



MASKAYU



**51ST SESSION OF INTERNATIONAL
TROPICAL TIMBER COUNCIL**

8TH AFPIC COUNCIL MEETING

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Cover : Activity of Karas tree inoculation. Related story on page 15.



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51ST SESSION OF INTERNATIONAL TROPICAL TIMBER COUNCIL



From L-R: Steven Johnson, ITTO Secretariat; Manoel Sobral Filho, UNFF Secretariat; Dato' Dr. Freezailah Bin Che Yeom, Chairperson ITTC 51; YB Datuk Amar Douglas Uggah Embas, Minister of Plantation Industries & Commodities, Malaysia; Barbara Serwah Asamoah, Deputy Minister, Ministry of Land and Natural Resources of Ghana; Jennifer Conje, Vice-chairperson ITTC-51; Ngole Philip Ngwese, Minister of Forestry and Wildlife of Cameroon and Edmond Collins Ahadome, ITTO Secretariat, posing during opening session of ITTC-51.

The 51st International Tropical Timber Council (ITTC) meeting was held on 16-21 November in Kuala Lumpur, Malaysia. YB Datuk Amar Douglas Uggah Embas, Minister of Plantation Industries and Commodities, Malaysia welcomed delegates and highlighted progress made to date in pursuing sustainable management of tropical forest. He talked about the Heart of Borneo project, a collaborative effort between Malaysia, Indonesia and Brunei, to maintain habitat corridors and connectivity. Also present during the opening session of the council were Honourable Ngole Philip Ngwese, Minister of Forestry and Wildlife, Cameroon; Honourable Barbara Serwaa Asamoah, Deputy Minister, Ministry of Lands and Natural Resources, Ghana; and Manoel Sobral Filho, Director, UN Forum on Forests (UNFF), Secretariat.

Dato' Dr. Freezailah Bin Che Yeom (Malaysia), Council Chair officially opened the meeting and highlighted the need for both producer and consumer countries to unite in promoting the expansion and diversification of the international trade of tropical timber through sustainably harvested timber as stated in International Tropical Timber Agreement (ITTA) 2006.

During the session, the Council discussed the selection of the next International Tropical Timber Organisation (ITTO) Executive Director, the loss of ITTO funds due to impairments of investments, and rules for the admission of observers to ITTC. The Council also discussed ITTO's ongoing cooperation with the Convention on International Trade in Endangered Species of Wild Fauna and Flora, developments regarding forests in the UN Framework Convention on Climate Change, the ITTO Convention on Biological Diversity Collaborative Initiative, and regional ITTO presence and representation.



Attendees at the meeting.

The delegates convened the 49th session of the Committee on Economics, Statistics and Markets and the Committee on Forest Industry (CEM-CFI), and the Committee on Reforestation and Forest Management (CRF), to approve projects and pre-projects, review projects and pre-projects under implementation and ex-post evaluations, and conduct policy work. The 30th session of the Committee on Finance and Administration (CFA) met to discuss, inter alia, the current status of the Administrative Account, and the biennial administrative budget for 2016-2017.

The Council also discussed the admission of observers to sessions of the ITTC, recognising the important role that observers play in bringing new issues, perspectives and concerns regarding tropical forests to the attention of ITTO members. The decision also confirmed the Council's intention to ensure that its sessions are transparent and that its work continues to be disseminated to all stakeholders.

On the matter of the election of the new Executive Director (ED), Malaysia was in favour of the next ITTO ED being selected from a producer country, as ITTO is hosted by a consumer country. However, the Council was unable to reach an agreement despite attempts to reach a consensus after two rounds of voting.

In conjunction with the ITTC meeting, the 2015 Annual Market Discussion was also held. The discussion organised by the Trade Advisory Group was themed "Raising the Profile of Tropical Timber in the Market Place". The participants apprised of the need to raise the profile of tropical timber and timber products as the tropical timber sector has demonstrated its capacity to provide legal credentials for its products.

The 52nd session of the ITTC will take place in Yokohama, Japan, from 7 to 12 November 2016. The committee approved Ms. Jennifer Conje (US) as Chair for 2016, and Mr. Tabi Agyarko (Ghana) as Vice-Chair for the next session.



TIMBER WORLD IN BRIEF

ASIA

Timber Markets Slowed Down

The stock market slide in China has slowed down the Asian timber markets. The demand in China for Okume and the lower qualities of mixed and coloured African and Malaysian hardwoods has decreased recently. Timber exporters have lowered their production volumes and maintained firm price levels. In China, the National Forest Authority is going to ban logging in its natural forests by 2016. The industry has to rely on plantation wood and is going to need more imported wood. There is still demand for high value hardwoods in China and Middle East.

Timber Trades Journal, 27 November

AUSTRALIA

Investment Spending By Business Drops

As shown by the Australian Bureau of Statistics (ABS), companies in Australia lowered investment spending by 9.2% on a per-quarter basis in the third quarter of 2015. During the September 2015 quarter, there was a quarterly decline of 8.2% in spending on machinery, plants and equipment, and investment in structures and buildings decreased 9.8%. Total new capital expenditure slumped by 20% for the year to September 2015. Meanwhile, in fiscal 2015, firms expect to invest AUD120.40 billion (EUR81.86 billion/USD87.15 billion). The figure is a reduction of 20.9% from the previous corresponding period.

Australian (The), 26 November

CHINA

Free Trade Zone in Manzhouli Port

China has signed many free trade agreements as part of its trade development strategy. Current agreements cover 22 countries and regions such as the 10 ASEAN countries, New Zealand, Singapore, Pakistan, Chile, Peru, Costa Rica, Iceland, Switzerland, South Korea and Australia.

The easing of trade regulations between the mainland and Hong Kong and Taiwan continues. The establishment of free trade zones is also part of China's foreign trade strategies and favorable policies for free trade zone have encouraged export-oriented enterprises to relocate to these zones. The Chinese government has a free trade agreement with South Korea and is negotiating with Japan. Both South Korea and Japan are important trade partners and much of the trade with these two countries is through Manzhouli Port. With a free trade zone in Manzhouli port processing and re-export will be facilitated.

Fordaq, 26 November

ESTONIA

Domestic Wood and Forest Sector Industries Contribute to GDP

The Estonian wood products and forest sector industries as well as paper and furniture industries contribute a significant share of the national economy growth. Liisa Oviir, Minister of Entrepreneurship, claimed that the importance of wood in the construction sector is on an upward trend, promoted by the environmental and energy saving aspects. The Estonian wood and forest sector industries export over 60% of their combined output. Oviir said that Estonia was the biggest exporter of timber and timber-frame houses in Europe.

The domestic wood furniture industry's export was 65.7% of the total output whereas of the industry's capacity, only 60-70% of the projected capacity was used. The forest and wood sector industries employ 30,000 people and it accounts for 15% of the domestic manufacturing industries' revenue. The Estonian wood industry's revenue increased by 10% while the furniture industry increased by 8.5% in September from the same month in 2014.

Delfi - Estonia, 17 November

EUROPEAN UNION

Threat of Terror Will Impact the Economy

European Commission Vice-President, Valdis Dombrovskis said in an interview with Swedish newspaper Dagens Industri that it was too early to draw any conclusion about whether the Paris terror attacks will have economic consequences on the EU countries. However, the threat of terror would affect the countries' economies, he stated. At the same time, the refugee crisis is impacting the member countries' budgets although the European Commission predicts that it will have a positive impact on the EU economy provided that the refugees are integrated. An exemption from the demand for a maximum budget deficit of 3% of GDP will be made for the countries that are receiving many refugees, Dombrovskis announced.

Dagens Industri, 20 November

FINLAND

Sawmills Eyeing Exports Opportunities in Viet Nam and Iran

Senior Vice President of Timber and Upgrades at Finnish Metsä Wood, Henrik Söderström, said the current market situation is challenging. Pine sawntimber, in particular, is in oversupply. The oil price decline has affected buyers in North Africa and the Middle East and the situation is not expected to change soon. The global sawntimber market relies on the recovery of construction in the US. Asia is also contributing to growing demand. Finpro, Finland's national trade, internationalisation and investment development organisation, has designed an exports programme for sawmills. Juha Niemelä, Director General of the Ministry

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of Agriculture and Forestry in Finland, said the programme has been successfully launched. Export opportunities in China look promising. According to Niemelä, potential markets could also exist in Viet Nam and Iran.

Kaupalehti, 19 November

FINLAND **Wood Purchases from Private Forests**

According to the Natural Resources Institute Finland, the forest industry purchased 3.22 million m³ of roundwood from private forests in Finland in October 2015. Roundwood trade volume was one-fifth above the 2015 average. In real terms, the stumpage price level was 0.2% above the 2014 average. The stumpage price level of roundwood decreased by 1.0% from September 2015. The stumpage price of Pine pulpwood was EUR15.3 per m³ and the price of Spruce pulpwood was EUR16.7 per m³.

Press Release, Natural Resources Institute Finland, 18 November

FRANCE **Housing Construction Up**

In the 12 months leading up to the end of October 2015, housing construction projects in France were down 0.5% compared to the same period a year earlier. Building permits were down 3.1%, while permit cancellations were above average for both individual housing (15.9%) and collective housing (20%). In the three months up to the end of October 2015, housing construction projects were up 0.3%, following a 0.8% rise in the previous three months. Individual housing projects were up 2% while collective housing projects were down 0.9%. Building permits were up 2.5%, compared with growth of 3.1% for the previous three months.

Boursier.com, 27 November

INDONESIA **EU Raises Concern Over Removal of Stipulation on Indonesia's Wood Verification Legality System (SVLK) Certification**

The European Union (EU) has raised its concern over the removal of a stipulation on timber legality verification system or SVLK certification by the Indonesian government, and the EU has asked the government to revive the certification requirement and to revise the new regulation. As part of a deregulation move, Thomas Trikarsi Lembong, Indonesian Trade Minister, has revised Regulation No 66/2015 which was approved in August 2015 and replaced it with Regulation No 89/2015, which now allows local exporters to export 15 downstream timber products without the timber legality verification system certification. Indonesia's export of timber to the EU increased to USD645.90 million (EUR599.79 million) in 2014, an increase of 8.9% from USD593 million in 2013.

Jakarta Post, 16 November

KAZAKHSTAN **Gross Domestic Product (GDP) Growth Forecast Declines**

According to Kazakhstan's Minister of National Economy Yerbolat Dosaev, the government has reduced the forecast for real GDP growth in 2015 by 0.3% to 1.2%.

Novosti-Kazakhstan, 19 November

Lao PDR **Forestry Legality Compendium Finalised to Promote Legal Timber Trade**

In Lao PDR, the Forestry Legality Compendium has reached and finalised an essential achievement in promoting legal timber trade. According to Khamphout Phandanouvong, Director-General of the Ministry of Agriculture and Forestry's Forest Inspection Department, the Forestry Legality Compendium will ensure the regulatory framework of the forestry sector is made clearer and thus, it is crucial that efforts are made to manage forests in a sustainable manner, which will help expand forest coverage to 70%, as set by the Ministry of Agriculture and Forestry in the Forest Strategy.

The Forestry Legality Compendium project was carried out to gather all relevant legal provisions and come up with a summary study on the forestry legality framework, which includes legislation related to forestland, forests, and the use of forest products, which include those from forest conversion/concession areas, production forests, plantations, and village-used forests. It will guide policy makers on ways and areas to upgrade the forestry's legal framework, said Stephen Rudgard, FAO representative to Lao PDR. Also covered by the framework are planning, harvesting, processing, transportation and trade in semi-processed and unprocessed wood and finished products.

KPL - Lao News Agency, 9 November

LATVIA **Forest Products Exports Up**

In the first nine months of 2015, Latvia exported forest products in the value of EUR1.532 billion, an increase of 3% as compared to the same period last year, when Latvian exports amounted to EUR1.489 billion, data of the Latvian Agriculture Ministry show, compiled by Belta news agency. Exports of timber and related products rose 1.6% year-on-year to EUR1.305 billion in the nine months of 2015.

The major destinations for Latvian forest products were the UK, Germany and Sweden. Goods delivered to the UK amounted to 18.3% of total forest product exports and were worth EUR280 million, exports to Germany accounted for 10.3%, or EUR157 million while exports to Sweden accounted for 8.8% or EUR134 million.

Meanwhile, Latvian imports of forest products also grew 6.4% year-on-year to EUR531 million from EUR499 million in the nine months of 2014. The top three import partners remained unchanged, with Lithuania supplying

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SHIPPING NEWS



Malaysia: MMC Plans to Buy Additional Stake in NCB

Malaysian company MMC Corp (MMC) intends to purchase an extra stake of 53.42% in Northport operator, NCB Holdings (NCB), to hold a controlling share. According to MMC, the planned purchase of the combined 53.42% interest held by AmanahRaya Trustees and Permodalan Nasional Bhd. (PNB) will enable it to obtain nearly total control. MMC wants to buy the stake for a cash total of RM1.10 billion (EUR232.31 million, USD263.63 million). Once the proposed acquisition completes, MMC's subsidiary, MMC Port, would increase its stake in NCB to 83.55%. Following that, MMC Port would be making a mandatory general offer for the rest of NCB shares it does not already hold at RM4.40 each. MMC already holds an interest of 30.13% in NCB. MMC has no intention of retaining NCB's listing status on the Main Market of Bursa Malaysia.

