulp and paper, pole and timber. According to Mr. Vitoon, the total hectareage of Eucalyptus plantation in Thailand in 2001 was 480,000 ha and it has not changed much over the years. The Eucalyptus plantation are operated by Siam Forestry at 24,000 ha or 5% of the total plantation area, Forestry Industry Organisation at 3% at 14,400 ha, Thai plywood company at 1% at 4,800 ha, Advance Agro at 24,000 ha and those planted by farmers at 312,000 ha or 65% of the total plantation area. Eucalyptus grows well in the north east and central part of Thailand.



Business to Business Session.



Datuk Himmat Singh, Secretary-General of the Ministry of Plantation Industries and Commodities (second from left) presenting a souvenir to Mr. Jirawat Tangkijamwong, President of the Thai Timber Association.



Roundtable discussion on timber and timber products.



The delegation at the Seam Cement Group.



TIMBER WORLD IN BRIEF

BRAZIL

Turning Back to International Timber Markets

Brazil is currently facing economic difficulties, investment rates have fallen and the construction and building sectors are in decline which negatively impacts demand for wood products. Because of this, domestic millers and manufacturers are directing efforts to international markets.

Ten years ago a significant number of domestic timber companies abandoned the international market as they could not compete due to high production costs and an unfavourable exchange rate.

During this period the timber industry directed output to the domestic market which was expanding, driven primarily by the construction sector. Now the situation is different, domestic demand for wood products is shrinking and the appreciation of US Dollar against the Brazilian currency favours exports. As a result many timber companies are turning back to international markets.

However, Brazilian exporters face some challenges as many international market competitors secured a firm footing when Brazilian exporters withdrew.

fordaq.com, 4 May

CHINA / MYANMAR

Legalisation of the China-Myanmar Timber Trade

A national workshop on the China-Myanmar timber trade was held on 22 April in Kunming City, Yunnan Province. The workshop was sponsored by the Southwest Forestry University and the FLEGT foundation of the European Forest Institute and hosted by the Greater Mekong Sub-Region Forestry Development Research Centre of Southeast Forestry University. Participants shared the preliminary results of a China-Myanmar timber trade study and discussed the challenges and difficulties encountered by timber traders who aimed to see the legal and sustainable development of the China-Myanmar timber trade. Experts called for immediate action to bring the trade under the law.

The workshop heard that some timber from Myanmar is processed in Yunnan while some is transported to manufacturers in Southern and Eastern China who then sell it into the domestic market as well as export to Japan, the USA and Europe. China is one of Myanmar's most important markets for wood products and China accounted for around 37% of Myanmar's wood product exports in 2013 valued at USD621 million.

Myanmar and China recently agreed to implement a series of measures proposed by authorities in the Yunnan Province aimed at cooperative management of Myanmar's timber and mineral trades. These measures require timber importers to submit registration certificates and trade contracts approved by the central government in Myanmar. Controlling the Myanmar/China timber presents huge challenges. Investigation show that the Redwood trade between Myanmar and China slowed after June of 2014. However, workshop participants heard that it was difficult to judge if the slowdown was the result of the log export ban in Myanmar or factors such as the rainy season or the armed conflict in Kachin.

fordaq.com, 22 May

EUROPEAN UNION

Plywood Imports Highest Since Financial Crisis

EU28 imports of plywood increased 12% to 3.7 million m³ in 2014, the highest level since before the financial crisis. Import value also increased 12% to €1.35 billion. The rise was driven mainly by improved consumption in several European markets, notably the UK. Another key factor was an increase in supply of Russian Birch plywood combined with a sharp fall in the value of the Russian Rouble on foreign exchange markets which increased competitiveness of imported Russian product. Another notable feature of the European plywood market in 2014 were signs that rising concern for the environmental and technical performance of plywood is having a more a significant impact on trade.

In 2014, the EU imported 2.4 million m³ of hardwood plywood with a value of €986 million, up 11% and 13% respectively compared to the previous year. EU imports of this commodity were at their highest level since 2008. Compared to previous years, in 2014 the EU market for hardwood plywood was less volatile and changes in supply sources and overall market share were relatively minor. EU28 imports of hardwood plywood from China increased 14% to 1.07 million m³ in 2014.

However China's share of total EU28 imports increased only slightly from 43% in 2013 to 44% in 2014. Imports from Russia increased 10% to 785,000 m³ in 2014 and Russia's share of total imports remained stable at 33%. Shares of EU28 imports of hardwood plywood from tropical countries fell from 14% in 2013 to 12% in 2014. The decline in shares was mainly due to a 15% fall in imports from Malaysia to 115,000 m³ in 2014. Imports from African countries also declined by 3% to 59,000 m³. In terms of tropical hardwood market share, these declines in imports were only partly offset by increases from Indonesia (+24% to 105,000 m³) and Brazil (+61% to 20,000 m³).

fordaq.com, 4 May

Cont. from previous page

GERMANY

Production of Woodworking Machinery in 2014 Up 8.5%

Last year, the German woodworking machinery industry grew more than expected, VDMA (Verband Deutscher Maschinen- und Anlagenbau, German Engineering Association) reported. According to the latest figures of the German Federal Statistical Office (Destatis), the industry grew by 8.5% to around EUR2.6 billion. Thus, the forecast of +5% was exceeded. Above all, investments in the furniture and sawmill industry have contributed significantly to the growth, as explained by Managing Director of VDMA.

For the current year, the German woodworking machinery industry is relying on a further upturn in demand by 3%, which should come equally from home and abroad. The high order activity registered at the beginning of the year makes industry representatives very optimistic for 2015.

fordaq.com, 5 May

JAPAN

Construction Back to Growth

Japan housing starts recovered unexpectedly in March, said the Japanese Ministry of Land, Infrastructure, Transport and Tourism. Housing starts grew 0.7% in March from last year, confounding expectations for a fall of 1.9%. In February, housing starts declined 3.1%, which was the 12th consecutive drop.

The number of annualised housing starts increased to 920,000 in March from 905,000 in February. Economists had forecast it to fall to 892,000. The number of construction orders received by big 50 contractors increased at a faster pace of 8.2% annually following February's 1% growth.

fordaq.com, 4 May

NEW ZEALAND

High Inventories in China, Drop in New Zealand's Roundwood Export Price

Prices of exported roundwood from New Zealand have fallen in April to a seven-month low. The main reason seems to be the high inventories in Chinese ports, New Zealand's largest export market. From NZ\$106 per tonne in March, the price of roundwood in A-quality has dropped to NZ\$94 per tonne in April, the lowest level since September, New Zealand's economy newspaper National Business Review (NBR) reported. Log prices weighted by grades fell to NZ\$93.29, from NZ\$96.58 in March.

The price for New Zealand's A-grade logs delivered to China are at the lowest level since AgriHQ started tracking the grade in February 2012.

Inventories on Chinese ports are reportedly close to 5 million m³, more than double the normal level of around 2 million m³. Experts say that it is likely that Chinese inventories won't be at normal levels for up to six months. Therefore a recovery in prices is not to be expected.

Sawmill activity in China lifted in March to around 60,000 tonnes per day and may now be hitting 70,000 tonnes per day, with inventories likely to start reducing at these levels provided less supply is shipped, one expert said. By the end of March New Zealand has exported roundwood worth NZ\$3.53 billion, 13% less than in the same period last year.

fordaq.com, 6 May

UNITED STATES

West Coast Log and Lumber Exports Decreases

Log exports from Washington, Oregon, northern California, and Alaska totalled 272 million board feet in the first quarter of 2015, a decrease of nearly 16% compared to the fourth quarter of 2014, reported the US Forest Service's Pacific Northwest Research Station. During this same period, west coast lumber exports declined 4% in volume to 162 million board feet.

The total value of these log exports decreased by more than 21% to USD200 million, while, for lumber exports, the total value decreased by more than 3% to USD123 million compared to the fourth quarter of 2014.

"Although China's importation of west coast logs and lumber decreased in the first quarter of 2015 compared to the first quarter of 2014, China remains the dominant consumer in the west coast's export market," said a research economist with the station who conducted the analysis and compiled the data. "Sixty-three percent of the west coast's log exports and more than 28% of its lumber were shipped to China in the first quarter of 2015."

woodworkingnetwork.com, 27 May

VIET NAM

Wood Processing Industry Facing Market Risks

According to Xuan Phuc of the Forest Trends organisation, with its dependency on imported materials and export markets' stringent norms on the origin and legality of products, Viet Nam's wood processing sector is facing high market risks. The growth of the woodchip processing and exports sectors are also threats to the wood processing sector, as raw material for both sectors are sourced from Vietnamese wood. Up to 80% of domestic raw material is currently used for woodchip processing.

The expert noted that during a conference on the role of imported materials and orientations for the woodchip processing sector, many wood processors agreed that exporting woodchips brought about modest socio-economic efficiency.

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SHIPPING NEWS



Malaysia: Johor Port and Port of Tanjung Pelepas Aim to Become Malaysia's Southern Gateway

Johor Port and Port of Tanjung Pelepas (PTP) are aiming to become the transport and logistic hub in the southern region of Malaysia. According to Puan Rafidah Mohd Ali, Senior Corporate Manager of Johor Port Authority (JPA), both ports will be enhancing their efficiencies and reliabilities to position themselves as the southern gateway of Malaysia for transshipment as well as import and export activities. As part of their goals to make both ports as the transport and logistic hub, Johor Port and PTP will make sure that they are efficient and reliable. They will be increasing their branding and marketing by collaborating with industry players and government agencies. They are also going to support facilities to do transshipment, import and export activities so that both ports will be able to serve businesses in the Asia Pacific region.

Apart from that, Puan Rafidah said JPA is also exploring opportunities to assist Sarawak ports and river ports in their import, export and transshipment activities. JPA is encouraging businesses in Sarawak to use Johor Port and PTP as their hub for those activities.

PTP handled 8.5 million of twenty-foot equivalent units (TEUs) of container throughput last year while Johor Port handled 750,000 TEUs of container throughput in 2014. JPA is constantly reviewing the plan to expand further and is planning to increase the capacity handling of cargo throughput at both ports to support the cargo volume in this region. JPA is also studying the possibility as well as the trend of import and export of key commodities in Sarawak to other destinations so that JPA will be able to provide assistance in the future.

Source: The Borneo Post online, 18 April

Malaysia: Government Extends Confession Period for Bintulu Port

The Malaysian government has, in principle, agreed to allow Bintulu Port Holdings to prolong the management deal for Bintulu Port in Malaysia's Sarawak state. The deal will be extended to 2052. Also, Bintulu Port Holdings plans to execute a number of projects over a five-year period. The projects include a warehouse, a bulk fertiliser wharf, several berths and the transformation of a general cargo wharf for container handling.

