IMPACTS OF COVID-19 PANDEMIC ON MALAYSIA TIMBER TRADE AND MITIGATION STRATEGY

Noorazimah binti Sarkom @ Hj. Othman¹ and Norhaizurah Zulkarngain¹

¹Malaysian Timber Industry Board (MALAYSIA)

E-mails: noorazimah@mtib.gov.my, norhaizurah@mtib.gov.my

Abstract

The COVID-19 pandemic has badly affected the trade worldwide. In a pursuit to halt the pandemic outbreak nationwide, the Government imposed a Movement Control Order (MCO) starting 18 March 2020 before it moved to National Recovery Plan (NRP) starting 1 June 2021. Later, on 8 March 2022, the Government announced that Malaysia is transitioning to the endemic phase by 1 April 2022. International trade plunged in 2020 but recovered sharply in 2021. According to International Trade Centre (ITC), the global timber export suffered a downturn by 1% in 2020 and rebounded by 36% in 2021. Similarly for Malaysia, timber and timber products export reduced by 2% and slowly increased by 3% in 2021. The lockdown and control measures has impacted the economic activities in timber industry. Thus, to mitigate the impact across sectors, the Government has made available several economic stimulus measures intended to "preserve rakyat's welfare, support businesses and strengthen the economy". The heterogeneity of trade impacts and changes in trade flows across products, sources and destinations signifies high uncertainty and adjustment costs, and implies additional incentives for consumers, firms and governments to adopt new or adjusting current risk mitigation strategies. The Ministry of Plantation Industries and Commodities together with Malaysian Timber Industry Board has implemented various measures to mitigate the lockdown and economic downturn impacts such as approval to operate during the MCO, issuance of license during the lockdown and encourage the industry players to take advantage of the economic stimulus 'PRIHATIN', aimed to support the industry to sustain during these trying times.

Keywords: Trade, COVID-19 pandemic, mitigation measures

1. TIMBER PRODUCTION

Food and Agriculture Organisation for United Nations (FAO) stated the world has a total forest area of 4.06 billion hectares, comprises of 31% of the total land area. FAO's Global Resource Assessment 2020 (2020) stated that globally, about 1.15 billion hectares of forest is managed primarily to produce wood and non-wood forest products. In addition, 749 million hectares is designated for multiple use, which often includes production. Worldwide, the area of forest designated primarily for production has been relatively stable since 1990, but the area of multiple-use forest has decreased by about 71 million hectares. As of 2020, planted forests and tree plantations account for 7% of global forest area (up from 4% in 1990). The increased production of renewable forest products provides an opportunity to replace fossil-based products that have a higher carbon footprint, thereby contributing to the Sustainable Development Goals. The fastest growth was seen in North America, Europe and the Asia-Pacific region, largely driven by positive economic growth.

FAO (2020) reported that China has grown in importance as both a producer and consumer of forest products and has recently overtaken the US in sawntimber production. Sawntimber production down by 3% to 473 million cubic meters in 2020 where China is controlling about 18% of the market share followed with USA (17%), Russia (9%), Canada (8%), Germany (6%) and Sweden (4%). As for sawntimber consumption, China controls about 25% of the market share, followed by USA, Germany, Canada and Japan. Global production for wood-based panel products in 2020 are recorded at 367 million cubic metres, a reduction of 1% compared to 2019. China as the largest producer of wood-based panels products, contributing about 44% of global production. The country is by far the largest producer and consumer of wood-based panels and paper, commonly used in construction and furniture manufacturing. USA, Russia, Germany, India, Canada, Brazil and Poland are also amongst the largest producers of wood-based panel products.

According to data compiled from Forestry Department of Peninsular Malaysia, Sabah Forestry Department and Sarawak Timber Industry Development Corporation (STIDC), it is reported that in 2020, production of logs decreased by 55% to 4.8 million cubic metres and increased by 86% to 8.9 million cubic metres in 2021. Production of sawntimber also reduced by 33% to 2.3 million cubic metres compared to 3.4 million cubic metres in 2019 but increased by 36% to 3.1 million cubic metres in 2021. Similarly, production of plywood reduced by 12% to 1.7 million cubic metres in 2020 and increased by 4% to 1.7 million cubic metres in 2020. For the past 20 years, Malaysia's timber-based industry has become one of the major revenue contributors to the country's economic growth. Categorised as a non-essential sector during MCO, the timber-based industry is badly affected during the pandemic. The production output is sluggish to shortage and increasing price of raw materials despite the opening of business and manufacturing activities in timber-based industry. The tables below depicted Malaysia and global production of timber and timber products in 2017-2021.

Malaysia: Production of Timber and Timber-based Products, 2017 – 2021

Volume ('000 m3)

Draduete	Year					
Products	2017	2018	2019	2020	2021	
Logs	12,481	12,075	10,726	4,777	8,866	
Sawntimber	3,264	3,440	3,372	2,274	3,088	
Plywood	2,636	2,502	2,150	1,676	1,748	
Veneer	577	573	473	310	256	
Mouldings	134	126	231	188	200	
Total	19,092	18,717	16,952	9,225	14,158	

Source: Forestry Department of Peninsular Malaysia

Sabah Forestry Department

Sarawak Timber Industry Development Corporation (STIDC)