Source: New Straits Times, 20 October

Spain: Freight Imports at Ports Rise 4.97% in January to July 2015

Ports managed by Port Authorities in Spain handled the import of 107.19 million tonnes of freight in the January to July period of 2015, which is 4.97% up from a year earlier when the volume came to 102.12 million tonnes. The growth contrasts with the 0.71% decrease seen in exports, which reached just 50 million tonnes in the seven months. The port of Cartagena topped the list for imports

with a growth of 5.69% to 12.44 million tonnes followed by Bilbao at 6.78% to 11.25 million tonnes, Algeciras at 1.36% to 10.75 million tonnes and Tarragona at 3.92% to 10.68 million tonnes. The lowest volume of freight imports was in Malaga, with 202,447 tonnes (despite growing a massive 98.59%) followed by Ceuta with 182,720 tonnes (-9.81%) and Melilla (-12.4%) with 89,170 tonnes. Along with Malaga, the other ports to see the most growth were Cadiz which was up 76.71% to 631,739 tonnes and the Balearics at 35.99% to 395,258 tonnes. Only eight ports experienced falls in their volume of imports.

Source: Logistica y Transporte, 7 October

Mexico: Naviera Integral to Invest USD30 million in Frontera Port

Mexican company Naviera Integral, which specialises in the provision of maritime transport services, has announced an investment of USD30 million (EUR26.41 million) to increase operations at Frontera Port, in Tabasco. The firm seeks to motivate the arrival of further companies to the terminal to generate opportunities among local businesses. Naviera Integral explained that it is focused on expanding not only the transport of energy products, but also agricultural imports and exports. Arturo Nunez, governor of Tabasco, stated that the new energy regulation and the contracts awarded with the second Ronda Uno tender could help Frontera recover its position as one of the main ports in Mexico, favoured for its location close to oil fields.

Source: El Financiero, 11 October

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

Products	Port Klang		Kuantan		Pasir Gudang		Tanjung Pelepas		Penang		Total all Ports m³	% Change Oct 2015 / Sept 2015
	m³	% Change Oct 2015 / Sept 2015	m³	% Change Oct 2015 / Sept 2015	m³	% Change Oct 2015 / Sept 2015	m³	% Change Oct 2015 / Sept 2015	m³	% Change Oct 2015 / Sept 2015		
Sawntimber	55,946	-15	5,197	-9	1,913	47	178	-26	7,687	4	70,921	-12
MDF	29,239	14	96	-51	10,313	-3	6,473	-27	9,158	-46	55,279	-11
Mouldings	11,369	-8	265	-41	1,965	-4	488	-40	1,016	-39	15,103	-13
Plywood	6,828	-7	0	-100	24	-54	34	-67	11,445	16	18,331	5
Veneer	676	17	0	-100	13	-13	123	100	323	22	1,012	14
Particleboard	32,073	-9	173	26	36	-69	13	-79	206	100	32,295	-9
TOTAL	136,131	-7	5,732	-12	14,264	0	7,309	-27	29,835	-18	193,271	-10

Source : MTIB

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Rusia: Sea Ports Lower Container Turnover in Q1-Q3 2015

According to the Association of Sea Commercial Ports, container turnover of Russian sea ports amounted to 2.96 million twenty-foot equivalent units (TEU's) in January-September 2015, against 3.99 million TEU's in the same period last year. Exports of containers decreased by 28.4% to 1.24 million TEU's, imports by 29.7% to 1.23 million TEU's, transit by 31.5% to 54,050 TEU's, coastal turnover increased by 0.1% to 429,120 TEU's. Container turnover of the Baltic basin ports lowered by 30.6% to 1.48 million TEU's, of the Far East ports by 23.7% to 912,410 TEU's, of the Azov-Black Sea basin ports by 19% to 458,910 TEU's and of the Caspian basin ports by 10.4% to 2,110 TEU's. Ports of the Arctic Basin increased their container turnover by 7.7% to 97,980 TEU's.

Source: LogLink.ru, 13 October

United States: Port of Los Angeles' Container Shipments Drop 17.5% in September 2015

The Port of Los Angeles in California, US saw a 17.5% year-on-year drop in loaded container cargo shipments in September 2015. Shipments fell to 124,286 TEUs and a fall of 9.4% was seen in imports to 372,991 inbound containers. Export containers fell for the 12th consecutive month, indicating that the container port is bearing most of the impact from the slowdown in trade in the US. In recent months, shipping at most major US ports has been slow due to a lower demand for US goods in troubled Asian and European economies. Meanwhile, imports have been restrained due to overstocking by American retailers earlier in 2015. Los Angeles seems to reporting some of the deepest declines, the Port of Long Beach saw just a 1.9% decline in imports and 6.1% increase in exports. Major ports in New York, New Jersey, Seattle and Tacoma, and Savannah, Georgia have seen two-digit increases in import containers in January-August 2015. Congestion in the West Coast due to on-going contract negotiations with dockworkers' unions has benefited East Coast ports.

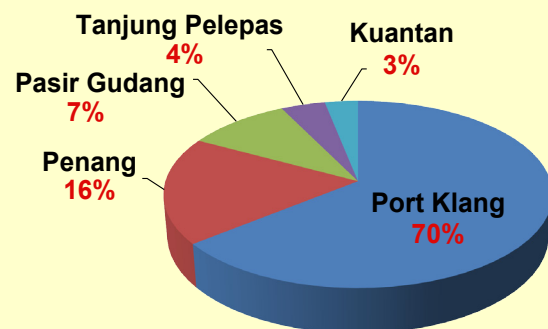
Source: LogLink.ru, 13 October

Denmark: Maersk Line to Increase Freight Rates

Danish container shipping company Maersk Line, a subsidiary of Danish conglomerate A.P. Møller-Mærsk, has announced that it aims to increase the freight rates on routes between Asia and Europe. The increase stems from the low profitability in the industry today. Maersk Line has therefore announced an increase of USD1,000 per TEUs on these routes starting on 1 November 2015. Meanwhile, German transportation company Hapag-Lloyd has announced that it will test raising rates by USD 950 per TEU's on the same routes starting on 4 November 2015.

Source: Borsen, 20 October

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



Total = 193,271 m³



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Total export of Malaysia timber and timber products in October 2015 increase 5% valued at RM2.1 billion over the previous month. Furthermore, cumulative export for the period of January to October increased 7% valued at RM18.3 billion over the corresponding period.

Sawntimber

Export of sawntimber in October 2015 decreased 8% in volume and 4% in value to 171,414 m³ with a value of RM306.2 million compared to the previous month. In the meanwhile, cumulative export for the first 10 months of 2015 improved 5% in volume and 19% in value to 1.7 million m³ totalled RM2.6 billion over the previous corresponding period.

Export of sawntimber to the EU for the month increased 24% to 13,689 m³ from 11,024 m³ recorded in the previous month as a result of increasing purchases made by the UK, France, Belgium and Germany. Export to the UK increased 21% to 2,315 m³, followed by France by 124% to 1,465 m³, Belgium by 37% to 1,324 m³ and Germany by 8% to 1,321 m³. However, export to the Netherlands decreased marginally to 5,532 m³ from 5,605 m³ recorded in the previous month.

Total exports to West Asia improved 23% to 33,210 m³ from 27,020 m³ in the previous month as a result of increasing purchases made by Yemen and Qatar. Export of sawntimber to Yemen improved by 347% to 12,998 m³ followed by Qatar by 162% to 1,821 m³. In addition, export to Kuwait increased 42% to 849 m³ from 598 m³ recorded in the previous month. However, export to the UAE, Bahrain and Saudi Arabia declined 22%, 20% and 63% to 9,057 m³, 1,202 m³ and 1,101 m³ respectively.

Buying from ASEAN declined 36% to 52,076 m³ from 80,718 m³ in the previous month. Export to Thailand and the Philippines decreased 41% to 23,557 m³ and 46% to 15,551 m³ respectively. However, export to Singapore improved 15% to 12,075 m³ from 10,514 m³ in the previous month.

Shipments to East Asia increased 26% to 42,565 m³ from 33,827 m³ in the previous month. Export to China registered an increase of 15% to 20,461 m³, followed by Taiwan by 43% to 10,126 m³ and Japan by 41% to 6,701 m³. Similarly, export to South Korea increased 7% to 4,358 m³ from 4,061 m³ in the previous month.

Elsewhere, export to the US increased marginally to 796 m³ from 791 m³ in the previous month. Similarly intake by South Africa improved 4% to 7,819 m³. However, purchases from Australia decreased marginally to 1,293 m³ from 1,308 m³ recorded in the previous month.

The average FOB price of sawntimber increased 18% to RM1,786 per m³ from RM1,518 per m³ in the previous month. Price of Dark Red Meranti (DRM) decreased 4% to RM2,777 per m³ from RM2,886 per m³ in the previous month. Price of DRM to the Netherlands increased 0.4% to RM3,565 per m³ from RM3,551 per m³ in the previous month. Keruing was traded at RM1,678 per m³, an increase of 5% from the previous month.

Plywood

Total export of plywood in October increased 7% in volume and 6% in value to 241,293 m³ valued at RM479.09 million as compared to the previous month. However, cumulative exports for the period January-October 2015 decreased by 15% in volume and 7% in value to 2,130,318 m³ and RM3.91 billion respectively as compared to the previous corresponding period in 2014.

Total exports to EU increased by 45% to 14,164 m³. Similarly, shipments to Belgium, Denmark, Netherlands and UK increased by 3,337%, 839%, 19% and 17% to 1,478 m³, 432 m³, 1,660 m³ and 9,459 m³ respectively whilst Italy maintained its intake at 38 m³ whereas France and Ireland resumed their intake. On the other hand, Germany did not make any purchases.

Exports to ASEAN region increased as Brunei and the Philippines imports of plywood increased by 34% and 80% to 872 m³ and 8,060 m³ respectively whilst Indonesia resumed its intake. However, Singapore and Thailand reduced their intake by 7% and 18% to 3,801 m³ and 5,543 m³ respectively. In East Asia, exports to China, South Korea and Taiwan increased by 1%, 75% and 10% to 3,212 m³, 26,160 m³ and 16,005 m³ respectively. However, Hong Kong and Japan reduced their intake by 10% and 28% to 4,503 m³ and 94,609 m³ respectively.

Exports to West Asia increased by 67% as compared to the previous month. Similarly, shipments to Saudi Arabia and Yemen increased by 192% and 1,656% to 525 m³ and 8,747 m³ respectively. Nevertheless, Bahrain, the UAE and Qatar reduced their intake by 57%, 13% and 76% to 563 m³, 2,404 m³ and 187 m³ respectively whilst Kuwait did not make any purchases.

Elsewhere, exports of plywood to South Africa, the US and Australia increased by 88%, 265% and 78% to 479 m³, 6,355 m³ and 5,928 m³ respectively whilst Turkey resumed its intake. However, Mexico, Canada and New Zealand reduced their intake by 1%, 78% and 5% to 4,044 m³, 438 m³ and 41 m³ respectively whilst Mauritius did not make any purchases.

The FOB price of plywood decreased by 1% to RM1,986 per m³ from RM2,012 per m³ in the previous month.

Veneer

Exports of veneer for October 2015 showed an increase of 29% in volume and 28% in value to 23,726 m³ at RM38.65 million as compared to the previous month. Exports to Australia, Taiwan and Viet Nam increased by 142%, 134% and 71% to 261 m³, 14,318 m³ and 183 m³ respectively whilst Philippines maintained its intake at 198 m³. Meanwhile, Canada, China, India, South Korea and Singapore reduced their intake by 91%, 9%, 8%, 29% and 27% to 12 m³, 546 m³, 368 m³, 6,513 m³ and 63 m³ respectively whilst Italy and Chile did not make any purchases.

The FOB price of veneer decreased to RM1,629 per m³ from RM1,641 per m³, a decrease of 1% from the previous month.

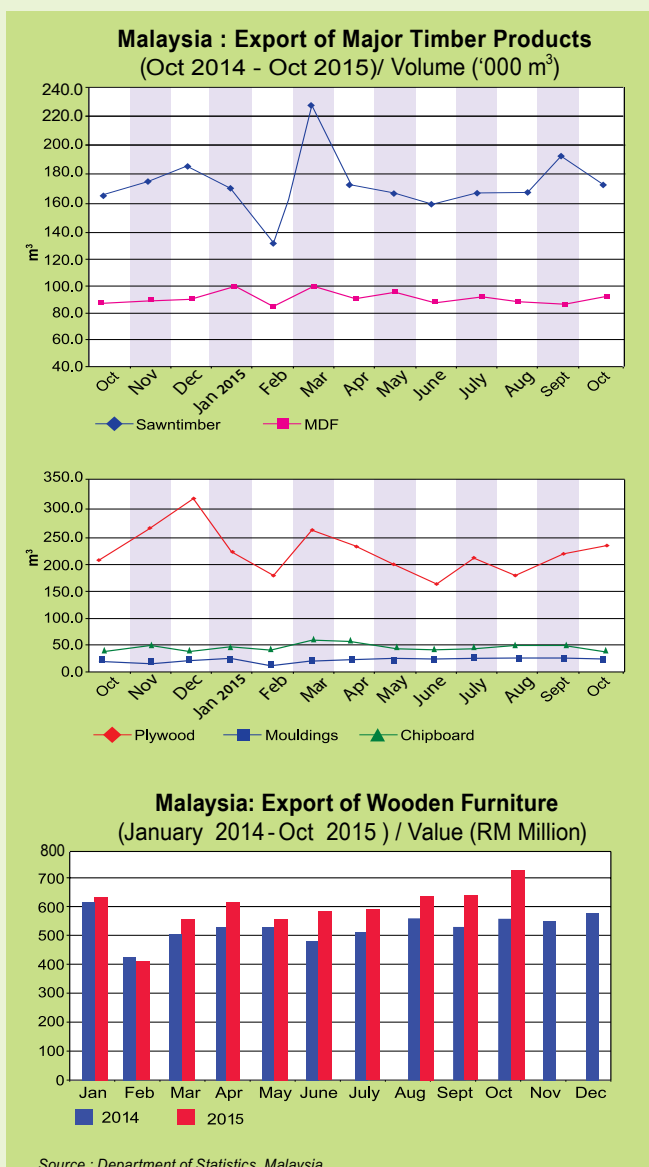
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Medium Density Fibreboard (MDF)

Malaysia's exports of MDF for October 2015 showed an increase of 10% in volume and 12% in value from the previous month. Export totalled 80,039 m³ at RM101.0 million.

