

## Impacts on Tropical Timber Market Developments in Malaysia

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**Abstract:** Tropical timber trade is an important role in the resource-based socio-economic development of Malaysia. Malaysia is one of the largest exporters of high quality tropical timber products to the world market. Recently, there has been increasing the importance of developing countries such as Malaysia both for exporters and importers of value added timber products. The review has two parts. First, we discuss the production, trade and prices of primary tropical timber products. Secondly, we analyze the trade and prices of secondary processed wood products. The aim of this paper is to highlight and clarify the improving transparency in the tropical timber market developments in Malaysia.

**Key words:** Tropical timber trade; Market development; Timber product.

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### INTRODUCTION

Tropical timber trade plays an important role in the resource-based socio-economic development of Malaysia. Malaysia is a tropical country located north of the Equator within latitudes 1° to 7° north and longitudes 100 ° to 119 ° east. The country has two parts: one is West Malaysia (Peninsular Malaysia) and another is East Malaysia (Sabah and Sarawak) by the South China Sea. The total land area is approximately 32.8 million hectares with 13.1 million hectares in Peninsular Malaysia, which comprises eleven states and the Federal Territory of Kuala Lumpur, and 19.7 million hectares in East Malaysia, which consists of two large states, Sabah and the Federal Territory of Labuan (7.4 million hectares), and Sarawak (12.3 million hectares).

The total area of forests in Malaysia was estimated to be 19.48 million hectares or 59.34% of the total land area, with the proportion of forested land being higher in Sabah and Sarawak than in Peninsular Malaysia at the end of 2005. Malaysia has a total area of 16 million hectares of dipterocarp forest, of which 14.29 million hectares are designated as Permanent Forest Estate (PFE) or forest reserve. Approximately 11.18 million hectares of the PFE are production forests with the remaining 3.11 million hectares being protection forests. 1.8 million hectares located outside the PFE are designated as national parks and wildlife sanctuaries<sup>[4]</sup>.

Primary timber products (Logs, sawnwood, veneer and plywood), and secondary processed wood products (SPWP) develop the tropical timber markets. Log markets price is vary widely, where the species and

individual log quality have a wide value scale. Still, there are marked differences by species and grade in sawnwood and veneer. Plywood has become a much more standardized product, because the process enhances the qualities even more, with the composite structure and the glue. Finally, by introducing process and design characteristics into the SPWP category bring additional value to the end-user.<sup>[11]</sup>

Many developing countries attempts to increase timber products trade in primary timber products and secondary processed wood products toward exporting secondary value-added products<sup>[2]</sup>. The focus of this study is to better understand the Malaysian timber market for secondary processed wood products. The producers provide the tropical timber products information and guidelines about the opportunities, constraints, and characteristics these products face in the Malaysian marketplace. Since the production and topical timber products increase in international trade and environment, the world economy is growing<sup>[7,9]</sup>. The globalization of trade and market dynamics in environment has been paved in the World Trade Organization process, including the trade in forest wood products and services.

The three important trading blocs- the Pacific Rim, North America and Western Europe are in the forest products trade. The major importers are mainly industrialized countries within each trading bloc. Europe accounts more than one-half of global forest products imports and Canada, Japan and the United States remain imports over 25 percent<sup>[3]</sup>. Industrial roundwood, sawnwood and woodpulp exports to Canada and the United States and paper products export to European countries. In recent years, there has

been increasing the share of global imports mainly logs and semi-finished wood products particularly in Asia, for export oriented processing industries. The dominant world exporters of non-coniferous wood based panels, logs and sawnwood have been emerged by Indonesia and Malaysia and wood pulp and paper products have been turned into Brazil, Chile and the newly industrializing countries of Asia.<sup>[1]</sup>

The Malaysian economy recorded growth from 1970 to 1997, with the exception of the brief recession in the mid 1980s. From 1970 to 1980, the economic growth rate was 8.3 per cent slowed down 5.9 per cent from 1989 to 1990, because of the mid 80s recession. But the unexpected sustained high growth rate of 9 per cent from 1990 until the financial crisis of 1997. The remarkable economic expansion was progressively led by manufacturing. Over the last three decades, the growth and structural transformation of the economy occurred within the framework of a liberal trade and investment regime as well as the extensive industrial policies. Industrial development anticipates the overall approach to continue, but a shift towards more market-based policies was apparent in the industrial policy adjustments introduced since the late 1980s<sup>[8]</sup>.