Global: Production of Selected Timber and Timber Products (By Region), 2016-2020

Region	Products		Ye	ar (in volume, m	1 ³)	
region	Troducts	2016	2017	2018	2019	2020
	Sawlogs and veneer logs, coniferous	711,863,848	730,096,758	776,211,022	750,653,711	755,319,098
	Sawlogs and veneer logs, non-coniferous	375,747,895	378,979,884	402,730,622	396,161,413	381,351,433
	Sawntimber, coniferous	333,283,190	346,763,376	354,367,674	351,256,845	348,826,308
\A/o.elal	Sawntimber, non-coniferous all	129,506,343	136,183,974	136,835,152	136,717,276	123,902,661
World	Veneer sheets	13,933,671	16,265,521	17,488,922	17,058,487	16,472,627
	Plywood	116,951,120	115,256,437	116,316,622	116,076,803	118,411,032
	Particle board	94,200,451	97,054,319	100,799,255	100,740,620	96,011,391
	MDF/HDF	104,129,132	103,289,577	103,924,681	105,231,953	103,839,138
	Sawlogs and veneer logs, coniferous	7,902,264	7,337,863	8,759,374	6,825,423	9,201,819
	Sawlogs and veneer logs, non-coniferous	27,909,827	29,029,389	29,115,167	28,806,400	29,650,825
	Sawntimber, coniferous	3,098,880	3,169,887	3,161,251	3,179,091	3,073,668
Africa	Sawntimber, non-coniferous all	7,556,290	7,947,458	8,391,253	8,891,591	7,758,817
Africa	Veneer sheets	1,172,781	1,113,092	1,238,053	1,325,913	1,176,117
	Plywood	1,033,128	992,053	990,258	1,045,258	1,005,289
	Particle board	1,224,362	1,246,671	1,261,711	1,262,011	1,261,011
	MDF/HDF	386,000	392,000	392,000	392,400	392,400
	Sawlogs and veneer logs, coniferous	307,686,558	316,703,591	326,643,485	310,409,867	311,479,951
	Sawlogs and veneer logs, non-coniferous	93,846,998	96,583,393	108,496,880	104,317,691	91,478,616
	Sawntimber, coniferous	125,010,884	127,114,485	129,150,024	123,819,098	123,777,900
Americas	Sawntimber, non-coniferous all	32,641,462	32,610,858	32,001,345	31,783,563	25,920,762
Americas	Veneer sheets	2,442,174	4,248,644	4,393,577	4,397,288	4,447,551
	Plywood	18,663,039	19,411,342	18,361,118	17,875,648	16,737,331
	Particle board	11,338,200	11,332,751	11,588,909	11,698,653	11,134,683
	MDF/HDF	9,912,900	10,323,368	10,678,702	11,337,772	10,597,111
Asia	Sawlogs and veneer logs, coniferous	48,749,257	46,379,668	48,507,357	49,008,021	48,792,531
ASIA	Sawlogs and veneer logs, non-coniferous	196,484,202	195,059,509	203,551,328	203,669,518	203,192,160

	Sawntimber, coniferous	54,460,099	58,229,590	60,046,500	59,997,364	59,022,063
	Sawntimber, non-coniferous all	73,881,162	79,066,638	79,547,671	79,160,864	74,401,519
	Veneer sheets	7,180,383	6,925,056	7,351,080	7,401,350	7,071,311
	Plywood		85,029,186	86,868,192	87,265,040	91,043,725
	Particle board	38,304,423	40,056,377	42,432,958	43,298,010	42,039,868
	MDF/HDF	73,646,000	71,063,000	70,809,285	71,167,498	70,969,201
	Sawlogs and veneer logs, coniferous	311,985,841	318,502,610	349,338,600	341,936,435	343,370,832
	Sawlogs and veneer logs, non-coniferous	48,403,706	47,959,628	51,136,551	49,122,312	46,784,340
	Sawntimber, coniferous	141,906,718	149,542,705	153,590,290	156,081,683	154,782,344
Furana	Sawntimber, non-coniferous all	14,527,078	15,582,527	15,862,630	15,873,420	14,757,729
Europe	Veneer sheets	2,408,820	3,276,854	3,794,337	3,221,561	3,054,180
	Plywood	8,772,743	9,230,988	9,514,186	9,307,989	9,128,687
	Particle board	42,211,807	43,293,059	44,398,553	43,377,271	40,486,154
	MDF/HDF	18,824,896	20,140,696	20,659,361	20,998,950	20,604,093
	Sawlogs and veneer logs, coniferous	35,539,928	41,173,026	42,962,206	42,473,965	42,473,965
	Sawlogs and veneer logs, non-coniferous	9,103,162	10,347,965	10,430,696	10,245,492	10,245,492
	Sawntimber, coniferous	8,806,609	8,706,709	8,419,609	8,179,609	8,170,333
Occania	Sawntimber, non-coniferous all	900,351	976,493	1,032,253	1,007,838	1,063,834
Oceania	Veneer sheets	729,513	701,875	711,875	712,375	723,468
	Plywood	633,886	592,868	582,868	582,868	496,000
	Particle board	1,121,659	1,125,461	1,117,124	1,104,675	1,089,675
	MDF/HDF	1,359,336	1,370,513	1,385,333	1,335,333	1,276,333

Source: FAOSTAT- Forestry Database

2. TRADE IN TIMBER AND TIMBER PRODUCTS

The year 2020 was marked by some of the largest reductions in trade and output volumes since World War II. Trade impacts across specific goods, services and trade partners are highly diverse, creating pressures on specific sectors and supply chains. Trade trends for 2020 have been greatly influenced by the COVID-19 pandemic. United Nations Conference on Trade and Development (UNCTAD) (2022) reported that the economic disruptions brought by pandemic resulted in a decline in international trade in goods and services of about 10%. Trade in services declined considerably more than trade in goods. The pandemic has resulted many adverse impacts on economic activities and social daily routines. The economic growth is depressed, leading to the devaluation of the Malaysian ringgit (MYR) and the decline in the country's gross domestic product. The pandemic also adversely affected several sectors especially tourism, manufacturing, construction, retail, including timber industry. Besides shortages in goods and services, many businesses had to cope with social distancing and lockdown restrictions, which affected their operations and revenue.

DOSM reported that the various phases of the Movement Control Order (MCO) from 18 March 2020 which came into force to curb the spread of the COVID-19 outbreak resulted to the temporary closure of several economic sectors and a reduction in operating hours. This has resulted in slowdown of the economic performance, private consumption, and consumer demand. It is reported that Malaysia's economy shrank by 5.6% in 2020 as compared to 4.4% in the previous year 2019. It is also recorded that the country's real Gross Domestic Products (GDP) plunged by 17% (quarter to quarter) in the second quarter of 2020. Bank Negara Malaysia (BNM) also reported that domestic demand declined by 18.7% in second quarter of 2020, due mainly to weaker private sector expenditure and subdued consumer and business sentiments. As movement restrictions were gradually relaxed towards the end of the quarter, retail and financing data indicated some improvement in spending, albeit remaining subdued. Subsequent relaxation of control measures brought about a sharp economic recovery in the third quarter of 2020, which Malaysia's GDP decreased at a slower pace of 2.7%. However, the downfall was cushioned by support from coordinated policy stimulus measures, implemented by the government and financial institutions. The growth was uplifted by a rebounded performance of Manufacturing sector, which grew 3.3% from the previous quarter. Further relaxation of the control measures in 2021 generated a modest 3.1% recovery in 2021. The economic recovery in 2021 was very uneven: the economy was still relatively weak in the second and third guarter of 2021 but showed a strong recovery in the fourth quarter 2021.

