

**ASEAN FOOD SECURITY
INFORMATION SYSTEM**



ASEAN AGRICULTURAL COMMODITY OUTLOOK

NO.27 DECEMBER 2021



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ASEAN FOOD SECURITY INFORMATION SYSTEM (AFSIS)

Report on

ASEAN Agricultural Commodity Outlook

No. 27 December 2021

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The ACO report activity represents the hard work and well collaboration between the ASEAN member countries. The ACO report No.27 and the previous ACO reports would be beneficial and useful for all ASEAN members, policy makers, and other relevant agencies who need agricultural information for planning and creating the policies to ensure the food security in their countries and the ASEAN region.

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Thank you

Waraporn Saelee

Dr. Waraporn Saelee (PhD)
Statistician, Senior Professional Level
AFSIS Manager

Foreword

Agricultural Commodity Outlook (ACO) Report is published semi-annually by the ASEAN Food Security Information System (AFSIS) Secretariat, using the data gathered from 10 ASEAN member states. Like previous editions, this report covers a current situation and a prospect of 5 main commodities including rice, maize, sugarcane, soybeans, and cassava.

In this latest of Agricultural Commodity Outlook, it provides both national and regional information on production, utilization, stock, trade, and FOB prices. The explanation for significant changes and unusual phenomena is also showed in this report. Furthermore, the report is scrutinized by all member states before publication.

AFSIS Secretariat
Office of Agricultural Economics (OAE)
Ministry of Agriculture and Cooperatives



Global Situation and ASEAN Outlook in 2021/22

Global Situation in 2021/22

In 2020/21 the global economy has recovered from the COVID-19 pandemic due to the COVID-19 vaccine access and the relaxing COVID-19 restrictions. Therefore, in 2021/22, the global economy has expanded from the previous year, especially in the demand for food and consumer products which led to the rapid increase of food demand and the shortages of the food supply or the insufficient food production compared to the people's consumption. Consequently, food and agricultural commodities in the global market are expected to increase in prices and the higher volumes of world imports in agricultural commodities. However, the exports of some agricultural commodities have decreased due to the high domestic consumption of the producing countries.

Rice production is projected to be higher than the previous year due to the increase in harvested area and yield. In particular, rice production is expected to increase in China, India, Bangladesh, Indonesia, and Thailand. The global demand for rice consumption is predicted to grow, leading to the world rice imports and exports being adjusted upward. In addition, India is expected to be the biggest global exporter, followed by Vietnam. Meanwhile, China is the largest importer, followed by the Philippines.

World maize production is forecast to go up according to the increase in the maize production of main producing countries as the United States, China, Brazil, the European Union, and Argentina. The demand of global market tends to be higher than the previous year, leading to the increase of the maize export in several countries. However, the United States export is likely to go down due to the higher domestic demand for maize used to produce ethanol.

World sugar production is projected to rise than the previous year due to the increase in the sugarcane production of some main producing countries including India, the European Union, and Thailand. In addition, after the global COVID-19 pandemic has recovered, the global demand for sugar consumption is expected to increase, leading to higher volumes of world sugar exports especially for the major exporting countries like Australia, the European Union, and Thailand. This factor would boost sugar prices to be significantly higher compared with the previous year.

World soybean production is forecast to increase due to the favorable weather and expansion of the cultivated area in the main producing countries including Brazil, the United States, and Argentina. Soybean imports and exports tend to grow with the high demands of soybean oil extraction in China which will drive up the price of soybean oil. Currently, the biggest soybean importer is China.

ASEAN Outlook in 2021/22

The ASEAN rice supply in 2021/22 is forecast at 161.66 million tons, 9.84 million tons higher than the previous year. The beginning stock and the aggregate rice import are estimated to increase. Meanwhile, the rice export of ASEAN is expected to shrink by 3.47 percent to 14.17 million tons from the last year. However, the rice export is projected to rise for Cambodia. Most countries in ASEAN tend to increase on the rice production due to favorable weather, supports from government policy, more fertilizer uses, and more uses on improved crop varieties.

The maize supply of ASEAN in 2021/22 is forecast at 67.16 million tons, 0.40 million tons lower than the previous year. The aggregate maize export is expected to shrink by 9.80 percent as the import tends to decrease by 1.55 percent resulting in the reduced beginning stock by 10.08 percent. Meanwhile, maize production in ASEAN countries tends to increase due to good caring, favorable weather, and support of government policy.

The sugar supply of ASEAN is forecast at 31.10 million tons, up 0.84 million tons from the previous year due to the increase in stock from the previous year. The sugarcane production in ASEAN is likely to go up by 2.23 percent from 13.89 million tons in 2021 to 14.20 million tons in 2022. Nevertheless, sugarcane production is expected to increase in many counties except Vietnam, Indonesia, Myanmar, and Lao PDR.

The cassava supply of ASEAN is forecast at 100.73 million tons in 2022, up 3.54 percent from the previous year. Meanwhile, cassava production and aggregate export are expected to increase by 2.02 and 1.14 percent, respectively. Thailand, the biggest cassava producer and exporter in ASEAN, tends to increase on production and export due to more uses on improved crop varieties, favorable weather, and farmers can prevent the contagion of Cassava mosaic disease. On the contrary, Lao PDR and the Philippines are projected to decrease on their cassava production due to the reduction in planted area and yield.

The soybean supply of ASEAN is forecast at 11.02 million tons in 2022, rising by 2.13 percent from the previous year. The soybean production tends to increase by 27.40 percent or 0.20 million tons from the year earlier. Besides, the production of Indonesia, as the biggest soybean producer in ASEAN, is likely to increase, same as all countries in ASEAN except for Myanmar because of the unfavorable weather for cultivation.

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Rice Outlook for 2022



Highlights

Rice supply in ASEAN is forecast to increase about 6.48 percent from 151.82 million tons of milled rice in 2021 to 161.66 million tons in 2022 (Table 1). The increase in supply is mostly due to the increase in stock carried over from the previous year and production.

The beginning stock is forecast to increase 33.59 percent or 7.90 million tons from 23.52 million tons in 2021 to 31.42 million tons in 2022.

The rice production in 2022 is forecast to be 126.05 million tons, increasing from 124.19 million tons in 2021, or 1.50 percent increase. The import is expected to increase 2.19 percent or 0.09 million tons from 4.11 million tons in 2021 to 4.20 million tons in 2022.

Considering only available data, rice export is expected to decrease 3.47 percent from 14.68 million tons in 2021 to 14.17 million tons in 2022.

The ratio of production to domestic utilization (self-sufficiency ratio) for the region is expected to be 117.92 percent in 2022. The beginning stock to domestic utilization ratio (food security ratio) is estimated to be 29.39 percent in 2022 (Table 1).

Table 1 Summary of the ASEAN rice situation, 2021-2022 (milled rice)

Unit: Million tons

Items	2021	2022	Change	
			Quantity	%
Supply (Million tons)	151.82	161.66	9.84	6.48
Beginning stock	23.52	31.42	7.90	33.59
Production	124.19	126.05	1.86	1.50
Import	4.11	4.20	0.09	2.19
Demand (Million tons)	151.82	161.66	9.84	6.48
Domestic utilization	105.71	106.89	1.18	1.12
Export	14.68	14.17	-0.51	-3.47
Ending stock	31.42	40.60	9.18	29.22
Ratio of production to domestic utilization (%)	117.48	117.92	0.44	-
Ratio of beginning stock to domestic utilization (%)	22.25	29.39	7.14	-

ASEAN Rice Situation in 2021

► *Production*

ASEAN paddy production in 2021 (crop year 2020/21) was estimated at 193.60 million tons, increasing 5.62 million tons or 2.99 percent from 187.98 million tons in 2020 (crop year 2019/20). The increase was due to the increasing in planted area, harvested area, and yield. The increase in production was found in Thailand, Vietnam, the Philippines, Indonesia, Lao PDR, Cambodia, and Brunei (Table 2-5, Figure 1-4).

For **Brunei**, the increase in production is attributed to the increase in planted area, harvested area, and yield. The increase in planted area and harvested area came from government policy, which is the expansion of new rice farming areas in Kandol. The increase in yield was because farmers used more fertilizer, improved varieties, and took better care of the rice crop.

For **Cambodia**, the increase in production was due to the increase in planted area, harvested area, and yield. The increase in planted area came from farmers' response to price increases. The increase in harvested area and yield was because farmers used more fertilizer and took better care of the rice crop together with favorable weather.

For **Indonesia**, the increase in production is attributed to the increase in yield. The increase in yield was because farmers used more fertilizer and took better care of the rice crop together with favorable weather.

For **Lao PDR**, the increase in production is attributed to the increase in harvested area and yield. The increase in harvested area and yield came from government policy together with better taking care of the crops by farmers.

For **Malaysia**, the decrease in production was due to the decrease in yield. The decrease in yield was because farmers used less fertilizer and faced with pests and diseases.

For **Myanmar**, the decrease in production is attributed to the decrease in planted area and harvested area. The planted area of wet season crop decreased due to unfavorable weather affected by flood and heavy rainfall.

For **the Philippines**, the increase in production came from the increase in planted area, harvested area, and yield because farmers used more improved varieties and took better care of the rice crop together with favorable weather.

For **Thailand**, the increase in production was due to the expansion of planted area and harvested area as a result of favorable weather and farmers' response to price increases.

For **Vietnam**, the increase in production was due to the rise in yield, which was caused by favorable weather and better care of the rice crop by farmers.

► *Utilization and Stock*

The domestic utilization of rice (milled rice) within ASEAN in 2021 (calendar year) was estimated to be 105.71 million tons, which decreased from 105.85 million tons in 2020. The decrease was about 0.134 million tons or 0.13 percent (Table 7-8).

The ratio of production to domestic utilization (self-sufficient ratio) of ASEAN in 2021 was estimated at 117.48 percent compared to 113.82 percent in 2020. This indicated that rice production in ASEAN in year 2021, aggregately, is sufficient for rice demand in ASEAN. The increase in the self-sufficient ratio of production to domestic utilization occurred in Indonesia, Lao PDR, Malaysia, the Philippines, Thailand and Vietnam. While the self-sufficient ratio of Brunei, Cambodia, and Myanmar decreased. However, on the country-by-country basis, some countries in the region still need to

import rice for their domestic consumption. The highest ratio was found in Thailand, Cambodia, and Vietnam, respectively, while the lowest ratio was in Brunei (Table 10, Figure 12).

The beginning stock in 2021 (January 2021) of ASEAN was estimated at 23.52 million tons, increasing 1.30 million tons from 22.22 million tons in 2020 or 5.85 percent. Myanmar carried 9.16 million tons or 38.94 percent of the ASEAN stock, followed by Thailand with 4.64 million tons or 19.73 percent of the total stock in ASEAN (Table 7-8).

The ratio of the beginning stock to the domestic utilization in 2021 for the whole ASEAN was estimated at 22.25 percent, which increased about 1.26 percent from the previous year. Brunei, Cambodia, Myanmar, and Thailand have the ratios above 20 percent of the optimum level (Table 11, Figure 13).

► *Trade*

In 2021, ASEAN as a whole exported 14.68 million tons of milled rice, which decreased of 2.81 million tons or 16.09 percent from 17.50 million tons exported in 2020. Vietnam and Thailand, the two major exporting countries, exported about 7.11 million tons and 5.69 million tons, respectively (Table 7-8, Figure 5-6).

The total import by ASEAN in 2021 is estimated to be 4.11 million tons, a decrease of 0.07 million tons or about 1.68 percent from 4.18 million tons in 2020. The Philippines was the biggest importer in the region, which imported 2.00 million tons of milled rice (Table 7-8, Figure 8-9).

The quantity and value of rice exported from ASEAN countries by countries of destination and the quantity and value of imported by countries of origin are given in Table 12-13.

► *Prices*

Monthly FOB prices of rice export and CIF prices for rice import in selected countries in ASEAN during 2020-2021 (January-December) are shown in Table 14-15 and Figure 14- 16.

► *Damaged Area*

The damaged area of paddy in ASEAN in 2021 (crop year 2020/21) was estimated to be 0.69 million hectares. Of which, 0.58 million hectares or 84.49 percent were caused by flood. The damage caused by flood occurred mostly in Thailand, which equals to 0.38 million hectares or 65.93 percent of the whole ASEAN. The damage was also caused by many factors such as drought, pests, and diseases (Table 6).