Source: The Star, 6 April

Shipments of Timber and Timber Products through Ports in Peninsular Malaysia, April 2015

Products	Port Klang		Kuantan		Pasir Gudang		Tanjung Pelepas		Penang		Total all Ports m ³	% Change Apr 2015/ Mar 2015
	m ³	% Change Apr 2015/ Mar 2015	m ³	% Change Apr 2015/ Mar 2015	m ³	% Change Apr 2015/ Mar 2015	m ³	% Change Apr 2015/ Mar 2015	m ³	% Change Apr 2015/ Mar 2015		
Sawntimber	53,300	-2	6,015	7	1,884	0	582	-12	10,066	26	71,847	2
MDF	31,158	-2	-	-	11,260	-35	5,736	-22	15,931	-14	64,085	-15
Mouldings	13,512	6	320	106	2,700	26	678	-12	1,896	32	19,106	11
Dressed Timber	1,098	-11	185	24	903	141	444	46	454	107	3,084	35
Plywood	6,635	-3	-	-	35	100	101	-43	8,322	62	15,093	24
Veneer	277	-35	5	-100	9	-100	-	-	466	166	757	26
Particleboard	35,569	4	120	-81	206	312	51	42	-	-	35,946	3
TOTAL	141,549	0	6,645	5	16,997	-22	7,592	-18	37,135	11	209,918	-1

Source : MTIB

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Malaysia: Opportunities are Eyes by Westport Holdings

Malaysian port operator Westports Holdings is looking for opportunities in other countries as the enlargement of its port in Port Klang is almost completed. The firm will finish the development of container terminals CT9 and CT8 by 2020. This will allow the company to expand its handling capacity from 11 million TEUs currently to 16 million TEUs. However, the company will be able to increase its capacity by 30 million TEUs if it secures a deal to develop a third port in Port Klang. Westports Holdings will amend its overseas venture if the deal is awarded to the company.

Source: The Edge, 26 April

Finland: Kotka a Major Hub of Container Transport for Wood-processing Industries

In 2014, a total of 1,350 million m³ of sawntimber was shipped in containers from the Port of HaminaKotka Mussalo Harbour in Finland. Port operator Stevedco stowed approximately 70,000 containers in Mussalo in 2014. Out of these, 32,000 contained paper, 21,500 contained pulps, 13,000 contained sawntimber and 3,000 contained plywood. Stevedco has a new container terminal for sawntimber and wooden boards in Kotka. Stevedco's partner in the new terminal is cargo and materials handling company Finn-Mica, which also stows Stevedco's pulp containers in Mussalo. At the Port of Helsinki Vuosaari Harbour, Stevedco stowed approximately 7,000 containers of sawntimber in 2014. The volumes are growing. Kotka Harbour is occasionally experiencing container shortages since the decrease of transit traffic to Russia.

Source: Puumies, 24 April

Cont. from page 3

An additional species, *Eucalyptus pellita* was introduced in Thailand about five years ago because of its disease resistant quality. The progeny trial of this species was conducted in Ratchanaburi.

The Malaysian delegation also visited Seam Cement Group's Eucalyptus plantation in Kanchanaburi. SCG started the plantation in 1990 with a few progeny trial plots of the Eucalyptus species. Species planted are *Eucalyptus camaldulensis*, *Eucalyptus europhylla* and *Eucalyptus pellita*. SCG practises line-plantation along irrigation canals and plantations with 3 metre planting distance. Most of the SCG supply of Eucalyptus for pulp and paper production comes from its 10,000 acre plantation and 540,000 acre contract farms.

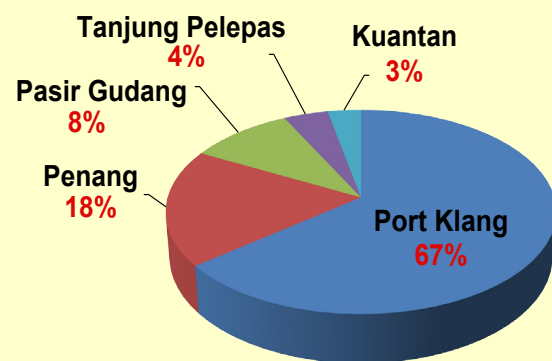
During the roundtable meeting between Malaysia and the Thailand Timber Industry Association, Mr. Jirawat Tangkijngamwong, President of the Thai Timber Association, explained about the timber demand situation in Thailand which had been affected by the political turmoil over the past few years especially for timber used in construction. Demand for Malaysian timber as such, has declined due to the sluggish construction industry.

Indonesia: New Port to be Built in Makassar by Pelindo IV

Port operator Pelabuhan Indonesia IV (Pelindo IV) will build a new port that will be able to accommodate container ships of between 1.5 million TEUs and 2 million TEUs in Makassar. The investment for the Makassar New Port is estimated to reach IDR1.80 trillion (EUR129.81 million, USD139.21 million) for the first stage alone, while works on the project are scheduled to commence in May 2015.

Source: Bisnis Indonesia, 23 April

Shipments of Timber and Timber Products through Ports in Peninsular Malaysia, April 2015

Total = 209,918 m³

He added that Thailand had been buying timber from the US and Canada for the furniture and interior sectors in recent years as the manufacturing of furniture for the European market mainly used American hardwood.

The visit to Thailand Creative and Design Centre (TCDC) was an eye-opener for most of the delegates as it exemplified Thailand's efforts in nurturing creativity and design capability across a wide range of industrial sectors. TCDC is an agency under the Prime Minister Department which is responsible for organising activities to promote the awareness on creativity. TCDC was established to serve as Thailand's premier learning resource centre for design and creativity, providing comprehensive knowledge on design related matters. It aspires to trigger creative thinking in Thai society that appreciates the value of design. From exhibitions, lectures and workshops to research facilities.

The 26-member mission also included Datuk M. Nagarajan, Deputy Secretary-General of MPIC, Dr. Jalaluddin Harun, Director-General of MTIB, and representatives from the Ministry, MTIB, MTC, MWIA, MFC and TEAM. Other officials from MTIB were Tuan Hj. Kamaruzaman Othman, Encik Mohd Afthar Amir and Encik Mohd Zamaksyary Mustapa.

APRIL 2015

Total export of Malaysian timber and timber products in April 2015 decreased 2% valued at RM1.9 billion over the previous month. Nevertheless, cumulative export for the period of January to April increased 2% valued at RM7.0 billion over the corresponding period.

Sawntimber

Export of sawntimber in April 2015 decreased 28% in volume and 11% in value to 169,110 m³ with a value of RM260.3 million compared to the previous month. However, cumulative export for the first four months of 2015 increased 15% in volume and in value to 706,335 m³ totalled RM975.2 million over the previous corresponding period.

Exports to the EU for the month declined 5% to 13,133 m³ from 13,875 m³ recorded in the previous month. Export to the UK, Germany and Greece increased 3% to 1,556 m³, 17% to 2,161 m³ and 36% to 214 m³ respectively. Likewise, demand by the Netherlands, Belgium, France, Italy and Denmark declining by 3% to 6,285 m³, 12% to 1,489 m³, 15% to 768 m³, 61% to 322 m³ and 88% to 20 m³ respectively.

Total exports to West Asia decreased 58% to 29,631 m³ from 70,251 m³ in the previous month. Export of sawntimber to Bahrain, Yemen and Saudi Arabia decreased 6% to 575 m³, 19% to 6,787 m³ and 61% to 1,208 m³ respectively. Similarly, export to Qatar decreased 97% to 1,222 m³ from 45,565 m³ recorded in the previous month. This is due to excessive purchases made by Qatar in the previous month. In the meanwhile, export to Oman improved significantly to 7,286 m³ from 1,687 m³ in the previous month. Export of sawntimber to the UAE and Kuwait increased 15% to 9,021 m³ and 4% to 1,165 m³ respectively.

Buying from ASEAN reduced 3% to 58,172 m³. Export to Thailand, major importer of Malaysian sawntimber increased 24% to 41,420 m³ from 33,515 m³ in the previous month. In the meanwhile, export to Singapore, Viet Nam and Indonesia decreased 12%, 24% and 39% to 10,845 m³ and 1,307 m³ and 41 m³ respectively.

Likewise, shipments to East Asia declined 35% to 43,422 m³ as a result of decreasing demand from China and Japan. Export to China and Japan decreased 47% and 40% to 25,436 m³ and 3,740 m³ respectively. Import from Hong Kong also drop by 1% to 2,079 m³. On the other hand, export to Taiwan and South Korea improved by 10% and 9% to 10,101 m³ and 2,010 m³ respectively.

Elsewhere, exports to the US decreased 21% to 1,709 m³ and intake by Australia also decreased 14% to 1,225 m³. Demand from South Africa decreased 37% to 5,982 m³ from 9,520 m³ recorded in the previous month.

The average FOB price of sawntimber increased 24% to RM1,539 per m³ from RM1,246 per m³ in the previous month. Price of Dark Red Meranti (DRM) increased 1% to RM2,396 per m³ from RM2,364 per m³ in the previous month. Price of Dark Red Meranti to the Netherlands increased 4% to RM3,002 per m³ from RM2,881 per m³ in the previous month. Keruing was traded at RM1,624 per m³, an increase of 11% from the previous month.

Plywood

Total export of plywood in April decreased 9% in volume and 11% in value to 239,719 m³ valued at RM420.14 million as compared to the previous month. Similarly, cumulative exports for the period January-April 2015 decreased by 16% in volume and 13% in value to 901,024 m³ and RM1.6 billion respectively as compared to the previous corresponding period in 2014.

Total exports to EU increased by 0.3% to 8,623 m³. Likewise, shipments to Ireland, Germany and the UK increased by 142%, 100% and 11% to 429 m³, 86 m³ and 6,322 m³ respectively whilst Denmark and Italy resumed their intake. However, Netherlands, Belgium and France reduced their intake by 34%, 40% and 62% to 895 m³, 608 m³ and 113 m³ respectively.

Exports to ASEAN region increased as Singapore and Thailand intake of plywood increased by 44% and 14% to 3,917 m³ and 7,005 m³ respectively. However, Brunei reduced its intake 52% to 928 m³ whilst Indonesia did not make any purchases.

In East Asia, exports to China and Hong Kong increased by 34% and 129% to 3,528 m³ and 4,967 m³ respectively. However, Japan, South Korea and Taiwan reduced their intake by 17%, 10% and 8% to 103,510 m³, 24,890 m³ and 24,187 m³ in April 2015.

Overall, exports to West Asia decreased by 21% as compared to the previous month. Similarly, shipments to Kuwait, Qatar and Yemen decreased by 80%, 75% and 22% to 124 m³, 90 m³ and 18,864 m³ respectively. However, Saudi Arabia and UAE increased their intake by 44% and 174% to 3,696 m³ and 3,055 m³ respectively whilst Bahrain resumed its intake.

Elsewhere, exports of plywood to South Africa, the US, Mexico and New Zealand decreased by 6%, 62%, 30% and 51% to 491 m³, 3,260 m³, 1,610 m³ and 39 m³ respectively. However, Australia increased its intake by 28% to 4,221 m³ whilst Canada resumed its intake.

The FOB price of plywood decreased by 2% to RM1,753 per m³ from RM1,791 per m³ in the previous month.

Veneer

Total exports of veneer for April 2015 showed an increase of 45% in volume and 34% in value to 21,803 m³ at RM30.8 million as compared to the previous month. Exports to China and Australia decreased by 34% and 33% to 613 m³ and 133 m³ respectively, whilst the UK did not make any purchases. Meanwhile, Singapore and Taiwan increased their intake by 46% and 150% to 16 m³ and 13,242 m³ respectively.

The FOB price of veneer decreased 7.7% from RM1,531 per m³ in the previous month to RM1,413 per m³ in April 2015.

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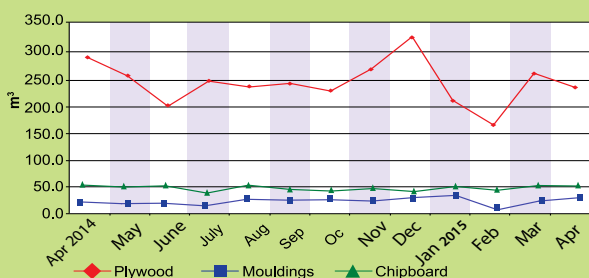
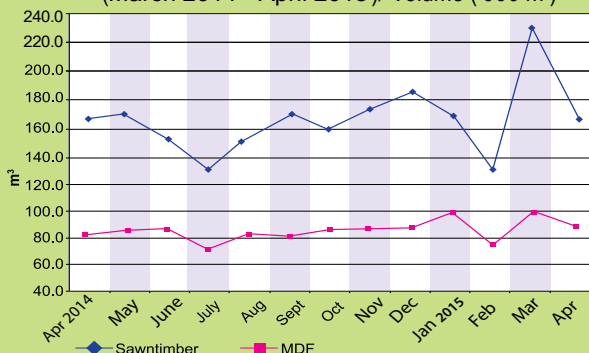
Medium Density Fibreboard (MDF)

Malaysia's exports of MDF for April 2015 showed a decrease of 14% in volume and 10% in value from the previous month. Export totalled 86,231 m³ at RM97.5 million.