2.1 Global Timber and Timber Trade Performance

During the turbulent year 2020, global timber trade recorded at USD449.8 billion comprising of export valued at USD227.1 billion and import worth USD222.7 billion. Global export of timber and timber products (HS44 and 9403) increased slightly by 1% in 2020 compared to 2019. Timber and timber products ranked 24th largest exported products in 2020. Demand for plywood reduced by 2% valued at USD14.4 billion, logs down 6% to USD13.5 billion, mouldings declined by 3% to USD4.7 billion and veneer down 7% to USD3.2 billion. The drop is largely contributed to lowered global demand and stilted construction activities due to movement restriction orders implemented by various countries to curb the spreading of COVID-19 virus. Nevertheless, export of furniture and parts (HS9403) increased by 4% to USD93.5 billion, followed by sawntimber export increased by 3% to USD37.2 billion, BJC 0.2% to USD13.8 billion, fibreboard 0.3% to USD9.8 billion and particleboard 6% to USD8.6 billion.

Although the spread of COVID-19 pandemic still rampant in 2021, the global trade of timber and timber products recorded at USD585.4 billion with export valued at USD295.2 billion and import worth USD290.2 billion, an increase of 30% due to recovery of business activities, increased consumer demand and resumed construction activities worldwide. Thus, timber and timber products moved the ladder to 22nd largest exported products in 2021. Overall, export of timber

and timber products recorded an increase in demand with furniture and parts contributed about 38% of market share of global export of timber and timber products, worth USD112.8 billion. This is followed by sawntimber, export increased by 51% to USD56.1 billion, plywood 39% to USD20.1 billion, BJC 28% to USD17.7 billion and logs 20% worth USD16.2 billion. Similarly, export of particleboard also grew by 63% to USD14.1 billion, fibreboard 32% to USD12.9 billion and mouldings 33% to USD6.2 billion. The details of global export of timber and timber products (HS44) for the period 2017 to 2021 are depicted in the table below:

Global: Export of Timber and Timber Products, 2017-2021

(USD '000)

Year / Products	2017	2018	2019	2020	2021
Logs	14,509,969	16,132,343	14,402,641	13,512,961	16,224,265
Sawntimber	38,427,261	41,093,555	36,124,127	37,190,336	56,118,389
Plywood	15,456,044	17,519,388	14,726,209	14,439,156	20,089,125
Veneer	3,066,765	3,514,120	3,447,671	3,217,823	4,402,987
Mouldings	4,801,601	5,008,312	4,815,154	4,681,450	6,226,230
Chipboard/Particleboard	8,583,984	9,350,065	8,129,917	8,649,210	14,126,683
Fibreboard	9,918,007	10,415,693	9,753,779	9,780,660	12,862,691
Builders Joinery & Carpentry	14,702,800	14,543,326	13,796,436	13,823,540	17,675,788
Furniture and Parts	83,179,812	89,492,943	90,326,732	93,534,374	112,750,081
Other Products	25,360,039	29,533,049	29,086,660	28,314,025	34,678,731
Grand Total	218,006,282	236,602,794	224,609,326	227,143,535	295,154,970

Source: International Trade Centre (ITC) - UN COMTRADE

China, Canada, Germany, Russia and USA were the top 5 largest exporting countries of timber and timber products (HS44) worldwide in 2020. China championed as the major exporter for timber and timber products with export value of USD13.5 billion. Canada followed second with export value worth USD13.4 billion. Meanwhile, Indonesia and Viet Nam emerged as major exporters amongst ASEAN members. Malaysia ranked 18th as global major exporters of timber and timber products under HS44. However, moving to the year 2021, Canada emerged as the largest timber and timber exporters worth USD22.5 billion, followed by China USD16.8 billion and Germany USD13.3 billion. Viet Nam and Indonesia remained the largest exporters for timber and timber products amongst ASEAN members and Malaysia slide down to 22nd in global ranking of major timber and timber exporters in 2021. The global ranking for timber and timber products (HS44) exporters are displayed in the table below:

Global: List of Exporting Countries (HS44), 2017-2021

(USD '000)

Bil.	Year / Country	2017	2018	2019	2020	2021
	World	135,549,440	147,847,304	135,016,312	134,252,415	183,240,830
1.	Canada	14,090,957	14,290,997	11,704,741	13,422,564	22,495,906
2.	China	13,693,414	14,888,330	13,410,434	13,543,077	16,780,026
3.	Germany	8,850,717	9,845,533	9,498,114	9,895,836	13,339,811
4.	Russia	7,901,563	9,009,169	8,619,543	8,196,109	11,748,518
5.	USA	9,776,719	9,868,241	8,323,691	7,654,931	9,730,896
6.	Austria	5,083,854	5,666,306	5,345,719	5,259,061	7,551,104
7.	Sweden	4,065,184	4,227,750	3,948,758	4,344,001	6,594,110

22.	Malaysia	3.518.642	3.581.127	3.006.819	2.328.278	2,575,100
10.	Poland	4.265.187	5.561.312	3,469,218	3.582.425	4,773,454
9.	Indonesia	4,004,289	4,435,145	3,838,152	3,789,212	4,930,152
8.	Viet Nam	2,463,503	3,146,464	3,455,426	3,504,261	5,020,360

Source: International Trade Centre (ITC) - UN COMTRADE

In 2021, Malaysia was ranked 8th global major producers of furniture and parts (HS9403). The rampage of COVID-19 pandemic in 2020-2021 has changed the working and learning arrangements. The work-from-home and online learning arrangements has increased demand for compact and multi-purpose furniture. Thus, Malaysia's export of furniture and parts in 2020 increased by 17% to USD2.5 billion and slightly increased by 2% in 2021. China remained the top exporter for furniture and parts for the past five years, with an increase of 13% to USD34.6 billion in 2021. Viet Nam recorded an increase by 54% to USD10.7 billion in 2021 from USD6.9 billion in 2020. The global ranking for furniture and parts (HS9403) exporters are displayed in the table below:

Global: List of Exporting Countries (HS9403), 2017-2021

(USD '000)

Bil.	Year / Country	2017	2018	2019	2020	2021
	World	83,179,812	89,492,943	90,326,732	93,534,374	112,750,081
1.	China	26,685,685	28,090,223	27,784,634	30,768,790	34,615,153
2.	Viet Nam	4,279,361	4,606,903	5,516,587	6,947,431	10,723,205
3.	Germany	7,514,432	8,011,243	7,951,498	7,774,990	9,281,775
4.	Italy	7,221,691	7,889,683	7,533,912	6,850,039	8,326,992
5.	Poland	4,313,820	5,311,464	5,476,256	5,644,338	6,817,663
6.	USA	2,946,275	3,008,134	2,863,916	2,447,726	2,786,272
7.	Canada	2,776,531	2,787,372	2,899,339	2,403,409	2,743,751
8.	Malaysia	1,860,642	1,925,093	2,135,265	2,501,908	2,539,749
9.	Turkey	1,305,119	1,488,049	1,762,848	1,751,199	2,210,538
10.	Netherlands	1,207,297	1,381,436	1,406,572	1,549,517	2,069,633

Source: International Trade Centre (ITC) - UN COMTRADE

The volatile economy surrounding the year 2020-2021 had slowed the global import of timber and timber products. Import of timber and timber products (HS44 and 9403) reduced by 2% to USD222.7 billion in 2020 compared to previous corresponding year 2019. Demand of furniture and parts are down by 2% to USD84.4 billion, followed by logs decreased by 12% to USD15.2 billion, BJC 1% to USD14.3 billion, plywood 4% to USD13.7 billion and fibreboard 1% to USD9.7 billion. Nevertheless, the demand for particleboard, which are increasingly popular in furniture-making increased by 5% to USD8.9 billion in 2020.