Prospects for Rice in 2022

► Production

ASEAN paddy production in 2022 (crop year 2021/22) is estimated at 196.59 million tons, increasing by 2.99 million tons, which is 1.55 percent from 193.60 million tons in 2021 (crop year 2020/21) by assuring without extreme natural disasters. The production is predicted to increase in all countries, except Myanmar and Vietnam, which are caused by the increase in either planted area or yield (Table 2-5, Figure 1-4).

► Utilization and Stock

The domestic utilization of milled rice in ASEAN in 2022 is projected to be 106.89 million tons, decreasing about 1.18 million tons or 1.12 percent compared to 105.71 million tons in 2021 (Table 8-9).

The beginning stock in 2022 is predicted to be 31.42 million tons, which increased by 7.89 million tons or 33.56 percent from 23.52 million tons in 2021. The ending stock is also expected to increase by 9.18 million tons or 29.23 percent from 31.42 million tons in 2021 to 40.60 million tons in 2022 (Table 8-9, Figure 11).

The ratio of production to domestic utilization is forecast to be 117.92 percent in 2022, which will increase by 0.44 percent from 2021. This indicates that rice production in ASEAN is still enough for consumption within the region (Table 10, Figure 12).

The ratio of the beginning stock to the domestic utilization in ASEAN in 2022 is forecast to increase from 22.25 percent in 2021 to 29.39 percent in 2022 (Table 11, Figure 13).

► Trade

With missing data from some countries, rice import from ASEAN is forecast to increase from 4.11 million tons in 2021 to 4.20 million tons in 2022 (Table 8-9, Figure 8 and 10).

For the export, the whole ASEAN is forecast to export 14.17 million tons in 2022, decreasing of 0.52 million tons or about 3.53 percent compared to 14.68 million tons in 2021 (Table 8-9, Figure 5 and 7).

Table 2 Paddy production in ASEAN countries, 2020 - 2022

Unit: 1,000 Tons

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	187,977.81	193,596.60	5,618.79	2.99	196,591.01	2,994.41	1.55
Brunei	3.86	4.08	0.22	5.61	4.20	0.12	3.00
Cambodia	10,885.73	10,935.62	49.89	0.46	10,957.49	21.87	0.20
Indonesia	54,649.20	55,269.62	620.42	1.14	57,449.83	2,180.21	3.94
Lao PDR	3,506.81	3,802.31	295.50	8.43	4,076.59	274.28	7.21
Malaysia	2,356.39	2,293.80	-62.59	-2.66	2,306.88	13.08	0.57
Myanmar	26,269.65	25,982.53	-287.12	-1.09	*25,699.09	-283.44	-1.09
Philippines	18,932.13	19,708.04	775.91	4.10	*19,839.65	131.61	0.67
Singapore	N/A						
Thailand	28,617.95	31,858.72	3,240.77	11.32	32,621.25	762.53	2.39
Vietnam	42,756.09	43,741.90	985.81	2.31	43,636.04	-105.85	-0.24

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.

Table 3 Paddy planted area in ASEAN countries, 2020 – 2022

Unit: 1,000 Hectares

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	45,678.67	45,897.69	219.02	0.48	46,990.23	1,092.54	2.38
Brunei	1.42	1.46	0.04	3.00	1.51	0.04	3.00
Cambodia	3,328.85	3,404.13	75.28	2.26	3,421.15	17.02	0.50
Indonesia	10,752.92	10,552.20	-200.72	-1.87	11,213.99	661.79	6.27
Lao PDR	1,064.32	945.25	-119.06	-11.19	956.58	11.32	1.20
Malaysia	644.91	677.91	33.00	5.12	676.61	-1.29	-0.19
Myanmar	7,003.92	6,961.93	-41.98	-0.60	*6,976.43	14.50	0.21
Philippines	*4,637.26	*4,761.28	124.01	2.67	*4,852.23	90.96	1.91
Singapore	N/A						
Thailand	10,966.27	11,370.99	404.72	3.69	11,663.63	292.65	2.57
Vietnam	7,278.81	7,222.54	-56.28	-0.77	7,228.10	5.56	0.08

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.**Table 4 Paddy harvested area in ASEAN countries, 2020 – 2022**

Unit: 1,000 Hectares

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	44,146.47	45,209.93	1,063.46	2.41	44,579.85	-630.08	-1.39
Brunei	1.33	1.37	0.04	3.00	1.41	0.04	3.00
Cambodia	3,263.77	3,268.97	5.19	0.16	3,285.31	16.34	0.50
Indonesia	10,657.27	10,515.32	-141.95	-1.33	11,213.99	698.67	6.64
Lao PDR	929.93	944.20	14.27	1.53	956.58	12.37	1.31
Malaysia	644.46	677.91	33.44	5.19	676.61	-1.29	-0.19
Myanmar	6,921.02	6,830.05	-90.97	-1.31	*6,738.68	-91.36	-1.34
Philippines	4,637.26	4,761.28	124.01	2.67	*4,852.23	90.96	1.91
Singapore	N/A						
Thailand	9,812.61	10,988.31	1,175.70	11.98	9,626.94	-1,361.37	-12.39
Vietnam	7,278.81	7,222.54	-56.28	-0.77	7,228.10	5.56	0.08

Remark: * The value is estimated by AFSIS Secretariat, ** Vietnam reported only planted area. N/A refers to data that is not available.**Table 5 Paddy yield in ASEAN countries, 2020 – 2022**

Unit: Ton/Hectare

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	4.26	4.28	0.02	0.47	4.41	0.13	3.04
Brunei	2.91	2.98	0.07	2.41	2.98	0.00	0.00
Cambodia	3.34	3.35	0.01	0.30	3.34	-0.01	-0.30
Indonesia	5.13	5.26	0.13	2.53	5.12	-0.14	-2.66
Lao PDR	3.77	4.03	0.26	6.90	4.26	0.23	5.71
Malaysia	3.66	3.38	-0.28	-7.65	3.41	0.03	0.89
Myanmar	3.80	3.80	0.00	0.00	*3.81	0.01	0.26
Philippines	4.08	4.14	0.06	1.47	4.09	-0.05	-1.21
Singapore	N/A						
Thailand	2.92	2.90	-0.02	-0.68	3.39	0.49	16.90
Vietnam	5.87	6.06	0.19	3.24	6.04	-0.02	-0.33

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.

Table 6 Paddy damaged area in ASEAN by cause of damage, 2021

Unit: Hectares

Country	Cause of Damage (Hectares)						Total
	Flood	Drought	Pests	Diseases	Other	Unspecified	
ASEAN	580,395	98,156	908	29	2,051	5,380	686,918
Brunei	22	21	24	29	-	-	95
Cambodia	121,934	7,034	-	-	-	5,380	134,348
Indonesia	35,844	169		867	-	-	36,880
Lao PDR	1,052	-	-	-	-	-	1,052
Malaysia	N/A						
Myanmar	38,866	90,932	17	-	2,051	-	131,866
Philippines	N/A						
Singapore	N/A						
Thailand	382,677			-	-	-	382,677
Vietnam	N/A						

Remark: N/A refers to data that is not available.

Table 7 Rice balance sheet of ASEAN countries, 2020 (milled rice)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	22,222,403	120,471,675	4,175,231	146,869,309	105,846,861	17,498,383	23,524,065	146,869,309
Brunei	15,486	2,511	34,082	52,079	30,517	-	21,563	52,079
Cambodia	519,149	6,998,796	-	7,517,945	3,222,129	690,829	3,604,987	7,517,945
Indonesia	2,012,085	34,286,909	17,018	36,316,013	*35,334,108	258	981,647	36,316,013
Lao PDR	279,600	2,104,087	25,960	2,409,647	2,193,344	21,770	194,533	2,409,647
Malaysia	-	1,485,847	1,212,410	2,698,257	2,640,007	58,251	-	2,698,257
Myanmar	9,201,629	16,581,400	-	25,783,029	14,829,880	1,794,102	9,159,047	25,783,029
Philippines	2,675,000	12,619,000	2,219,000	17,513,000	15,180,000	-	2,333,000	17,513,000
Singapore	-	-	396,357	396,357	295,960	100,397	-	396,357
Thailand	*4,540,000	18,601,666	32,706	23,174,372	*10,950,710	7,583,662	*4,640,000	23,174,372
Vietnam	2,979,454	27,791,458	237,697	31,008,609	21,170,207	7,249,114	2,589,288	31,008,609

Remark: * The value is estimated by AFSIS Secretariat.

Table 8 Rice balance sheet of ASEAN countries, 2021 (milled rice)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	23,524,065	124,185,977	4,105,123	151,815,166	105,712,582	14,683,404	31,419,180	151,815,166
Brunei	21,563	2,652	31,575	55,790	32,792	-	22,998	55,790
Cambodia	3,604,987	7,012,794	-	10,617,781	3,985,561	806,466	5,825,754	10,617,781
Indonesia	981,647	34,676,159	*30,163	35,687,969	*34,452,742	2,968	1,232,259	35,687,969
Lao PDR	194,533	2,281,384	29,885	2,505,802	2,283,640	17,366	204,796	2,505,802
Malaysia	-	1,468,033	830,499	2,298,532	2,232,322	66,209	-	2,298,532
Myanmar	9,159,047	16,400,172	-	25,559,219	14,817,485	894,737	*9,846,997	25,559,219
Philippines	2,333,000	*13,204,386	*2,000,000	17,537,386	*15,080,000	-	*2,457,386	17,537,386
Singapore	-	-	382,115	382,115	285,325	96,790	-	382,115
Thailand	*4,640,000	20,708,165	45,243	25,393,409	11,113,450	5,688,868	*8,591,091	25,393,409
Vietnam	2,589,288	28,432,233	755,644	31,777,164	21,429,265	7,110,000	3,237,899	31,777,164

Remark: * The value is estimated by AFSIS Secretariat.

Table 9 Rice balance sheet of ASEAN countries, 2022 (milled rice)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	31,419,180	126,046,156	4,197,488	161,662,825	106,892,755	14,165,166	40,604,904	161,662,825
Brunei	22,998	2,732	32,523	58,252	33,776	-	24,477	58,252
Cambodia	5,825,754	7,026,819	-	12,852,573	4,210,657	830,294	7,811,622	12,852,573
Indonesia	1,232,259	36,044,021	*28,655	37,304,934	*34,940,675	*3,072	*2,361,188	37,304,934
Lao PDR	204,796	2,445,953	25,538	2,676,288	2,258,017	24,175	394,095	2,676,288
Malaysia	-	1,476,401	915,370	2,391,770	2,316,517	75,253	-	2,391,770
Myanmar	*9,846,997	*16,190,426	-	26,037,422	14,670,381	133,779	11,233,262	26,037,422
Philippines	*2,457,386	*13,292,567	*2,000,000	17,749,953	*15,100,027	-	*2,649,927	17,749,953
Singapore	-	-	389,236	389,236	290,642	98,593	-	389,236
Thailand	*8,591,091	21,203,811	49,768	29,844,671	11,495,850	*6,000,000	*12,348,821	29,844,671
Vietnam	3,237,899	28,363,427	756,399	32,357,725	21,576,212	7,000,000	3,781,513	32,357,725

Remark: * The value is estimated by AFSIS Secretariat.