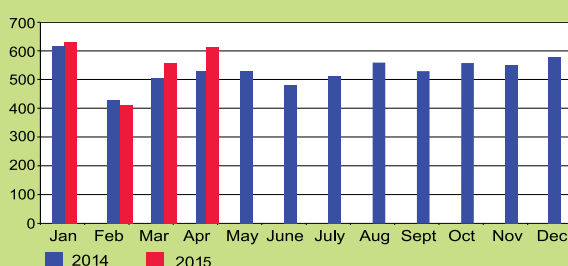
Exports to East Asia registered a decrease of 19% to 11,711 m³ from 14,486 m³ in the previous month. Only exports to South Korea increased by 1% to 523 m³. Exports to Japan recorded a negative growth with a decrease of 15% to 10,503 m³, exports to Taiwan also decreased by 38% to 592 m³ and China (including Hong Kong) also decreased by 86% to 93 m³.

Meanwhile exports to West Asia in April 2015 market recorded a negative growth with a decreased of 7% in volume to 38,447 m³ from 41,380 m³ in the previous month. Export to Jordan recorded an increase of 2,459 to 3,096 m³ followed by Lebanon at 100% to 660 m³. Import from UAE also increase by 47% to 19,854 m³, followed by Bahrain increased 31% to 724 m³ and lastly Kuwait increased by 23% to 6,090 m³. On the other hand, Saudi Arabia and Oman dropped by 49% to 4,991 m³ and 59% to 898 m³ respectively from the previous month.

**Malaysia : Export of Major Timber Products
(March 2014 - April 2015)/ Volume ('000 m³)**



**Malaysia: Export of Wooden Furniture
(January 2014 - April 2015) / Value (RM Million)**



Source : Department of Statistics, Malaysia

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Furthermore, export to South Asia also recorded negative growth by 17% in volume to 12,174 m³ from 14,632 m³. Only export to Sri Lanka increased by 1% to 2,007 m³. Others three countries recorded negative growth covering Pakistan decreased by 11% to 7,619 m³, India by 36% to 1,289 m³ and Bangladesh decreased by 38% to 1,259 m³.

Export to South Africa showed an increase by 27% to 343 m³, demand from the UK and Australia also increased by 33% to 247 m³ and 39% to 2,935 m³ respectively. However, exports to the US showed a marginal decreased by 21% to 1,839 m³.

In ASEAN, total export to ASEAN region for this month also decreased by 22% to 16,111 m³ from 20,665 m³ in the previous month. Only export to the Philippines increased by 75% to 2,415 m³. However, export to Indonesia, Viet Nam and Singapore down by 9% to 3,750 m³, 34% to 9,756 m³ and 474% to 62 m³ respectively.

Mouldings

Exports of mouldings for the month increased by 9% in volume and 16% in value to 24,246 m³ and RM75.1 million respectively. Similarly, cumulative exports for the period January-April 2015 increased by 10% in volume and 13% in value to 89,402 m³ and RM257.6 respectively as compared to the previous corresponding period in 2014.

Exports to the EU for the month recorded at 8,049 m³, an increase of 23% compared to the previous month. Shipments to Belgium, Germany, the Netherlands and the UK increased by 16%, 83%, 13% and 31% to 603 m³, 1,759 m³, 3,948 m³ and 888 m³ respectively. However, shipments to Italy decreased by 76% to 33 m³.

Exports to the ASEAN region decreased as Singapore, Viet Nam and Indonesia reduced their intake by 17%, 72% and 50% to 1,339 m³, 26 m³ and 8 m³ respectively.

Meanwhile, exports to Japan and Taiwan increased 8% and 117% to 2,761 m³ and 827 m³ respectively. However, South Korea, Hong Kong and China reduced their intake by 22%, 48% and 40% to 1,748 m³, 228 m³ and 1,066 m³ respectively. Elsewhere, export to Australia, the US and Canada increased by 28%, 14% and 9% to 3,435 m³, 3,115 m³ and 133 m³ respectively.

FOB unit value increased 7% from RM2,900 per m³ in the previous month to RM3,098 per m³ in January 2015.

Builders Joinery and Carpentry (BJC)

Total BJC cumulative exports from January to April 2015 decreased 2% to RM322.7 million as compared to RM329.3 million in the corresponding period last year. However, cumulative import from January to April by the EU increased 3% to RM90.3 million. Similarly, export to UK and Belgium increased by 13% and 32% to RM49.6 million and RM19.6 million respectively over the previous corresponding period whilst Norway resumed its intake. However, exports to France, Denmark, Germany, Italy,

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Logs

The supplies of logs were reported to be sufficiently available and accessible particularly in Peninsular Malaysia. The average domestic prices of logs for most of the species for the month under review experiencing an upward trend.

Log prices for the species of Chengal, Balau and Merbau stood firm at RM4,000 per tonne, RM2,820 per tonne and RM2,500 per tonne respectively. Meanwhile, price of Merbau logs rose significantly by 18.2% to RM2,600 per tonne over last month's level. Similarly, the price of Keruing logs chalking up by 17% to RM1,230 per tonne as compared to previous month. Kempas and Kapur logs prices however remained at RM1,190 per tonne and RM1,700 per tonne. On the other hand, Red Meranti, Yellow Meranti and Mersawa logs prices improved by 2.9%, 10% and 1.4% to RM1,430 per tonne, RM1,100 per tonne and RM1,400 per tonne respectively. Meanwhile, prices for Mixed Heavy Hardwood remained at RM980 per tonne whilst Mixed Light Hardwood charted an increase of 12.8% to RM801 per tonne from the previous month.

Sawntimber

The average sawntimber prices stood firm although some species recorded significant changes in their prices. However, the demand from abroad reported to remain fragile.

The sawntimber prices of Chengal, Balau and Red Balau continued to be traded at RM6,638 per m³, RM2,825 per m³ and RM2,966 per m³ respectively. Price of Merbau sawntimber grew by 9.3% to RM3,743 per m³ as compared to last month. Likewise, the prices of Keruing and Tualang increased by 9.5% and 35% to RM1,624 per m³ and RM2,260 per m³ respectively over the previous month. However, sawntimber prices of Red Meranti and Mersawa dropped by 18% to RM1,518 per m³ and 10% to RM1,427 per m³ respectively. Sawntimber prices of Mixed Heavy Hardwood stood at RM1,306 per m³ whilst Mixed Light Hardwood increased slightly by 2.2% to RM794 per m³.

Plywood

Production of plywood reported to slow down during the month but the supply were suffice to meet the local demand. Prices of plywood continued to stable at the last month's level. Plywood prices for 4mm, 6mm, 9mm and 12mm of thicknesses were stably traded at RM14.60, RM22.00, RM34.50 and RM41.50 per piece respectively.

Medium Density Fibreboard (MDF)

Prices of MDF stood firm at the previous month's level whereby sales were reported to slow and remained uncertain. Prices for MDF of 4mm, 6mm, 9mm and 12mm of thicknesses were continuously traded at RM12.10, RM15.80, RM21.70 and RM28.10 per piece respectively.

Intra-Malaysia Trade *- April 2015

Shipments of sawntimber and plywood from Sabah to Peninsular Malaysia in the fourth month of the year, posted a decrease of 51% and to 30% to 368 m³ and 9,122 m³, valued at RM617,000 and RM16 million respectively. Shipments of veneer, however, improved by 11% to 39 m³ in volume worth at RM84,000 as compared to last month.

From Sarawak, shipments of sawntimber to Peninsular Malaysia grew by 41% to 1,012 m³, valued at RM1.3 million. Meanwhile, export of plywood decreased significantly by double digits or 51% in volume to 6,129 m³ valued at RM8.5 million. However, export of veneer chalking up by 18% to 8,988 m³ worth at RM12.7 million.

Meanwhile, there were no intra trade activities from Peninsular Malaysia to Sabah and Sarawak were reported for the month.

INTRA-MALAYSIA TRADE – APRIL 2015

From	Products	MARCH 2015		APRIL 2015		% Change in Volume april 2015 / mac 2015	% Change in Value april 2015 / mac 2015
		Volume (m ³)	Value (RM '000)	Volume (m ³)	Value (RM '000)		
SABAH	Logs	217	86	0	0	-100	-100
	Sawntimber	753	709	368	617	-51	-13
	Plywood	13,003	20,525	9,122	16,027	-30	-22
	Veneer	35	53	39	84	11	58
SARAWAK	Logs	0	0	0	0	0	0
	Sawntimber	718	643	1,012	1,252	41	95
	Plywood	12,621	15,631	6,129	8,543	-51	-45
	Veneer	7,609	10,218	8,988	12,733	18	25

Source : Department of Statistics, Malaysia

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***AVERAGE DOMESTIC PRICES OF LOGS, SAWNTIMBER, PLYWOOD AND MDF IN PENINSULAR MALAYSIA
APRIL 2015 (VALUE IN RM)**

SPECIES	LOGS/tonne	SAWNTIMBER/m³				
	18" UP	GMS	STRIPS		SCANTLINGS	
HEAVY HARDWOOD						
Chengal	4,000	6,638	2,966		8,828	
Balau	2,820	2,825	2,126		3,531	
Red Balau	2,500	2,966	1,977		3,178	
Merbau	2,600	3,743	2,825		2,772	
Mixed Heavy Hardwood	980	1,306	784		918	
MEDIUM HARDWOOD						
Keruing	1,230	1,624	1,250		2,203	
Kempas	1,190	1,766	1,695		2,010	
Kapur	1,700	2,248	752		2,331	
Mengkulang	1,100	1,412	925		1,575	
Tualang	1,310	2,260	2,260		2,260	
LIGHT HARDWOOD						
Dark Red Meranti	1,750	2,190	1,601		2,754	
Red Meranti	1,430	1,518	1,165		2,500	
Yellow Meranti	1,100	1,400	1,130		1,400	
White Meranti	1,040	2,119	1,521		1,695	
Mersawa	1,400	1,427	932		1,088	
Nyato	900	777	565		1,201	
Sepetir	850	1,106	918		1,118	
Jelutong	1,000	1,377	1,278		1,540	
Mixed Light Hardwood	801	794	687		677	
MALAYSIAN RUBBERWOOD		SAWNTIMBER/m³				
<i>Hevea brasiliensis</i>	160	1" X 1"	2" X 2"		3" X 3"	4" X 4"
		710	1,100		1,150	1,200
PLYWOOD 4' X 8' (RM per piece)	4mm	6mm		9mm		12mm
	14.60	22.00		34.50		41.50
MDF 4' X 8' (RM per piece)	4mm	6mm		9mm		12mm
	12.10	15.80		21.70		28.10

Note: Log prices ex-batau. Sawntimber, plywood, MDF and Malaysian Rubberwood (*Hevea brasiliensis*) prices ex-mill
* Prices are only indicative

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TIMBER ROUND-UP

Sweden and Turkey decreased by 13%, 35%, 27%, 52%, 27% and 52% to RM7.04 million, RM4.36 million, RM2.54 million, RM0.75 million, RM3.56 million and RM0.51 million respectively whilst Netherlands did not make any purchases.