Exports to East Asia registered a decrease of 10% to 12,465 m³ from 13,811 m³ in the previous month. Exports to South Korea increased by 2044% to 193 m³ followed by China (including Hong Kong) also increased by 761% to 534 m³ and Taiwan increased by 42% to 981 m³. However, Japan decreased by 18% to 10,757 m³.

Meanwhile exports to West Asia in October 2015 also recorded a positive growth with an increase of 52% in volume to 37,562 m³ from 24,677 m³ in the previous month. Export to Syria recorded an increase of 235% to 4,158 m³ followed by Lebanon at 100% to 3,375 m³. Import from the UAE also increased by 70% to 14,879 m³, followed by Jordan increased 39% to 322 m³ and lastly Saudi Arabia increased by 20% to 4,495 m³. On the other hand, Iran, Bahrain, Kuwait, Oman and Qatar dropped by 8% to 2,051 m³, 14% to 751 m³, 17% to 3,412 m³, 34% to 1,324 m³ and 48% to 791 m³ respectively from the previous month.



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Furthermore, export to South Asia also recorded negative growth by 1% in volume to 9,963 m³ from 10,083 m³. Only export to Bangladesh increased by 23% to 729 m³. Meanwhile, Pakistan, Sri Lanka and India recorded negative growth decreased by 0.4% to 6,435 m³, 5% to 1,671 m³ and 12% to 1,128 m³.

Export to Mauritius showed an increase by 46% to 406 m³ and demand from Australia also increased by 6% to 2,530 m³. However, exports to the UK and South Africa showed a marginal decreased by 7% to 140 m³ and 33% to 275 m³ respectively.

In ASEAN, total export to ASEAN region for this month showed decreased by 7% to 13,871 m³ from 14,839 m³ in the previous month. Only export to Singapore increased by 15% to 198 m³. Export to Viet Nam, Indonesia and Philippines down by 3% to 10,367 m³, 3% to 2,064 m³ and 34% to 1,138 m³ respectively.

Mouldings

Exports of mouldings for the month decreased by 2.4% in volume and increase by 1.0% in value to 20,977 m³ and RM73.4 million respectively. Similarly, cumulative exports for the period of January-October 2015 increased by 4.9% in volume and 17.3% in value to 224,666 m³ and RM699.3 million respectively as compared to the previous corresponding period in 2014.

Exports to the EU for the month recorded at 7,729 m³, decrease of 0.8% compared to the previous month. Shipment to Belgium, the Netherlands and UK increase by 5.2%, 10.3% and 6.7% to 802 m³, 3,914 m³ and 797 m³ respectively. However, shipments to Germany and Italy decreased by 19.7% and 64.7% to 1349 m³ and 18 m³ compared to the previous month.

Exports to ASEAN region increased as Singapore intake of mouldings increased by 3.5% to 1,369 m³. However, Viet Nam reduced its intake by 42.4% to 125 m³ and Indonesia did not make any purchases.

Meanwhile, exports to Japan, South Korea, Hong Kong and China increased by 7.3%, 26.1%, 90.1% and 3.4% to 2,121 m³, 1,772 m³, 538 m³ and 793 m³ respectively. However, Taiwan decreased by 11.6% to 114 m³ compared to the previous month.

Elsewhere, export to Australia, the US and Canada decreased by 8.1%, 46% and 64.1% to 3,174 m³, 1,440 m³ and 69 m³ respectively. FOB unit value increased 1.9% from RM3,431 per m³ in the previous month to RM3,497 per m³ in October 2015.

Builders Joinery and Carpentry (BJC)

Total BJC cumulative exports from January to October 2015 increased 7.1% to RM902.9 million as compared to RM843.3 million in the corresponding period last year. Export to the EU increased 10% to RM252.1 million. Export to the UK and Sweden increased by 19% and 95% to RM142.1 million and RM14.2 million. Export to France, Denmark, Germany, Turkey, Italy, Norway and Netherlands decreased by 7%, 2%, 14%, 25%, 45%, 59% and 87% to

OCTOBER 2015



Logs

In Peninsular Malaysia, trading activities continued to stable. Generally, the average domestic prices of logs for most of the species for the month under review hovering at last month's level.

Log prices for the species of Chengal, Balau and Merbau were traded at RM4,000 per tonne, RM3,000 per tonne and RM2,650 per tonne respectively. Similarly, the prices of Keruing, Kempas, and Kapur stood at RM1,400 per tonne, RM1,380 per tonne and RM1,700 per tonne as compared to last month. Prices of Dark Red Meranti, Red Meranti and Yellow Meranti logs maintained at RM1,900 per tonne, RM1,800 per tonne and RM1,150 per tonne respectively whilst Mersawa logs charted an increase of 1.3% to RM1,620 per tonne compared to the previous month. Log prices of Mixed Heavy Hardwood grew by 3.3% to RM903 per tonne, whilst Mixed Light Hardwood prices remained at RM1,200 per tonne.

Sawntimber

The average sawntimber prices for most of the species in the domestic market continued to firm whilst some of the species experiencing some price reduction. At the same time, demand from overseas markets were reported to be lower especially from China and India.

The sawntimber prices of Chengal and Balau continued to be traded at RM6,638 per m³ and RM3,178 per m³ respectively. However, Merbau prices jumped by 17.8% to RM3,107 per m³ over the previous month. On the contrary, prices for the species of Kapur declined significantly by 30.9% to RM1,554 per m³ compared to last month. Meanwhile, Keruing and Kempas sawntimber prices stood at RM1,766 per m³ and RM1,871 per m³ respectively. On the other hand, sawntimber prices of Mixed Heavy Hardwood dropped by 29.4% to RM573 whilst Mixed Light Hardwood prices remained at RM1,130 per m³.

Plywood

Although the demand and supply were quite low from both domestic and overseas market, industry representatives reported that the prices of plywood remained stable and fetching at the last month's level. Plywood of 4mm, 6mm, 9mm and 12mm of thicknesses were traded at RM14.60, RM22.00, RM34.50 and RM41.50 per piece respectively.

Medium Density Fibreboard (MDF)

There was positive demand reported from key end-use such as construction and furniture industries for MDF market. However, the prices were reported to still hovering at last month's level. 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 *- October 2015

Shipments of sawntimber from Sabah to Peninsular Malaysia decreased by half or 57% to 303 m³ valued at RM836,000. However, shipment of plywood grew by 17% to 9,091 m³, worth RM18.2 million.

The export of sawntimber from Sarawak to Peninsular Malaysia also reported to decline significantly by 70% in volume to 507 m³ valued at RM590,000. Similarly, export of plywood dropped slightly by 1% to 9,292 m³ valued at RM12.9 million as compared to the previous month. Likewise, shipment of veneer fell by 36% to 7,344 m³, worth RM10.8 million.

No intra trade activities from Peninsular Malaysia to Sabah and Sarawak were recorded in October 2015.

INTRA-MALAYSIA TRADE – OCTOBER 2015

From	Products	SEPTEMBER 2015		OCTOBER 2015		% Change in Volume OCT 2015 / SEP 2015	% Change in Value OCT 2015 / SEP 2015
		Volume (m ³)	Value (RM '000)	Volume (m ³)	Value (RM '000)		
SABAH	Logs	0	0	0	0	-	-
	Sawntimber	705	1,354	303	836	-57	-38
	Plywood	7,764	14,323	9,091	18,152	17	27
	Veneer	0	0	0	0	-	-
SARAWAK	Logs	0	0	0	0	-	-
	Sawntimber	1,708	1,518	507	590	-70	-61
	Plywood	9,369	13,129	9,292	12,937	-1	-1
	Veneer	11,421	16,358	7,344	10,839	-36	-34

Source : Department of Statistics, Malaysia

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

SPECIES	LOGS/tonne	SAWNTIMBER/m ³			
	18" UP	GMS	STRIPS	SCANTLINGS	
HEAVY HARDWOOD					
Chengal	4,000	6,638	7,062	8,828	
Balau	3,000	3,178	3,531	3,531	
Red Balau	2,500	2,966	3,037	3,178	
Merbau	2,650	3,107	3,143	3,249	
Mixed Heavy Hardwood	903	573	777	812	
MEDIUM HARDWOOD					
Keruing	1,400	1,766	1,412	2,203	
Kempas	1,380	1,871	1,907	2,010	
Kapur	1,700	1,554	1,589	2,331	
Mengkulang	1,100	1,412	1,448	1,575	
Tualang	1,340	2,366	2,401	2,436	
LIGHT HARDWOOD					
Dark Red Meranti	1,900	2,190	2,260	2,754	
Red Meranti	1,800	1,871	1,893	1,907	
Yellow Meranti	1,150	1,400	1,405	1,412	
White Meranti	1,040	2,119	2,189	2,260	
Mersawa	1,620	1,554	1,624	1,660	
Nyatoh	900	777	847	1,201	
Sepetir	850	1,107	1,448	1,469	
Jelutong	1,030	1,412	1,483	1,554	
Mixed Light Hardwood	1,200	1,130	1,201	1,236	
MALAYSIAN RUBBERWOOD <i>Hevea brasiliensis</i>	LOGS/tonne	SAWNTIMBER/m ³			
	140	1" X 1"	2" X 2"	3" X 3"	4" X 4"
		706	1,045	1,081	1,186
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

RM16.8 million, RM14.9 million, RM7.27 million, RM2.53 million, RM2.46 million, RM211,000 and RM197,000 respectively. However, export to Belgium increased by 1% to RM44.7 million compared to the previous year.

In Asia, exports to Japan, Taiwan, Saudi Arabia, Qatar, the UAE, South Korea and Bahrain decreased 5%, 0.4%, 37%, 13%, 62%, 21% and 58% valued at RM61.4 million, RM15.3 million, RM5.8 million, RM4.6 million, RM3.7 million, RM2.4 million and RM1.4 million respectively. However, exports to Singapore, India, Pakistan, Thailand and Viet Nam grew 6%, 4%, 20%, 10% and 31% to RM106.4 million, RM54.6 million, RM34.2 million, RM29.6 million and RM27.4 million respectively.

Exports to Australia, South Africa, Maldives and the US increased by 16%, 67%, 169% and 10% to RM131.5 million, RM17.4 million, RM13.6 million and RM79 million respectively.

Furniture

Wooden and rattan furniture exports between January to October 2015 improved by 13% to RM5.98 billion compared to RM5.27 billion recorded in the previous corresponding period of last year.

Exports of wooden furniture from Malaysia increased by 14% from RM5.95 billion to RM5.24 billion compared to

the same period in 2014. Economic recovery in the US, although seemed to be slow, has helped furniture exports to the US recover by 25% to RM2.04 billion from RM1.62 billion recorded in the previous corresponding period.

Shipments to Australia grew by 23% to RM435.1 million while exports to the UK increased by 17% to RM302.8 million. Similarly, demand from Singapore increased by 9% to RM320.0 million. Demand from Japan and the UAE also increased by 13% and 2% from RM514.8 million and RM184.8 million respectively.

Imports by Canada increased by 13% from RM221.1 million in 2014 to RM249.5 million. Imports by India also growth by 8% to RM121.0 million in 2015. However, imports by Russia drop by 59% from RM95.5 million to RM38.8 million. Meantime, demand from South Korea had increased its wooden furniture consumption by 9% with a purchase of RM103.4 million in 2015 from RM94.9 million in 2014.

While, rattan furniture exports showed increased by 12% to RM2.4 million, compared to RM2.2 million recorded in the previous corresponding period. Demand from the UK also increased by 16% to RM2.50 million from RM2.15 million in 2014. On the other hand, the US and Singapore reduced its consumption by 25 % and 23% to RM1.48 million and RM5.85 million in 2014. Exports to Thailand also decreased by 20% to RM1.21 million. However, intake from Australia increased by 8% to RM1.77 million compared in the same period 2014.

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EUR91 million worth of forest products to Latvia or 17.2%, Estonia supplying forest products for EUR65 million or 12.4%, and Poland supplying forest products for EUR66 million or 12.4%.

In 2014, Latvian exports of forest products totalled EUR2.015 billion and imports, EUR688.740 million.

Fordaq, 26 November

LITHUANIA

Number of Buildings Completed Up

The number of new residential and non-residential buildings completed in Lithuania totalled 1,526 in the third quarter of 2015, which was 18.2% more than in the same period of 2014, Statistics Lithuania reported. The number of residential buildings completed was 1,217 with a useful floor area of 245,200 sqm (+6.9%). The average useful floor area in individual houses was 151.6 sqm (+0.7%) and 61.5 sqm in apartment houses (-7.9%). Vilnius accounted for 44.9%, Kaunas for 24.3%, and Klaipeda for 12% of all residential buildings completed.

The number of non-residential buildings completed totalled 309 with a total floor area of 354,300 sqm (+36.1%) in the third quarter of 2015. Industrial buildings and warehouses accounted for 102,500 sqm, and trade and catering establishments and hotels for 52,600 sqm of the total. Vilnius accounted for 19.7%, Klaipeda for 18.8%, and Kaunas for 13.9% of all non-residential buildings completed.

The Baltic Course, 13 November

PERU

New Forestry and Fauna Imposed

In Peru, the new Forestry and Fauna Law has come into effect, which is a positive move for investments in the forestry sector, according to Eric Fisher, President of the wood industry at Peru's Exporters Association (ADEX), although it is not quite enough to attract such investments. It has emerged that large firms from the US, Italy and China are interested in the Peruvian forestry sector and they are trying to find out more information, on the back of this new bill. Nonetheless, future concessions and investments under the framework of this legislation will depend on how the central government empowers regional governments to manage forests, involving new budgets and technical training.