Table 10 Ratio of rice production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2020 – 2022

Unit: Tons

Country	2020			2021			2022		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	120,471,675	105,846,861	113.82	124,185,977	105,712,582	117.48	126,046,156	106,892,755	117.92
Brunei	2,511	30,517	8.23	2,652	32,792	8.09	2,732	33,776	8.09
Cambodia	6,998,796	3,222,129	217.21	7,012,794	3,985,561	175.96	7,026,819	4,210,657	166.88
Indonesia	34,286,909	35,334,108	97.04	34,676,159	34,452,742	100.65	36,044,021	34,940,675	103.16
Lao PDR	2,104,087	2,193,344	95.93	2,281,384	2,283,640	99.90	2,445,953	2,258,017	108.32
Malaysia	1,485,847	2,640,007	56.28	1,468,033	2,232,322	65.76	1,476,401	2,316,517	63.73
Myanmar	16,581,400	14,829,880	111.81	16,400,172	14,817,485	110.68	16,190,426	14,670,381	110.36
Philippines	12,619,000	15,180,000	83.13	13,204,386	15,080,000	87.56	13,292,567	15,100,027	88.03
Singapore	-	295,960	-	-	285,325	-	-	290,642	0.00
Thailand	18,601,666	10,950,710	169.87	20,708,165	11,113,450	186.33	21,203,811	11,495,850	184.45
Vietnam	27,791,458	21,170,207	131.28	28,432,233	21,429,265	132.68	28,363,427	21,576,212	131.46

Table 11 Ratio of rice beginning stock to domestic utilization in ASEAN countries, 2020– 2022

Unit: Tons

Country	2020			2021			2022		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	22,222,403	105,846,861	20.99	23,524,065	105,712,582	22.25	31,419,180	106,892,755	29.39
Brunei	15,486	30,517	50.74	21,563	32,792	65.76	22,998	33,776	68.09
Cambodia	519,149	3,222,129	16.11	3,604,987	3,985,561	90.45	5,825,754	4,210,657	138.36
Indonesia	2,012,085	35,334,108	5.69	981,647	34,452,742	2.85	1,232,259	34,940,675	3.53
Lao PDR	279,600	2,193,344	12.75	194,533	2,283,640	8.52	204,796	2,258,017	9.07
Malaysia	-	2,640,007	-	-	2,232,322	-	-	2,316,517	0.00
Myanmar	9,201,629	14,829,880	62.05	9,159,047	14,817,485	61.81	9,846,997	14,670,381	67.12
Philippines	2,675,000	15,180,000	17.62	2,333,000	15,080,000	15.47	2,457,386	15,100,027	16.27
Singapore	-	295,960	-	-	285,325	-	-	290,642	0.00
Thailand	4,540,000	10,950,710	41.46	4,640,000	11,113,450	41.75	8,591,091	11,495,850	74.73
Vietnam	2,979,454	21,170,207	14.07	2,589,288	21,429,265	12.08	3,237,899	21,576,212	15.01

Table 12 Quantity and Value of Rice Export by Countries of Destination in 2021

Quantity: Tons Values: US\$

Exporting Country	Country of Destination													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei			12,630	-										
Cambodia	N/A													
Indonesia									16.00	29,274				
Lao PDR														
Malaysia						66,104	26,416,384							
Myanmar									260	91,000			51,960	18,751,000
Philippines														
Singapore	N/A													
Thailand	10,857	8,547,048	3,556	1,523,084	49,080	24,775,394	27,014	9,686,556	100,541	42,510,797	738	271,280	95,999	40,751,132
Vietnam					54,688	26,792,558			252,810	125,214,101			2,093,859	1,069,706,352

Exporting Country	Country of Destination						Total within ASEAN		Total outside ASEAN		Total	
	Singapore		Thailand		Vietnam							
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei			18,945.2	-			31,575	-			31,575	-
Cambodia	N/A											
Indonesia	1.1	3177					17	32,451	2,817	1,726,198	2,834	1,758,649
Lao PDR			1,892	994,559	6,949	3,552,032	8,841	4,546,591	8,525	4,973,393	17,366	9,519,984
Malaysia	36.1	30,100	57	18,790			26,416,477	114,994	13	20,865	26,416,490	135,859
Myanmar	200	97,000	10	3,000	895	336,000	53,325	19,278,000	80,454	28,948,000	133,779	48,226,000
Philippines					0.03	2,079	0	2,079	241	296,856	241	298,935
Singapore	N/A											
Thailand	81,076	62,879,089			7,598	4,398,579	376,461	195,342,959	3,440,839	1,881,993,632	3,817,300	2,077,336,591
Vietnam	97,725	56,641,169					2,499,082	1,278,354,180	2,684,030	1,458,841,134	5,183,112	2,737,195,314

Remark: The data in this table is obtained from national focal points of member states and may not complete.

Table 13 Quantity and Value of Rice Import by Countries of Origin in 2021

Quantity: Tons Values: US\$

Importing Country	Country of Origin													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A													
Cambodia	N/A													
Indonesia														
Lao PDR														
Malaysia			26,422	20,259,859	533	262,350					18,507	7,470,624		
Myanmar	N/A													
Philippines			3,361	1,255,233							126,785	45,165,455		
Singapore			5,324	4,073,560	47	74,072			113	89,245	4,394	1,993,244		
Thailand			0.30	705			192.360	50,843	0.002	13	432.000	83,142	0.031	198
Vietnam			-	325,000,000	-	64,272	-	3,664,931			-	3,962,150	-	3,769

Importing Country	Country of Origin						Total within ASEAN		Total outside ASEAN		Total	
	Singapore		Thailand		Vietnam							
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A											
Cambodia	N/A											
Indonesia					17,401	9,099,876	17,401	9,099,876	6,680.94	6,359,100	24,082	15,458,976
Lao PDR			7,173	2,444,733	7,208	2,379,710	14,381	4,824,443	15,504	7,534,083	29,885	12,358,526
Malaysia	21.0	47,081	61,599	32,204,874	170,010	97,699,958	277,092	157,944,747	553,407	268,605,697	830,499	426,550,444
Myanmar	N/A											
Philippines	6,794.8	2349544	72,752	30,852,011	1,518,247	612,985,930	1,727,939	692,608,173	31,993	43,886,435	1,759,933	736,494,608
Singapore			108,447	94,667,427	111,368	67,518,727	229,694	168,416,274	152,421	91,482,739	382,115	259,899,014
Thailand	0.017	102			878	496,484	1,503	631,488	15,585	7,107,249	17,088	7,738,737
Vietnam	-	5,521,555	-	4,455,506			-	342,672,182	-	241,959,450	-	584,631,632

Remark: The data in this table is obtained from national focal points of member states and may not complete.

Table 14 FOB Price of rice in selected ASEAN countries

Unit: US\$/Ton

Country	Grade	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Cambodia	Milled Rice 5%	2020	1,400	1,400	1,375	1,347	1,400	1,400	1,400	1,400	1,400	1,400	1,390	1,380	1,391
		2021	N/A												
Indonesia	Glutinous Rice	2020	*1990	1,990	1,181	2,122	1,923	2,039	2,274	-	-	2,222	2,724	1,433	1,990
		2021	*1722	2,787	*1722	2,750	1,825	2,916	588	589	596	-	-	-	1,722
Lao PDR	Hom mali Rice	2020	563	590	593	539	534	508	527	550	651	596	578	547	565
		2021	580	551	558	570	580	530	541	533	556	521	-	-	552
Malaysia	Not specified	2020	1,051	896	1,000	5,538	403	388	401	405	392	389	396	372	969
		2021	374	398	379	398	414	393	402	420	409	-	-	-	398
Myanmar	Milled Rice 25%	2020	300	313	322	342	367	397	387	379	403	403	395	408	368
		2021	399	416	423	425	417	405	397	367	335	-	-	-	398
Thailand	Milled Rice 5%	2020	451	457	517	564	509	521	474	512	504	471	499	523	500
		2021	545	557	525	495	492	460	414	404	398	401	-	-	469
	Hom mali Rice	2020	1,088	1,056	1,039	1,126	1,097	1,084	1,008	990	923	914	887	897	1,009
		2021	900	891	845	810	783	749	680	677	703	699	-	-	774
Vietnam	Milled Rice 5%	2020	486	447	459	499	516	505	484	503	508	529	538	534	501
		2021	551	544	540	542	541	554	517	488	494	521	528	-	529

Table 15 CIF Price of rice in selected ASEAN countries

Unit: US\$/Ton

Country	Grade	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Indonesia	Not specified	2020	512	-	-	-	533	537	458	652	507	592	356	636	531
		2021	896	1,200	684	800	919	589	638	647	491	-	-	-	763
Malaysia	Not specified	2020	494	471	448	464	531	508	491	468	468	505	458	487	483
		2021	452	497	507	523	535	531	531	539	490	-	-	-	512
Lao PDR	Hom mali Rice	2020	646	682	675	677	560	520	634	723	740	734	640	510	645
		2021	537	623	540	545	484	475	520	585	591	577	-	-	548
Singapore	Not specified	2020	724	731	811	863	858	867	757	738	704	662	653	666	753
		2021	689	679	725	681	679	683	675	672	652	-	-	-	682