In Asia, exports to Singapore, Thailand, Japan, India, South Korea and UAE decreased 5%, 4%, 25%, 5%, 46% and 80% valued at RM36.50 million, RM11.57 million, RM20.56 million, RM20.52 million, RM0.75 million and RM0.84 million respectively. However, exports to Viet Nam, Taiwan, Pakistan and Iran grew 89%, 17%, 10% and 806% to RM11.61 million, RM6.35 million, RM15.11 million and RM0.30 million respectively.

Exports to Australia, South Africa and Maldives increased by 8%, 66% and 361% to RM47.96 million, RM6.24 million and RM3.58 million respectively. However, the US reduced its intake by 5% to RM25.50 million.

Furniture

Malaysia's total exports of wooden and rattan furniture for the period under review in 2015 picked up momentum by 6.5% compared to the corresponding period of 2014. Total shipments recorded RM2.22 billion against RM2.10 billion in 2014.

Purchase of wooden furniture from Malaysia for the January to April duration increased by 6.7% compared to the same period in 2014, recording RM2.21 billion.

Imports of wooden furniture by the US expanded 13% from RM658.5 million to RM746.7 million. Consumption by Australia also picked up 36% from RM132.3 million to RM180.1 million whilst intake by Singapore increased by 3% from RM112.0 million in 2014 to RM115.5 million in 2015.

The UK improved its performance with an increase of 15% from RM108.0 million to RM123.9 million. However, exports to Japan and Canada declined by 9.6% and 2.5% to RM168.8 million and RM85.7 million respectively.

In West Asia, demand from the Saudi Arabia increased by 20% to RM60.8 million. However, UAE reduced its imports by 2.7% to RM82.0 million. Shipments to South Korea improved by 6.3% to RM42.1 million. India, Germany and Russia reduced their consumption by 5.4%, 9.0% and 47.3% respectively. Similarly, the Philippines decreased its consumption by 10.5%.

Meanwhile, exports of rattan furniture decreased by 20% to RM10.8 million compared to RM13.6 million recorded in the previous corresponding period. Demand from the UK weakened by 11.4% to RM1.58 million. Exports to Singapore decreased by 52.7% from RM3.48 million to RM1.64 million. Shipments to Australia, the US and Thailand slowed to RM0.64 million, RM0.57 million and RM0.33 million. However, France increased its imports by 88.7% to RM0.34 million.

INTERNATIONAL BAMBOO SEMINAR: TRANSFORMING THE BAMBOO INDUSTRY IN MALAYSIA

Bamboo is a plant that belongs to the family *Gramineae* and has about 75 genera with over 1,250 species worldwide. Bamboo is abundant in the tropics and subtropic area as it requires a humid and hot climate for good growth. Most bamboo grow wild in the foothills of the main range, secondary forests, ex-logging areas and along river banks. Bamboo is also cultivated in villages or as plantations that can be found in many parts of Asia, America and Southeast Asia. Malaysia has about 70 species of bamboo of which 45 species are native species that grow naturally in natural forests or ex-logging areas.

In an effort to further develop the bamboo industry in Malaysia, MTIB recently organised the International Seminar on Bamboo in collaboration with the International Network for Bamboo and Rattan (INBAR) and International Centre for Bamboo and Rattan (ICBR). The seminar was held in Kuala Lumpur from 19-20 May. The objectives of the seminar were to assess the potential of transforming the bamboo industry in Malaysia into a new era of higher value-added products, to provide a platform for entrepreneurs in the industry to obtain the latest information and technology on bamboo in order to support the development of the National Bamboo Industry Action Plan (2011-2020), and to be a platform for government and private agencies to exchange knowledge and experiences on current issues of the bamboo industry in Malaysia.

In his welcoming speech, Dr. Jalaluddin Harun, Director-General of MTIB, highlighted on MTIB's Bamboo Industry Development Action plan for 2011-2020 with its five main strategic thrusts namely the Establishment of Bamboo Plantation and Sustainably Managed Existing Natural Resources, Human Resources and Capital Development, Development of Value-Added Products, Research and Development, and Marketing, Trade and Promotion.

The seminar was officiated by Datuk Himmat Singh, Secretary-General of the Ministry of Plantation Industries and Commodities (MPIC), representing Minister of MPIC, YB Datuk Amar Douglas Uggah Embas. In his speech, he emphasised the importance of bamboo as one of the important non-timber forest products that have the potential to be utilised by the timber as well as other related industries such as transportation, textile and food industries through product development initiatives, innovation and creativity. Bamboo, he said, has the added advantage of being a green material that is environmental friendly and could easily meet the demand of today's green consumerism.

A total of 11 papers were presented during the seminar covering the topics of bamboo plantation, harvesting and preservation of bamboo, bamboo primary processing industry, product development, machinery in bamboo industry as well as promotion and marketing. Two speakers from INBAR and three from ICBR shared their experiences on their work on bamboo plantation and industry such as the cultivation technique and evaluation on ecological

function of bamboo and rattan resources, processing and evaluation of renewable biocomposite materials including engineered bamboo-based products and bamboo-fibre composites and trade regulations related to bamboo and rattan.

Other speakers were from MTIB, Forestry Department of Peninsular Malaysia, Universiti Putra Malaysia, Bamboo Jungle Adventures, Kanger International Berhad and One Tech Furniture (M) Sdn. Bhd.

A field visit was organised on the second day of the seminar where the participants visited the bamboo gallery and garden in FRIM, Kepong. The participants also visited One Tech Furniture factory in Sungai Buloh to see the machineries and processing of bamboo furniture.

A total of 95 participants comprising individuals and representatives from both the government and private sectors attended the seminar.



Datuk Himmat Singh, Secretary-General of MPIC (centre) being briefed on the bamboo furniture.



Some of bicycle parts from bamboo.



Panel of speakers.



Attendees at the seminar.



Nyatoh

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However, woodchip processors at the event argued that the expansion of woodchip processing has stimulated the protection and growth of forests and improved the livelihood of millions of families who live on forestry.

Vietnamese wood products are currently available in 120 countries and territories. Last year, the country imported 2 million m³ of sawntimber and 1.4 million m³ of log timbers from 115 countries and territories. The total wood import value of Viet Nam, a world wood processing centre, reached USD1.72 billion, or 27.5% of total export value of wood and wooden products. The country plans to reduce woodchip exports to 3 million tonnes in 2020, or a drop of 50% from 2015.

saigon-gpdaily.com.vn, 14 May

ZAMBIA

Clamp Down on Timber Smuggles

The Zambian government says it will revise existing forestry laws to make it harder for smugglers to illegally export valuable indigenous trees. Deputy Minister of Lands, Environment and Natural Resources told, that

illegal selling of timber was getting out of hand and will need drastic measures to curb. He said it was sad to note that criminals were working together with some foreign businessmen to illegally cut down and export certain species of timber with full cooperation of some government officials such as those within the ministry and the Zambia Revenue Authority (ZRA).

He cited the rare hardwood tree known locally as the Mukula tree as one that was facing near extinction because of indiscriminate felling for export due to its high value on international markets. He said the government would revise the Forestry Act to make it stronger by adding stiffer penalties for those found illegally smuggling timber out of the country and would equally take punitive measures against government officers conniving with criminals in exporting timber. He professed the government's interest in ensuring that the Mukula tree was properly exported for the benefit of the whole country and not a few selfish individuals.

starafrica.com, 24 May

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21st MEETING ISO/TC 89:WOOD-BASED PANELS



Delegates from Malaysia.

The 21st Meeting of the ISO TC 89: Wood based Panels were held in Torino, Italy from 19 – 21 May, gathering 33 participants from 11 countries namely Malaysia, China, Japan, Germany, Canada, Italy, UK, France, Belgium, Austria and Australia. The Meeting was hosted by The European Panel Federation and Bonzano Industries.

The meeting held plenary sessions which included three subcommittees (SC) and one working group (WG); Sub-committee 1 (SC 1) on Fibreboard, Sub-committee 2 (SC 2) on Particleboard, Sub-committee 3 (SC 3) on Plywood and WG 5: Test Method.

In WG 5: Test Method, five projects were discussed and revised. They were ISO 12460-1, ISO 12460-2, ISO 12460-3, ISO 12460-4 and ISO 9427. The ISO 12460 series were based on Determination of Formaldehyde Release. To cater to that standard, Malaysia had conducted some tests for correlation of data on formaldehyde between perforator and desiccator methods. The experimental designs utilised MDF products from Dongwha Sdn Bhd. This testing is still on-going, targeted to complete by August 2015.

Under SC 1: Fibreboard, eight projects were discussed, of which three were at deliberation stages and five were new projects. For SC 2: Particleboard, there were four projects and SC 3: Plywood, three projects namely ISO 27567:2009 “Laminated veneer lumber - Measurement of dimensions and shape – Method of test”. The members agreed to revise ISO 2074 “Plywood – Vocabulary”.

In terms of vocabulary, Malaysia suggested adding the term ‘palm plywood’ to incorporate with the new terms. Malaysia had also prepared a draft standard for ISO 2426-4 on Classification by surface appearance for palmwood plywood. Prof. Dr. Paridah Md Tahir from UPM explained the draft in further detail. The members then suggested that the next meeting of ISO TC 89 be held in Malaysia in 2017.

In conjunction with the meeting, the participants were taken on a technical tour to I-Pan (Italian panel), formerly known as Bonzano Industries which were the first plant in Italy and the only one in Europe producing 100% Italian Poplar OSB panels.

Four Malaysian delegates representing MTIB, UPM, and FRIM attended the meeting. MTIB was represented by Puan Syafinaz Abd Rashad from Industry Development and Dr. Loh Yueh Feng from FIDEC. UPM was represented by Prof. Dr. Paridah Md Tahir and Dr. Rafeadah Rusli from FRIM.



Prof. Dr. Paridah Md Tahir from UPM explained on OPT Plywood in SC 3: Plywood meeting.

TECHNICAL TRAINING AT CITY & GUILDS IN THE UNITED KINGDOM

Human capital development is one of the strategic thrust under the National Timber Industry Policy (NATIP). In line with MTIB's role as an Industry Lead Body (ILB) in the development of human capital for the timber industry, MTIB through Wood Industry Skills Development Centre (WISDEC), has been recognised as accredited or approved training centre in carpentry, from City & Guilds of London Institute (City & Guilds).

City & Guilds, as the UK's leading vocational education organisation is pioneering a talent revolution by inspiring people to unlock their potential and develop their skills. It is recognised by employers worldwide for providing qualifications that offer proof of the skills they need to get the job done. Working with over 8,500 centres and training providers in 81 countries, they offer more than 500 qualifications across 28 industries and currently award around 1.9 million certificates each year.

WISDEC was appointed as an Approved Centre by City & Guilds in July 2014, which being the only one in ASEAN to offer a wood-based training programme. A group of eight participants including WISDEC trainers and industry partners were sent to attend a course, held in City of Oxford College, Oxford City, UK for two weeks from 18 April until 2 May.

The training consists of several particular modules which are as follows:

- City & Guilds Quality Assurance Practices Level 1/2/3
- Vocational Pedagogy
- Work Shadowing Teaching
- Industrial Visits
- Furniture Making Curriculum
- Carpentry and Joinery Curriculum
- Learning Company
- City & Guilds London – Building the workforce for tomorrow

The main focus of the course was to enhance knowledge of the participants on the actual learning guideline and qualification module of City & Guilds. It was organised through several mapping and match-crossing activities. The learning process included Furniture Making, Carpentry and Joinery Curriculum.