Malaysia continued to liberalize its policies on international trade and foreign investment during the period of 2000-2005. Indeed, trade respectively, was on average equivalent to 86% and 110% of GDP during this period. Although down from the high level of 7% of GDP between 1990 and 1997, inflows of foreign direct investment (FDI), were still around 3% of GDP during the period 1999-04. As a result, Malaysians economy achieved a steady growth rate following the trade liberalization and fully recovered from the Asian financial crises in 1997-98<sup>[12]</sup>.

According to 7<sup>th</sup> Malaysian Plan, Malaysia's total trade in the Southern countries expanded by 18.7 per cent with its share increasing from 13.9 per cent in 1995 to 18.1 per cent in 2000. In 1990, the total Malaysian exports was RM79.64 billion RM185.32 billion in 1995, RM 373.27 billion in 2000 and RM 533.79 billion in 2005 (9<sup>th</sup> Malaysia Plan, 2006).

## **2. Production, Trade and Prices of Primary Tropical Timber Products in Malaysia**

### **2.1 Production:**

**2.1.1 Logs:** In ITTO producer member countries, the production of tropical industrial roundwood (logs) totalled 143.2 million m<sup>3</sup> in 2007, a year-on-year increase of 4.8%. Log production in 2008 remained at 143.7 million m<sup>3</sup>. The production of Malaysian tropical industrial roundwood (logs) totalled 21.3 million m<sup>3</sup> in 2007 and 24.4 million m<sup>3</sup> in 2004. Malaysian log production has been declining since 2004 and reduced significantly in 2007 and 2008 with the full

implementation of sustainable forest management. Under the Ninth Malaysia Plan (2006-2010) log production is anticipated to decline progressively to 2010 with more domestic wood processing into exportable value added products.

**2.1.2 Sawnwood:** In ITTO producer member countries, the production of tropical sawnwood totalled 41.3 million m<sup>3</sup> in 2007 and decreased marginally from 2006 levels, although sawnwood production is anticipated to have increased marginally by 42.4 million m<sup>3</sup> in 2008. The production of Malaysian tropical sawnwood totalled 4.9 million m<sup>3</sup> in 2004 grew to 5.2 million m<sup>3</sup> in 2005. But, Malaysian sawnwood production has been declining since 2005 and reduced significantly in 2007.

**2.1.3 Veneer:** In ITTO producer member countries, the production of tropical veneer totalled 2.5 million m<sup>3</sup> in 2007. Veneer production figures should not include veneer used in domestic plywood production and therefore represent the veneer production traded internationally is very small. In producing countries, veneer production increased by 8.0% in 2007 and is estimated to have increased to 2.9 million m<sup>3</sup> in 2008. The production of Malaysian tropical veneer totalled 0.64 million m<sup>3</sup> in 2004 grew to 0.67 million m<sup>3</sup> in 2005. But, Malaysian veneer production has been declining since 2005 and reduced significantly in 2007.

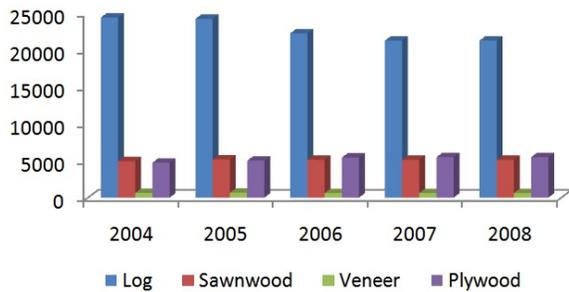
**2.1.4 Plywood:** In ITTO producer member countries, the production of tropical plywood totalled 13.5 million m<sup>3</sup> in 2007 and almost the same level in 2006, although plywood production is anticipated to have remained relatively unchanged in 2008. The production of Malaysian tropical plywood totalled 5.5 million m<sup>3</sup> in 2007 and 4.7 million m<sup>3</sup> in 2004. Malaysian plywood production has been increasing since 2004 and increased significantly in 2007 and 2008 with the full implementation of sustainable forest management. Under the government's Third Industrial Master Plan (2006-2020), Malaysia's wood based industries including plywood have been targeted to increase progressively to 2020 with more domestic wood processing into exportable value added products.