On another note, Agrobanco will meet with international financial institutions that are interested in drawing up finance for Peruvian forestry projects, encompassing bond issues, participation by Agrobanco via foreign investment funds, whilst there will be loans of PEN60 million (EUR16.69 million/USD17.98 million) available initially to promote forestry schemes in indigenous communities.

Gestion (Peru), 19 November

RUSSIA

Volga Region to Cut Funding for Forest Industry

The forest industry development programme of the Volga region (North-West) entails funding of RUB465.30 million (EUR6.46 million/USD6.96 million) in public funds in 2016, including RUB1.70 million in regional funds. The funding is down RUB35 million due to a decrease in state subsidies for the exercise of powers in the forestry sector.

Lesprom, 20 November

UNITED KINGDOM

Softwood Import Volumes Forecast to Grow

The UK Timber Trade Federation (TTF) is forecasting a modest return to growth for softwood import volumes in 2016. The TTF's National Softwood Division's (NSD) Softwood Import Forecast 2015 and 2016 predicts volumes will rise by 2.5% to 6.05 million m³.

The NSD considers that softwood imports in 2015 will be similar to the volumes imported in 2014, with a 0.5% reduction in volume. The latest import data for the eight months to August shows softwood imports during this period was 0.9% lower than in the same period in 2014.

The UK production forecast, provided by the Forestry Commission, predicts output will fall in 2015 by 4.5%, before rising once more in 2016 by 1.4%. The effect of these changes resulted in a predicted reduction in the UK softwood consumption of 2.12% in 2015, before increasing in 2016 by 2.2%, to return to the levels of 2014.

TTJ, 6 November

UNITED STATES

Exports of Hardwood to the EU Down

Exports of US hardwood to the EU fell 13% to 254,000 m³ in the first nine months of 2015. Exports to the UK fell 13% to 70,000 m³ and exports to Italy fell 27% to 48,000 m³. Exports to Spain rose 33% to 34,000 m³. Half of the exports were White Oak with Yellow Poplar in second place at 26%.

Holz Zentralblatt, 13 November

UKRAINE

Imports and Exports of Wood and Wood Products Decreased

Data of the State Statistics Committee showed exports of wood and wood products from Ukraine amounted to USD827.10 million (EUR768.05 million) in January-September 2015, down 14.6% year-on-year, while imports totalled USD96.84 million (-55.6%). 

Lesprom, 17 November



8TH AFPIC COUNCIL MEETING



Delegates visit Galeri Glulam, Johor Bahru.



Factory visit to Woodsfield Glulam Manufacturing Sdn. Bhd.

The ASEAN Forest Products Industry Council (AFPIC) is a regional trade club with the objective of protecting the interests of its members and promoting the general business welfare of ASEAN in the global trade of timber products. The establishment of AFPIC in 2001 was derived out of the spirit of the Memorandum of Understanding (MoU) on ASEAN Cooperation in Agriculture and Forest Products Promotion Scheme signed during the 20th ASEAN Ministers of Agriculture and Forestry (AMAF) Meeting in 1999 at Brunei Darussalam.

The Eighth Meeting of the AFPIC was held on 12 November at Galeri Glulam, Johor Bahru. The council meeting was attended by 20 ASEAN delegates and was chaired by Mr. Jirawat Tangkijngamwong, the current AFPIC Chairman. He welcomed all AFPIC delegates and expressed his deepest appreciation to Malaysia as the host country for the excellent arrangements and warm hospitality that was extended to all ASEAN delegates. He conveyed his sincere appreciation and gratitude to all delegates for the active participation and cooperation during his chairmanship term since the Seventh AFPIC Meeting in Bangkok, Thailand. He also expressed his hope that AFPIC would act as an important platform for strategic alliances among the ASEAN timber entrepreneurs' member states.

The meeting discussed the most important agenda which was the relevancy of AFPIC and explored possible means to attract other members' interest to join AFPIC's future programmes. Throughout the meeting, the agenda on the importance of the structure, line of reporting and constitution of AFPIC were pondered in order to enhance and strengthen the role of AFPIC in the current global economic situation.

Mr. Jirawat suggested that the AFPIC Chairmanship must be from active members of the private sector and not to be based on rotational basis.

Mr. Jirawat suggested that the AFPIC Chairmanship must be from active members of the private sector and not to be based on rotational basis. The AFPIC Membership should also consists of new active members within ASEAN member countries who are willing to participate actively in future AFPIC activities. With regards to the financing for future AFPIC activities, the Chairman urged AFPIC members to be more creative in planning and seeking funds. The meeting also agreed that bilateral activities among the members of AFPIC be included as AFPIC activities in future reporting.

The meeting decided to continue the existence of AFPIC as it was still pertinent as a good platform for timber related entrepreneurs in the ASEAN region to undertake business networking activities and business matching. The Council then decided to hold the next AFPIC Conference Meeting in Thailand in May 2016.

Prior to the meeting, the delegates were given a tour of Galeri Glulam. They were briefed on the building's structure and showcases by Encik Abdul Rafa Tan, Head of MTIB Johor. Videos on the functions of MTIB and the glulam construction were also shown.

On the next day, the delegates visited Woodsfield Glulam Manufacturing Sdn. Bhd., a pioneer glulam manufacturer in Pasir Gudang, Johor. The delegates met with Encik Eddie Ling, Director of Woodsfield Group and Encik Mohd Ghaffar Ibrahim, Marketing Executive of Woodsfield Group. They were briefed on the introduction of glulam, its properties, performance and projects.

The Malaysian delegates led by Dr. Jalaluddin Harun, Director-General of MTIB. MTIB was represented by Cik Hjh. Robiyah Hj. Husin, Encik Mohd Afthar Amir and Puan Rahilah Yusof from Trade Development.

FOSTERING STRATEGIC ALLIANCES THROUGH QOLLOQUIUM



Attendees during the event.

A colloquium for SME Bumiputera entrepreneurs was held in Kuala Lumpur on 30 November where approximately 100 participants comprising entrepreneurs, representatives from various government agencies and associations were in attendance. One of the objectives of the colloquium was to enhance networking among the SME entrepreneurs (G38) who were receivers of high-tech machinery under MTIB's Enhancing Productivity Capacity Programme with government agencies and financial institutions.

Dr. Jalaluddin Harun, Director-General of MTIB, in his welcoming remarks gave an overview on the performance of SMEs in the timber industry. He noted the various initiatives and programmes that were being carried out by MTIB in enhancing the competitiveness of the SMEs. Among the initiatives were capacity building and procuring of raw materials. He also urged SMEs in the furniture sector to transform their products from Original Equipment Manufacturer (OEM) to Original Design Manufacturer (ODM) and Own Brand Manufacturing (OBM). The SMEs were encouraged to collaborate with MTIB's pool of TANGGAM designers to produce products that were marketable.

Seven papers were presented during the colloquium. Puan Hj. Zaibi Yakin, MTIB Director of Bumiputera Economic Empowerment gave a briefing on the various programmes that would be carried out in 2016, some of which would be a continuation from the previous year.

Tuan Hj Aliman Ali of SME Bank on the other hand, presented their findings on the impact of financing to the SMEs. He elaborated on the procedures and documents needed when applying for the various types of financing available. Likewise, Encik Junady Nawawi from TERAJU gave a description on the various programmes available for SMEs under TERAJU.

Encik Abu Bakar Yusof from MATRADE presented on Malaysia's export performance as well as MATRADE's roles in assisting SMEs in the export markets. Meanwhile, Encik Mohamed Razikin highlighted on the venues available for SMEs to exhibit their products worldwide. Tuan Hj. Mahpar Atan, MTIB Director of Industry Development gave a briefing on TANGGAM's activities while Puan Sarimah Mohamad, CEO of Malaysian Furniture Promotion Council talked about its functions, activities and its collaboration with TANGGAM.

Encik Jamaluddin Che Murad from Tisisit Corporation Sdn. Bhd. spoke on the markets available for SMEs to penetrate as well as the various furniture that they can explore producing.

During the business engagement session, SME entrepreneurs took the opportunity to mingle and interact with the speakers. A number of questions and queries were posed and they hoped that a similar forum could be carried out in the near future.



Dr. Jalaluddin Harun, MTIB Director-General delivering his welcoming remarks.



Colloquium in session.

COURSE ON INOCULATION OF KARAS TREE



Tuan Hj. Ismail Kassan from Redclaw Aqua and Herbs Ent. Sdn. Bhd. explaining on the inoculation method being practise by his company.

Karas is a gaharu-producing tree from the species of *Aquilaria*. There are 22 species of *Aquilaria* worldwide, out of which five species are found in Malaysia namely; *Aquilaria malacenssis*, *beccariana*, *hirta*, *rostrata* and *microcarpa*. Locally known as gaharu, agarwood is now being considered as an important non-timber forest product. It has been used since hundreds of years ago for medicine and as basic material to produce perfumes. Today, Agarwood is being traded in more than 18 countries with trade worth millions of US dollars annually. Indeed, due to the growth in the population and affluence of gaharu-consuming markets, the demand for gaharu has risen significantly over the past 30 years.

However, the increase in demand has led to the over-exploitation of natural gaharu from the forest. In addition, the uncontrolled gaharu trade may cause some gaharu-producing species to become extinct. The Convention on International Trade of Endangered Species of Wild Flora and Fauna (CITES) has therefore listed gaharu-producing species, *Aquilaria* under Appendix II of CITES due to the threat posed by trade to the survivability of the species. In Malaysia, trade in Agarwood is subjected to quota and currently only 200,000 kg is allowed for export annually. The value of Agarwood products exported in 2014 was RM17.09 million in which RM15.91 million was from woodchip/woodblock and RM1.18 million was from Agarwood oil.

In an effort to further develop Karas and the gaharu industry in Malaysia, MTIB recently organised a course on Inoculation of Karas Trees. The course was held at Rumah Melaka and the Karas plantation in Empangan Jus, Jasin, Melaka from 24 to 25 November. The two-day course was jointly organised by MTIB and the Melaka State Economic Planning Unit. The objective of the course was to provide information on the method of inoculation of the Karas tree and the policy on the Karas plantation and Agarwood trade. It was also a platform for government agencies and the private sector to exchange information and experiences about the Karas and the gaharu industry in Malaysia.

The course was officiated by Encik Shaiful Fazlee Mohd, Senior State Assistant Secretary of Melaka. In his opening speech, he gave an overview of the Karas Plantation in Empangan Jus which was established in 2008 covering an area of 50 hectares and planted with 40,000 Karas trees from the species of *Aquilaria malacenssis* and *Aquilaria crassna*. He also highlighted the importance of inoculating Karas tree in order to boost the formation of gaharu in the trees. The non-inoculated Karas trees usually produces about 5-10% gaharu naturally while inoculation will help to increase the percentage of gaharu formation. He also stressed the importance of the Karas plantation as a sustainable source of gaharu in the future.

A total of 60 participants comprising individuals and representatives from both the government and private sectors attended the two-day course where three papers were presented. The practical sessions involved the demonstration of inoculation techniques by five companies namely Biobenua Teknologi Sdn. Bhd., Sansen Agarwood Sdn. Bhd., Redclaw Aqua and Herbs Ent. Sdn. Bhd., Inokulan Gaharu Biotech 711 and Universiti Putra Malaysia.



Dato' Hj. Abdul Razak from Biobenua Teknologi Sdn. Bhd. explaining on the inoculation method being practise by his company.



THE 35TH MEETING OF THE ACCSQ WG I - STANDARDS AND MRA



TFWBP Meeting chaired by Puan Hj. Mahsuri Mat Dris from Malaysia. Puan Hj. Mahsuri (centre) flanked by Dr. Syed Alsagoff, ASEAN Secretariat on her right and Mr. Rajinder Raj from EU-ARISE on her left.



Section of delegates for TFBC Meeting from Lao PDR and Malaysia.

The 35th Meeting of the ASEAN Consultative Committee Standards and Quality (A Working Group 1 (ACCSQ WG 1) on Standards and Mutual Recognition Arrangements (MRA) was held on 18-19 November in Bali, Indonesia. The Meeting was preceded by the following events at the same venue:

- The 14th Meeting of the Task Force on Building and Construction (TFBC) held on 16 November 2015
- The 6th Meeting of the Task Force on Wood-based Products (TFWBP) held on 17 November 2015.

The WG1 Meeting was chaired by Encik. Ridzwan Kasim, Senior Director, Policy and Standards Division, Department of Standards Malaysia, Ministry of Science, Technology and Innovation, Malaysia and Co-chaired by Mr. Adrian Goh, Deputy Director, Standards Division, SPRING Singapore (on 19 November only).

The Meeting was attended by delegates from Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar (19 Nov 2015 only), The Philippines, Singapore, Thailand, and Viet Nam as well as representatives from the ASEAN Secretariat. Representatives from the Physikalische-Technische Bundesanstalt (PTB) Germany (via tele-conference) and the ASEAN Regional Integration Support by EU (ARISE) were in attendance for the open sessions. The Meeting was officially opened by Dr. Puji Winarni, Principal Secretary, National Standardisation Agency of Indonesia.

The Meeting discussed the outcome of the recent developments in the ASEAN economic integration effort and the relevant decisions made at the meetings of higher bodies on issues related to trade facilitation and standards and conformance. One of the issues was the outcome of the 44th ACCSQ involving “products manufactured in ASEAN” or “products traded in ASEAN”. The meeting highlighted six ‘Strategic Thrusts’ which would be included in the ACCSQ Strategic Plan 2016-2025, as follows:

- To enhance the quality infrastructure for standards and conformance to meet the present and future needs of ASEAN
- To enhance trade facilitation and economic integration to achieve the single market vision
- To strengthen the ASEAN joint approaches on international and regional standards and conformance issue
- To strengthen public private partnership in Standards and Conformance (S&C) to improve competitiveness of industry and businesses
- To enhance standards and conformance regime to support consumer protection
- To develop and implement capacity building programmes for standards and conformance personnel

Harmonisation of Standards for the Wood-based Products Sector

The Chair of the Task Force on Wood-based Products (TFWBP), Puan Hj. Mahsuri Mat Dris (Malaysia) updated the Meeting on the outcome of the Seventh Meeting of the TFWBP held on 17 November in Bali, Indonesia. The Meeting noted that 46 standards (1st and 2nd List) had been identified for harmonisation on wood-based products. In addition, 11 ISO Test Method Standards for Furniture Testing had also been identified from the compilation of trade data for wood-based products within ASEAN Member States (AMS).