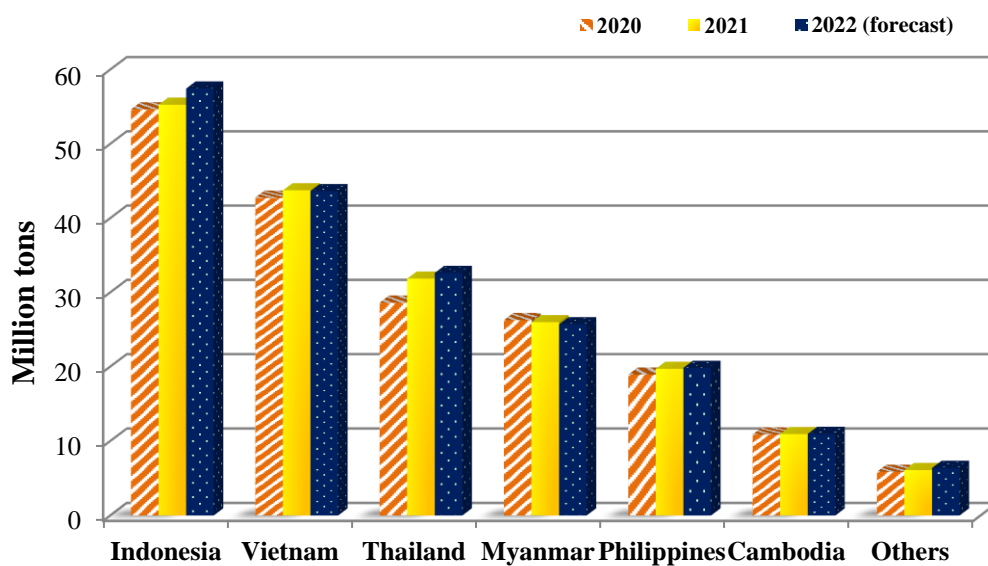


Figure 1 Paddy production of selected countries in ASEAN, 2020 – 2022

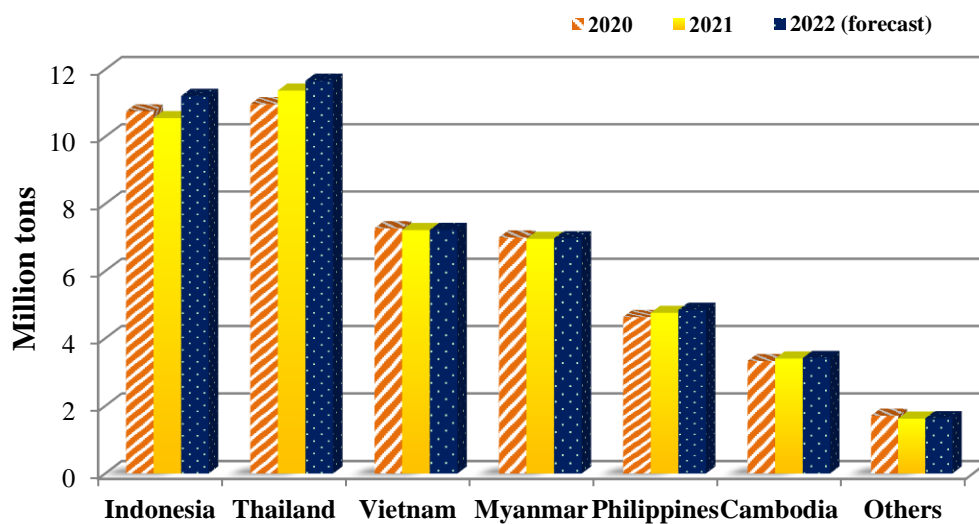


Figure 2 Paddy planted area of selected countries in ASEAN, 2020 – 2022

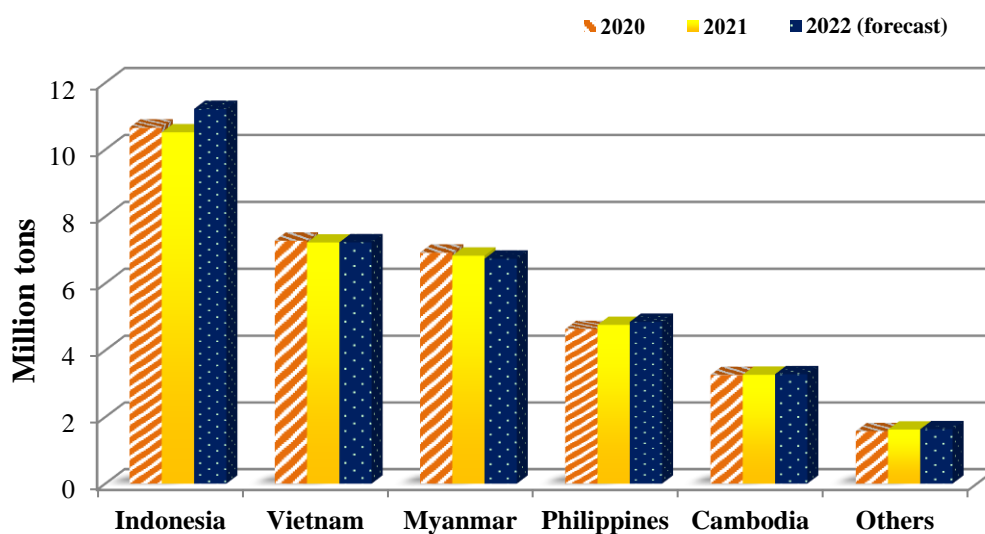


Figure 3 Paddy harvested area of selected countries in ASEAN, 2020 – 2022

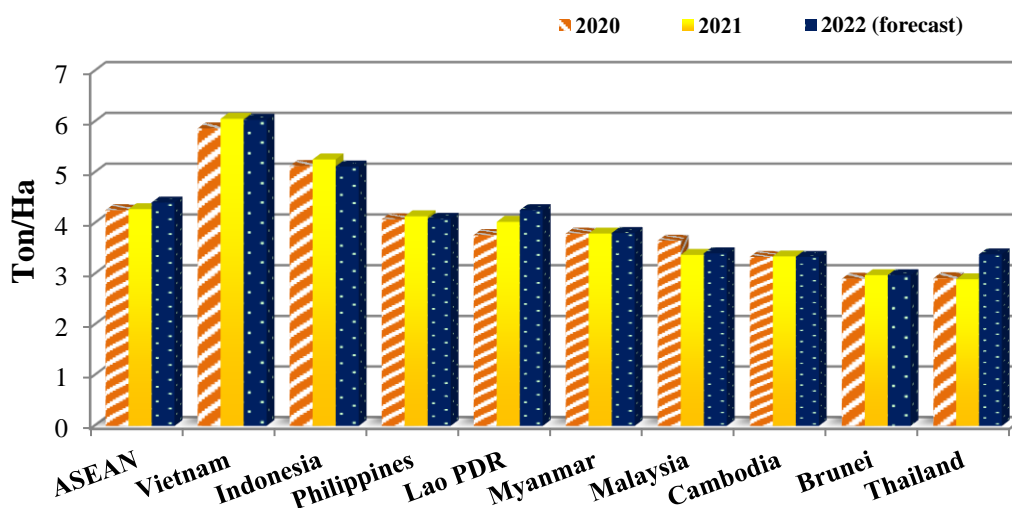


Figure 4 Paddy yield of countries in ASEAN, 2020 – 2022

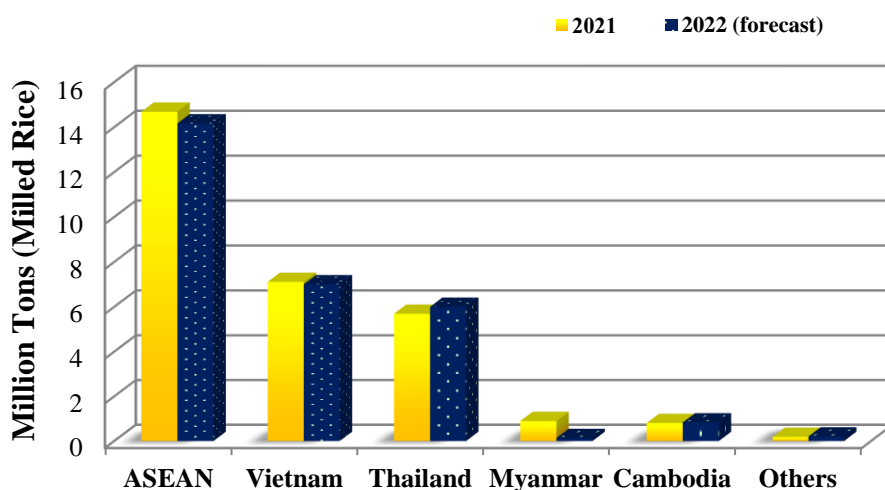
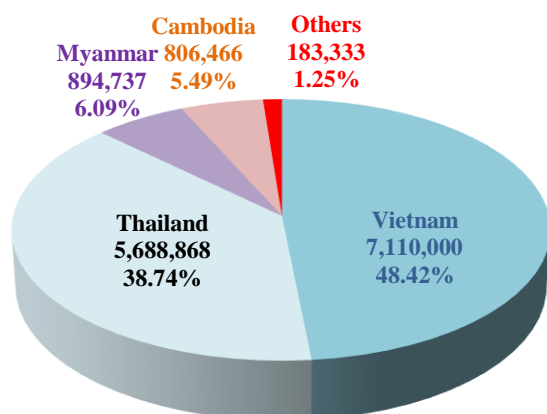
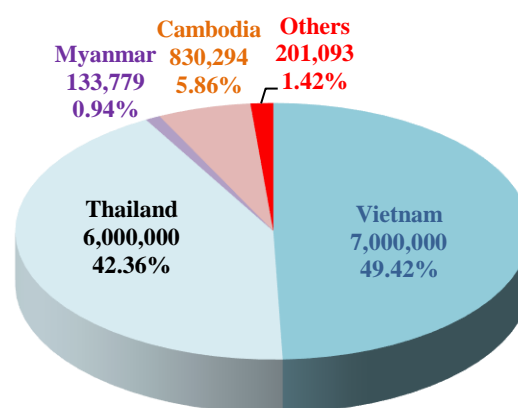


Figure 5 Amount of rice export (million tons) of selected countries in ASEAN in 2021 – 2022



Total 14.68 million tons

Figure 6 Share of rice export (tons) among ASEAN countries, 2021



Total 14.17 million tons

Figure 7 Share of rice export (tons) among ASEAN countries, 2022

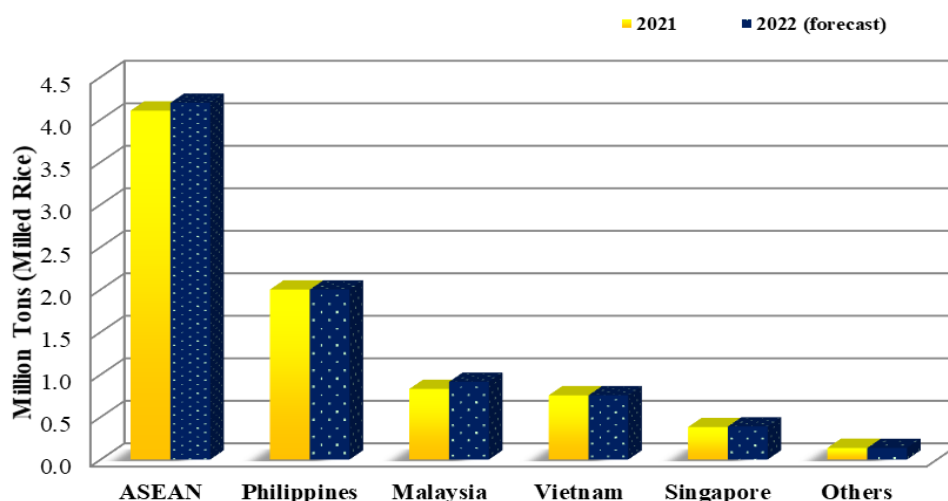
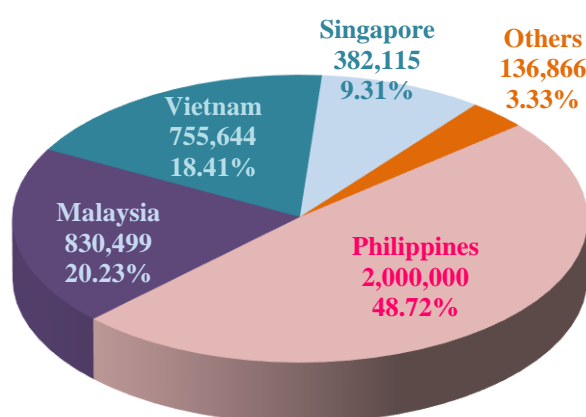
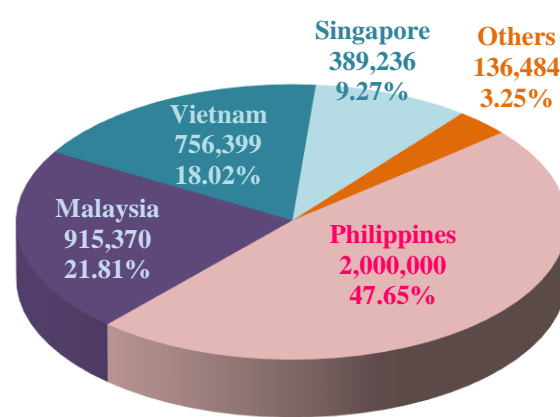


Figure 8 Amount of rice import (million tons) by selected countries in ASEAN in 2021 – 2022



Total 4.11 million tons

Figure 9 Share of rice import (tons) among ASEAN countries, 2021



Total 4.20 million tons

Figure 10 Share of rice import (tons) among ASEAN countries, 2022

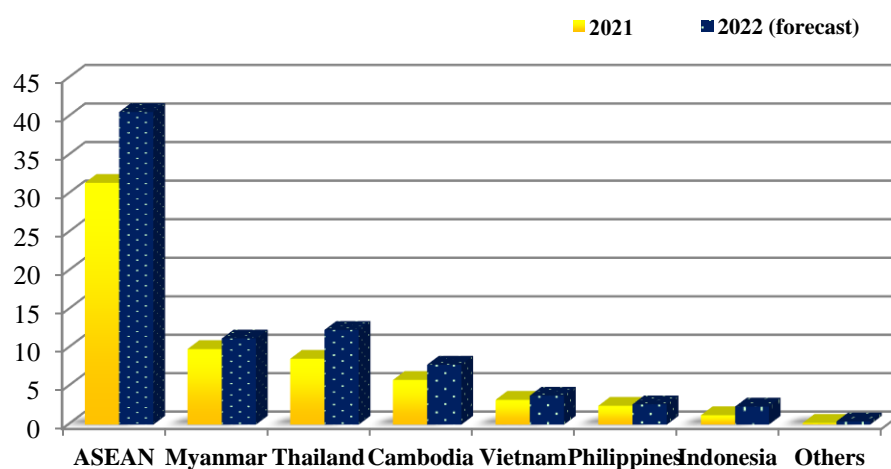


Figure 11 Amount of ending stock of rice in ASEAN countries, 2021 – 2022

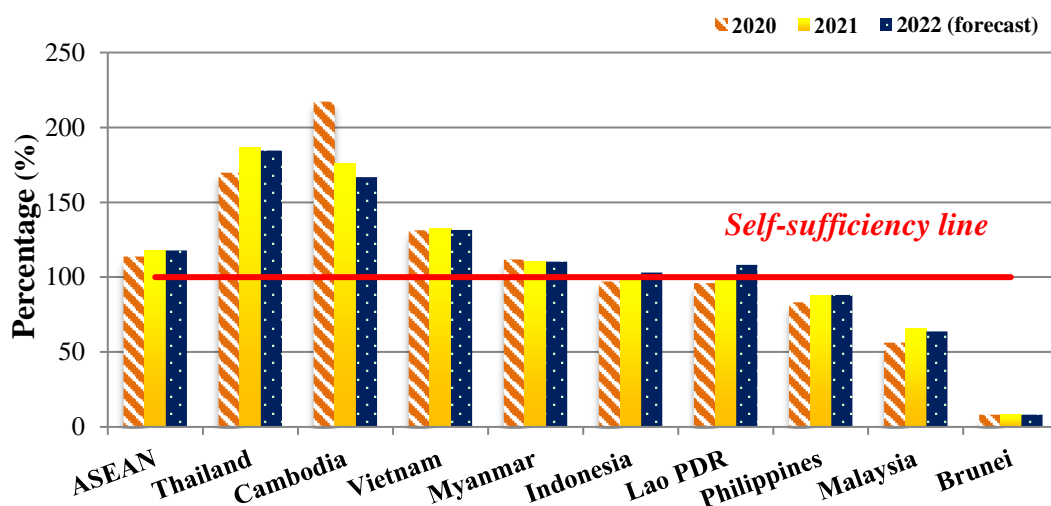


Figure 12 Ratio of rice production to domestic utilization in ASEAN countries, 2020 – 2022