There were similarities between the modules from Malaysia and the UK in terms of the curriculum. However, the UK modules provide more freedom to the students to present their applied knowledge and skills in their own innovative styles. Trainees build up a portfolio with their own creativity, guided by compulsory tasks and modules. There are also differences between the wood and furniture trainings in the UK and in Malaysia. In the UK, trainees mostly target to start their own entrepreneurship after training is completed while back in Malaysia they will start working with a mass production company first.



Discussion on the curriculum.



A meeting with City & Guilds Director.

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The table below shows how the mapping process is being drafted :

No.	SKM Level 2: Furniture Production Operation	City & Guilds (Unit + Learning Outcome)	
		Level 2: Diploma in Furniture Design & Making	
1	Furniture Material Preparation	220: Timber Technology in Furniture Making, L.O.: 1+2 (6 credits)	210 : Health & safety (Test + Preparation
		230: Technical Drawing and Workshop Geometry, L.O.: 1+2 (7 credits)	
2	Solid Wood Lamination	206: Furniture Making by Hand, L.O.: 1+2 (Solid Wood) (21 credits)	
3	Loose Furniture Production	206: Furniture Making by Hand, L.O.: 1+2 (man made board)	
		202: Design Processes in Furniture Making (4 credits) - optional	
		207: Furniture Making Using Mechanical Fixings(16 credits) - optional	
4	Furniture Components Preparation	206: Furniture Making by Hand, L.O.: 1+2	
5	Furniture Components Assembly	205: Attaching Doors, Drawers and Fittings in Furniture Making, L.O.: 1+2 (3 credits)	
6	Furniture Finishing	209: Hand Finishing Methods in Furniture Making (14 credits)	
7	Furniture Panel Lamination - become		
Optional: For Personal CV		224: Prepare for Employment (4 credits)	
		225: Professional Responsibility in Furniture and Furnishing Making Environment (4 credits)	
		229: Sustainability in The Timber Trade (3 credit)	
Remarks:			
Mandatory Unit			
Optional Unit			
Already Mapped			

The Learning Cycle :

Stage	Purpose	Important
Connect	1. Review what learners know in terms of knowledge, skills & attitude	1. Engages them with the lesson 2. Catching/focuses their attention
Share	1. Structure/Organisation 2. Purpose of the session 3. How the learners to be assessed 4. To give logical framework 5. To make sure the session - SMART SMART - Specific, Measurable, Achievable, Realistic, Time-phased	1. Aims & Objectives communicated 2. To prevent confusion 3. To have clear visions
Present	1. Provide new information about: Skills, Knowledge & Attitude 2. Teacher + Learner centered 3. Interactive	1. Make things interesting 2. Checks understanding
Apply	1. Applying knowledge to something new 2. Provides 'real learning' 3. Prepares learners expected/unexpected 4. Complex, challengers 5. Confidence building	1. Solve problems 2. Creative
Review + Recall	1. Check/review learning --> knowledge, skills, attitude 2. Depth of learning	1. Helps us plan future inclusive learning



Work shadowing teaching in furniture making in Rycotewood.

Several industry visits were arranged by the organiser for participants. These included Benchmark Furniture, an Apprenticeship company for City & Guilds programme, Furniture Makers Hall, the Association for all England furniture makers and City & Guilds London, the headquarters of City & Guilds Group. An exclusive visit to Neptune Wood Centre showcased applications of British trees and the sustainable forest approach. Activate Learning has been identified and selected as a training location. Activate Learning Group consists of three main colleges which are City of Oxford College, Reading College and Banbury and Bicester College, all of which have been appointed as Approved Centres. The technical training was conducted by Mr. Chris Hyde from Rycotewood and Ms. Sian Cabrera from City of Oxford College.

The technical training mission was led by Encik Muhamad Faizul Razilah, Deputy Director of WISDEC. Other MTIB officers were Encik Mohd Hilmi Shamsuri, Encik Mohd Firdaus Md Mortar and Puan Nur Aneesa Saringan. MTIB believes that with this recognition and training in the UK, WISDEC would be able to conduct related technical training programme and produce more skilled workers for the timber industry in Malaysia. Hence, it will be recognised at the international level.

ASEAN MEETING ON STRENGTHENING OF WILDLIFE ENFORCEMENT INITIATIVES

The 10th Meeting of the ASEAN Wildlife Enforcement Network (ASEAN-WEN) was held in Bandar Seri Begawan, Brunei Darussalam from 5 to 6 May. It was hosted by the Ministry of Industry and Primary Resources of Brunei Darussalam. The meeting was attended by delegates from Brunei Darussalam, Indonesia, Lao PDR, Malaysia, the Philippines, Singapore, Thailand and Viet Nam, representatives from the ASEAN Secretariat and the ASEAN-WEN Programme Coordination Unit. Attendees of the open session included representatives from the USAID ARREST Programme and the FREELAND Foundation, the Environmental Investigation Agency and the United Nations Office on Drugs and Crime.

The objective of the meeting was to enable ASEAN Member States (AMS) to discuss and update strategic action plans for the region, identifying needs and prioritising activities and plans (taking note of the post 2015 ASEAN-WEN Strategic Action Plan and the Regional Action Plan on Convention on International Trade in Endangered Species of Wild Fauna and Flora CITES (2012–2015). The Strategic Action Plan strengthens regional cooperation and integration. In addition, it acts as an aid to ASEAN-WEN in strengthening the regional network of collaborative activities to reduce the supply of and demand for illegally traded wildlife. The initiative would significantly assist the networking and coordinating of enforcement activities with counterparts across the region, among the 10 AMS, to curb wildlife crime such as poaching.

The meeting was officially opened by Puan Hj. Hasnah Hj. Ibrahim, Deputy Permanent Secretary, Ministry of Industry and Primary Resources of Brunei Darussalam. She extended her warm welcome to all delegates on behalf of the host country. In her opening remarks, she noted that wildlife crime is a cross-border issue that needs collaboration from all parties. As such, there is a need to promote integrated actions to combat those activities. She also stated that activities that combat wildlife crime should also contribute to social and economic development while protecting biodiversity. The collected efforts to address the exploitation should be done as a collaboration among wildlife enforcement institutions and AMS with support from other stakeholders. It was observed that there is an increasing number of wildlife enforcement activities at national and in the region. Thus, an exchange of information and data on wildlife trade would also assist the enforcement process.

Puan Hj. Hasnah encouraged all AMS to strengthen regional cooperation in the areas of mutual concern to address current challenges and to contribute to the ASEAN Economic Community Blueprint. She urged the delegates to participate actively in the discussions and to share knowledge and experiences for the benefit of all AMS.

Following the 10th Meeting of The ASEAN-WEN was the 11th Meeting of the ASEAN Expert Group on the Convention on International Trade in Endangered Species of Wild Flora and Fauna (11th AEG – CITES) on 7 – 8 May. The meeting was attended by all AMS and the ASEAN Secretariat.

It was officiated by Encik Abdul Halidi Salleh, Director of Fisheries, Ministry of Industry and Primary Resources, Brunei Darussalam. He expressed sincere appreciation and warmly welcomed the delegates to Brunei Darussalam. He highlighted that CITES enforcement requires a multi-dimensional approach including scientific researches, awareness raising, capacity building, policy development, regional and international cooperation as well as law enforcement. He noted that since all AMS are members of CITES, it would provide an effective mechanism for controlling the trade in wild fauna and flora. The meeting also deliberated on several issues related with ASEAN's concerns such as disposal of illegally traded and confiscated specimens of Appendix I, II and III. During the meeting, matters related to the Meeting of the CITES Plants Committee was also shared in which the Plant Committee, ITTO-CITES and the Government of India co-organised the Asian Regional Workshop on Agarwood Management of Wild and Plantation Source held in January 2015 in India. Malaysia stated that the workshop in India had reached an understanding on the need to establish the glossary of Agarwood products to help identify various kinds of products on the CITES website. It was also recommended that the range states register their Agarwood plantations with the respective Management Authority in their countries.

Malaysia was represented by the Ministry of Natural Resources and Environment, Department of Wildlife and National Parks, Department of Agriculture, Department of Fisheries, MTIB, Sabah Wildlife Department and Forest Department of Sarawak. MTIB was represented by Encik Zahari Hamid from Licensing and Enforcement.



Representatives from ASEAN countries.



Malaysian delegation.

SEMINAR ON FOREST LAW ENFORCEMENT AND GOVERNANCE FOR OFFICIALS FROM DEVELOPING COUNTRIES

A seminar on Forest Law Enforcement and Governance for Officials from Developing Countries was held from 7 to 27 May in Beijing, China. The seminar was sponsored by the Ministry of Commerce, People's Republic of China (MOFCOM) and was organised by the State Academy of Forestry Administration (STAFA). STAFA is a training institution that provides training opportunities for government officials and other employees of the State Forest Administration, leaders from countries where key forestry programmes are implemented, local forestry leaders and technicians, leaders of large and medium sized forest enterprises, international trainees and key foresters. STAFA has also developed close collaboration with German Technical Cooperation, Japan International Cooperation Agency, the University of British Columbia, British Columbia Institute of Technology in Canada, Korea Forest Research Institute and Japan Forest Training Institute.

The seminar for officials from Developing Countries has been held since 2009. The seminar focusing on how to improve Forest Law Enforcement and Governance (FLEG) and Sustainable Forest Management (SFM) in a global scenario and also in China. Speakers from STAFA, the local forestry university and also the Local Forestry Bureau were invited to give lectures on topics about FLEG, ways to promote SFM with the market approach, forest resource management, the international cooperation process of FLEG, the introduction of policies and practices of green wood procurement, international timber trade, the tracing

of the timber supply chain and the guarantee of legal timber trading. The seminar participants also discussed the collaborations of the international community in combating illegal logging.

The seminar organiser also organised field trips and information-sharing sessions to analyse case studies in a Fujian Province. The seminar participants visited (Fuzhou) Fuzhou Botanical – Planning and Construction, Furen Group Co. Ltd. – Panel Board Production, (Fuzhou Municipality) Grassroot Forestry Working Station, Forest Inspection Station, (Wuyishan City) National Ecological Landscape Reserve, (Yong'an City) Yong'an Forest Factor Market and best practice of forest under-story development and Fujian Province Forestry Science & Technology Experiment Centre, (Nanjing County) Xiamen Botanical Garden – Plants Classification in Southern part of China.

The seminar helped participants explore new ideas, exchange experience, improve and strengthen the understanding on FLEG and the SFM. The seminar was attended by 31 participants from eight countries mainly from African region. One officer from MTIB and one officer from Malaysian Timber Certification Council attended. MTIB was represented by Encik Ahmad Ridduwan Darus, officer from Licensing and Enforcement.



Participants attending the seminar.

FORGING BUSINESS NETWORKING AMONG SMES

In conjunction with Malaysia's chairmanship of ASEAN, the Ministry of International Trade and Industry and SME Corp. Malaysia organised the first ASEAN SME Showcase and Conference (ASSC 2015) from 26 to 28 May at Kuala Lumpur Convention Centre. Themed 'One Business, One Community', over 100 ASEAN SMEs and 200 Malaysian SMEs participated in this event. ASSC 2015 was officiated by YAB Tan Sri Muhyiddin Mohd Yassin, Deputy Prime Minister on 26 May. Since business in ASEAN comprise 97% of SMEs, they have a prominent role to play when ASEAN becomes a single market and production base under the ASEAN Economic Community which will come into force in December. As such, ASSC 2015 is timely, providing a platform for SMEs to showcase their products, services and technologies to the global market.