The EU-ARISE conducted a familiarisation workshop on two ASEAN Guidelines developed by WG1 and one ASEAN Guideline developed by WG 2 at the 7th TFWBP Meeting. The workshop was attended by TFBC delegates in order to enhance their knowledge on the requirements of harmonisation of standards as well as the MRA in facilitating trade within AMS. Based on the workshop, the Chair of

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TFWBP highlighted the need for AMS to consider one of the many options available to facilitate trade in ASEAN through the adoption of Supplier Declaration of Conformity (SDoC). SDoC is a voluntary mechanism among AMS used as a regulatory instrument/tool which considers the current standards for wood-based products. The Chair also noted that the approach would ensure minimum safety requirements are met by suppliers so consumer health and safety are protected. The TFWBP Meeting was attended by three representatives from Malaysia namely Puan Hj. Mahsuri Mat Dris, MTIB Senior Deputy Director; as well as Puan Syafinaz Abd Rasyad and Puan Nor Shahira Mat Nasir, officers from Industry Development, MTIB.

Development of ASEAN Mutual Recognition Arrangements (MRA) on Building and Construction Materials

Malaysia's representatives also attended the Meeting on Task Force on Building and Construction (TFBC) which is also closely related to the scope of TFWBP in particular related to the MRA. The Chair of the Task Force on Building and Construction (TFBC) briefed the Meeting on the outcome of the 14th Meeting of the TFBC held on 16 November in Bali, Indonesia. During the meeting the TFBC agreed to discuss the timeline revision for finalisation and signing of the MRA on Building and Construction Materials on ad referendum circulation once the WG1 and ACCSQ decided on the scope and coverage of the MRA.

The WG1 also discussed on technical assistance and capacity building for the members:

Cooperation with the EU

- Draft Additional Guidelines on scope and coverage of MRA
- Glossary of Terminology to be annexed to ASEAN Guidelines for the Development of MRA

- Second Draft text of the 1998 MRA Framework Agreement and a related Workshop scheduled for Q1 2016
- Update on the development, progress and feedback of the Database of Harmonised Standards

Cooperation with PTB

The representative from PTB updated the Meeting on the implementation of activities relating to WG1 under the ASEAN-PTB Strategic Work Plan as well as the development of Phase II of the ASEAN-PTB Cooperation.

Cooperation with the US

The Meeting noted that the ASEAN Secretariat had liaised with the US-ACTI (ASEAN Connectivity through Trade and Investment) contact point on Malaysia's suggestion for US-ACTI to coordinate with WTO Institute for Training and Technical Cooperation (ITTC). In the same tenor Singapore suggested that US-ACTI considered conducting workshops in collaboration with WTO with standards practitioners such as Mr. Rob Steele, (former ISO Secretary General and former CEO of Standards New Zealand) as speaker.

Training Needs

The Meeting agreed for the ASEAN Secretariat to compile the list of training needs to be submitted by AMS by end of April 2016. Based on this list, WG 1 would identify the appropriate Dialogue Partners (DP) to seek technical assistance from, both from existing and new DP based on the strength and expertise of the DP.

The Meeting discussed the hosting of future WG 1 meetings, and agreed as follows:

36th WG1	Lao PDR	16—20 May 2016
37th WG1	Malaysia	31 Oct—4 Nov 2016 (Tentative)
38th WG1	Myanmar	May 2017
39th WG1	Philippines	2nd half of 2017



Malaysian delegates for WG1 Meeting.

FLEGT VPA: APPRISING THE INDUSTRY ON IMPORT LEGALITY REQUIREMENTS



Roadshow on regulation of import legality on 6 October 2015 in Johor Bahru.

The Timber Legality Assurance System (TLAS) provides legality assurance for all timber and timber products from Peninsular Malaysia, particularly for the export market. TLAS is formulated based on the existing regulation which governs timber harvesting, processing and trade. TLAS contains six key principles specified by the respective relevant criteria. Each of the criteria explains the verification procedure, legislative reference and implementing agencies involved.

In order to support the promotion of legal timber production, as stipulated within TLAS Principle 6 (Trade and Custom) Criterion 22, Peninsular Malaysia has strengthened its regulations on the importation of timber into Peninsular Malaysia. Therefore, to prove the credibility of the legality system practice, there is a need to develop and impose verification mechanisms on imports of timber.

During the 11th Technical Working Group Meeting (TWG) on May 2014, it was agreed that legality verification on imported timbers should take place. It is outlined within Article 4(3) of the draft Legal Text VPA.

ARTICLE 4(3) Draft Legal Text VPA

"The licensing Authority shall not issue FLEGT License for any timber products that are composed of or include, timber products imported into Malaysia from a third country unless the Licensing Authority is SATISFIED with the EVIDENCE provided that the timber products have been produced and exported pursuant to the laws of the third country concerned".

The documents accepted as evidence for import legality have been finalised and they serve as one of the compulsory documents for the approval of importation of timber products into the Peninsular. The legality documents are as follows:

- FLEGT licences; or
- CITES permits; or
- Timber Certification (PEFC, MTCS); or
- Legality Certificate of Voluntary Scheme; or
- Legality Document issued by Agency / Body / related Association which is acknowledged; or
- Customs Declaration of producing country.



Briefing in Port Klang on 13 October 2015.

Cont. from previous page

The legality requirements will be implemented in phases. As an initial approach, the legality exercise will be imposed on log/baulks (4403) and plywood (4412). The importers need to obtain the documents from the country of origin, especially for timber products that are meant to be processed and re-exported to EU countries. The current import procedures require documents such as Certificate of Origin (CoO), the bill of lading, the packing list, the invoice and MTIB's approval letter for import.

Importers of other timber products such as sawn timber, mouldings, sleepers, veneer, particleboard, fibreboard, wooden frame, joinery products and wooden furniture are also advised to seek legality documents from the producing countries, so as to prepare themselves when the requirements are in place in the near future.

Towards this end, MTIB held a series of discussions and roadshows are in the pipeline, with the aim of apprising the industry especially importers regarding the legality aspect of import regulations, mechanisms of implementation, the documents involved, as well as the timeline of enforcement. In addition, the status of FLEGT VPA negotiations between Malaysia and the EU were also being updated.

In 2015, 210 participants attended the MTIB briefing on import regulations legality. They comprised 152 representatives from importing companies, nine from timber associations, nine from Customs, and eight from the Department of Agriculture. The briefing were held as follows:

LOCATION	DATE
Johor Bahru	6 October 2015
Muar	7 October 2015
Port Klang	13 October 2015
Butterworth	20 October 2015
Ipoh	21 October 2015
Kuantan	27 October 2015

This regulation will be enforced on 2 January 2016. The implementation is given a grace period of six months and full enforcement in the Peninsular will begin on 1 June 2016.



Briefing in progress on 21 October 2015 in Ipoh.





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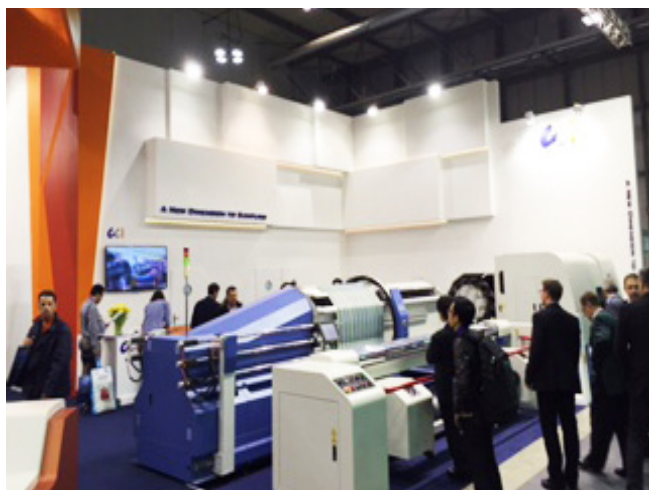
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ITMA 2015 MILAN: EXPLORING ADVANCED GREEN COMPOSITE IN TECHNICAL TEXTILE



The warping machine at Karl Meyer booth.



Cik Noor Intan Saffinaz (right) and Encik Mohamad Hafizuddin Osman at ITMA 2015.



Technical meeting on nonwoven pilot plant with Trutzschler technical and marketing group.

The economic significance of the technical textile and nonwovens industries has been recognised recently by the financial world, in a report by the German-headquartered Commerzbank. This puts the current value of technical textiles at an annual USD133 billion, representing 25 million tonnes of material, with the nonwovens industry worth a further USD26 billion a year, with an approximate annual output of 7.6 million tonnes.

With the huge market potential of technical textile in the world, MTIB has set a new direction in the development of the Malaysian fibre and biocomposite industry. Malaysia's advantage as a country rich with natural fibre commodity such as kenaf and palm fibre, makes such higher value products of biocomposite a feasible future goal for the industry. As such MTIB is establishing Advanced Green Composite (AGC) where textile technology will be applied during the processing of the fibre while the end application of the biocomposite product will be in various sectors such as automotive, aerospace, construction, furniture and marine.

ITMA 2015 is the world's largest international textile machinery exhibition, an event which is owned by CEMATEX. It was held on 12 – 19 November at Fiero Milano Rho, Milan, Italy. The event attracted over 1,600 exhibitors from 46 countries, and featured exhibits across 19 sectors ranging from spinning, finishing, chemical, software, processing, fibre and yarn. A research group in AGC from Fibre and Biocomposite Centre, MTIB attended the event. The purpose of the participation was to survey the latest textile technology in preparation for FIDEC 3 Advanced Green Composite pilot plant.

At ITMA 2015, there was a vast range of performance materials that fell under the umbrella term of 'technical textiles', including insulation and reinforcements for the construction industries, along with geotextiles for road stabilisation and many different kinds of filter. The automotive industry was another big user of technical textiles, as could be seen in tyre cords, airbags, safety belts, seats and interior decoration, as well as insulation. Other important sectors included furniture covers and filler materials and components for sports, and leisure products such as sleeping bags and sail cloth.

Given this wide range of applications, various technologies are employed to make technical textiles. At ITMA 2015, for example, the major manufacturers of weaving machines – including Germany's Dornier, Italy's Iteima, Picanol of Belgium, Toyota and Tsudakoma of Japan and a number of fast-rising Chinese firms - demonstrated looms that had been specially engineered to deal with yarns of glass, aramid, carbon and other extremely high performing fibres.

Overall, there has been strong growth in the development of machines for the production of technical fabrics employed in the reinforcement for composites. However, focus on the application of natural fibre is still less compared to man-made fibre due to limitations in the processing capability. MTIB through the platform of ITMA has started several collaborations with technology providers to develop Advanced Green Composite products through technical textile technology which would be utilised in the next pilot plant of FIDEC 3.

The exhibition was participated by MTIB officers namely Cik Noor Intan Saffinaz Anuar and Encik Mohamad Hafizuddin Osman.

THE BIG 5: INTERNATIONAL BUILDING AND CONSTRUCTION SHOW



Trade enquiry: a project developer from Saudi Arabia.



Potential buyers from Korea were discussing on the price of the wood wool cement board.

MTIB has recently participated in The Big 5 at Dubai World Trade Centre from 23 to 26 November. The show is the largest and most respected building and construction trade fair in the Middle East and North Africa (MENA) region. The Big 5 provides architects, engineers, contractors, traders and developers from the public and private sectors to network source and specify the latest building and construction products and services available in the market.

Dubai is a prospering city with a high standard of living, which makes it an ideal location for starting and growing a business. Because of its strategic location - between Europe, Asia and Africa - it serves as a gateway between the east and west and has become an international business hub. It offers an open market with no exchange control, quota or trade barrier. The city is one of the world's leading commercial centres and attracts approximately 5 million investors and tourists on an annual basis.

Dubai has been identified as a high potential market for construction and building materials due to its rapid transformation and large constructions - Dubai World Cup, Dubai Safari, The Palm Gateway, Meydan Avenue, Zabeel Park, Rose Smart City and the New Township. It welcomes professionals for its construction and industrial needs.

The Big 5 has become synonymous as the forefront in providing the latest trend and product for the building and construction industry. This year, the show brought about 3,000 companies from 68 countries to showcase an estimated 36,000 construction and building products. The visitors were mainly from the UAE, Saudi Arabia, Iran, India, Oman, Qatar, Kuwait, Bahrain, Egypt and Pakistan.

Malaysia has been participating in this trade fair since 2001. Last year, RM113.22 million sales was generated from the Malaysia pavilion. For 2015, 38 Malaysian companies participated under the umbrella of Malaysia External Trade Development Corporation (MATRADE).

A diverse range of high quality building and construction materials were displayed during the four-day exhibition. These included steel framing construction, electrical products, marble veneer, modular formwork system, ceramic tiles, solar water heater, wood plastic composite decking and woodwool cementboard.

The Big 5 also provided the opportunity for companies to seek lucrative contracts, develop business contacts, network with foreign officials, business leaders and potential international buyers as it showcased high quality products related to the construction sector.

At the fair, MTIB set up an information booth to disseminate information, catalogues and samples on Malaysian wood plastic composite and other wood-based products as well as MTIB services. Two fibre and biocomposite based companies also participated in the fair. They were Timberdeck Sdn. Bhd. and Duralite (M) Sdn. Bhd. MTIB's representatives were Puan Sh Nur Hasreena Wafa Syed Mohd Hassan and Puan Hj. Juliwar Idrus.