Entering 2021, global import of timber and timber products jumped by 30% to USD290.2 billion following the reopening of business activities, the lifting of the lockdown/movement restrictions, and resuming constructions works in many countries especially advanced economies. Furniture and parts boosted growth by 30% to USD104.9 billion, followed by sawntimber import increased by 43% to USD55.1 billion, logs 27% USD19.4 billion, plywood 39% to USD19.0 billion and BJC 27% to USD18.3 billion. The details of global import of timber and timber products for the period 2017 to 2021 are depicted in the table below:

Global: Import of Timber and Timber Products, 2017-2021

(USD '000)

Year / Country	2017	2018	2019	2020	2021
Logs	18,257,833	20,100,072	17,210,247	15,211,561	19,385,551
Sawntimber	41,014,181	44,166,965	38,414,828	38,457,279	55,092,816
Plywood	14,692,692	16,838,239	14,245,882	13,718,232	19,000,261
Veneer	3,405,649	3,828,745	3,676,425	3,615,255	4,637,559
Mouldings	4,818,498	5,024,480	4,908,879	4,865,945	6,587,796
Chipboard/Particleboard	8,727,624	9,744,359	8,512,547	8,909,397	14,121,651
Fibreboard	9,912,326	10,367,260	9,821,059	9,723,280	12,556,670
Builders Joinery & Carpentry	14,384,845	14,996,168	14,514,957	14,348,038	18,254,087
Furniture and Parts	80,776,400	86,828,760	85,721,766	84,400,340	104,898,027
Other Products	26,722,119	30,535,712	30,863,044	29,435,744	35,702,445
Grand Total	222,712,167	242,430,760	227,889,634	222,685,071	290,236,863

Source: International Trade Centre (ITC) - UN COMTRADE

The USA, China, Germany, Japan and UK were amongst the largest consumer of timber and timber products in 2021 with global import valued at USD186.7 billion. The increased demand for timber and timber products are driven with the reviving of construction and manufacturing activities. The USA remained the largest importing countries with USD35.5 billion, an increase of 57% from previous corresponding year. China followed second with USD22.2 billion (+10%), Germany USD11.8 billion (+36%), Japan USD11.2 billion (+27%) and UK USD10.2 billion (+42%). Meanwhile, Viet Nam and Malaysia are the largest importers amongst ASEAN member countries. Viet Nam, ranked 22nd and Malaysia, ranked 33rd for timber and timber-based consuming countries. The details of global importing countries of timber and timber products for the period 2017 to 2021 are showed in the table below:

Global: List of Importing Countries (HS44), 2017-2021

(USD '000)

Bil.	Year / Country	2017	2018	2019	2020	2021
	World	143,190,114	156,694,199	143,319,985	139,148,741	186,683,020
1.	USA	21,096,360	22,574,631	19,204,648	22,578,485	35,544,182
2.	China	23,411,325	24,914,415	21,976,451	20,186,939	22,156,330
3.	Germany	8,711,073	9,599,868	8,823,975	8,650,636	11,781,433
4.	Japan	10,271,377	11,169,183	10,682,160	8,840,924	11,204,049
5.	UK	6,940,900	7,654,427	7,400,064	7,171,037	10,193,717
6.	France	4,248,988	4,683,334	4,594,248	4,381,112	6,173,179
7.	Netherlands	3,480,768	3,981,673	3,961,432	4,372,785	6,135,200
8.	Italy	4,564,933	4,949,520	4,546,439	4,062,574	5,671,439
9.	Austria	3,187,618	3,527,712	3,157,010	3,183,715	4,398,424
10.	Belgium	2,923,503	3,185,520	2,992,836	3,042,942	4,082,544
33.	Malaysia	683,002	853,896	769,968	809,392	1,108,987

Source: International Trade Centre (ITC) - UN COMTRADE

The USA, Germany, United Kingdom, France and the Netherlands were the top buying countries for furniture and parts in 2021. Demand from USA increased by 24% to USD32.0 billion in 2021 over its corresponding period 2020. Intake from Germany and UK also increased by 18% to USD8.0 billion and by 35% to USD6.1 billion respectively in 2021. Malaysia was ranked 25th in the global importing countries for furniture and parts (HS9403) in 2021. The details of global importing countries for furniture and parts for the period 2017 to 2021 are showed in the table below:

Global: List of Importing Countries (HS9403), 2017-2021

(USD '000)

	(000 000)					
Bil.	Year / Country	2017	2018	2019	2020	2021
	World	80,776,400	86,828,760	85,721,766	84,400,340	104,898,027
1.	USA	25,347,829	27,477,854	25,441,093	25,814,418	31,995,488
2.	Germany	5,770,250	6,194,429	6,362,397	6,779,166	7,995,970
3.	United Kingdom	4,826,302	4,985,936	4,995,663	4,494,838	6,075,720
4.	France	4,287,157	4,668,484	4,710,871	4,467,167	5,835,144
5.	Netherlands	2,377,346	2,787,340	2,898,674	3,244,519	4,121,814
6.	Canada	2,869,041	2,940,826	2,970,518	2,805,083	3,487,028
7.	Japan	2,564,253	2,666,451	2,764,917	2,833,617	3,165,714
8.	Switzerland	2,050,803	2,156,870	2,058,335	2,083,998	2,401,913
9.	Australia	1,625,225	1,813,870	1,736,677	1,729,087	2,070,073
10.	Belgium	1,330,169	1,447,666	1,455,569	1,496,264	1,979,084
25.	Malaysia	392,791	400,017	464,009	709,512	833,816

Source: International Trade Centre (ITC) - UN COMTRADE

2.2 Malaysia Timber and Timber Trade Performance

Timber is the third largest commodity industry after palm oil and rubber in Malaysia. In 2020, its export value stood at RM22.08 billion, a modest decrease of 2% compared to 2019 which can be attributed to the economic downturn during the Covid-19 pandemic. This accounts for 14% of Malaysia's agri-commodity exports, 2.2% of total exports and it made up for 1.6% of the country's GDP.