In this above production discussions are shown in the following figure.

### **2.2 Exports:**

**2.2.1 Logs:** From the ITTO producing regions comprised to modify the composition of timber exports for 2006 to 2008. Tropical timber exports of ITTO producers decreased dramatically from over 60% in the 1980s to 24% in 2008. Only Africa persisted to tropical log exports volume compared to primary

products and with log exports made up 20% of Africa's log production and 46% of Africa's total export volume in 2008. Log exports were substituted with the export of secondary processed primary products in the Asia Pacific region. Asian log exports made up over a fifth of total Asian export volume in 2008. Production and total primary product exports have a small fraction in tropical log exports of Latin America. Total roundwood equivalent export volume as a percentage of log production decreased from 1.2% to 1.1% in Latin America and from 11.0% to 10.2% in Asia-Pacific, but increased from 17.7% to 19.7% in Africa. Total ITTO producer member exports (rwe) of tropical primary products have been declining since 2006 and reduced significantly in 2008.



Source: ITTO, 2008

**Fig. 1:** Malaysian Production of Tropical Timber, 2004-2008

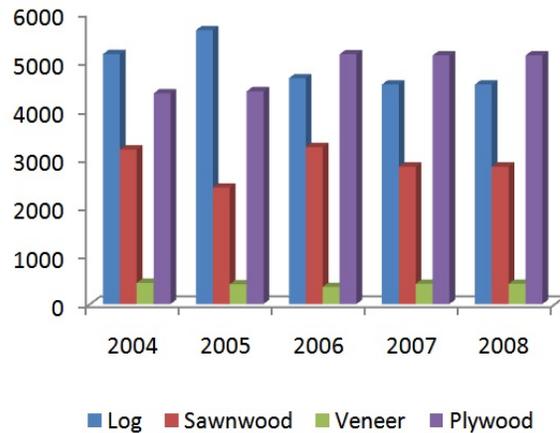
In ITTO producer member countries, the exports of tropical logs totalled 13.0 million m<sup>3</sup> in 2007 and the exports of Malaysian tropical logs totalled 5.2 million m<sup>3</sup> in 2004 grew to 5.7 million m<sup>3</sup> in 2005. But, Malaysian log exports have been declining since 2005 and reduced significantly in 2007. Malaysia's major log customers are all in Asia, especially China, India, Taiwan P.O.C. and Japan. In recent years, tropical logs have been processed domestically, although the wood processing industry would be severely impacted by the economic downturn in major export markets in 2008-2009.

**2.2.2 Sawnwood:** In ITTO producer member countries, the exports of tropical sawnwood totalled 11.6 million m<sup>3</sup> in 2007, the same level as 2006. The exports of Malaysian tropical sawnwood totalled 3.2 million m<sup>3</sup> in 2004, the same level as 2006 decreased to 2.4 million m<sup>3</sup> in 2005 and 2.8 million m<sup>3</sup> in 2007. In this paper, we see that Malaysian sawnwood exports are decreasing and increasing year by year and constituting 26 % of total ITTO producer member exports. Malaysia's major sawnwood customers were China, Taiwan P.O.C., Republic of Korea, Japan, USA, France and Belgium.

**2.2.3 Veneer:** In ITTO producer member countries, the exports of tropical veneer totalled 1.1 million m<sup>3</sup> in 2007 and the exports of Malaysian tropical veneer totalled 415000 m<sup>3</sup> in 2007. Malaysia's veneer exports decreased from 2004 to 2006 and recovered in 2007. Malaysia accounted for 42% of the ITTO producer member veneer exports. Malaysia's major veneer customers were Republic of Korea, China, Japan, Taiwan P.O.C. and Philippines.