MTIB participated in ASSC with Malaysian Palm Oil Board, Malaysia Pepper Board and Malaysian Cocoa Board under the Ministry of Plantation Industries and Commodities pavilion in Hall 1. Apart from promoting MTIB's journals and books, Pro Team Interior Sdn. Bhd. was invited to participate and exhibit their kitchen cabinets that using bamboo as a veneer. Furniture designs from TANGGAM were also put on display.

Besides the exhibition, a conference and pocket talks were also held. More than 1,500 participants from 324 local companies, ministries and agencies as well as 62 international companies and bodies participated in ASSC.



A visitor at MTIB booth.



Products displayed at MTIB booth.

UPDATES ON MARKET OF TIMBER AND TIMBER PRODUCTS IN CHINA, INDIA, EUROPE AND USA

A marketing seminar entitled “Recent Market Dynamics for Timber and Timber Products in China, India, Europe and USA” was organised by the Malaysian Timber Council (MTC) on 18 May in Kuala Lumpur.

The seminar was held to keep the industry abreast of market changes, challenges, prospects and opportunities in selected markets of China, India, Europe and USA. Datuk Wee Jeck Seng, Chairman of MTC in his welcoming remarks welcomed the participants and convey his expectation that the participants will take the opportunity to learn from the experience and expertise of the invited speakers from those markets. He also hoped that the information deliberated during the seminar enable to assists the industry members to identify business opportunities as well as enhancing export of Malaysian timber and timber products.

Mr. Donald Amstad from Aberdeen Asset Management Asia Ltd. deliberated the topic on “Current Global Economic Scenario”. In his presentation, he stated that the global GDP growth forecast down slightly to 3.3% from 3.4% previously. This would remain unchanged from last year’s global growth rate due to delayed worldwide activity. In the meanwhile, Mr. Philip Yap from PYD Associates, China talks on the topic of “Current Market Trends and Developments for Timber and Furniture in China”. He shared his experience on surviving business in China and how Malaysian can tap into the lucrative Chinese market.

The third presenter, Mr. Muhammad Nazeer from Global Pluz, India presented on the market trends and development of timber and furniture in India. India is set to become the world’s fastest growing major economy by 2016 with GDP expected to grow at 6.5%. Among the opportunities highlighted are the tremendous increase in the demand from large infrastructural development due to India’s becoming major construction market in the world. There is also concern on the shortage of tropical timber for their domestic production, thus, encouraging more import into India from other producers of tropical timbers.

The fourth presenter, Mr. Bart de Truck of the Belgian Timber Importers Federation shared his opinion on the market development of timber and furniture in the Europe despite the challenges in the economic situation of the region. GDP growth in Europe is expected to slowly and moderately improve by 1.3% in 2015 and to further improve by 1.6% in 2016. This is due to the strengthened domestic and foreign demand, very accommodative monetary policy and a broadly neutral fiscal stance. He also pointed out opportunities for Malaysian timber and furniture exporters. Among the opportunities are the preferences of consumer in Europe to use tropical timber for their outdoor furniture and environmental friendly products particularly the products with PEFC certificates.

The last presenter, Ms. Cindy Squires of the International Wood Products Association (IWPA), US shared her information on the current developments of timber and furniture in the US market. The US economic recovery is slow however, relatively strong US GDP growth leads to strengthening of the US Dollar. Housing sales continue to improve however, will not be similar to the pre-2008 levels in the immediate future. In addition, consumer confidence continues improving trend even though with a drop in April 2015. Apart from that, she also highlighted that the US Environmental Protection Agency is proposing new rules on formaldehyde regulation that is beyond California Air Resource Board (CARB) 1 & 2 and in addition, CARB Phase 3 – Amendment to Rules is currently under development.

The seminar drew participation of more than 100 participants from various sectors of the timber industry as well as representatives from relevant Ministries and government agencies. MTIB was represented by officials from Trade Development, Bumiputera Economy Empowerment and Strategic Planning & Corporate Affairs. 





Malaysian Wood
Standing on Excellence

Lukisan Seribu Makna, Kayu Eratkan Semua
A Picture Paints a Thousand Words. Wood Binds Them All

Jelutong Dyera spp.

www.mtib.gov.my





WOOD PLASTIC COMPOSITES (WPC) AS BUILDING MATERIALS



WPC wall panel / ceiling panel



WPC skirting

In both new construction projects and renovation work, design professionals are continuing to discover the advantages of plastic composite building products, which include durability, light weight, corrosion resistance, high strength, and low maintenance followed by standard requirements. These plastic materials are highly versatile as they can be engineered to give specific performance characteristics. Technically known as fibre-reinforced plastics or wood plastic composites (WPC), WPC generally comprises two components: a reinforcement fibre and a polymer binder (often called a matrix).

The size, shape, proportional weight/volume, and material of the reinforcing fibres used typically determine the plastic composite's mechanical properties, such as stiffness and strength. The type and proportion of the plastic resin matrix, on the other hand, lends the finished plastic composite its physical characteristics, including resistance to impact strength.

In each case, the plastic composite is designed to provide a combination of properties that are intended to be superior to the individual ingredient in formulation. Fillers or additives can also be used to lend the final plastic composite attributes such as resistance to ultraviolet (UV) rays, fire resistance and termite resistance. Advances in plastic composite formulations and manufacturing technology offer exciting opportunities to custom-design high performance properties into a wide variety of commercial and residential building applications, not only for new designs, but also for architectural projects.

Unique Materials

Designers of WPC can choose from a wide variety of plastic resin systems and fibre reinforcements when making a specific product. Resins, also known as binders, are typically thermoset plastics (e.g. polyester, vinyl ester, modified acrylic, epoxy, phenolic, urethane) that serve as the glue holding the reinforcing fibres together in an orderly fashion. These fibres, which are embedded in the plastic resin matrix, are structured to overlap and help transfer the load within the WPC structure.

The WPC structural properties depend primarily on the type of fibre used. While glass fibres are the main ingredients for many WPC, certain physical characteristics can be harnessed through the use of carbon, aramid, or boron fibres.

These materials impart stiffness and strength to the finished plastic composite and can control, to varying degrees, the end product weight. A wide range of properties and performance levels can be achieved to match the requirements for a specific application.

Natural Fibres

Agricultural and wood fibres have also generated interest in the last decade, especially in the housing field. Although polyethylene, polyvinyl chloride (PVC), and polypropylene are the dominant polymers frequently used with natural-fibre composites, natural fibres can also be used with phenolics, polyester, polystyrene, polyurethane, and other polymer matrixes.

Many plastic composite building products are now produced by embedding natural fibres derived from the bast (i.e. outer stem) of certain plants—wood flour, flax, jute, kenaf, and coconut—in a polyester or polypropylene matrix. The moderate mechanical properties of natural fibres typically prevent them from being used in high-performance applications, but their low specific weight results in relatively high specific strength and stiffness, and is generally a benefit for parts designed for bending stiff applications.

Another natural fibre, wood, is used primarily in composite versions of building products such as decking, window and door profiles, decorative part, railings, and panel products. These plastic composite building products can contain anywhere from 30 to 70% wood, depending on the application, with about 50% being typically used. Regardless of the proportion, the fibres used in these plastic composites most often take the form of a particulate (e.g. wood flour), rather than the longer individual fibres commonly used in inorganic-fibre composites. Commonly used species include tropical species (e.g Merbau, Meranti, Chengal), Pine, Maple, and Oak.

The polymer matrix or plastic resin used in wood-fibre composites can consist of:

- polyethylene (common in external building components and being investigated for building profiles);
- Polyvinyl chloride (PVC) (historically used in window manufacture and now also being used in decking);
- polypropylene (PP);
- polystyrene; and/or
- acrylonitrile-butadiene-styrene (ABS).

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Some plastic product manufacturers use other thermoset plastic resins to produce specialty plastic composites with high wood content composition. As with inorganic-fibre composites, small amounts of other materials can be added to wood-plastic composites (WPCs) to improve processing and performance of the material produced. Additives may include heat stabilisers, coupling agents, light stabilisers, pigments, lubricants, fungicides, and foaming agents.

WPC as Building Materials

In both new construction projects and renovation work, light weight and corrosion-resistant plastic composite materials compete with traditional materials in residential, commercial, and industrial construction applications, including pipe, sheet piling for retaining walls, shingles, and concrete reinforcements (e.g. rebar). When a structural element, such as a wall or beam, can benefit from additional support, WPC could present a solution. Typical projects which lend themselves to the advantages of WPC include decks, walls, and roofs.

WPCs are used in prefabricated, portable, and modular buildings, as well as exterior cladding panels, which can simulate masonry or stone. In interior applications, WPCs find application in shower enclosures and trays, baths, sinks, troughs, and spas. Vanity units, bench tops, and basins can also be made from cast composite products. Each type of plastic composites brings its own performance characteristics, as illustrated by the following paragraphs.



WPC ceiling paneling

WPC Panel and Lumber Products

Polyurethane-based binders are usually used to make WPC panels in various configurations, including oriented-strand board (OSB), hardboard (HB), medium-density fibreboard (MDF) and strawboard, particleboard (PB), and laminated veneer lumber.

Often used as structural sheathing, flooring, and roofing in residential construction, OSB is made by coating strands of wood with plastic resin and then pressing them together at high temperature and pressure to form panels required. By orienting the milled wood strands in layers (with each successive layer roughly perpendicular to the previous one), OSB panels can exhibit substantial structural strength per unit thickness, allowing them to meet the requirements of many building codes for numerous specific applications.

Milled strands and veneers can also be used to fabricate engineered lumber that can replace components made of traditional materials for many applications used. If strands are milled at longer lengths than those used in OSB, and then aligned longitudinally across the entire cross section, they could be formed into long-strand lumber (LSL). Long, narrow veneer strips can also be layered along their length to form laminated-veneer lumber (LVL).

Another structural component used is the I-joist, which comprises an OSB web integrally bonded to LSL, LVL, or sawn 2x4 flanges. I-joists offer an alternative to traditionally constructed joists because they typically weigh less material. Furthermore, since their length is limited only by the size of manufacturing equipment and shipping considerations (rather than the height of a tree), I-joists can be produced in longer lengths than those typically available compared with traditional materials. When a space is being redesigned, longer I-joists can help increase building spans—this not only allows architects more aesthetic freedom, but can also possibly help reduce the number of intervening support walls or columns in construction.



WPC decking

Decking, Fencing and Railings

WPCs are commonly used when it is time to replace the exterior decking and mouldings, door jambs, fencing, and other applications where durability is an important performance attribute. When properly manufactured and installed, WPC lumber rarely rots, cracks, warps, or splinters in most normal U.S. climatic conditions. (As with all building products, the specifier should consult the manufacturer's documentation.)

Typically stain-resistant, waterproof, ultraviolet (UV) light-resistant, and impervious to insects, WPCs can be made strong enough for applications such as load-bearing deck boards. They also tend to have good dimensional stability and a lower coefficient of expansion than solid plastics. Wood fibre and rice husk are common organic fillers used in these applications.

Co-extruded WPC railings— typically comprising a core of polyvinyl chloride (PVC) or ABS resin and wood fibre capped by a weatherable polyvinyl chloride (PVC) or acrylonitrile-styrene-acrylate (ASA) protective layer—are increasingly being offered as an additional measure of customisation for contractors and DIY renovators. Along with a variety of colour offerings to complement wood plastic composite decks, these capped composite railings offer water, stain, fade, and UV resistance.

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Windows and Doors

Polyvinyl chloride (PVC) is often used as the thermoplastic matrix in window applications (although other plastics are also employed). The fibre employed in windows and doors is usually 80 to 200-mesh wood fibre—this produces a wood-filled polyvinyl chloride (PVC) product, which offers good thermal stability, moisture resistance, and stiffness.