The timber industry continued to perform well despite the Covid-19 pandemic and global volatile economy, with exports recording growth of 3.1% to RM22.74 billion in 2021 from RM22.08 billion in the previous year. Generally, timber and timber products recorded a decrease in annual export value in 2020 and showed sign of recovery in 2021. When compared by quarterly in 2020-2021, the export performance for timber and timber products slumped by 25% in the second quarter 2020 before recovering in the third and fourth quarter of 2020. This is due to relaxation in movement restriction orders that allowed businesses to continue operating under strict Standard Operating Procedures (SOPs), increased global demand and growth in construction industry especially in home construction, renovation, and remodelling. However, the new variants of COVID-19 had threatened Malaysia public health and thus, the Government had to enforce movement control measures combined with strict SOPs especially in factories and mills. Furthermore,

congestion and delays at both local and international ports had dampen Malaysia's export performance for timber and timber products from the first to the third quarter of 2021.

The industry showed recovery during the fourth quarter 2021. Wooden furniture remained the highest demanded products from Malaysia. Although export of wooden furniture increased by 16% to RM10.6 billion in 2020, it slowed by 2% to RM10.4 billion in 2021. Export of plywood and sawntimber decreased by 17% to RM2.8 billion and 29% to RM2.4 billion respectively in 2020. However, export value for both plywood and sawntimber rebounded by 15% to RM3.3 billion and 4% to RM2.5 billion respectively in 2021. BJC recorded an increase of 3% to RM997.2 million from RM972.9 million in 2020. Similarly, for mouldings, export value jumped by 8% to RM764.5 million in 2021 despite decreasing by 19% to RM707.6 million in 2020. The tables below showed export performance of timber and timber products from 2017-2021.

Malaysia: Export Performance for Timber and Timber Products, 2017-2021

PRODUCTS	2017	2018	2019	2020	2021
PRODUCTS	RM	RM	RM	RM	RM
Logs	1,411,378,076	923,886,444	759,564,173	509,559,297	528,679,171
Sawntimber	3,889,703,159	3,651,614,496	3,378,840,939	2,408,118,596	2,509,026,936
Plywoods	4,588,578,660	4,566,148,914	3,402,100,737	2,839,783,632	3,278,402,647
Veneer	328,738,940	304,584,919	171,431,422	94,602,550	91,241,849
Mouldings	847,812,765	874,010,485	872,150,003	707,604,464	764,518,111
Chipboard/Particleboard	437,363,068	482,453,155	367,089,681	266,473,168	254,801,890
Fibreboard	1,156,916,980	1,185,287,528	1,060,572,430	726,928,576	690,095,568
Builder's Joinery & Carpentry	1,191,293,131	1,058,488,082	1,036,706,382	972,917,804	997,201,660
Wooden Furniture	8,073,598,676	7,787,063,348	9,143,653,752	10,634,524,977	10,414,408,794
Other Products	1,243,461,391	1,427,796,169	2,311,585,935	2,916,525,820	3,216,046,780
GRAND TOTAL	23,168,844,846	22,261,333,540	22,503,695,454	22,077,038,884	22,744,423,406

Source: MTIB & DOSM

USA, Japan, China, Singapore and India were Malaysia's top export destinations during 2020-2021. The trade war between USA and China has benefitted Malaysia as many American buyers are shifting their orders from China to other Asian supplying countries including Malaysia. With market share about 34%, export to USA increased by 50% to RM7.5 billion in 2020 and by 5% in 2021 to RM7.8 billion. Export to Japan and China also increased during the pandemic with an increase by 15% and 2% to RM3.1 billion and RM2.3 billion respectively. Even though Singapore and India recorded a decrease in export in 2020, demand boomed by 27% to RM1.1 billion and 18% to RM918.3 million respectively in 2021. The table below showed top 10 export destinations for Malaysia's timber and timber products in 2020-2021.

Malaysia: Top 10 Export Destinations, 2020-2021

DESTINATION	2020 (RM)	2021 (RM)	% Change Value 20/19	% Change Value 21/20
Grand Total	22,077,038,884	22,744,423,406	-1.9	3.0
USA	7,465,774,889	7,829,560,799	50.3	4.9
Japan	2,735,313,377	3,132,975,580	-21.1	14.5
China	2,254,131,721	2,304,387,272	23.3	2.2
Singapore	828,551,906	1,051,377,030	-24.7	26.9
India	781,471,522	918,326,552	-38.8	17.5
Australia	879,947,076	851,244,284	-13.8	-3.3
United Kingdom	784,186,748	763,463,573	-7.1	-2.6
Korea, Republic of	674,390,202	602,920,149	-18.4	-10.6
Netherlands	408,879,367	471,018,691	-6.9	15.2

Source: MTIB & DOSM

The manufacturing and construction industries are amongst the industries that propelling Malaysia's economic growth. Even though Malaysia was hit by the pandemic, import of timber and timber products were still high in 2020-2021. Import of timber and timber products were recorded at RM6.8 billion, increased by 15% in 2020 and further increased by 20% to RM8.2 billion in 2021. In 2020, import of wooden furniture increased by 40% to RM1.9 billion and further increased by 20% to RM2.3 billion in 2021. Meanwhile, import of plywood that are frequently used in furniture-making and construction industry decreased by 4% to RM1.1 billion in 2020 but spiralled up by 53% to RM1.6 billion in 2021. Intake of sawntimber declined by 4% to RM562.8 million in 2020 and increased by 41% to RM793.0 million in 2021 due to opening of business activities and construction industry. Chipboard/Particleboard are becoming popular in furniture-making as an alternative to plywood and fibreboard. Import of chipboard/particleboard increased by 40% to RM348.4 million in 2020 and intake increased further by 37% to RM476.4 million in 2021.

Meanwhile, China remained Malaysia's top supplying countries with RM2.8 billion in 2020 and increased by 17% to RM3.2 billion in 2021. Wooden furniture, plywood and veneer continued to be the major products imported from this country. This followed by Indonesia with import value of RM1.6 billion for the period 2020-2021. Thailand also our major supplier with import value of RM537.4 million in 2020 and RM658.0 million in 2021. Plywood and chipboard/particleboard were the main products imported from these two countries. The tables below showed Malaysia's import performance of timber and timber products from 2017-2021.