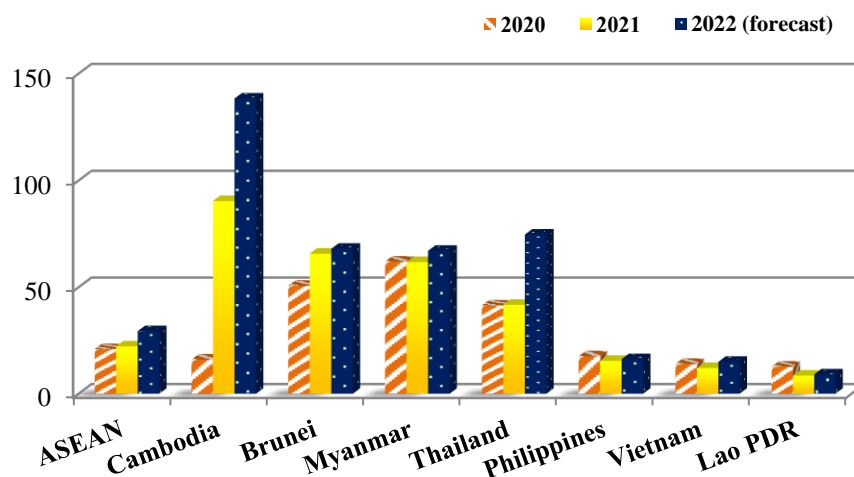


Figure 13 Ratio of rice beginning stock to domestic utilization in ASEAN countries, 2020 – 2022

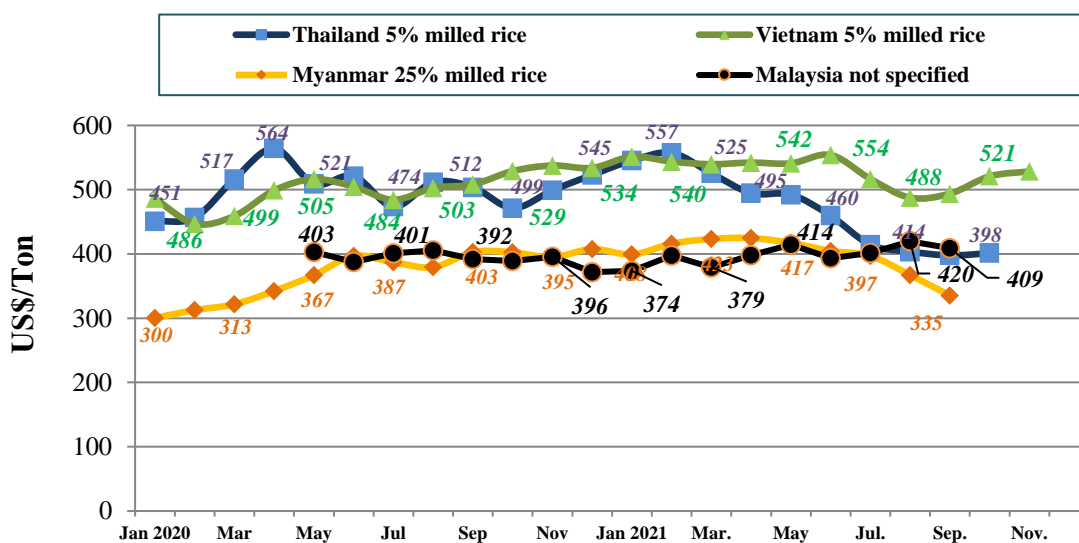


Figure 14 FOB price (US\$/Ton) of milled rice of selected countries in ASEAN in 2020 – 2021

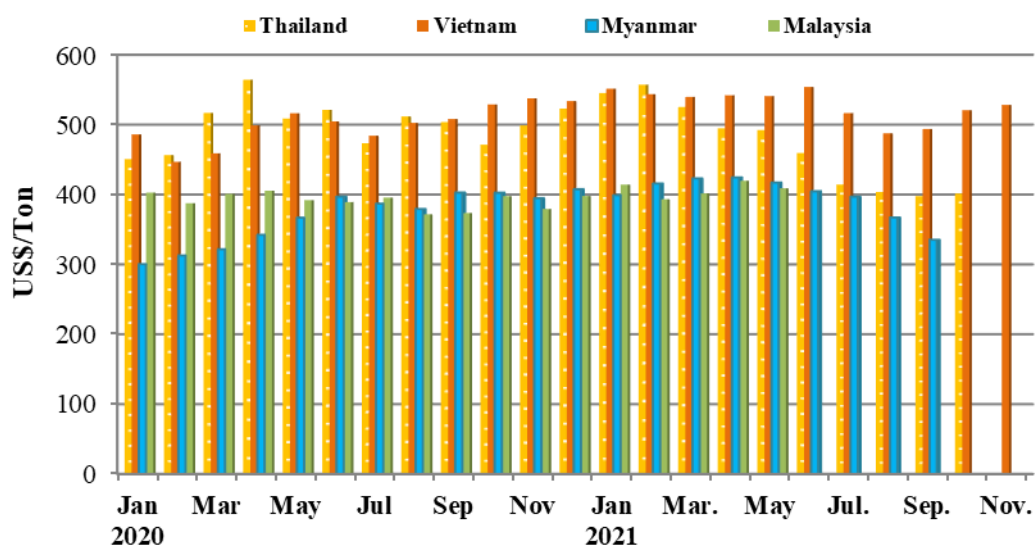


Figure 15 FOB price (US\$/Ton) of milled rice of selected countries in ASEAN in 2020 – 2021

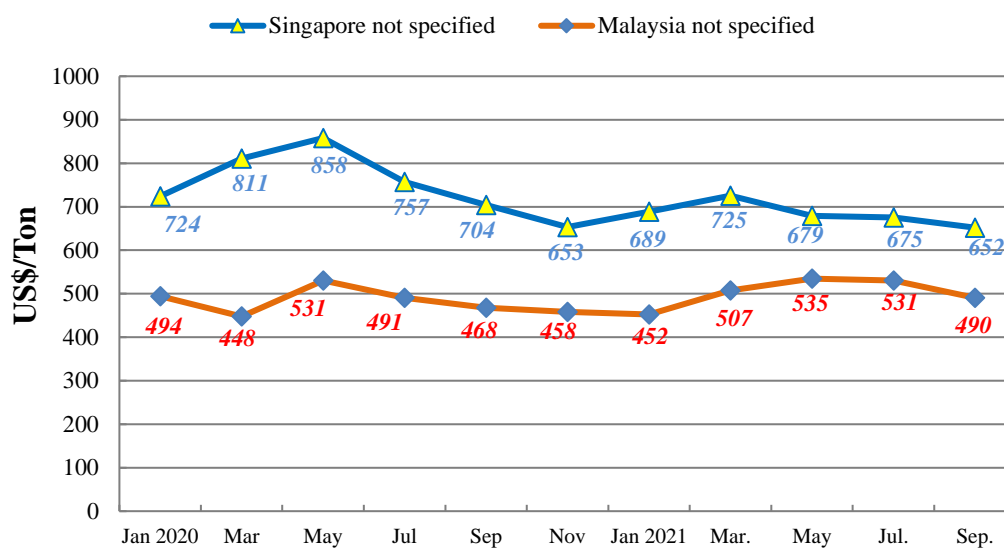


Figure 16 CIF price (US\$/Ton) of milled rice of selected countries in ASEAN in 2020 – 2021

Maize Outlook for 2022



The decrease in the stock and import is the main reason for decreasing in the ASEAN maize supply. The decreasing supply is expected to be 0.59 percent or 0.40 million tons from 67.56 million tons in 2021 to 67.16 million tons in 2022 (Table 16).

Maize production is forecast to increase around 0.61 million tons or 1.44 percent from 42.30 million tons in 2021 to 42.91 million tons in 2022. The beginning stock is expected to decrease around 10.08 percent or 0.73 million tons from 7.24 million tons in 2021 to 6.51 million tons in 2022.

Maize's demand in 2022 is expected to decrease around 0.59 percent. Domestic utilization is predicted to decrease by 0.45 million tons from 58.60 million tons in 2021 to 58.15 million tons in 2022. The export of maize is also expected to decrease around 9.80 percent from 2.45 million tons in 2021 to 2.21 million tons in 2022.

The ending stock of maize is expected to increase around 4.45 percent from 6.51 million tons in 2021 to 6.80 million tons in 2022.

The ratio of production to domestic utilization (self-sufficiency ratio) for the region is expected to increase by 1.60 percent from 72.19 percent in 2021 to 73.79 percent in 2022.

The beginning stock to domestic utilization ratio (food security ratio) in 2022 is forecast to decrease around 1.16 percent from 12.36 percent in 2021 to 11.20 percent in 2022. This indicates that the food (feed) security situation in the ASEAN region is decreasing.

Table 16 Summary of the ASEAN maize situation, 2021 – 2022

Unit: Million tons

Items	2021	2022	Change	
			Quantity	%
Supply (Million tons)	67.56	67.16	-0.40	-0.59
Beginning stock	7.24	6.51	-0.73	-10.08
Production	42.30	42.91	0.61	1.44
Import	18.02	17.74	-0.28	-1.55
Demand (Million tons)	67.56	67.16	-0.40	-0.59
Domestic utilization	58.60	58.15	-0.45	-0.77
Export	2.45	2.21	-0.24	-9.80
Ending stock	6.51	6.80	0.29	4.45
Ratio of production to domestic utilization (%)	72.19	73.79	1.60	-
Ratio of beginning stock to domestic utilization (%)	12.36	11.20	-1.16	-

ASEAN Maize Situation in 2021

► Production

ASEAN maize production in 2021 (crop year 2020/21) was estimated at 45.42 million tons, which increased by 0.49 million tons or about 1.08 percent from 44.94 million tons in 2020 (crop year 2019/20). An increase in maize production in 2021 was found in Brunei, Indonesia, Myanmar, the Philippines, Thailand and Vietnam due to the increase in either planted area and harvested area. While, the production of Cambodia and Lao PDR decreased due to the declining of planted area and harvested area (Table 17-20, Figure 17-20).

For **Brunei**, the increase in production is attributed to the increase in planted area and yield because farmers used more fertilizer and took better care of their crops.

For **Cambodia**, the decrease in production is attributed to the decrease in planted and harvested areas, which was caused by unfavorable weather affected by flood and drought.

For **Indonesia**, the increase in production is attributed to the increase in planted and harvested areas, which came from farmers' response to price increases, favorable weather, and government policies together with special assistants.

For **Lao PDR**, the decrease in production is attributed to the decrease in planted and harvested areas caused by the increase in the price of competing crop and government policies.

For **Myanmar**, the increase in production is attributed to the increase in planted and harvested areas, which was caused by farmers' response to price increases.

For **the Philippines**, the increase in production is attributed to the increase in planted and harvested areas and yield because farmers used more fertilizer together with favorable weather.

For **Thailand**, the increase in production is attributed to the increase in the harvested area caused by favorable weather and better taking care of the maize crops by farmers.

For **Vietnam**, the increase in production is attributed to the increase in planted area harvested areas and yield. This is because farmers responded to price increases and took better care of their crops together with favorable weather.

► Utilization and Stock

Maize utilization in ASEAN in 2021 was estimated at 58.60 million tons, which increased 3.97 million tons or 7.27 percent compared to 54.63 million tons in 2020 (Table 22-23). Most of the maize production in ASEAN is used for animal feed. The increase in domestic utilization of maize has occurred in Brunei, Indonesia, Lao PDR, the Philippines, Thailand, and Vietnam.