**2.2.4 Plywood:** In ITTO producer member countries, the exports of tropical plywood totalled 9.7 million m<sup>3</sup> in 2007 and the exports of Malaysian tropical plywood totalled 5.1 million m<sup>3</sup> in 2007. Malaysia's plywood exports increased from 2004 to 2006, as the same level as 2007. Malaysia accounted for 42% in 2003 to over 58% in 2007 in the ITTO producer member plywood exports. Malaysia's plywood exports are mainly to the Republic of Korea, the USA, and Taiwan P.O.C. and Japan.

In this above exports discussions are shown in the following figure.



Source: ITTO, 2008

**Fig. 2:** Malaysian Exports of Tropical Timber, 2004-2008

**2.3 Imports:**

**2.3.1 Logs:** Major ITTO importers are defined as those with imports of at least 100000 m<sup>3</sup> of one or more tropical products have varying dependence on tropical timber. Taiwan P.O.C. is the most dependent of the major consumer importers on tropical, compared with non-tropical, timber, with a significant proportion of its log, veneer and plywood imports of tropical origin. However, the tropical portion of plywood imports in all the major ITTO importers declined in 2007, with the exception of China, France, Italy, Portugal and Spain and reflecting the increasing importance of softwoods in world plywood production and trade.

**Table 1:** Composition of Exports by Producing Regions, 2006-2008 (1000 m<sup>3</sup> roundwood equivalent)

Region	Log Production			Log Exports			Processed Exports			Total Exports		
	2006	2007	2008	2006	2007	2008	2006	2007	2008	2006	2007	2008
Africa	18780	18150	18038	3329	3536	3547	4158	4352	4194	7487	7888	7741
Asia-Pacific	83796	88861	88915	9108	9013	9033	32787	32309	31396	41895	41322	40429
Latin America	31008	31824	31668	365	371	353	5740	5603	5797	6105	5974	6150
Total	133584	138834	138620	12802	12920	12933	42685	42226	41387	55487	55146	54320

Source: ITTO, 2008.

**Table 2:** Tropical Proportion of Total Imports by Major ITTO Importers, 2007 (%)

Consumer Members	Log	Sawnwood	Veneer	Plywood
Australia	57.9	14.6	26.1	22.9
Belgium	1.1	9.5	77.1	24.4
China	21.2	32.2	62.9	64.1
France	14.8	11.3	72.9	30.6
Germany	2.7	4.4	22.7	9.7
Hong Kong	31.4	40.9	33.6	28.9
Italy	5.9	3.8	55.4	25.8
Japan	11.8	3.2	26.3	64.2
Netherlands	8.8	11.7	44.1	31.7
Portugal	16.9	42.4	21.4	50.0
Republic of Korea	4.2	23.3	62.9	79.1
Spain	4.3	10.9	44.4	5.5
Taiwan P.O.C.	67.9	30.8	49.4	66.8
U.K.	6.9	2.7	26.5	22.6
U.S.A.	0.1	1.1	31.2	25.5
<b>Producer Members</b>				
India	38.2	32.6	59.0	25.8
Malaysia	4.5	66.9	8.8	24.7
Mexico	2.8	6.8	20.0	34.8
Philippines	93.4	34.3	65.1	54.1
Thailand	72.3	29.1	18.2	31.3

Source: ITTO, 2008.

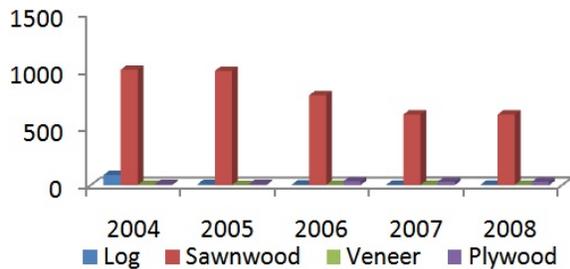
In ITTO producer member countries, the imports of tropical industrial roundwood (logs) totalled 13.5 million m<sup>3</sup> in 2007 and the imports of Malaysian tropical industrial roundwood (logs) totalled 89000 m<sup>3</sup> in 2004 and 4000 m<sup>3</sup> in 2007. Malaysian log imports has been declining since 2004 and reduced significantly in 2007 and 2008 with the full implementation of sustainable forest management.