In new exterior applications, both vinyl and polyolefin (e.g. polyethylene and polypropylene) plastic resins have been combined with wood flour to form an exterior trim that resists rot and weathering. The resulting material can be moulded into a wide range of designs that typically do not require painting as finishing. At least one window manufacturer is creating such trim by combining the post-industrial waste from both its wood and vinyl window manufacturing operations.

There is also a growing trend toward using high-end WPCs for doorjamb. By eliminating some of the performance concerns of commonly used materials, WPC doorjamb can offer a complete and virtually maintenance-free system.

A low density core made of honeycomb or foam materials can provide structural performance with minimum weight. Other considerations, such as sound insulation, heat resistance, and vibration-damping, dictate the choice of core material being used.



WPC wall paneling

Walls

WPC materials are also being used in renovation applications to help strengthen beams, slabs, walls, columns, chimneys, and other structural elements subjected to deterioration, additional service loads, or excessive deflection caused by change in use, construction or design defects, code changes, and seismic retrofit.

Wrapping masonry in WPC materials can significantly increase its strength. This is particularly important in many communities where seismic codes have been tightened and masonry and concrete walls must be upgraded to meet them. The advantages of fibreglass reinforced plastic (FRP) materials lie in their high tensile strength, low weight, and their ability to conform to varying shapes designed. The growing use of fibreglass reinforced plastic (FRP) composites in repair and retrofit of concrete and masonry structures has opened the door for similar applications in strengthening wood beams structure.

Roofs

Most manufacturers offer roofing shingles made of both post-industrial and post-consumer recycled rubber, recycled plastic, and cellulose fibre. Bound together with polymer adhesives, these shingles can be made to look like cedar shakes or slate tiles, as well as standard asphalt shingles design. They may help to lower building energy consumption, while providing long, virtually maintenance-free service life ever.



The nature's composite ability to build any style of traditional privacy fence as a building materials.

Pipes

Glass-reinforced plastic (GRP) pipe is used for the transport of water and wastewater in pressure and non-pressure pipe systems. Glass-reinforced plastic (GRP) is a filament-wound, structural plastic composite made with glass fibre and polyester resins. The pipe is lightweight, corrosion-resistant, and designed for ease-of-installation. Its corrosion resistance can ultimately give products made from the material a long, effective service life with low maintenance costs while making it a strong candidate for piping applications in environments with acidic soil content.

Conclusion

Increasing interest in high-performance building solutions should continue to drive the growth of these WPC materials in new construction and renovation, especially wide residential housing applications. WPC differs from traditional materials in that the combination of their distinctly different components can make new high-strength, lightweight materials with corrosion resistance, fire resistance, long-term durability, and low maintenance requirements. WPC also can offer design flexibility, good vibrational damping, and resistance to both fatigue and temperature extremes. Skilled designers and fabricators understand WPCs' unique properties and performance capabilities and are able to develop custom-designed plastic products for optimal material performance. The unique blend of properties designed into the final product allows designers and manufacturers to substitute high-performance WPC for traditional materials.

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THAILAND'S HOSPITALITY AND HOUSING STARTS EXPECTED TO INCREASE

Introduction

A unified Thai kingdom was established in the mid-14th century. Known as Siam until 1939, Thailand is the only Southeast Asian country never to have been colonised by a European power. A bloodless revolution in 1932 led to the establishment of a constitutional monarchy.

The most conspicuous features of Thailand's terrain are high mountains, a central plain, and an upland plateau. Mountains cover much of northern Thailand and extend along the Myanmar border down through the Kra Isthmus and the Malay Peninsula. The central plain is a lowland area drained by the Chao Phraya River and its tributaries, the country's principal river system, which feeds into the delta at the head of the Bay of Bangkok. The Chao Phraya system drains about one-third of the nation's territory. In the northeastern part of the country the Khorat Plateau, a region of gently rolling low hills and shallow lakes, drains into the Mekong through the Mun River. The Mekong system empties into the South China Sea and includes a series of canals and dams.

Economy

With a well-developed infrastructure, a free-enterprise economy, generally pro-investment policies, and strong export industries, Thailand has had a strong economy due in part to industrial and agriculture exports - mostly electronics, agricultural commodities, automobiles and parts, and processed foods. Thailand attracts nearly 2.5 million migrant workers from neighbouring countries. The Thai government in 2013 implemented a nation-wide 300 Baht (USD10) per day minimum wage policy and deployed new tax reforms designed to lower rates on middle-income earners.

The Thai economy has weathered both internal and external economic shocks in recent years. The global economic recession severely cut Thailand's exports, with most sectors experiencing double-digit drops. Thailand's economy was one of the fastest growing in the world, but this coincided with the rapid depletion of its natural resources. The GDP Real Growth Rate is 1% (2014 est.) whilst the GDP per Capita USD14,400. Thailand's labour force are divided into agriculture (38.2%), industry (13.6%) and services (48.2%).

Forest Resources

The Kingdom of Thailand is located in the south-eastern part of continental Asia, bordered by Myanmar, the Lao PDR, Cambodia and Malaysia. It has a land area of 510,890 km² and a population of 68 million people.

The forests can be classified as evergreen forests with three sub-types; tropical rainforests, semi-evergreen forests and hill evergreen forests (43% of the forest area), dominated by species of the genera *Dipterocarpus*, *Hopea*, *Shorea*, *Lagerstroemia*, *Diospyros*, *Terminalia*, and *Artocarpus*; Pine



forests, mainly of *Pinus merkusii* (2%); mangrove and coastal forests (2%), the main mangrove genera being *Rhizophora*, *Avicennia* and *Bruguiera* and the main beach genera *Diospyros*, *Lagerstroemia* and *Casuarina*; mixed deciduous forest (22%), the dominant species being Teak (*Tectona grandis*), *Xylia kerrii*, *Pterocarpus macrocarpus*, *Dalbergia* spp and *Azelia xylocarpa*; and dry dipterocarp forest (31%).

The country's forest cover is 189,029 km² or 37% of Thailand's land area. About 96% of the total forest area is natural forest while reforestation and secondary growth make up the rest of the area. Teak and Pine are the predominant species in the northern region of Thailand. In the southern region, species of Yang (Keruing) are relatively abundance. There are also some shore species of Teak and Merbau.

Forest Plantation

Forest plantations are owned by both the private and government sector. In 2013, there were about 8,878.6 km² of forest plantation belonging to the government whilst an estimated 3,600 km² or 75% of Thailand's total forest plantation was grown by the private sector. Species grown are mostly of *Eucalyptus camaldulensis* and it is becoming an important raw material to the wood industries in Thailand. Another important material is Rubberwood, also known as Parawood. There are approximately 1.96 million ha of Rubberwood plantation, 85% of which are in the southern part of Thailand. Recent Rubberwood plantations are located at the north eastern part. More than 80% of wood products exported are derived from the Rubberwood plantation.

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Wood-based Industry

The wood-based sector comprises 514 sawmills, 6,352 woodworking mills, 52 pulp and paper mills, 17 particleboard and six fibreboard mills. Nearly all mills are private owned. Focusing solely on the furniture industry, there are currently 2,458 manufacturers of furniture and furniture parts. Most of them are among the 1,446 micro manufacturers, followed by 758 small manufacturers, 257 medium manufacturers and 27 large manufacturers.

However, the potential exporters are only medium and large factories, totalling 284 manufacturers of the total. Most of these manufacturers obtain promotional privileges from the Board of Investment.

Forty percent of the furniture and parts plants are located in Bangkok and surrounding areas, while the remaining plants are spread all over the country. The major factors taken into consideration to locate production are the availability of transportation, marketplace and raw material source locations.

Malaysia: Export of Timber and Timber Products to Thailand, 2010-2014

(Value : RM '000)

Product	2010	2011	2012	2013	2014
Logs	32,186	22,351	16,983	12,821	14,987
Sawntimber	487,270	463,070	525,715	449,638	405,696
Plywood	65,075	51,413	65,030	72,478	81,882
Veneer	2,595	664	2,102	206	76
Mouldings	1,617	1,137	2,522	2,273	1,831
Chipboard/Particleboard	308	2,061	1,049	1,027	2,160
Fibreboard	2,052	3,710	374	1,972	1,977
Wooden Frame	1,709	1,431	1,385	1,157	644
Builders Joinery and Carpentry	20,759	27,910	30,758	30,504	32,427
Wooden Furniture	30,433	50,676	59,035	42,484	41,634
Rattan Furniture	83	812	1,337	1,634	1,685
Other Products	38,178	44,581	53,899	17,712	17,677
TOTAL	682,265	669,816	760,189	633,908	602,677

Source: Department of Statistics Malaysia (DOSM) and MTIB

(Volume: m³)

Product	2010	2011	2012	2013	2014
Logs	55,514	29,775	24,032	19,486	22,857
Sawntimber	623,289	636,776	632,755	461,249	384,724
Plywood	53,937	39,014	47,919	51,277	57,618
Veneer	3,324	515	2,405	120	33
Mouldings	2,049	1,482	2,376	2,276	1,630
Chipboard/Particleboard	175	3,021	1,416	808	2,010
Fibreboard	1,869	3,866	152	2,947	2,808

Source: DOSM and MTIB

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Malaysia's Export of Timber and Timber Products to Thailand

Malaysia's export of timber and timber products to Thailand has been on a decreasing trend. In 2013, exports dropped 17% to RM633.9 million and continued to drop by 5% in 2014 to RM602.7 million.

Sawntimber have been the main export to Thailand. However the amount has been decreasing. In 2013, exports were at RM449.6 million and in 2014, decreased by 10% to RM405.7 million. Exports of plywood totalled RM72.7 million in 2013 and further increased substantially to RM81.9 million in 2014.

Wooden furniture exports to Thailand registered at RM42.5 million in 2013, however, dropped to RM41.6 million in 2014.

Exports of BJC totalled RM30.5 million in 2013 and increased to RM32.4 million in 2014. Exports of logs on the other hand, registered at RM12.8 million in 2013 and in 2014 exports were at RM15.0 million.

Malaysia's Import of Timber and Timber Products from Thailand

Malaysia's import of timber and timber products from Thailand is quite significant and shows a fluctuating trend. Imports totalled RM472.4 million in 2010 and decreased to RM346.5 million in the following year. Imports continued to increase to RM368.7 million in 2012 and in 2013, dropped to RM300.2 million. In 2014, imports increased significantly to RM347.3 million.

Malaysia's main imports of timber and timber products from Thailand are particleboard, sawntimber, mouldings, fibreboard, wooden furniture and BJC.