MTIB booth

ISO/PC 287: CHAIN OF CUSTODY OF WOOD AND WOOD—BASED PRODUCTS

The Second Meeting of the ISO PC 287 was held in London, England from 9 to 13 November gathering 43 participants from 13 countries namely Malaysia, China, Belgium, Brazil, Canada, Finland, France, Germany, Netherlands, Norway, Portugal, Sweden and United Kingdom. The Meeting was hosted by British Standard Institute (BSI) and chaired by Dr. Jorge Cajazeira from Brazil.

The committee of the ISO PC 287 Chain of Custody (CoC) of Wood and Wood-based Products is responsible for the development and the standardisation of standards for wood and wood-based products from different categories of wood sources, derived through mechanical, chemical and biological means for material and energy purposes. The CoC relies on a control system to track and handle wood and wood-based products throughout a supply chain including transportation, receipt, production, sale, resale and declaration. This international standard is intended to enable tracking of materials from different categories of sources to final products and it also specifies the minimum requirements for material input and is not applicable to forest management.

The Meeting was split into Ad-hoc Group 1 and 2. All countries agreed to harmonised the different CoC Systems and the difference between 'supply chain' and 'chain of custody' was discussed. It was agreed that CoC can take place during any step of the supply chain and allows for passing information. It also noted that there were no product claims made within the process. All countries must have their own definitions and specified suggestions on definition 'certified, verified, own-verified, and recycled'. During the panel discussion, it was agreed that a new category would be developed and Malaysia requested to be included in the Ad Hoc group to develop the new category of 'own validated'.

Active participation of the industry players are very important to ensure that the standards in the document are achievable and not be seen as another Non-Trade Barrier by the world's major wood producers. Malaysia's delegation comprised Puan Syafinaz Abd Rashad from MTIB and Puan Pang Suet Kum from Malaysian Wood Industries Association who represented Malaysia as P (Participating) Members'.



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COST STRUCTURE OF THE MALAYSIAN TIMBER KILN-DRYING ACTIVITY



Kiln-drying chamber.

Type of Cost

In any commercial evaluation, cost components are broken into two types, namely fixed cost and variable cost. This classification is useful because employment and production decisions depend on how revenue and cost vary with the level of production. In the timber drying operation, fixed cost is not influenced by the change in the volume of timber dried, while the latter varies directly to the change in volume of timber dried and it becomes zero at the point of zero volume. The fixed cost components consist of interest, maintenance, office overheads, taxes and insurance. On the other hand, the variable cost includes energy cost, degrade, interest on inventory, stacking and break stacking. **Figure 2** shows how these elements affect the total cost.

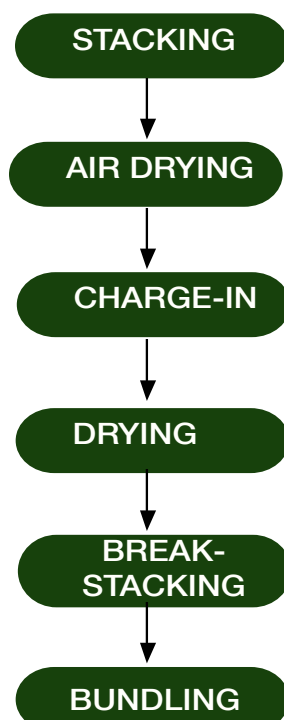
Figure 2: Flow Chart of the Cost Elements in Timber Drying

Introduction

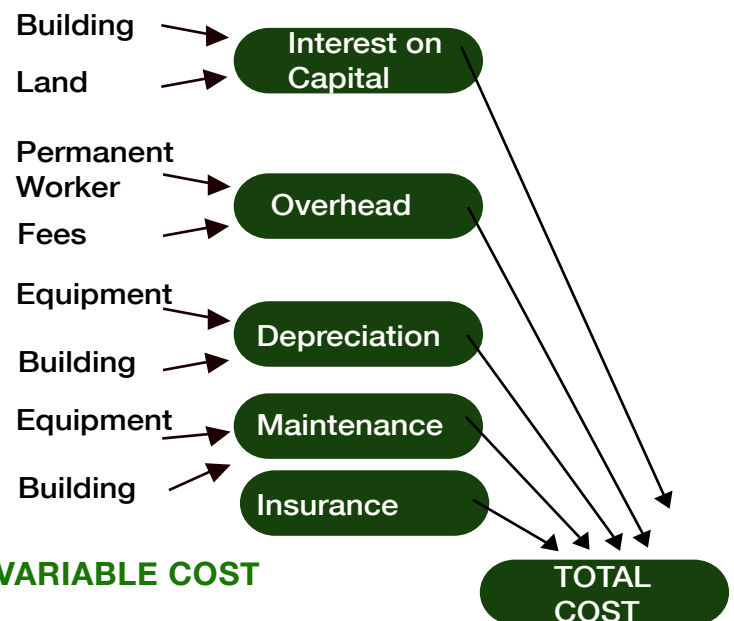
Kiln-drying is a pre-requisite process for the manufacturing of value added products as such furniture. Many kiln dry plants have been set up to cater to this need. The establishment of a kiln drying plant involves considerable investment and as such, influences the long term flexibility of the business. To ensure efficiency, it is important to know the cost involved in such an operation. This write-up aims to provide some understanding of the cost structure of the Malaysian timber kiln drying activity.

The timber kiln drying process involves six steps: stacking, air drying, charge-in, drying proper, break-stacking and bundling. These steps are illustrated in **Figure 1**.

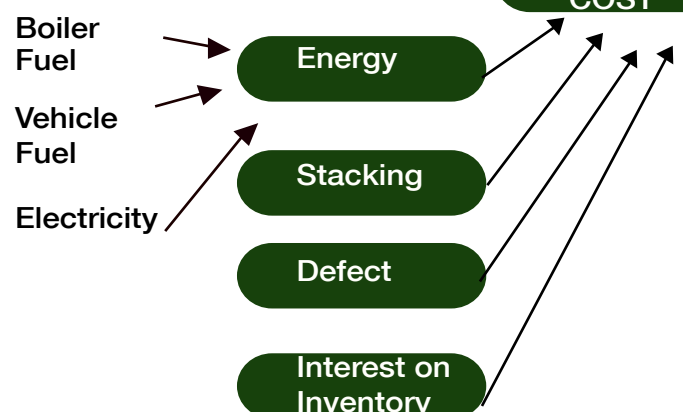
Figure 1: The Timber Kiln Drying Process.



FIXED COST



VARIABLE COST



Cont. from page 23

Study on Timber Drying Cost

There is not much study undertaken on the cost of the timber drying operation in Malaysia. However, there was a survey carried out in 2000 and the results are shown in **Table 1** below:

Table 1: Average Cost for Timber Drying

Cost Component	Average Cost of 104 Mills	
	RM/m ³	(%)
Interest on Capital	21.05	28.96
Energy Cost	17.19	23.65
Defect	11.89	16.36
Stacking	7.51	10.34
Overhead	7.08	9.75
Depreciation	4.62	6.35
Maintenance	1.34	1.84
Insurance	1.17	1.61
Interest on Inventory	0.83	1.14
TOTAL COST	72.69	100 %

The results of the survey show that the total average cost of timber drying per m³ on the average is about RM73.00. The results also show that interest on the capital and the energy cost plays an important role in the cost structure of the timber kiln drying operation. Both accounts for 52% of the overall drying cost. Other major cost element are defect (16.36%), stacking (10.34%), overhead (9.75%) and depreciation (6.35%). Minor costs which contribute less than 2% are maintenance, insurance and interest on timber inventory.

Interest on Capital

Capital investment in the wood drying industry includes land, kiln chamber and its auxiliary equipment, shed, office building, boiler, forklift, stickers/bolsters, electrical system, fire-fighting system, roads, fences and drainage.

The most expensive equipment used in the conventional steam-heated drying system is the boiler which produces steam. A typical boiler for a 500 m³ installed capacity mill can easily cost RM500,000. In addition to the boiler equipment, there are other ancillary equipment required

such as ductwork, piping, controller, water-supply connection and lighting.

Investing in a manufacturing facility involves a series of fund input over time. So the actual total figure of the investment may not provide the overall cost factor at any point of time. To solve this dilemma, financial analysis is carried out using the value of interest paid for the capital investment. The firm has to pay the interest for the loan taken from financial institutions for the required investment mainly for the capital loan taken to set up the plant operation facility. The interest on the capital which is a fixed cost, contributes the highest cost element in a timber drying operation and this accounts for 29% of the total cost.

Energy Cost

The second most important cost factor in timber drying is the energy cost which accounts for about 24% of the total cost. In the running of the kiln-drying plant, energy is consumed in the form of diesel, wood fuel and electricity. Wood fuel is used to fire the boiler to produce heat while diesel is used to run the forklift and the electricity mainly runs the air circulating fans in the kiln chamber.

Wood fuel is mainly used to fire the boiler which produces the necessary steam heat to dry the timber. Wood material such as off cuts, slabs and shavings are the most common material used to fire the boiler. However other agro-material such as oil palm fronds are also used. It can be either purchased or obtained free of charge. Depending on the local market demand-supply situation, cost elements involved are the handling cost and the transportation cost. A typical bundle of Rubberwood off-cuts of about 0.3 m³ could be purchased at RM5 - RM10 and delivered to the kiln-dry plant.

Diesel is used to run the forklift and other transport vehicles. In some places diesel is sometimes used to generate the electricity through generator sets as they are unable to receive electricity from the central supplying agency because their factories are located too far in the interior.

Electricity is mainly used to run the electrical motor fans in the KD chamber for the purpose of air circulation. A typical 73 m³ KD chamber would be fitted with four to six units of 4 Hp to 6 Hp motor. In addition there are also motors on the boiler which needs electricity supply to operate. The electrical cost of a boiler is a comparatively small item. Other than the above major use, electricity is also needed for the office and building lightning and equipment.

Defect Cost

In the drying process, it is difficult to dry all pieces of timber without any defects. These unavoidable defects cause the timber quality to deteriorate and would render it useless for further processing. This aspect must also be taken into account since the defect timber is rejected production thus, effecting the overall drying cost. Uneven moisture content, high moisture content, warping, honey comb and checks are some of the common drying defects.

The volume of timber wasted as defect is another important cost factor in drying. The survey reports that an average of 2% of the timber volume is degraded during the kiln drying process and if this figure is converted into value, it amounts to RM11.89 per m³ timber dried. In terms of the overall cost of drying, this defect accounts to 16.36%.

Although this figure is high, many of the plants do not give much attention to this aspect. It is noted that the volume of defects is stagnant although the price of timber increases over time. This is probably due to fact that, as long as the defects are not very much higher than the normal rate, the drying charge is accepted without much fuss. It becomes a concern if the particular charge has a higher rate of defects than the normal practice.

Stacking Cost

Timbers are properly stacked before being sent into the drying chamber and upon drying, this bundles are unstacked. Many labourers are employed on contract basis for this activity. As this activity depends on the volume of the output, the costs involve are classified as variable cost.

Overhead Cost

Another fixed cost component of the wood drying activity is the overhead. This cost involves salary and the fringe benefits of the permanent workers, office equipment, telephone and fees for the administration, production, and financial activities. The concept of overhead costs is often a source of confusion since some businesses classify cost by its relation to the manufacturing process. This type of classification is useful to the owner or manager who uses such information to monitor different operations within a company. However, in economics whether or not costs are direct or overhead is not important. What is important is whether or not the costs are fixed or variable.

Maintenance Cost

To ensure proper performance of the kiln, it is essential that maintenance work is carried out accordingly. Areas that need special attention are kiln motors, steam valves and kiln doors. Even a good kiln design cannot guarantee good drying performance if the kiln equipment is not well maintained. Additionally, it is essential to have a sound maintenance programme in place to lessen the impact of breakdown in the operation of a kiln. Since the cost of drying is directly depend on the performance of the kiln, maintenance of the kiln and making the necessary upgrading should be looked into seriously. The cost of repairs and maintenance varies with the severity of drying. Subject to wear; the yearly maintenance cost may lie between 35 and 10% of the initial capital cost.

Ways to Reduce Drying Cost

Energy Fuel

The use of fuel for the production of steam has been a great concern. The global energy crisis faced in the 70's has created considerable interest in reducing reliance on fossil-fuel energy sources. This factor has

discussed widely in other industries. For the timber drying industry, Sprague (1980) provides a comprehensive account on ways to reduce energy consumption. Appendix A lists some of his suggestions.

Drying Defect

Nothing much has been done to reduce further the percentage of kiln defects. This is because it is difficult for the management to introduce a better way as many of the workers who are mostly labourers are comfortable with the present work system. An introduction of a better work system will receive unfavourable response from the workers. The situation has become worse because there is generally a high turnover of the workers. Thus, it is important that the work culture of any operation should be established and closely monitored right from the day one of the plant operation.

Controllers

The use of electronic (computer) kiln controllers can improve the overall drying cost. The development and implementation of computer-based kiln control systems have been well received by the timber industry in developed countries. In fact, companies have gained significant savings. Greater total kiln throughput (shorter drying timber), efficient use of steam (steam flow control) and efficient use of fan (control of the air velocity) are some of the benefits of using such modern apparatus. In addition, control of the final moisture content is possible, so that over-drying and degrading are minimised. However, it has been pointed out that the kilns must be in optimal condition in terms of uniformity of temperature and air velocity before the benefits of the computer controller can be maximised. In addition, the fundamentals of kiln drying, such as proper a bunking, housekeeping, equipment and kiln maintenance are still necessary pre-requisites to good drying despite the availability of full advanced technology. A well trained operator is also needed. As such, the installation of the computer-controlled systems should not be considered a 'quick fix' to improving kiln drying performance without first looking at the basic requirements of kiln drying.