Malaysia: Import Performance for Timber and Timber Products, 2017-2021

PRODUCTS	2017	2018	2019	2020	2021
	RM	RM	RM	RM	RM
Logs	27,488,552	156,499,792	90,330,253	147,094,821	222,946,585
Sawntimber	560,197,574	622,008,784	587,374,011	562,842,208	793,004,385
Plywoods	749,527,784	1,150,481,696	1,105,179,183	1,059,846,613	1,617,412,832
Veneer	494,954,172	495,496,653	430,014,800	379,611,017	392,820,398
Mouldings	161,952,286	189,520,543	113,771,731	122,434,695	144,955,330
Chipboard/Particleboard	359,817,370	259,758,836	248,289,517	348,429,193	476,415,779
Fibreboard	146,209,576	147,797,133	146,754,469	237,421,262	187,018,142
BJC	129,107,054	115,208,137	132,916,318	155,698,443	145,978,581
Wooden Furniture	1,176,913,136	1,154,072,650	1,395,180,476	1,948,829,252	2,333,177,114
Other Products	863,008,933	955,369,537	1,696,663,504	1,863,966,277	1,898,465,822
GRAND TOTAL	4,669,176,437	5,246,213,761	5,946,474,262	6,826,173,781	8,212,194,968

Source: MTIB & DOSM

Malaysia: Top 10 Supplying Countries, 2020-2021

COUNTRY	Jan-Dec 2020	Jan-Dec 2021	% Change Value (RM) 20/19	% Change Value (RM) 21/20
Grand Total	6,826,173,781	8,212,194,968	14.8	20.3
China	2,774,158,219	3,248,581,542	48.9	17.1
Indonesia	1,587,339,386	1,606,292,187	4.0	1.2
Thailand	537,403,497	658,004,143	53.7	22.4
Viet Nam	397,498,631	614,745,305	1.2	54.7
USA	320,705,838	421,965,441	-7.4	31.6
Australia	199,503,222	251,522,140	-5.8	26.1
New Zealand	105,251,341	200,128,622	-31.2	90.1
Brazil	118,337,933	176,974,013	-39.8	49.5
Russia	46,134,072	88,617,785	-23.6	92.1
Finland	48,053,421	63,871,366	2.3	32.9

Source: MTIB & DOSM

3. ISSUES AND CHALLENGES DERIVED FROM THE PANDEMIC

Timber and timber-based industry along with its supply-chain industries are one of the major contributors of the global export, contributing 1% from USD21.5 trillion in 2020-2021. Trade in timber and timber-based products has increased significantly over the past 50 years, especially in processed timber products such as sawn timber, pulp, wood-based panel products and furniture. According to the FAO, wood-based panel trade has skyrocketed 800% in the past three decades. Despite its growth, the industry faced with its myriad of challenges in upstream and downstream sectors.

3.1 Raw Materials and Labour

Dasar Agri-Komoditi Negara (DAKN) stated that the timber industry is experiencing a shortage of raw materials, particularly rubberwood. Supply shortages of rubberwood timber has affected the manufacturing of furniture and other downstream products. The main reason for the shortage is reduced rubber replanting, especially in Peninsular Malaysia. The Forest Plantation Development Programme (FPDP) which is implemented in Peninsular Malaysia, Sabah and Sarawak, aims to fill the gap in the supply of raw materials.

Furthermore, Bank Negara Malaysia (BNM) reported that the global health crises triggered a large economic downturn in 2020 resulting in weaker demand and production disruptions amid widespread containment measures. The imposed movement restriction measures have affected various economic sectors including timber and timber-based industries of which the factories were unable to operate at its full capacity. Under the MCO guidelines, timber and timber-based industry are not considered as an essential service. In addition, with the state forestry departments are unable to issue logging licenses, it has caused the timber-based industry to face shortages of raw materials and resulted for the manufacturers to halt production. Following the closure of the timber sector factories both locally and globally, it has affected the supply chain, and this has caused some factories to face cancellations of existing orders, delays in completing existing order as well as difficulties in obtaining new orders.

The MCO strict guidelines also caused shortages of workforce. The existing workforce cannot be fully utilised due to these restrictions. Nevertheless, enforcement and monitoring activities continued to be kept to a minimum over a long period of time. The MCO guidelines also emphasised in social distancing and the factories must work in reduced capacity. The low supply of raw materials led to low production resulting in an immediate reduction in the early turnover (net sales figure) of the timber and timber-based industry. Such changes have notably impacted employment across the sector. Furthermore, the industry is heavily reliant on foreign labour. The reliance of foreign labour for Malaysia's timber and timberbased industry are about 55% compared to local workforce. The ongoing need for replacement of workers has kept many factories running short of their full capacity and lengthens lead times on shipments to the main market like USA and other markets. Although with the new Minimum Wage Order 2022 that stated the new minimum wage of RM1,500 a month that took effect on 1 May 2022, the timber industry reported that they are still facing the lack of interest from local workers to work on the production line. Sustainable supply of raw material and labour continue to hinder industrial growth, and it has been particularly noticeable during the Covid-19 pandemic, when supply chains were affected, resulting in a steep decline in outputs.

3.2 Prices, Production, Shipping and Transportation, Trade Barriers

The timber industry reported to face the rising of timber prices especially during the pandemic. The efforts to stabilise or to control timber prices in the international market are a difficult step to take as it depends on the demand and supply from the buyer and competitor countries. Timber product producing countries such as Malaysia need to compete with countries that sell timber at more competitive prices as well as produce high value-added products. According to industry players, due to the shortages of raw material, the increased in the component prices by 10% to 30% and the shortage of workforce had caused a longer lead times for shipments and resulted in the increase of price for finished products. It is reported by some timber industry players that their domestic sales were also declined between 30% to 50%.

Meanwhile, the resumption of public and private renovation and construction projects spurred a recovery in activity and a rebound for the construction sector, with growth increased by 5.2% in 2021, according to GlobalData. This resulted in an explosion in demand for timber, causing delivery delays, scarcities and, above all, a surge in prices. The fact that contracts in the construction sector are often signed months before work begins is obscuring matters.

The shipping and transportation cost also hinders the timber and timber-based performance. The world's major ports especially in China were facing with congestion of containers not allowed out and a shortage of containers for new consignments. Our local timber industry also faced with shortages of containers and thus, it has resulted in rising of freight charges. Before the pandemic, the price range of 40-foot container would only cost about USD1,000 to USD2,000. However, the freight charges skyrocketed to USD8,000 and more from 2020 onwards. This had badly affected the timber and timber-based industry as they had to increase their FOB price. The rising prices combined with delayed production had caused some of foreign buyers, especially in furniture to shift their order to other supplying countries such as China and Viet Nam.