**2.3.2 Sawnwood:** In ITTO producer member countries, the imports of tropical sawnwood totalled 8.0 million m<sup>3</sup> in 2007 and the imports of Malaysian tropical sawnwood totalled 618000 m<sup>3</sup> in 2007 and 1million m<sup>3</sup> in 2004. Malaysian sawnwood imports has been declining since 2004 and reduced significantly in 2007 and 2008 with the full implementation of sustainable forest management.

**2.3.3 Veneer:** In ITTO producer member countries, the imports of tropical veneer totalled 0.9 million m<sup>3</sup> in 2007 and the imports of Malaysian tropical veneer totalled 2000 m<sup>3</sup> in 2004. Malaysia imported tropical veneer at the same quantity from 2004 to 2007 except 2005. Many importing countries seems veneer and plywood are the same products and do not differentiate between the various types of veneer and plywood in trade statistics.

**2.3.4 Plywood:** In ITTO producer member countries, the imports of tropical plywood totalled 0.9 million m<sup>3</sup> in 2007 and the imports of Malaysian tropical plywood totalled 2000 m<sup>3</sup> in 2004. Malaysia imported tropical plywood at the same quantity from 2004 to 2007 except 2005. Malaysia got benefits from the EU plywood markets with the GSP tariff rates because Malaysia's nearest competitor producer country Indonesia was not given preferential import tariffs on plywood entering the EU. Many importing countries seems veneer and plywood are the same products and do not differentiate between the various types of veneer and plywood in trade statistics. According to ITTO, Japan is the biggest importer of tropical plywood in 2007.

In this above imports discussions are shown in the following figure.



Source: ITTO, 2008

**Fig. 3:** Malaysian Imports of Tropical Timber, 2004-2008

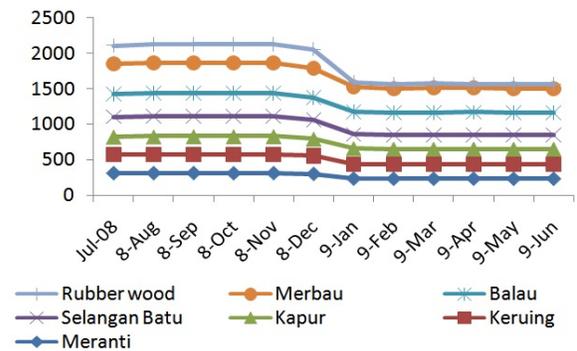
**2.4 Tropical Timber Price Trends in Malaysia:**

**2.4.1 Logs:** Real (1990) FOB price trends for most primary tropical timber products and species exports of two West African and five Southeast Asian logs species as well as domestic price trends for Malaysian rubberwood logs. Price trends of West African logs showed some instability but rose continuously to new highs in 2007. The improvement of log prices in euros reflected greater demand; and increasing log export restrictions in the region, with log quota systems being implemented in the Republic of Congo and Gabon in 2007.

In Malaysia, selangan batu and kapur log prices rose steadily and sharply in 2006-2007, from \$146/m<sup>3</sup> and \$132/m<sup>3</sup> in January 2006 to \$204/m<sup>3</sup> and \$254/m<sup>3</sup> in January 2008. In 2007, selangan batu prices well surpassed the previous high levels of the 1990's, reaching record levels in October 2006. Prices were driven up by limited supplies and strong demand in China and India. After October 2007, prices remained relatively stable but eased slightly (except for a price spike in January 2008) reflecting initial slowing of demand in all major markets.

We will discuss log prices of Malaysia from July 2008 to June 2009. Here, we can see that log prices rose gradually from July 2008 to November 2008 and after November log prices declined or stabled. But Rubber wood prices rose from July to December and declined or stabled from January 2009 to June 2009.

In this above discussion Malaysian log prices are shown in the following figure.