Ways to Reduce Energy Consumption in Timber Drying

- Air dry the timber prior to kiln-drying.
- Speed up the timber unload and loading of the kiln.
- Repair and caulk all leaks, crack and holes in the kiln structure, roof and doors to prevent unnecessary venting and loss of heat.
- Make sure all doors and vents are close tightly.
- Coat the inside of the kiln with a vapour resistant coating.
- Calibrate the recorder controller for efficient operation.
- Check equipment such as traps, valves and coils.

Cont. from previous page

- Close all valves and doors tightly during non-use periods.
- Don't use steam spray or water spray except during conditioning.
- Ensure uniform air flow by installing / repairing baffles, reverse the fans every four hours and tighten up the tip clearances on the fans.
- Adjust the fan speed during the kiln run. Determine the moisture content accurately in order to avoid over-drying.
- Use accelerated schedules (faster drying) when possible.

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UAE: BIGGEST MIDDLE EAST TIMBER MARKET

The United Arab Emirates sometimes simply called the Emirates or the UAE is a country located in the southeast end of the Arabian Peninsula on the Persian Gulf, bordering Oman to the east and Saudi Arabia to the south, as well as sharing sea borders with Qatar and Iran. The total area of UAE is 83,600 sqm, with a total population of 9.4 million, of which 80% are immigrants. In 2015, the GDP per capita was USD66,996 and the real growth rate was at 4.6% in 2015 and projected to be around 4.94% in 2020.

Economy

UAE has the second largest economy in the Gulf Cooperation Council (GCC) (after Saudi Arabia), with a gross domestic product (GDP) of USD570 billion (2.1 trillion United Arab Emirates Dirham (AED)) in 2014. Since independence in 1971, UAE's economy has grown by nearly 231 times to AED1.45 trillion in 2013. The non-oil trade has grown to AED1.2 trillion, a growth by around 28 times from 1981 to 2012. UAE is ranked as the 31st best nation in the world for doing business based on its economy and regulatory environment, ranked by the Doing Business 2016 Report published by the World Bank Group.

Although UAE has the most diversified economy in the GCC, the UAE's economy remains extremely reliant on oil. With the exception of Dubai, most of the UAE is dependent on oil revenues (around 85%). Successful efforts at economic diversification have reduced the portion of GDP based on oil/gas output to 25%.

Dubai suffered from a significant economic crisis in 2007–2010 and was bailed out by Abu Dhabi's oil wealth. Dubai is running a balanced budget, reflecting economic growth. Tourism acts as a growth sector for the entire UAE economy. Dubai is the top tourism destination in the Middle East. According to the annual MasterCard Global Destination Cities Index, Dubai is the fifth most popular tourism destination in the world. Dubai holds up to 66% share of the UAE's tourism economy, with Abu Dhabi having 16% and Sharjah 10%. Dubai welcomed 10 million tourists every year.

The UAE has the most advanced and developed infrastructure in the region. Since the 1980s, the UAE has been spending billions of dollars on infrastructure. These developments are particularly evident in the larger emirates of Abu Dhabi and Dubai. The northern emirates are rapidly following suit, providing major incentives for developers of residential and commercial property.

Forest Resources

UAE land area is lightly forested, with less than 1% of forest cover. Much of the UAE interior comprises the northern extent of the Rub' Al Khali sand desert with only scattered areas of shrub characterised by species such as *Prosopis cineraria*. In the Hajar Mountains the



prevalent vegetation includes *Acacia* spp. and *Zizyphus* spp. Almost all forested areas in UAE are plantations. An extensive afforestation programme involving the planting of around 100 million trees has been carried out, particularly around Bainuna, in the north of Abu Dhabi, mainly for protection purposes. The most common plantation species are *Prosopis cineria* and *Acacia tortilis*. Mangroves (especially *Avicennia marina*) are found around the coast, and date palms (*Phoenix dactylifera*) occur around much of the coastal plains.

UAE has a comprehensive greening programme encompassing the development of extensive nature reserves and municipal parks, as well as active tree and pasture establishments. The afforestation policy of the UAE aims to expand the afforestation projects, establish greenbelts to stop desert encroachment and sand dune movement and protect agriculture lands, settlements and highways. To achieve this, the country provides assistance to afforestation projects such as the provision of equipments and construction of buildings.

Usually a small nursery is established in the project area to provide the needed seedlings. There are no large-scale forest industries in the UAE. The country imports significant volumes of wood and paper products to meet its domestic demand.

Timber Production

According to the latest FAO forest statistics on UAE, the country produced around 18.4 thousand m³ of wood in 2013. Details of production are as below. There is no detail for the production of other products.

Cont. from page 27

UAE: Production of Timber Products, 2009 - 2013(Volume: m³)

Product	2009	2010	2011	2012	2013
Roundwood	17,793	18,002	18,144	18,287	18,432

Source:FAO

Furniture Industry in UAE

The UAE is a major player in the regional furniture industry and a key element of the UAE economy with more than 600 factories set up at a capital investment of over AED1 billion (USD272 million). This represents about 13% of the total investment in manufacturing industries in the country. The fast-paced growth of the furniture industry drives more demand to wood raw material. The domestic market consumed around 85% of the domestic furniture production, while the rest of the output was exported.

UAE's Import of Timber and Timber Products

According to the latest UN Comtrade statistics, UAE's import of timber and timber products decreased 1.6% to USD3.6 billion. Furniture was the main product imported, valued at USD2.4 billion followed by sawntimber (USD346.2 million) and plywood (USD342.6 million).

Malaysia home and office furniture together with dining table are very famous especially among expatriate and ASEAN community due to the high quality and its durability. Outdoor furniture is also in good demand especially for garden/ patio such as sofa sets, reclining chairs, dining table sets.

Red Meranti sawntimber is also very famous among UAE and has very high demand for housing, furniture and interior design. However, Meranti is losing its market to African hardwood such as Okume and African Mahogany.

China is a major supplier of timber and timber products including furniture. Malaysia is ranked second after China as with 7.5% of market share and ranked seventh for furniture after China, Italy, Germany, the US, the UK and France with 1.8% of market share.

UAE: Import of Timber and Timber Products, 2010 - 2014

(Value : USD'000)

Product	2010	2011	2012	2013	2014
Furniture	1,185,971	1,532,611	2,062,300	2,530,584	2,353,687
Sawntimber	221,929	237,063	285,565	423,561	346,217
Plywood	236,109	235,424	267,592	261,544	342,646
Fibreboard	137,614	171,012	187,398	181,165	216,659
Builders' Joinery and Carpentry	62,074	77,742	76,334	67,226	87,600
Articles of Wood	21,882	22,709	25,358	31,342	33,384
Chipboard/ Particleboard	17,581	16,474	16,697	20,359	32,265
Tools, Tool and Broom Bodies and Handles, Shoe Lasts of Wood	1,494	2,203	1,958	1,864	26,343
Logs	23,801	23,501	18,453	18,291	19,539
Wood Marquetry and Inlaid Wood, Caskets and Cases or Cutlery of Wood	18,348	14,874	12,123	17,858	19,463
Veneer	18,328	18,558	17,765	16,894	18,532
Wood Charcoal	3,704	4,182	7,017	9,911	17,745
Mouldings	13,716	10,255	8,606	10,098	12,206
Fuel Wood	4,548	4,080	4,080	4,771	8,341
Packaging Materials of Wood	5,911	6,148	5,137	4,959	7,088
Tableware and Kitchenware of Wood	3,738	3,477	3,965	5,570	5,709
Wooden Frames	3,586	5,438	8,249	4,327	4,502
Densified Wood	23,301	2,755	2,963	2,181	2,085
Hoopwood	395	210	331	674	601
Wood Wool, Wood Flour	582	196	315	144	236
Railway or Tramway Sleepers (cross-ties) of Wood	341	103	291	143	175
Casks, Barrels, Vats, Tubs etc. of Wood	24	18	141	27	143
TOTAL	2,004,977	2,389,033	3,012,638	3,613,493	3,555,166

Source: UN Comtrade Stats

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UAE's Export of Timber and Timber Products

UAE's exports of timber and timber products were valued at USD497.9 million. Furniture was the main product exported, valued at USD196.6 million followed by fibreboard at USD158.7 million and sawntimber valued at USD32.2 million.

UAE is a prime re-export destination to the regional countries. The re-export of wood from the UAE has grown by 60% since 2006 and is set to increase each year. There are more than 300 wood processing factories in UAE sending processed wood to Middle East and Africa, as well as London and New York.

Malaysia's Export of Timber and Timber Products to UAE

In 2014, Malaysia's exports of timber and timber products to UAE increased 17.0% to RM591.2 million over the previous year. UAE ranked 11th with 2.8% of Malaysia's total market share. Wooden furniture was the main product exported with a total value of RM216.8 million, followed by MDF at RM148.8 million and sawntimber at RM123.7 million.

Malaysia MDF is in great demand because of its good quality. Nevertheless, MDF from Thailand had started to enter UAE market with big volume. UAE prefer lighter colour of MDF but Malaysia MDF is slightly darker than Thailand MDF and is higher in price by USD5 to USD10.

As for plywood, Chinese and Indonesia plywood dominated the UAE market due to the lower cost compare to Malaysia plywood. Commercial Hardwood Core Plywood with various thicknesses is increasing in demand and Phenolic Film Faced Plywood (12mm and 18mm) for black and brown colour are also in the rise.

Malaysia BJC particularly doors is highly demanded for hotels and villas industry. HDF laminated flooring is also in high demand in UAE especially for residential and housing.

UAE: Export of Timber and Timber Products, 2010-2014

(Value : USD'000)

Product	2010	2011	2012	2013	2014
Furniture	159,825	157,437	161,803	195,871	196,584
Fibreboard	19,227	80,999	14,556	17,197	158,676
Sawntimber	49,760	30,952	54,798	38,682	32,183
Builders' Joinery and Carpentry	16,687	19,836	15,437	23,968	19,941
Packaging Materials of Wood	5,837	7,595	7,291	12,860	10,935
Logs	4,608	3,423	5,661	5,822	5,849
Articles of Wood	3,549	3,510	3,122	6,864	5,806
Wood charcoal	2,621	2,822	4,214	4,578	5,090
Mouldings	1,911	1,947	1,332	2,684	3,384
Veneer	3,302	1,698	1,563	2,125	2,791
Wood Marquetry and Inlaid Wood, Caskets and Cases or Cutlery of Wood	1,827	1,149	1,382	1,366	2,534
Chipboard/ Particleboard	968	968	1,010	1,989	2,258
Tools, Tool and Broom Bodies and Handles, Shoe Lasts of Wood	100	381	155	196	1,408
Tableware and Kitchenware of Wood	955	658	576	661	947
Wooden Frames	479	432	647	695	712
Fuel Wood	1,478	661	895	844	558
Densified Wood	767	970	255	327	408
Hoopwood	853	145	208	152	306
Railway of Wood	25	359	246	158	28
Wood Wool, Wood Flour	13	188	50	11	27
Casks, Barrels, Vats, Tubs etc. of Wood	5	13	37	30	16
TOTAL	314,751	359,103	323,794	355,414	497,917

Source: UN Contrade Stats

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Malaysia: Export of Timber and Timber Products by Value to UAE, 2010-2014

(Value in RM)

Product	2010	2011	2012	2013	2014
Wooden Furniture	219,180,618	200,355,160	206,672,078	206,910,175	216,758,775
MDF	105,271,750	111,880,288	126,560,064	117,824,562	148,815,426
Sawntimber	133,548,105	116,377,024	111,825,347	109,864,963	123,670,427
Plywood	123,181,315	60,346,597	93,445,599	50,119,604	78,768,190
BJC	20,221,169	28,548,212	24,760,904	10,780,334	10,662,014
Particleboard	3,532,943	3,808,027	4,612,610	4,313,090	5,790,783
Wooden Frame	526,293	620,903	638,515	986,210	529,832
Logs	5,425	0	58,438	321,870	412,344
Rattan Furniture	683,436	41,616	34,100	38,660	190,471
Mouldings	1,252,534	1,028,129	710,614	207,980	79,706
Other Products	1,223,533	2,616,996	3,655,981	4,025,546	5,558,748
TOTAL	608,627,121	525,622,952	572,974,250	505,392,994	591,236,716

Source: DOSM and MTIB

Malaysia: Export of Timber and Timber Products by Volume to UAE, 2010-2014

(Volume in m³)

Product	2010	2011	2012	2013	2014
MDF	118,947	122,290	227,273	148,271	171,514
Sawntimber	110,229	90,905	80,594	72,799	81,855
Plywood	101,351	44,365	71,339	36,999	55,970
Particleboard	4,724	4,716	5,306	5,109	8,054
Logs	16	0	137	471	490
Mouldings	351	218	166	62	83
TOTAL	335,618	262,494	384,815	263,711	317,966

Source: DOSM and MTIB



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A Picture Paints a Thousand Words. Wood Binds Them All

Jelutong Dyera spp.

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Import Tariffs

UAE's import duty on timber and timber products ranges from 0 – 5%. Details are as follows:

Product	Duty (%)
Fuel Wood	5
Wood Charcoal	5
Logs	5
Hoop Wood	5
Wood Wool and Wood Flour	5
Sleepers	5
Sawntimber	5
Veneer	5
Mouldings	5
Chipboard/Particleboard	5
Fibreboard	5
Plywood	5
Densified Wood	5
Wooden Frame	5
Packing Cases	5
Casks, Barrels, Vats and Tubs	5
Tool Bodies and Handle	5
Builders Joinery and Carpentry	5
Tableware and Kitchenware	5
Wood Marquetry	5
Other Articles of Wood	5
Wooden Furniture	5

Prospects

UAE are expected to continue their leadership streak as the hottest building and infrastructure construction markets for the year. The value of construction projects from 2015 until 2018 valued at USD525.6 billion with 41% spending in infrastructure industry. Dubai Metro is the biggest project to be undertaken in the UAE (completion 2030) valued at USD14.35 billion. Top 10 Expo 2020 projects are Dubai Water Canal, a USD545 million project is set to transform Dubai's Business Bay area in three phases. Second project is Dubai Parks and Resorts with overall expenditure has crossed USD1 billion as at end June 2015.