The beginning stock of maize in ASEAN in 2021 was estimated at 7.24 million tons, which increased by 3.17 million tons from 4.07 million tons in 2020 (Table 22-23). The ratio of maize production to domestic utilization for the whole ASEAN in 2021 was estimated at 72.19 percent compared to 76.73 percent in year 2020. This indicated that the ASEAN itself produced inadequate maize for the regional consumption (Table 25, Figure 28). On the country basis, Cambodia, Lao PDR, and Myanmar have the ratio above 100 percent. While Brunei, Indonesia, the Philippines, Thailand and Vietnam have the ratio less than 100 percent.

The ratio of beginning stock to domestic utilization for the ASEAN in 2021 was estimated to be 12.36 percent. This indicated that the region is not secure enough in terms of feed requirement (Table 26, Figure 29). Cambodia and Indonesia have the ratio above 20 percent which, in general, is considered as the optimum level for food/feed security.

► *Trade*

The maize exported from ASEAN in 2021 is forecast to be 2.45 million tons compared to 18.02 million tons of maize imported (Table 23, Figure 21-22, 24-25). In 2021, Myanmar, the biggest exporter in ASEAN, is expected to export 1.89 million tons or around 77.21 percent of the total maize exported from the ASEAN (Table 23, Figure 21-22).

The major importing countries in the region are Vietnam, Thailand, Malaysia, Indonesia, the Philippines and Singapore (Table 23, Figure 24-25). The quantity and value of maize exported by countries of destination and the quantity and value of

imported by countries of origin are given in Table 27-28.

► *Prices*

The monthly FOB prices for maize exporting countries and CIF prices for importing countries of 2020 and 2021 are shown in Table 29-30 and Figure 30-31. The annual average of Indonesia FOB prices in 2021 (January-September) was 615 US\$/ton, which increase from 425 US\$/ton as the yearly average in 2020. For Cambodia, Lao PDR, Malaysia, Myanmar, and Thailand, average FOB prices of 2020 were 274, 243, 286, 171, and 290 US\$/ton, respectively. The average CIF prices in 2021 in Indonesia (January-September), Singapore (January-December) were 270 and 373 respectively.

► *Damaged Area*

The damaged area of maize in 2021 is estimated to be 55,325 hectares, of which 35,671 hectares were caused by drought. The most affected areas were caused by drought, which occurred in Thailand and Myanmar, respectively (Table 21).

Prospects for Maize in 2022

► *Production*

Maize production in ASEAN in 2022 (crop year 2021/22) was estimated at 46.08 million tons. The increase has occurred in Brunei, Indonesia, Lao PDR, Myanmar, the Philippines, Thailand, and Vietnam. The most increase in terms of quantity was found in Indonesia at approximately 0.29 million tons (Table 17).

For **Brunei**, a slight increase in production is attributed to the increase in yield because farmers used more fertilizer and took better care of their crops.

For **Cambodia**, the decrease in production is attributed to the decrease in planted area and yield.

For **Indonesia**, the biggest maize producer in ASEAN, the increase in production is attributed to the increase in planted area and yield, which comes from farmers' response to price increases, government policies, and favorable weather together with special assistants.

For **Lao PDR**, the increase in production is attributed to the increase in planted area, which caused by government policies and good care of the crop by farmers together with sufficient sunlight for plants

For **Myanmar**, the increase in production is attributed to the increase in planted area, which comes from farmers' response to price increases. The yield is projected to remain the same as the previous year.

The Philippines, the maize production is forecast to increase due to the increasing in planted area and remaining in yield as same as the previous year.

For **Thailand**, the increase in production is attributed to the increase in planted area and yield caused by farmers' response to price increases, and better taking care of the maize crops by farmers.

For **Vietnam**, the increase in production is attributed to the increase in planted area, which caused by farmers' response to maize price increases (Table 17-20, Figure 17-20).

► *Utilization and Stock*

The domestic utilization of maize in ASEAN is forecast to be 58.15 million tons in 2022, a decrease of 0.44 million tons from 58.60 million tons in 2021 (Table 23-24). The estimate of the beginning stock for 2022 is around 6.51 million tons, a decrease of 0.73 million tons from 7.24 million tons in 2021.

In 2022, the ratio of production to domestic utilization is expected to be 73.79 percent, increasing 1.60 percent from 72.19 percent in 2021 (Table 25, Figure 28). The ratio of beginning stock to domestic utilization ratio in 2022 is expected to be 11.20 percent, which decreases 1.16 percent from 2021 (Table 26, Figure 29).

► *Trade*

The maize export from ASEAN is projected to be 2.21 million tons in 2022, a decrease of 0.24 million tons compared to 2.45 million tons in 2021. For the import by ASEAN, it is forecast to be 17.74 million tons in 2022, decreasing from 18.02 million tons in 2021 (Table 23-24, Figure 21, 23, 24, and 26).

Table 17 Maize production in ASEAN countries, 2020 – 2022

Unit: 1,000 Tons

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	44,938.75	45,424.21	485.46	1.08	46,075.12	650.91	1.43
Brunei	0.29	0.49	0.20	67.04	0.52	0.02	5.00
Cambodia	985.11	821.80	-163.32	-16.58	757.41	-64.39	-7.84
Indonesia	23,950.96	24,044.98	94.02	0.39	24,339.53	294.55	1.22
Lao PDR	547.89	546.14	-1.75	-0.32	680.94	134.80	24.68
Malaysia	N/A						
Myanmar	1,986.13	2,072.86	86.73	4.37	*2,163.38	90.53	4.37
Philippines	8,030.04	8,352.28	322.24	4.01	*8,477.56	125.28	1.50
Singapore	N/A						
Thailand	4,702.99	4,787.56	84.58	1.80	4,849.78	62.22	1.30
Vietnam	4,735.35	4,798.10	62.75	1.33	4,806.00	7.90	0.16

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.**Table 18 Maize planted area in ASEAN countries, 2020 – 2022**

Unit: 1,000 Hectares

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	9,845.40	9,899.65	54.25	0.55	10,041.74	142.09	1.44
Brunei	N/A						
Cambodia	225.98	178.06	-47.92	-21.21	163.76	-14.30	-8.03
Indonesia	4,336.39	4,373.59	37.20	0.86	4,411.20	37.61	0.86
Lao PDR	110.17	107.91	-2.25	-2.05	138.59	30.67	28.42
Malaysia	N/A						
Myanmar	519.64	556.55	36.90	7.10	*599.96	43.41	7.80
Philippines	*2,508.11	*2,572.53	64.41	2.57	*2,611.11	38.59	1.50
Singapore	N/A						
Thailand	1,158.47	1,122.81	-35.66	-3.08	1,127.12	4.31	0.38
Vietnam	986.63	988.20	1.57	0.16	990.00	1.80	0.18

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.**Table 19 Maize harvested area in ASEAN countries, 2020 – 2022**

Unit: 1,000 Hectares

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	9,736.12	9,844.32	108.20	1.11	9,970.17	125.85	1.28
Brunei	N/A						
Cambodia	211.41	170.13	-41.28	-19.52	157.56	-12.57	-7.39
Indonesia	4,327.28	4,369.24	41.96	0.97	4,411.20	41.96	0.96
Lao PDR	110.17	107.91	-2.25	-2.05	135.07	27.15	25.16
Malaysia	N/A						
Myanmar	515.72	538.29	22.56	4.38	*561.84	23.55	4.38
Philippines	2,508.11	2,572.53	64.41	2.57	*2,611.11	38.59	1.50
Singapore	N/A						
Thailand	1,076.81	1,098.03	21.22	1.97	1,103.39	5.36	0.49
Vietnam	986.63	988.20	1.57	0.16	990.00	1.80	0.18

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available

Table 20 Maize yield in ASEAN countries, 2020 – 2022

Unit: Tons/Hectares

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	4.62	4.61	-0.01	-0.22	4.62	0.01	0.22
Brunei	N/A						
Cambodia	4.66	4.83	0.17	3.65	4.81	-0.02	-0.41
Indonesia	5.53	5.50	-0.03	-0.54	5.52	0.02	0.36
Lao PDR	4.97	5.06	0.09	1.81	5.04	-0.02	-0.40
Malaysia	N/A						
Myanmar	3.85	3.85	-	-	*3.85	-	-
Philippines	3.20	3.25	0.05	1.56	*3.25	-	-
Singapore	N/A						
Thailand	4.37	4.36	-0.01	-0.23	4.40	0.04	0.92
Vietnam	4.80	4.86	0.06	1.25	4.85	-0.01	-0.21

Remark: . N/A refers to data that is not available.**Table 21 Maize damaged area in ASEAN by cause of damage, 2021**

Unit: Hectares

Country	Cause of Damage (Hectares)						
	Flood	Drought	Pests	Diseases	Unspecified	Others	Total
ASEAN	11,447	35,671	249	-	-	7,958	55,325
Brunei	N/A						
Cambodia	-	-	-	-	-	7,935	7,935
Indonesia	3,889	213	249		-	-	4,351
Lao PDR	N/A						
Malaysia	N/A						
Myanmar	7,558	10,679	-	-	-	23	18,260
Philippines	N/A						
Singapore	N/A						
Thailand	-	24,779		-	-	-	24,779
Vietnam	N/A						

Remark: N/A refers to data that is not available.

Table 22 Maize balance sheet of ASEAN countries, 2020

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	4,073,039	41,914,087	19,341,078	65,328,204	54,626,289	3,459,786	7,242,128	65,328,203
Brunei	-	295	220	515	515	-	-	515
Cambodia	314,551	985,113	-	1,299,664	803,844	202,798	293,022	1,299,664
Indonesia	*1,157,845	20,837,334	865,653	22,860,832	*17,596,559	64,272	5,200,000	22,860,832
Lao PDR	96,571	547,885	1,108	645,565	517,005	71,875	56,684	645,565
Malaysia	-	-	2,003,520	2,003,520	1,998,646	4,874	-	2,003,520
Myanmar	1,420,212	1,986,126	6,135	3,412,473	933,895	2,458,898	19,680	3,412,473
Philippines	812,000	8,119,000	769,000	9,700,000	8,783,000	2,000	915,000	9,700,000
Singapore	-	-	21,039	21,039	19,999	1,040	-	21,039
Thailand	*240,000	4,702,985	*3,602,346	8,545,331	8,344,700	631	*200,000	8,545,331
Vietnam	31,860	4,735,349	12,072,057	16,839,265	15,628,126	653,398	557,742	16,839,265

Remark: * The value is estimated by AFSIS Secretariat.**Table 23 Maize balance sheet of ASEAN countries, 2021**

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	7,242,128	42,298,363	18,024,155	67,564,646	58,597,073	2,453,280	6,514,292	67,564,646
Brunei	-	492	231	723	723	-	-	723
Cambodia	293,022	821,798	-	1,114,820	670,580	203,312	240,928	1,114,820
Indonesia	5,200,000	20,919,135	945,315	27,064,450	*22,612,282	2,169	4,450,000	27,064,451
Lao PDR	56,684	546,139	1,469	604,292	525,927	72,405	5,961	604,292
Malaysia	-	-	1,698,829	1,698,829	1,695,632	3,197	-	1,698,829
Myanmar	19,680	2,072,858	3,452	2,095,990	188,917	1,894,229	12,844	2,095,990
Philippines	915,000	*8,352,279	*500,000	9,767,279	*8,796,000	*2,000	*969,279	9,767,279
Singapore	-	-	11,941	11,941	11,350	590	-	11,941
Thailand	*200,000	4,787,561	*3,613,707	8,601,268	8,380,160	1,108	*220,000	8,601,268
Vietnam	557,742	4,798,100	11,249,211	16,605,053	15,715,502	274,270	615,281	16,605,053

Remark: * The value is estimated by AFSIS Secretariat.**Table 24 Maize balance sheet of ASEAN countries, 2022**

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	6,514,292	42,910,985	17,738,801	67,164,078	58,152,358	2,208,623	6,803,097	67,164,078
Brunei	-	517	242	759	759	-	-	759
Cambodia	240,928	757,407	-	998,334	650,463	203,827	144,044	998,334
Indonesia	4,450,000	21,175,393	*985,623	26,611,016	*21,923,045	*51,418	*4,636,552	26,611,016
Lao PDR	5,961	680,940	1,300	688,200	501,196	143,515	43,490	688,200
Malaysia	-	-	1,783,771	1,783,771	1,780,414	3,357	-	1,783,771
Myanmar	*12,844	*2,163,385	*1,942	2,178,171	*185,438	*1,459,232	*533,500	2,178,171
Philippines	*969,279	*8,477,564	*400,000	9,846,843	*8,960,785	*2,000	*884,058	9,846,843
Singapore	-	-	16,490	16,490	15,675	815	-	16,490
Thailand	*220,000	4,849,780	*3,541,390	8,611,170	*8,400,000	*1,170	*210,000	8,611,170
Vietnam	615,281	4,806,000	11,008,043	16,429,324	15,734,583	343,288	351,453	16,429,324

Remark: * The value is estimated by AFSIS Secretariat.