Globally, the trade war between China and the USA has in a way benefited Malaysia. Since 2019, USA has outranked Japan to be Malaysia's major export market for timber and timber products, especially in wooden furniture. Many American buyers have shifted their orders from China to other countries, especially Viet Nam, Indonesia and Malaysia. Apart from that, there are various non-tariff and technical trade barriers being faced by our timber and timber-based industry. The global timber sector is currently facing the dual challenges of meeting the growing demand of quality timber products and minimising possible adverse impacts on the environment and human health which include issues on eco-labelling and carbon footprint. On top of that, various regulatory measures and acts need to be abide for legality and sustainable timber such as EU FLEGT-VPA, US Lacey Act, Australian Illegal Logging Prohibition Act, EU Regulation on Deforestation-free products (EUDR), Japan Clean Wood Act and UK Timber Regulation.

4. MITIGATION STRATEGIES

Government of Malaysia has taken drastic measures to overcome the spread of the pandemic while at the same time, executing plans to reduce the impact of the pandemic to the economy. Malaysia is among the countries which took early prevention by imposing movement control order to avoid massive loss of lives. As an effort to curb the spread of the virus, the government has enforced various stages of movement control measures to break the chain of COVID-19. All economic activities except only for the critical or essential industries, were instructed to shut down, with international borders were also closed to foreigners. For some, businesses were allowed to resume operations with strict guidelines and standard operating procedures to be adhered which emphasised on social distancing and new working norms. However, the timber and timber-based industry were unfortunately considered as non-essential sector. Thus, in order to assist the industry during the pandemic, various measures had been taken such as:

4.1 Committee on the Approval to Operate and Factory Monitoring During MCO

During MCO 1.0 and MCO 2.0, MTIB has approved 324 applications from the timber and timber-based industry to operate, which is only comprised 32% of timber mills in Peninsular

Malaysia. Johor has the highest application with 143 companies, followed by Selangor 85 companies, Perak and Pulau Pinang with 18 companies respectively. Furniture has the highest application by 162 companies, followed by mouldings 29 companies and panel products 13 companies. Based on MTIB's monitoring, the approved companies followed the guidelines established by the Ministry of Health, Malaysia.

4.2 Enforcement and Licensing

MTIB has implemented various measures to facilitate the timber industry during MCO. MTIB has expedited various process for registration, quota, permit, physical inspection, special clearance and many more. In certain cases, MTIB has mitigated the risk of high loss from timber companies by extending the processing time for approval permit. About 744 new registration and 1,786 registration (renewal) as exporter, supplier, processor, timber grader and jetty operator in the timber-based industries in 2020 was approved. For 2021, 761 registration and 2,164 registration (renewal) was also approved for such activities.

Regarding licensing operations, MTIB has established Special SOP during MCO, which was continuously updated. During the MCO period, MTIB additionally provided a hotline number and email address for industry inquiries. MTIB also supported in expediting the export permit through approval without physical inspection (MTIB Guideline stipulated that 10% of consignment should be physically inspected). In normal circumstances, MTIB does not approve any changes in export date and vessel's name. However, due to the everchanging vessel schedule during MCO, MTIB had rarely allowed applications to change the export date and vessel's name. In addition, to avoid congestion at the port, MTIB offices continued to operate during MCO to complete manual processes such as issuance of import permit, MyTLAS Certificate, renewal of company registration etc. MTIB additionally supported with document postage during the MCO since interstate travel was restricted.

4.3 Assistance and Incentive to Timber Entrepreneurs

For Bumiputera entrepreneurs, MTIB had given exemption of a nine-month rental fee on MTIB's Facility Centres to 13 tenant companies, starting from April 2020 to December 2020. Additionally, MTIB also gave 30% discount of rental fee to 14 tenant companies, starting from September 2021 to November 2021.

Under MTIB's Program Sokongan Bahan Mentah kepada Usahawan Kayu Bumiputera (PSBM), MTIB has approved for two companies to reschedule their raw material payments. It is contracted that the companies to pay their loan within 6 months, however MTIB had approved the two companies to extend their payment schedule to 18 months and 10 months respectively. Meanwhile, MTIB also approved to reduce PSBM's monthly commitment with the loan balance. MTIB hope with the exemption of rental fee, restructuring of the payment schedule and reduction of monthly commitment to Bumiputera SMEs, it will be able to assist them in mitigating the financial losses during the pandemic.

Furthermore, in general the timber industry had also benefitted from Malaysia's Economic Stimulus Packages amounting to RM260 billion (USD4.6 billion). In February 2020, the Government announced a RM20 billion Economic Stimulus to mitigate the impact of COVID-19 outbreak and reinvigorate the growth of Malaysian economy. Later in March 2020, the Government announced the PRIHATIN Economic Stimulus Package, injecting an additional RM230 billion into the economy. In April 2020, the Government announced PRIHATIN SME Economic Stimulus Package (PRIHATIN SME+) with allocation of RM10

billion to further support business particularly the SMEs. Amongst the assistance given are RM2 billion allocated to establish a Special Relief Facility (SRF) to assist with the cashflows of affected SMEs and financial institutions to facilitate the restructuring and rescheduling of loans. The Government also provided industry boosters such as all affected sectors be exempted from the Human Resources Development Fund levy, 15% discount on electricity bills for all affected sectors and up to RM5 million per affected SME for guarantees to finance working capital. As for the socio-economic drivers, RM300 million for all SMEs to upgrade, modenise and rejuvenate productive assets under the SME Automation and Digitalisation Facility (ADF), fund amounting to RM1.1 to assist retrenched workers under the Employment Insurance System (EIS) and minimum employee contribution to the Employee Provident Fund (EPF) reduced from 11% to 7% to potentially increase disposable income by approximately RM10 billion. Other than that, the financial institutions gave a loan moratorium for all affected businesses for six (6) months, allocation of RM13.8 billion to assist up to 4.8 million workers under the Enhanced Wage Subsidy Programme, postponement of income tax instalments for all SMEs and allocation of RM4.5 million as additional funds through various financing programmes/facilities to assist SMEs including micro-entrepreneurs.

Realising the escalating freight charges, Market Development Grant (MDG) by MATRADE provided a logistic incentive, a maximum of RM40,000 claimable to assist affected SMEs during the pandemic. The incentive which ended on 31 December 2020 has helped many companies in lightening their shipping cost to export markets.

4.4 Promotion and Marketing

During the pandemic, MTIB undertook various activities in promoting timber and furniture entrepreneurs particularly through the electronic and social media due to the restricted movement on physical activities. MTIB have collaborated with local electronic media to promote timber and furniture products and entrepreneurs in some segments and programmes. During the period, MTIB participated in ten local and international exhibitions of which 70 companies have participated in these exhibitions that promoted household furniture, kitchen cabinets, wood-based panel products, bio composite products and nonforest timber products such as bamboo, gaharu, wood carvings and craft products.