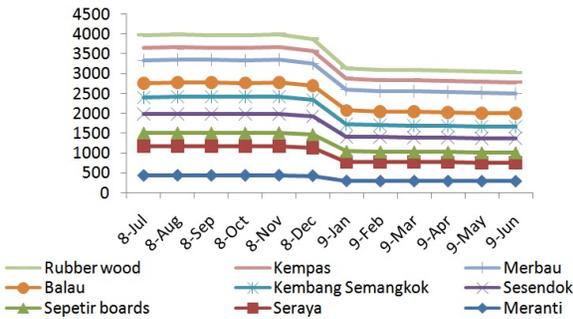
Source: MIS ITTO, 2009.

**Fig. 4:** Malaysian Log Prices (US\$/m<sup>3</sup>)

**2.4.2 Sawnwood:** Malaysian sawnwood prices in the UK market rose steadily from 2002 to 2007. Malaysian sawmills of an important source of raw material, the secondary processing industries in Malaysia expanded and the steady, successful crackdown on illegal logging in Indonesia also limited log supplies to the sawmills. Prices remained stable in British pounds, although rising in US dollars, with prices at year-end decreasing slightly to \$517/m<sup>3</sup> in 2006 and 2007. Prices rose considerably in early 2008, reaching a peak of \$638/m<sup>3</sup> in mid-2008, with Asian suppliers to the EU benefiting, compared to African suppliers, from the weakness of the US dollar during this period.

We will discuss sawnwood prices of Malaysia from July 2008 to June 2009. Here, we can see that sawnwood prices rose gradually from July 2008 to November 2008 and after November sawnwood prices declined or stabled.

In this above discussion Malaysian sawnwood prices are shown in the following figure.



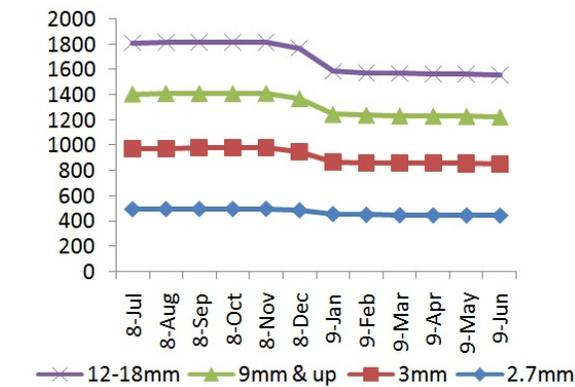
Source: MIS ITTO, 2009.

Fig. 5: Malaysian Sawnwood Prices (US\$/m<sup>3</sup>)

**2.4.3 Plywood:** Real (1990) FOB price trends are the most important for various grades and thicknesses of Malaysian plywood. The focus of this analysis is on Indonesian prices which are usually closely correlated with Malaysian prices for Southeast Asian plywood. Prices for 2.7 mm, 3 mm and 6-18 mm panels rose steadily from 2004 to mid-2007 mainly due to supply-side constraints – with growing log supply problems (in Indonesia and Malaysia) and bottlenecks in shipments, assisted by robust demand in the USA and the UK.

We will discuss plywood prices of Malaysia from July 2008 to June 2009. Here, we can see that plywood prices rose gradually from July 2008 to November 2008 and after November plywood prices declined or stabilized.

In this above discussion Malaysian plywood prices are shown in the following figure.



Source: MIS ITTO, 2009.

Fig. 6: Malaysian Plywood Prices (US\$/m<sup>3</sup>)

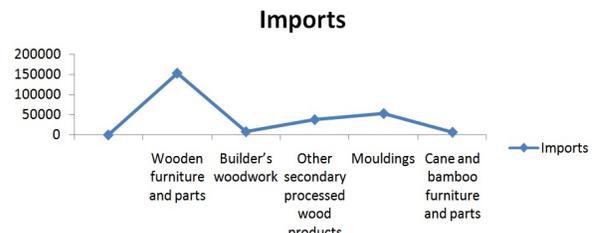
**3. Trade and Prices of Secondary Processed Wood Products in Malaysia:** Secondary processed wood products (SPWP) play an increasingly important role in Malaysian tropical forest sectors. The primary categories of tropical secondary processed wood

products in trade are wooden furniture and parts, builder’s woodwork, other secondary processed wood products, mouldings, cane and bamboo furniture and parts. Secondary processed wood products trade trends in 2007 were similar to those in 2006. Wooden furniture and parts is the major SPWP product of ITTO producer and consumer countries and constitutes around 60% of trade between them, followed by builder’s woodwork, other SPWPs, mouldings, and cane and bamboo furniture and parts.