Malaysia: Import of Timber Products from Thailand, 2010-2014

(Value : RM '000)

Product	2010	2011	2012	2013	2014
Logs	5	0	410	95	0
Sawntimber	90,751	38,315	43,490	17,863	18,599
Plywood	281	315	118	32	5,459
Veneer	113	27	829	666	17
Mouldings	40,953	18,340	14,264	10,101	9,509
Chipboard/Particleboard	259,236	229,840	238,428	189,789	211,661
Fibreboard	25,591	22,857	32,029	35,672	40,351
Wooden Frame	5	393	75	191	4
BJC	14,636	11,675	8,063	8,448	13,169
Wooden Furniture	16,544	9,202	15,791	21,330	36,905
Rattan Furniture	313	210	203	494	333
Other Products	23,998	15,279	14,958	15,486	11,627
TOTAL	472,428	346,454	368,659	300,167	347,335

Source: DOSM and MTIB

(Volume: m³)

Product	2010	2011	2012	2013	2014
Logs	25	0	422	27	0
Sawntimber	108,373	39,440	46,411	19,367	18,698
Plywood	429	610	76	29	5,040
Veneer	122	16	698	140	22
Mouldings	22,080	9,288	7,163	5,350	5,001
Chipboard/Particleboard	812,515	475,604	443,827	358,327	412,577
Fibreboard	46,155	29,965	39,038	52,029	51,111

Source: DOSM and MTIB

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Thailand: Export of Major Timber and Timber Products, 2010-2014

(Value: USD'000)

Product	2010	2011	2012	2013	2014
Sawntimber	539,422	724,764	703,659	900,522	940,330
Furniture and Parts Thereof	593,293	579,954	533,495	544,601	519,697
Fibreboard	347,942	401,651	392,958	438,049	492,172
Particleboard/Chipboard	275,030	302,442	282,293	272,127	322,490
Fuel Wood	204,271	305,902	353,691	320,238	297,833
Wood Marquetry	53,469	61,294	62,177	54,720	55,553
Wooden Frames	61,379	59,187	51,054	44,252	40,221
Tableware and Kitchenware	30,512	31,911	31,829	34,788	38,228
BJC	27,954	28,086	29,900	32,740	34,999
Articles of Wood	33,191	31,763	30,052	26,140	21,918
Plywood	23,674	18,674	15,036	15,667	19,511
Other Products	53,479	54,918	45,568	41,160	50,900
TOTAL	2,243,616	2,600,546	2,531,712	2,725,004	2,833,852

Source: International Trade Centre

Thailand: Import of Major Timber and Timber Products, 2010-2014

(Value: USD'000)

Product	2010	2011	2012	2013	2014
Sawntimber	323,390	342,971	381,363	318,890	280,819
Furniture and Parts Thereof	104,743	135,948	194,642	221,874	235,593
Plywood	95,285	119,648	135,490	154,817	147,724
Logs	62,824	55,041	65,652	80,449	70,410
Veneer	26,599	29,664	26,742	22,464	24,517
Fibreboard	14,255	16,867	16,320	18,813	22,172
Articles of wood	12,015	17,949	18,422	19,797	21,065
Wood charcoal	8,187	13,308	15,256	13,232	16,615
BJC	10,016	12,780	17,511	15,882	14,162
Fuel wood	6,035	8,630	9,789	8,637	7,792
Mouldings	8,462	9,052	8,041	7,347	6,638
Other Products	20,243	26,031	24,184	27,214	29,276
TOTAL	692,054	787,889	913,412	909,416	876,783

Source: International Trade Centre

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Timber Export

Thailand's export of timber and timber products in 2014 increased 4% to USD2.8 billion over the previous corresponding period. Thailand exports a significant amount of sawntimber worth USD940.3 million in 2014, an increase of 4% from the previous corresponding period. Exports of fibreboard and particleboard also grew by 12% and 18% to USD492.2 million and USD322.5 million respectively. Similarly, exports of BJC and plywood increased by 7% and 24% to USD35.0 million and USD19.5 million respectively.

Timber Import

Thailand's import of timber and timber products in 2014 were recorded at USD876.8 million, a decrease of 4% from the previous corresponding period. Thailand imports mainly sawntimber, furniture, plywood, logs, veneer, fibreboard, articles of wood and BJC. Imports of furniture, veneer, fibreboard, articles of wood and wood charcoal increased by 6%, 9%, 18%, 7% and 26% to USD235.6 million, USD24.5 million, USD22.2 million, USD21.1 million and USD16.6 million respectively.

Import Tariff

Thailand imposed low import duty for timber and timber products. Tariff import for ASEAN countries into the country are duty free. Import duty for logs and sawntimber are at 1%, veneer, mouldings, particleboards, fibreboards and plywoods are at 5%. BJC and furniture and parts thereof are each levied at 20% while seats ranges at 10-20%:

Thailand : Import Tariff for Timber Products

Code	Product	ASEAN Tariff (%)	MFN Tariff (%)
4403	Logs	0	1
4407	Sawntimber	0	1
4408	Veneer	0	5
4409	Mouldings	0	5
4410	Particleboard / Chipboard	0	5
4411	Fibreboard	0	5
4412	Plywood	0	5
4418	BJC	0	20
9401	Seats	0	10-20
9403	Furniture and Parts Thereof	0	20

Prospects

Thailand is a very significant market for Malaysian timber and timber products. Majority of the Malaysian sawntimber imported by Thailand is being used to produce timber framing and the balance for BJC production mainly joinery items of window, door and its frames.

There were slight reduction of Malaysian timber exports to Thailand, especially sawntimber, throughout these years (2013-2014) and current year performance (2015) due to the slow economic growth of Thailand. This is because of the continuing political instability that Thailand has been facing since 2013 and is still currently facing military ruling. Slower economic growth worldwide also currently impacting Thailand domestic market, particularly impacted from the reduced global demand for its rice and rubber products that leads to slower economic growth in Thailand.

Malaysian timber have to compete with the alternative non-timber based materials such as steel, cement boards and laminated boards. There are also competition from the Canadian and the US temperate woods against Malaysian hardwood due to their 10% lower offer price compared to the Malaysian timber. This lower price is obtained through the currently lower exchange rate of the Thai Baht versus the USD.

Despite of the slow economic growth and competition, it is predicted that there should be a 10% increase of construction activity in Thailand in 2015. This is mainly focused to the expected increase in hospitality industry and housing starts within Thailand. It is expected that there will be 25-30 million Baht industry spending to upgrade the Thai hospitality industry. In addition, there will be about 600,000 units of new housing/residential to be built throughout the country of which 50% will be of condominium type.

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KERUING BUKIT - A UTILITY TIMBER



Keruing Bukit tree

Introduction

Dipterocarpus costatus belongs to family Dipterocarpaceae and is locally known as Keruing Bukit. This species is widely distributed in the Andaman Islands, Bangladesh, Myanmar, Thailand, Indo-China, Lao PDR and Peninsular Malaysia.

Bukit meaning hill, refers to the most preferred habitat of the species. It occurs at the lowland of hill forests at altitudes of 600 to 1,100 m. In the seasonal forests of the northern states in the peninsula, it occurs at almost sea level. *D. costatus* is a gregarious tree and sometimes dominates the upper canopy.

The trees reach heights of over 100-200 feet (25-45 metres) and diameters of up to 3-6 feet (0.75 - 1.5 metres). They are usually straight, clear, cylindrical boles up to 70 feet long, above small buttresses.

General Characteristics

The sapwood for Keruing Bukit is well-defined and grey-brown. The heartwood is red-brown or purple-red weathering to a dark red-brown. The grain is straight to deeply interlocked. The texture is moderately coarse to coarse and even. The vessels are moderately large or very large with simple perforations, few or moderately few, exclusively solitary, evenly distributed but often with a tendency to arrange in short oblique lines. The tyloses are abundant in some species.

The wood parenchyma is both apotracheal and paratracheal; apotracheal parenchyma is scattered or confluent patches containing vertical resin canals and in some species with diffuse strands or short tangential lines independent of resin canals; paratracheal parenchyma is very sparse as incomplete borders to the vessels, not always distinct with a hand lens. The rays are of two distinct sizes, medium-sized rays distinct to the naked eye. The vertical canals are as large or larger than the vessels in some species. The arrangement diffuses or is in short tangential lines containing two to seven canals in a series or very rarely in continuous tangential series.

Density

Keruing Bukit is a medium hardwood with a density that ranges from 690 to 945kg/m³ or 40-60 lb/ft³ air-dry density. The average weight for Keruing Bukit is 740 kgm³ or 46 lb/ft³. *D. tuberculatus* weighs 880 kg/m³ or 55 lb/ft³. Shrinkage rates for radials are 1.6-3.1% and 3.3-7.4% for tangentials.

Tracheids and Fibres

Vascular or vasicentric tracheids are commonly present. Fibres are of medium wall thickness. Average fibre length is 1,600–2,100–2,500 µm. Fibre pits are common in both radial and tangential walls, and are distinctly bordered. Fibres are non-septate.



Resak Vatica spp.

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Axial Parenchyma

The axial parenchyma for Keruing Bukit is apotracheal and paratracheal. Apotracheal axial parenchyma is diffuse and diffuse-in-aggregates. Paratracheal axial parenchyma is scanty and vasicentric. The axial parenchyma is in strands and the average number of cells per axial parenchyma strand is four to six.

Mineral Inclusions

The mineral inclusions are crystals, not visible to the naked eye. The silica is present as grains in ray cells. The rays are five to nine per tangential mm, multiseriate (also if only a few), three or four to six cells wide. The rays are composed of two or more cell types (heterocellular). Heterocellular rays with square and upright cells are restricted to marginal rows and procumbent, square and upright cells are mixed throughout the rays, mostly two to four marginal rows of upright or square cells and with more than four marginal rows of upright or square cells. Sheath cells are absent.

Secretory Structures

Intercellular canals are present; axial type, diffusely arranged.

Machining Properties

Keruing Bukit timber is easy to cross-cut but is slightly difficult to resaw as the resin tends to clog the saw teeth. This timber is also easy and produces smooth-finished surfaces on planing and boring. However it is slightly difficult to turn keruing timber as the process often produces rough-finished surfaces.

Physical and Chemical Properties

To investigate the effect of oleoresin extraction on wood properties for Keruing Bukit, the wood was tested for its physical and mechanical properties, covering specific gravity, modulus of proportional limit (MPL), modulus of elasticity (MOE), modulus of rupture (MOR), compression parallel to grain, and side hardness. The results are shown in **Table 1**.

Table 1 : Physical and Chemical Properties of Extracted Keruing Bukit Wood

Chemical for Extraction	Properties	Percentage of Chemical			
		0	0.5	1	1.5
Sulfate	Specific gravity	0.856	0.761	0.798	0.856
	MPL, kg/ m ²	400	150.43	257.75	123.89
	MOE, kg/ m ²	66,013.31	11,7012.9	16,6381.365	6,1367.36
	MOR, kg/ m ²	496.9	259.78	345.81	255.06
	Compression/ grain kg/ m ²	344.63	261.65	269.99	239.35
	Hardness, kg	247.75	180.5	157.5	87.25
Nitrate	Specific gravity	0.856	0.803	0.863	0.875
	MPL, kg/ m ²	400	134.89	360.12	319
	MOE, kg/ m ²	66,013.31	52,222.81	43,739.25	46,035.93
	MOR, kg/ m ²	496.9	344.73	267.71	345.9
	Compression/ grain kg/ m ²	344.63	293.89	377.61	368.87
	Hardness, kg	247.75	279.75	155	171.5

Uses

The Keruing Bukit timber is essentially a utility timber and has been used very extensively for heavy and general building construction, railway sleepers, powerline poles, posts, beams, framework of carriages and wagons and wagon flooring. The timber is generally free from defects but it is not very durable when in contact with the ground or when exposed to termite and fungal infections. If it is used outdoors (under tropical conditions) it should be treated with appropriate preservatives.

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MTIB Moments



From Malaysia to Milan: Dr. Jalaluddin Harun, MTIB Director-General being interviewed in the "Selamat Pagi Malaysia" (RTM) slot on 3 May 2015.



A course on Lead Assessor ISO 9001: 2008 organised by SIRIM Training Sdn. Bhd. from 25 to 29 May 2015 in Shah Alam, Selangor. Five MTIB officials attended the programme.



Training to upgrade MTIB Quality Control Inspectors (QCI) competency held from 25 to 29 May 2015 in Rantau Panjang, Kelantan.



A workshop on Forest Plantation Insurance and Repayment held from 26 to 27 May 2015 in Kuala Lumpur.



The Super Personnel: Mobilising Organisational Excellence course held from 26 to 28 May 2015 at MTIB, Kuala Lumpur.