Other activities include Brand Promotion Programme, Integrated Marketing Campaign programme, B2B business matching session between local producers and designers with foreign buyers whilst distribution of technical and market information continued to be conducted via online session such as webinar, live videos and by utilising various online platforms. During the pandemic where physical movement were restricted, the industry players have been utilising the online business platform to keep their activities moving.

5. OUTLOOK

According to the Business Research Company, a market intelligence research company, the global timber and timber-based products market size is expected to grow from USD631.11 billion in 2021 to USD684.26 billion in 2022 at a compound annual growth rate (CAGR) of 8.4%. The timber and timber-based product market is expected to grow to USD903.33 billion in 2026 at a CAGR of 7.2%. Recovering commodity prices, after a decline in the historic period is further expected to be a significant factor in driving economic growth. The US economy is expected to register stable growth between 2021-2026. Additionally, emerging markets are expected to continue to grow slightly faster than the developed

markets between 2021-2026. Greater economic growth is likely to drive public and private investments, joint ventures and foreign direct investments in the end-user markets. The increasing demand for supply chain transparency and stringent government regulations on the timber and timber-based industry has led to the implementation of tracking and tracing technologies. Most importantly, the forest value chain is well-positioned to play a critical role in a global future that is eager to embrace natural, sustainable, and renewable solutions that help mitigate the effects of climate change.

The demand for furniture is increasing due to changing trend of work-from-home and online learning arrangements where there are increasing demand for do-it-yourself, multi-functional and compact furniture. According to The Business Research Company's research report on the timber products market, the demand for timber and timber products are growing because its increased popularity to be used as a building material due to the numerous advantages of timber buildings over concrete buildings. Currently, the building industry is causing 25% of greenhouse gas emissions globally and therefore the concept of green building construction has evolved, which is expected to reduce CO2 emissions and store carbon. In addition, constructing buildings with timber produces less waste and allows for quicker construction when compared to a concrete building. Wooden building construction has increased the demand for timber components such as cross-laminated timber (CLT) and laminated veneer lumber (LVL). Furthermore, with the net zero carbonization policy implemented by most advanced economies, timber is becoming the building material of the future and therefore needs to meet the increasing demand from construction industries. According to the Poland's Central Statistical Office, the number of wooden buildings in Poland in 2020 almost doubled over the last five years. Countries such as the US, Japan and China are also witnessing an increase in timber construction due to its economic and environmental benefits.

The rapidly growing urbanisation worldwide is expected to increase the demand for new residential and commercial buildings and furniture, thus further driving the demand for timber products. According to the World Bank, the urban population in South Asia is expected to grow by 250 million by 2030. According to a report by PricewaterhouseCoopers (PwC), around 60% of the world's population is expected to live in cities by 2030. This rapid urbanisation is expected to boost the demand for timber materials for construction and furniture and drive the manufactured timber materials market going forward. Oxford Economics estimated that the global construction market was valued at USD10.7 trillion in 2020 and expected to reach USD15.2 trillion of which USD8.9 trillion will be in the emerging markets in 2030. Asia Pacific was the largest region in the timber and timber-based products market, accounting for 38.7% of the total in 2020. It was followed by North America, and then the other regions. Going forward, the fastest-growing regions in the wood products market will be the Middle East and Asia Pacific, where growth will be at CAGRs of 11.0% and 10.4% respectively. These will be followed by Africa, and South America, where the markets are expected to grow at CAGRs of 9.31% and 9.32% respectively.

2022 is set to be a watershed year as most countries progressively transition towards endemic management of COVID-19. However, even as the global economy is expected to continue its recovery path, policymakers are adjusting their policy settings against rapidly evolving uncertainties, including the military conflict in Ukraine which began in February. The pace of economic recovery in Malaysia is projected to gather further momentum amid the reopening of the economy and international borders. With better COVID-19 management and higher vaccination rates, BNM expects less disruption to domestic economic activity and spending in the event of resurgences. Malaysia will also continue to benefit from the expansion in global demand. For 2022 as a whole, the economy is expected to grow between 5.3% and 6.3%. Meanwhile, core inflation is expected to average higher between 2.0% and 3.0% in 2022 due to stronger demand conditions amid lingering cost pressures. Labour market conditions are expected to improve in 2022 as economic activity picks up. The unemployment rate is expected to decline further to around 4% of the labour force. This sustained recovery in employment and income is expected to drive an improvement in household spending.

REFERENCE

Department of Statistics Malaysia . (2021) . Gross Domestic Product (GDP) By State 2020 . https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=491&bul_id=YnhhZ2g5QlpZWG9RcVNwTGhLaHE4UT09&menu_id=TE5CRUZCblh4ZTZMODZlbmk2aWRRQT09

Department of Statistics Malaysia . (2020) . Malaysia Economic Performance Second Quarter 2020 . https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=100&bul_id=NS9TNE9yeHJ1eHB6cHV1aXBNQINUZz09&menu_id=TE5CRUZCblh4ZTZMODZlbmk2aWRRQT09

Bank Negara Malaysia . (2020) . Developments in the Malaysian Economy . https://www.bnm.gov.my/documents/20124/1067369/p3.pdf

Bank Negara Malaysia . (2020) . Developments in the Malaysian Economy . https://www.bnm.gov.my/documents/20124/1067369/p3.pdf

Bank Negara Malaysia . (2020). Economic, Monetary and Financial Developments in 2020. https://www.bnm.gov.my/documents/20124/3026377/emr2020_en_ch1_devts.pdf

Food and Agriculture Organization of the United Nations . (2020) . *Global Forest Resources Assessment 2020: Main report.* Rome. https://doi.org/10.4060/ca9825en

Food and Agriculture Organization of the United Nations . (2020) . Forest product consumption and production - Major consumers of forest products . https://www.fao.org/forestry/statistics/80938@180723/en/

Food and Agriculture Organization of the United Nations . (2020) . Forest products trade - Major exporters of forest products . https://www.fao.org/forestry/statistics/80938@180724/en/

United Nations Conference on Trade and Development . (2022). <u>Key statistics and trends in international trade 2021</u> - The effects of the COVID-19 pandemic on international trade. https://unctad.org/system/files/official-document/ditctab2022d3 en.pdf

UN COMTRADE and ITC . (2022) . https://www.trademap.org/

Malaysia Investment Development Authority . (2022). https://www.mida.gov.my/malaysia-mitigation-measures-for-covid-19/

Coface . (2022). https://www.coface.lt/en/Economic-studies/Wood

Oxford Economics . (2021). https://www.oxfordeconomics.com/resource/future-of-construction/