Table 25 Ratio of maize production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2020 – 2022

Unit: Tons

Country	2020			2021			2022		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	41,914,087	54,626,289	76.73	42,298,363	58,597,073	72.19	42,910,985	58,152,358	73.79
Brunei	295	515	57.28	492	723	68.05	517	759	68.12
Cambodia	985,113	803,844	122.55	821,798	670,580	122.55	757,407	650,463	116.44
Indonesia	20,837,334	17,596,559	118.42	20,919,135	22,612,282	92.51	21,175,393	21,923,045	96.59
Lao PDR	547,885	517,005	105.97	546,139	525,927	103.84	680,940	501,196	135.86
Malaysia	-	1,998,646	0.00	-	1,695,632	0.00	-	1,780,414	0.00
Myanmar	1,986,126	933,895	212.67	2,072,858	188,917	1,097.23	2,163,385	185,438	1,166.63
Philippines	8,119,000	8,783,000	92.44	8,352,279	8,796,000	94.96	8,477,564	8,960,785	94.61
Singapore	-	19,999	0.00	-	11,350	0.00	-	15,675	0.00
Thailand	4,702,985	8,344,700	56.36	4,787,561	8,380,160	57.13	4,849,780	8,400,000	57.74
Vietnam	4,735,349	15,628,126	30.30	4,798,100	15,715,502	30.53	4,806,000	15,734,583	30.54

Remark: * The value is estimated by AFSIS Secretariat, N/A refers to data that is not available.

[24]

Table 26 Ratio of maize beginning stock to domestic utilization in ASEAN countries (Food security ratio), 2020 – 2022

Unit: Tons

Country	2020			2021			2022		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	4,073,039	54,626,289	7.46	7,242,128	58,597,073	12.36	6,514,292	58,152,358	11.20
Brunei	-	515	-	-	723	-	-	759	-
Cambodia	314,551	803,844	39.13	293,022	670,580	43.70	240,928	650,463	37.04
Indonesia	1,157,845	17,596,559	6.58	5,200,000	22,612,282	23.00	4,450,000	21,923,045	20.30
Lao PDR	96,571	517,005	18.68	56,684	525,927	10.78	5,961	501,196	1.19
Malaysia	-	1,998,646	-	-	1,695,632	-	-	1,780,414	-
Myanmar	1,420,212	933,895	152.07	19,680	188,917	10.42	12,844	185,438	6.93
Philippines	812,000	8,783,000	9.25	915,000	8,796,000	10.40	969,279	8,960,785	10.82
Singapore	-	19,999	-	-	11,350	-	-	15,675	-
Thailand	240,000	8,344,700	2.88	200,000	8,380,160	2.39	220,000	8,400,000	2.62
Vietnam	31,860	15,628,126	0.20	557,742	15,715,502	3.55	615,281	15,734,583	3.91

Remark: * The value is estimated by AFSIS Secretariat, N/A refers to data that is not available.

Table 27 Quantity and Value of Maize Export by Countries of Destination in 2021

Quantity: Tons Values: US\$

Exporting Country	Country of Destination													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A													
Cambodia	N/A													
Indonesia									81	65,206				
Lao PDR														
Malaysia	2.51	3,007			154	57,147								
Myanmar													19,936	4,914,100
Philippines					0.05	1,161								
Singapore	N/A													
Thailand					30	980					960	21,002		
Vietnam			-	14,767,149			-	1,510,683					-	47,514,471

[25]

Exporting Country	Country of Destination						Total within ASEAN		Total outside ASEAN		Total	
	Singapore		Thailand		Vietnam							
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A											
Cambodia	N/A											
Indonesia	361	248,028					442	313,234	358	165,359	800	478,593
Lao PDR			25,819	5,685,755	11,098	2,534,740	36,917	8,220,495	35,488	7,881,411	72,405	16,101,906
Malaysia	83	58,866			9	7,733	249	126,753	2,149	444,199	2,398	570,952
Myanmar	46	12,000	177,304	40,614,800			197,286	45,540,900	2,639	481,500	199,925	46,022,400
Philippines			1.10	13,643	539	1,760,322	540	1,775,126	5.83	22,950	545	1,798,076
Singapore	N/A											
Thailand							990	21,982	118	42,970	1,108	64,953
Vietnam	-	1,426	-	452,039			-	64,245,769	-	1,250,695	-	65,496,464

Remark: The data in this table is obtained from national focal points of member states and may not complete, N/A refers to data that is not available.

Table 28 Quantity and Value of Maize Import by Countries of Origin in 2021

Quantity: Tons Values: US\$

Importing Country	Country of Origin													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A													
Cambodia	N/A													
Indonesia														
Lao PDR														
Malaysia					0.30	2,781					365	91,728		
Myanmar					0.03	100								
Philippines					0.09	745					22,100	6,813,341		
Singapore					474	340,123			10,895	3,079,918	29	11,789	0.96	320
Thailand			5,665	1,300,469			9,532	1,337,507			981,532	192,041,809		
Vietnam			274	66,940			1,000	100,000						

Importing Country	Country of Origin						Total within ASEAN		Total outside ASEAN		Total	
	Singapore		Thailand		Vietnam							
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A											
Cambodia	N/A											
Indonesia									674,828	191,476,203	674,828	191,476,203
Lao PDR			1,188	479,649	135	54,457	1,323	534,106	146	58,426	1,469	592,532
Malaysia			10,031	5,985,250			10,396	6,079,759	1,263,726	403,823,065	1,274,122	409,902,824
Myanmar			190	652000			190	652,100	715	2,195,400	905	2,847,500
Philippines			25,365	10,797,704	68,840	26,028,097	116,306	43,639,887	11,715	8,159,309	128,021	51,799,196
Singapore			28	47,461	0.09	68	11,427	3,479,680	514	884,330	11,941	4,364,010
Thailand							996,729	194,679,784			996,729	194,679,784
Vietnam			3,053	8,383,717			4,327	8,550,657	8,499,941	2,398,146,364	8,504,268	2,406,697,021

Remark: The data in this table is obtained from national focal points of member states and may not complete, N/A refers to data that is not available.

Table 29 FOB Price of maize (Feed grain) in selected ASEAN countries

Unit: US\$/Ton

Country	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Cambodia	2020	270	248	256	267	293	290	276	279	288	274	275	278	274
	2021	N/A												
Indonesia	2020	565	555	605	527	241	240	243	245	243	530	634	471	425
	2021	525	502	627	648	638	603	665	679	646	-	-	-	615
Lao PDR	2020	280	241	226	218	234	245	266	275	244	217	219	252	243
	2021	257	237	216	210	220	236	241	230	208	198	-	-	225
Malaysia	2020	277	281	441	407	250	252	289	253	248	236	237	259	286
	2020	752	488	889	350	757	513	752	764	182	-	-	-	605
Myanmar	2020	193	164	161	157	159	174	156	143	203	152	175	212	171
	2021	203	171	213	228	231	229	229	232	232	-	-	-	219
Thailand	2020	289	275	268	271	275	298	291	299	305	298	302	304	290
	2021	310	319	307	301	311	-	-	-	-	-	-	-	310

Remark: N/A refers to data that is not available.

[27]

Table 30 CIF Price of maize (Feed grain) in selected ASEAN countries

Unit: US\$/Ton

Country	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Indonesia	2020	-	203	209	217	215	204	194	198	181	179	179	187	197
	2021	189	200	254	274	281	294	309	320	315	-	-	-	270
Malaysia	2020	210	210	213	216	229	210	206	188	193	190	207	226	208
	2021	255	283	316	300	306	359	348	346	345	-	-	-	318
Singapore	2020	257	276	304	319	295	261	274	285	251	281	310	273	282
	2021	291	288	411	369	416	386	348	384	464	373	373	373	373
Vietnam	2020	196	207	218	217	212	211	203	190	186	186	188	196	201
	2021	206	269	276	284	288	302	321	307	308	286	304	-	287