**3.1 Imports of Secondary Processed Wood Products:**

Secondary processed wood products are now a very significant part of imports of many tropical timber consuming countries. In ITTO consumer member countries, the imports of wooden furniture and parts totalled \$48.8 billion in 2007. Malaysia was an important tropical importer of wooden furniture and parts, with India’s imports jumping nearly 40% as a result of rapid economic growth and consumer demand during 2007. The imports of Malaysian secondary processed wood products totalled \$259 million and the highest imports of wooden furniture and parts totalled \$153 million in 2007.

In this above discussion Malaysian secondary processed wood product imports are shown in the following figure.



Source: ITTO, 2008.

Fig. 7: Malaysian secondary processed wood products imports, (1000 US\$), 2007.

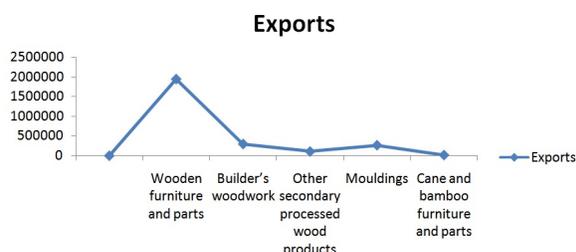
**3.2 Exports of Secondary Processed Wood Products:**

Secondary processed wood products are now a very significant part of exports of many tropical timber producing countries. During the 1990s the main commercial thrust of the leading tropical timber exporting countries was to develop secondary processing industries. Malaysia has been one of the largest exporters of high quality tropical secondary processed wood products trade to the world market. Malaysia’s major timber products consumers are all in Asia, especially China, Taiwan P.O.C., India and Japan.

Malaysia was one of the largest wooden furniture exporter among ITTO tropical producers. The exports

of Malaysian secondary processed wood products totalled \$2.6 billion and the highest exports of wooden furniture and parts totalled \$1.9 billion in 2007. Malaysia's wooden furniture market was the largest market in Japan, UK, USA and Australia. Especially, rubberwood and particleboard have been utilized by the wooden furniture production of Malaysia, making it cost competitive relative to other producers. In recent years, Malaysia's furniture industry has organized a number of fairs and exhibitions in order to promote diversification of markets and products.

In this above discussion Malaysian secondary processed wood product exports are shown in the following figure.



Source: ITTO, 2008.

**Fig. 8:** Malaysian secondary processed wood products exports, (1000 US\$), 2007.

**Conclusion:** Tropical timber products are an important role in the forestry sector and take a major player in Malaysia's economic growth on tropical timber market. Logs are the main products among primary tropical timber products. But every year Malaysian log production is going down from previous year. Although Malaysia is one of the largest exporters of high quality tropical timber products, she is to import of some tropical timber products especially sawnwood. Malaysian sawnwood import is going down because Malaysia produced a large amount sawnwood production. That's why Malaysia is not only import sawnwood products but also export sawnwood products that is the good symbol of a country. Primary tropical timber products are one of the earning sources. Malaysia earns a large amount from tropical timber exports especially plywood exports.

In the above discussions we can see that Malaysian timber prices grew from July 2008 to December 2008 but, After December 2008 to June 2009 timber prices declined or stabled.

Secondary processed wood products (SPWP) are an important role in Malaysian tropical forest sectors. Wooden furniture is the main products among secondary processed wood products. Malaysia's wooden furniture market was very attractive in Japan, USA, UK and Australia.

In conclusion, tropical timber markets increased in demand for primary tropical timber products and secondary processed wood products with timber prices in several major markets. Many tropical countries are now looking to secondary processed wood products to drive their forest sector export. Tropical timber markets are directly influenced by large differences in wage rates and other costs of production between producers and consumers.

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