Other projects include Al Mamzar Beachfront Project, Aladdin City, Mohamed Bin Rashid Al Maktoum (MBR) City – District One, Museum of the Future, Deira Islands, Al Habtoor City, Jewel of the Creek and Dubai Frame.

Tourism also plays an important role in UAE's economic growth with contribution of AED130 billion in 2015 with 8.5% of its GDP. It generated 291,500 jobs, 5.3% of total employment with 7 million visitors for the first half of 2015 and increase 9% compared to the same period last year. It is expected that UAE will be receiving 20 million tourists by the year 2020. Currently, UAE provides 97,034 numbers of rooms and apartment and it is forecasted that 139 new hotels will be built by 2017.

As the gateway to the Middle East and North Africa (MENA) region, Malaysian exporters should take full advantage of the expansion of building construction along with the increased preference for wood in construction projects especially in tourism sector to further promote Malaysian timber and timber products especially value-added products such as furniture, MDF and BJC, in addition to only promoting building materials namely plywood and sawntimber. Malaysian timber exporters need to take this chance and make their presence felt and enhance networking with UAE's timber and furniture importers such as to participate in their international exhibition like Big 5 Dubai which held in November every year and Dubai WoodShow which held in April every year, while at the same time undertake market research on current UAE importers' market preferences and taste.

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MERANTI BAKAU - A WIDE VARIETY OF USES



Meranti Bakau tree

Introduction

Meranti Bakau is the Standard Malaysian Name for the timber of *Shorea uliginosa* (Dipterocarpaceae). The timber is a light hardwood with a density of 595–755 kg/m³ air dry. The sapwood is lighter in colour than and is distinct from the heartwood, which is light pink to light red-brown. The texture is rather coarse but even, with interlocked grain.

The timber is only fairly strong (Strength group C). It is easy to work with and produces a moderately smooth surface. The nailing property is rated as good. The timber seasons fairly rapidly with moderate cupping, bowing and twisting as the main sources of degrade. Boards of 13 mm take approximately two months to air dry, while 38 mm boards take 3.5 months. Shrinkage is average, with radial shrinkage averaging 1.0% and tangential shrinkage averaging 2.7%. For kiln-drying, Schedule H is recommended. The timber kiln-dries fast without any degrade. The timber is moderately durable under exposed conditions and is rather difficult to treat with preservatives.

Vernacular names applied include Meranti Paya, Meranti Tenggelam and Seraya Buaya Hantu. There is only one species contributing to this timber, viz. *Shorea uliginosa*, although sometimes a timber derived from the true Meranti Paya (*Shorea platycarpa*) cannot be confidently separated from Meranti Bakau. This timber is separated from the other Red Meranti based on colour and density. Meranti Bakau has the colour of Light Red Meranti but the density of Dark Red Meranti. Refer **Table 1**.

Characteristics

Its sapwood is lighter-coloured and distinct from heartwood, the colour of the heartwood is light red-brown, the planed surface is not lustrous, there is striped figure on the radial surface, the texture is rather coarse but even, the grain is interlocked, it's moderately hard to cut across grain, the air dry density ranges from 595 to 755 kg/m³ (37 to 47 lb/ft³) averaging at 672 kg/m³ (42 lb/ft³) and it's moderately durable when in contact with the ground or in exposed positions.

Wood Anatomy

Growth ring are absent. The vessels, with simple perforations, are moderately large and are few to moderately few. They are mainly solitary. The rest are either in oblique or radial pairs and radial multiples of up to four in a series. Tyloses are present but generally not abundant.

Both apotracheal and paratracheal wood parenchyma are found in the wood. The apotracheal parenchyma appears as irregularly spaced bands enclosing resin canals and as diffuse stands forming short, narrow lines from ray to ray. The corresponding paratracheal type appears as complete borders to the vessels, narrow vasicentric types as well as aliform and are sometimes even locally confluent. Rays are medium-sized and visible to the naked eye on the cross-section and conspicuous on a radial surface.

Intercellular canals of the vertical type are present in concentric series and are usually plugged with coloured resin. The canal are distinct to the naked eye on the cross-section but less pronounced on the longitudinal surfaces. Horizontal canal are found in *S. leprosula* and *S. teysmanniana*.

Sawing and Woodworking

The sawing and woodworking properties of five species of Meranti Bakau have been investigated (Lee & Lopez, 1980) and the result obtained are summarised in **Table 2**. Generally, Meranti Bakau can be worked easily, either by machine or by hand. There is a possibility of pick-up of grain on the quarter-saw material due to the presence of interlocked grain. Occasionally, resin deposits may cause difficulties during sawing. Quality of finish is good and it receives stain and polish well. The nailing properties of most Meranti Bakau are rated as good (Lopez, 1980).

Mechanical Properties

The mechanical strength properties of some Meranti Bakau species have been evaluated by Lee et al. (1979) and a summary of the results is given in **Table 3**. Also given are some comparative strength values of foreign timbers such as Teak (*Tectona grandis*), European Beech (*Fagus sylvatica*), Douglas Fir (*Pseudotsuga menziesii*) and Scots Pine (*Pinus sylvestris*) for comparison purposes. Generally, Meranti Bakau timber is relatively less hard than Teak and European Beech but is comparable to Douglas Fir and Scots Pine. The stiffness value of the timber is also very close to those of Teak and the other three foreign timber.

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Table 1 : Species of Meranti Bakau

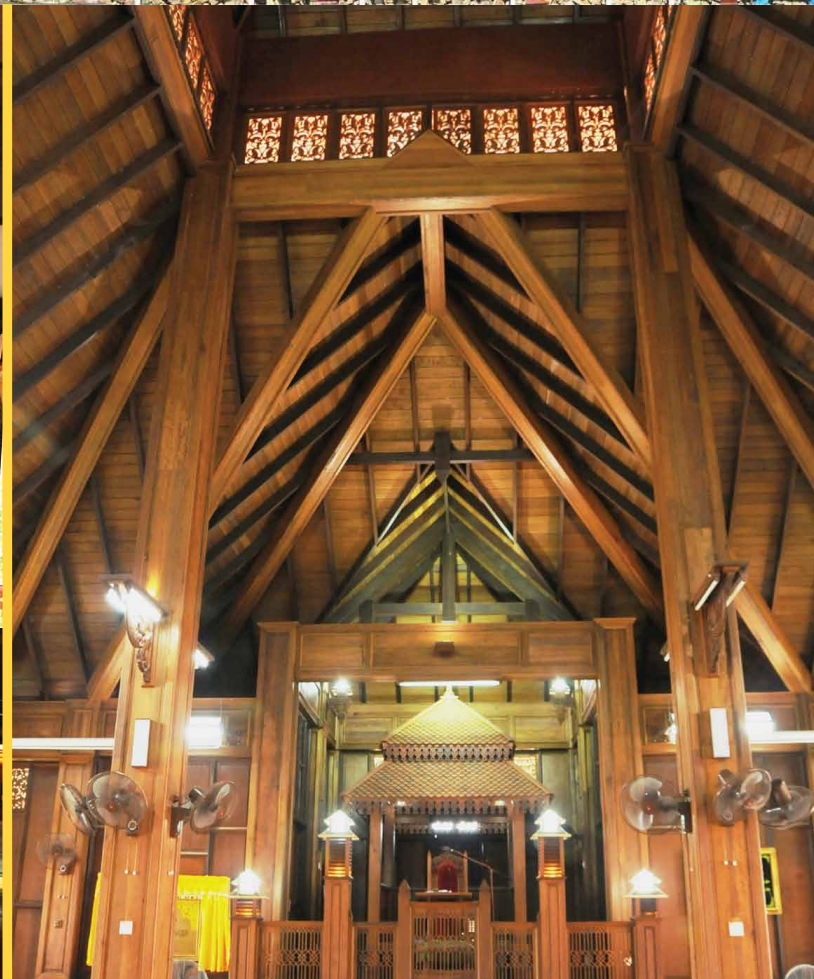
Botanical Names	Vernacular Names	Vernacular Synonyms	Density Range (kg/m ³)
<i>S. acuminata (part)</i>	Meranti Rambai Daun	-	485-690
<i>S. dasyphylla</i>	Meranti Batu	Meranti Sabut	425-690
<i>S. hemsleyana (part)</i>	Meranti Daun Besar	Chengal Pasir Daun Besar; Chengal Pasir (Kinta); Meranti Bakau (Dinding)	685-835
<i>S. johorensis</i>	Meranti Pepijat	-	540-590
<i>S. lepidota</i>	Meranti Langgang	Damar siput (Bentong)	380-615
<i>S. leprosula (part)</i>	Meranti Tembaga	-	415-685
<i>S. ovalis</i>	Meranti Kepong	-	415-685
<i>S. palembanica (part)</i>	Meranti Tengkawang Ayer	Sengkawang; Meranti tengkawang; Merpak (Ulu Rompin)	445-685
<i>S. parvifolia</i>	Meranti Sarang Punai	-	385-705
<i>S. platycarpa (part)</i>	Meranti Paya	-	525-790
<i>S. teysmanniana</i>	Meranti Bunga	-	550-760
<i>S. macrantha</i>	Meranti Kepong Hantu	-	665-885

Table 2 : The Machining Properties of Meranti Bakau Species

Species	Test Condition	Sawing		Planing		Boring		Turning	
		Resawing	Cross Cutting	Ease of Planing	Quality of Finish	Ease of Boring	Cross Cutting	Ease of Turning	Quality of Finish
<i>Shorea acuminata</i>	green	easy	easy	easy	smooth	easy	smooth		
	air-dry	easy	easy	easy	smooth	easy	smooth	easy	moderately smooth
<i>S. hemsleyana</i>	green	easy	easy	easy	smooth	easy	smooth	-	-
	air-dry	easy	easy	easy	smooth	easy	rough	easy	smooth
<i>S. leprosula</i>	green	easy	easy	easy	smooth	easy	smooth	-	-
	air-dry	easy	easy	easy	smooth	easy	moderately smooth	easy	moderately smooth
<i>S. parvifolia</i>	green	easy	easy	easy	smooth	easy	rough		
	air-dry	easy	easy	easy	smooth	easy	rough	easy	moderately smooth
<i>S. teysmanniana</i>	green	easy	easy	easy	moderately smooth	easy	smooth	-	-
	air-dry	easy	easy	easy	smooth	easy	smooth	easy	smooth



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Table 3 : Strength Properties of Meranti Bakau and Some Other Timber Species

Species	Test Condition	Modulus of Elasticity (MPa)	Modulus of Rupture (MPa)	Compression Parallel to Grain (MPa)	Compression Perpendicular to Grain (MPa)	Shear Strength (MPa)
<i>S. acuminata</i>	Green	10,500	54	54	2.41	6.3
<i>S. hemsleyana</i>	Green	13,200	68	68	-	7.7
	Air-dry	13,400	77	42.7	-	11.0
<i>S. leprosula</i>	Green	11,400	53	29	2.39	6.8
	Air-dry	13,600	75	41.4	2.51	5.9
<i>S. teysmanniana</i>	Green	10,600	46	23.6	2.33	5.3
Teak (<i>Tectona grandis</i>)	Green	9,400	73	35.7	5.38	13.0
	Air-dry	10,300	86	45.8	5.79	10.6
European Beech (<i>Fagus sylvatica</i>)	Green	10,500	62	26.5	-	8.3
	Air-dry	13,500	112	54.0	-	14.0
Douglas Fir (<i>Pseudotsuga menziesii</i>)	Green	11,100	51	24.9	-	6.3
	Air-dry	13,600	88	50.0	-	9.5
Scots Pine (<i>Pinus sylvestris</i>)	Green	7,800	44	21.0	-	5.2
	Air-dry	10,700	85	45.5	-	11.2

Uses

The timber is suitable for all general light construction, furniture manufacture, flooring, rotary peeled veneer, plywood and wooden pallets.

•Doors

Timber is one of the most popular and superior material choices for both internal and external doors. Whether manufactured from solid or engineered timber, there are many stylish and practical options that will not compromise on strength and structural performance. A distinctive timber door can also create visual impact, adding value to any commercial or domestic building.

•Interior Rails and Balustrades

With its natural beauty and inherent strength, timber is a popular material choice in internal balustrade construction. Commonly built from treated softwoods and durable hardwoods, interior balustrades and handrails are typically finished with a clear lacquer to generate the most natural result.

•Internal Paneling

Timber paneling creates interiors as warm as they are stylish. Commonly using an MDF or plywood substrate, internal timber paneling is natural and versatile and comes as either solid natural timber panels or as sheets of engineered wood products

•Timber Joinery Products

Timber joinery products offer a classic, unique and stylish touch to any interior design.

•Timber Mouldings

Mouldings are extremely versatile and durable, enhancing the aesthetics of any interior and functioning as the icing on the cake for designs with a focus on beauty and splendour.

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MTIB Moments



A courtesy visit from Ministry of Industry, Indonesia to MTIB, Kuala Lumpur on 2 November 2015.



MTIB Strategic Planning and Corporate Affairs Personnel Retreat held on 6-8 November 2015 in Taiping, Perak.



A course on Enhancing Employee Excellence on 3 - 4 November 2015 at MTIB, Kuala Lumpur.



Bumiputera Economic Empowerment Retreat held on 13-15 November 2015 in Pahang.



YB Dato' Noriah Kasnon, Deputy Minister of MPIC (right) receiving a souvenir from Puan Hj. Norchahaya Hashim, MTIB Deputy Director-General during Hello Komoditi held on 21 November 2015 in Sg. Besar, Selangor.