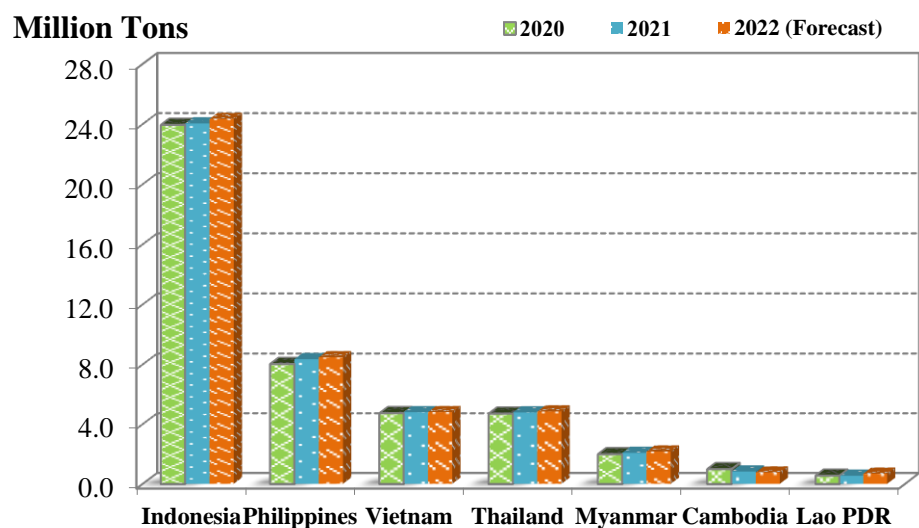


Figure 17 Maize production of selected countries in ASEAN, 2020 – 2022

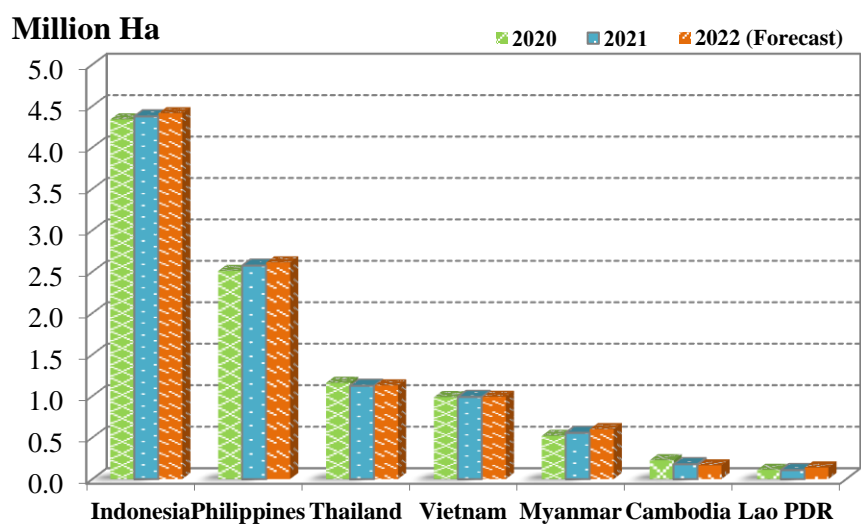


Figure 18 Maize planted area of selected countries in ASEAN, 2020 – 2022

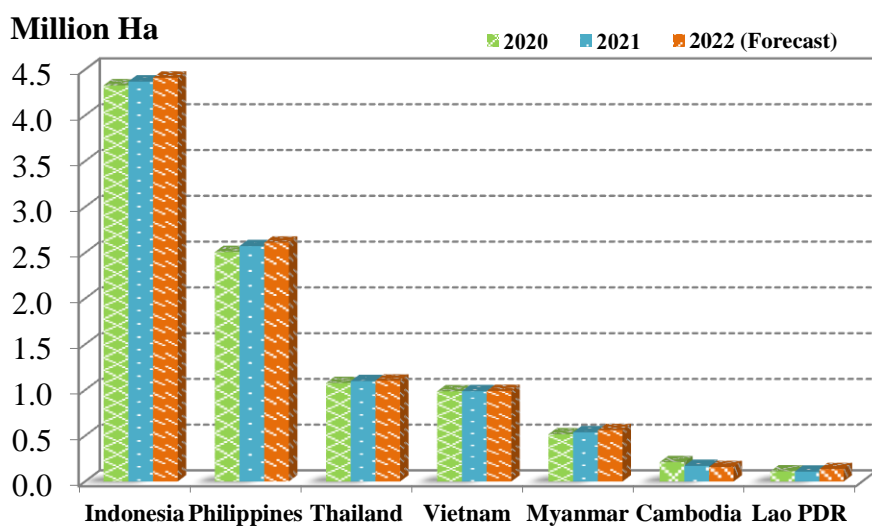


Figure 19 Maize harvested area of selected countries in ASEAN, 2020 – 2022

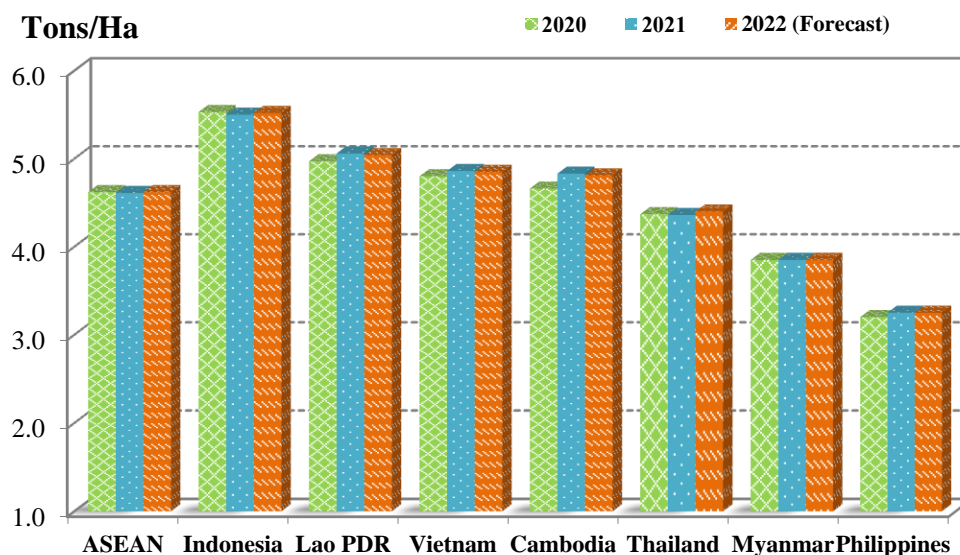


Figure 20 Maize yield of countries in ASEAN, 2020 – 2022

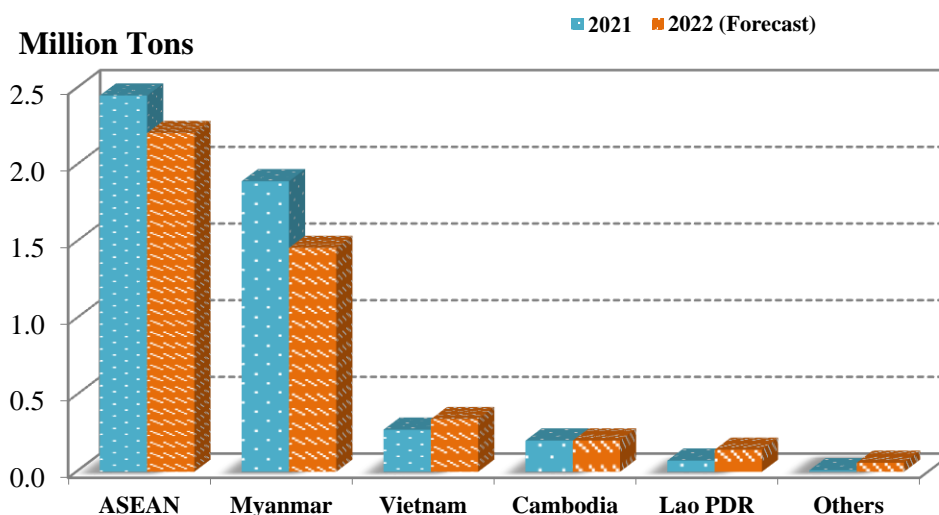
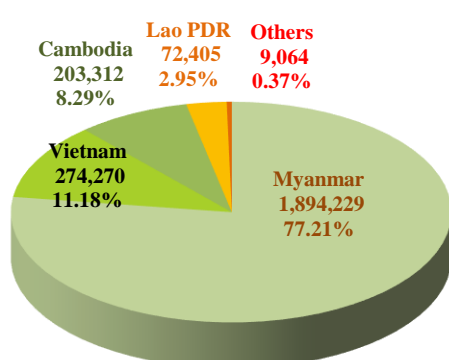
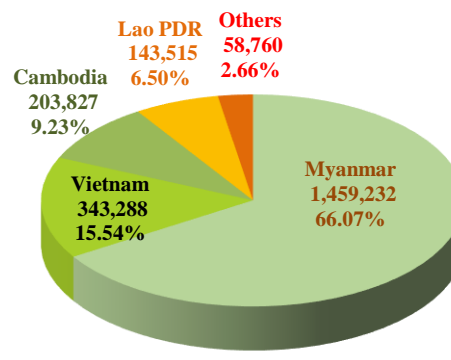


Figure 21 Amount of maize export (million tons) of selected countries in ASEAN in 2021 – 2022



Total 2.45 million tons

Figure 22 Share of maize export (tons) among ASEAN countries, 2021



Total 2.21 million tons

Figure 23 Share of maize export (tons) among ASEAN countries, 2022

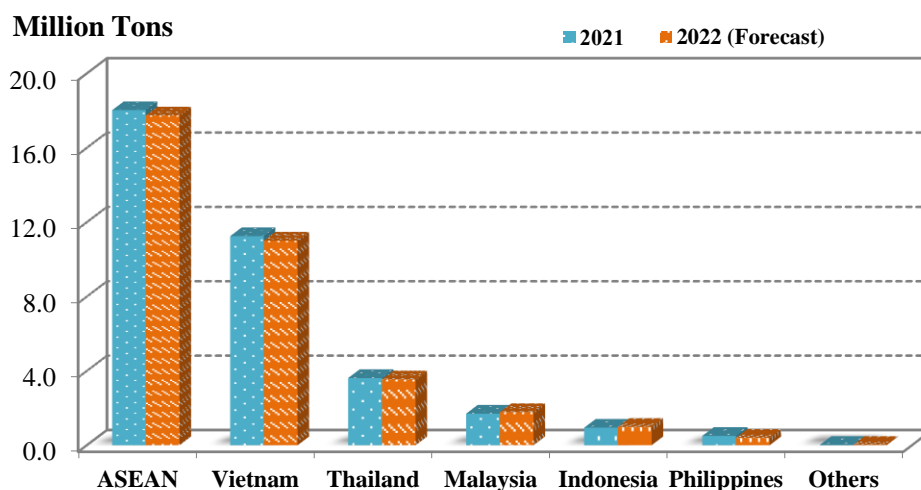
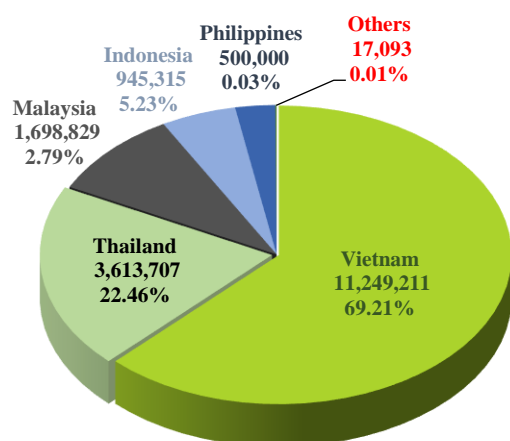
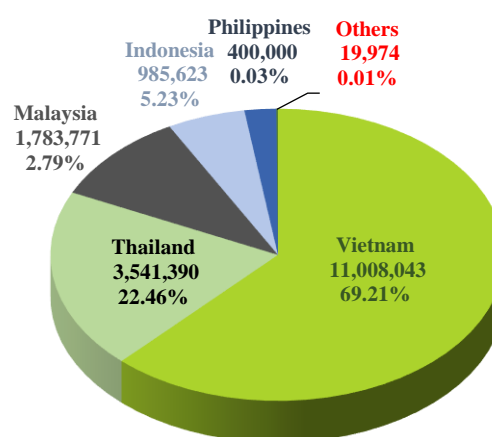


Figure 24 Amount of maize import (million tons) by selected countries in ASEAN in 2021– 2022



Total 18.02 million tons

Figure 25 Share of maize import (tons) among ASEAN countries, 2021



Total 17.74 million tons

Figure 26 Share of maize import (tons) among ASEAN countries, 2022

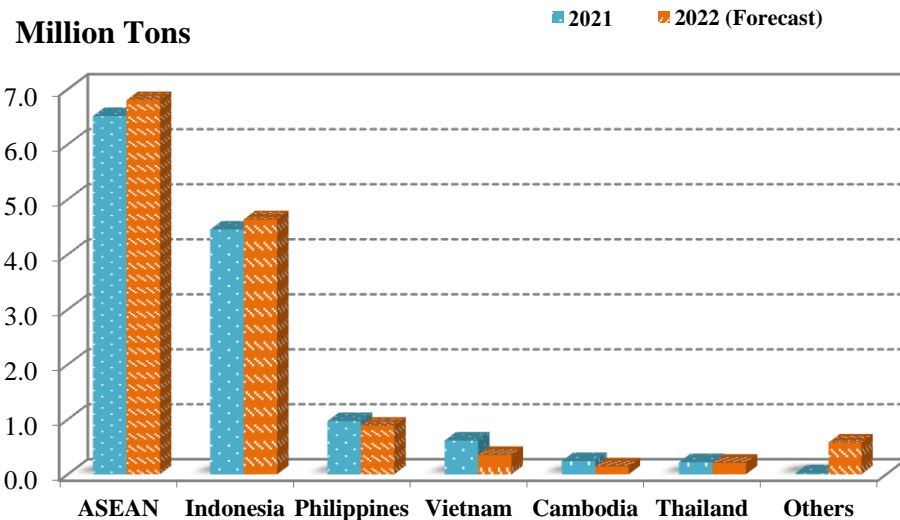


Figure 27 Amount of ending stock of maize in ASEAN countries in 2021 – 2022

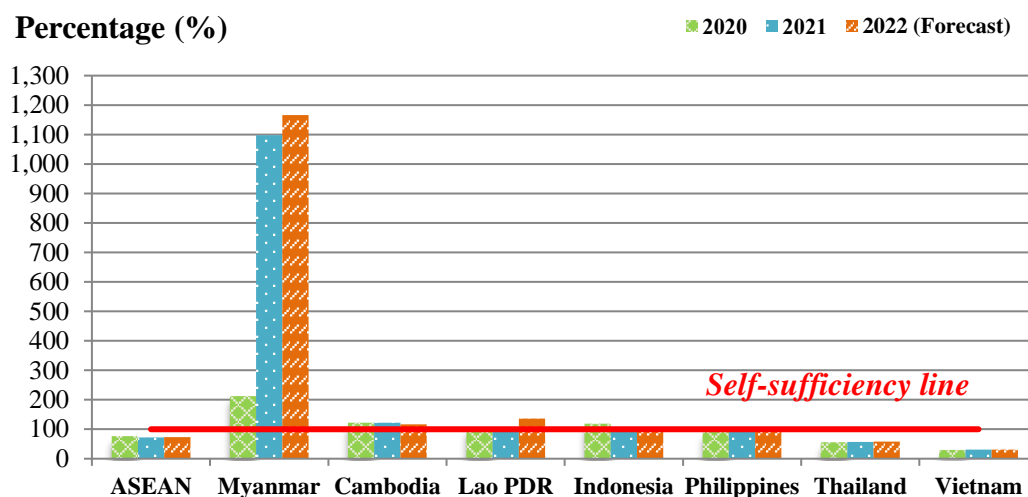


Figure 28 Ratio of maize production to domestic utilization in ASEAN countries, 2020 – 2022

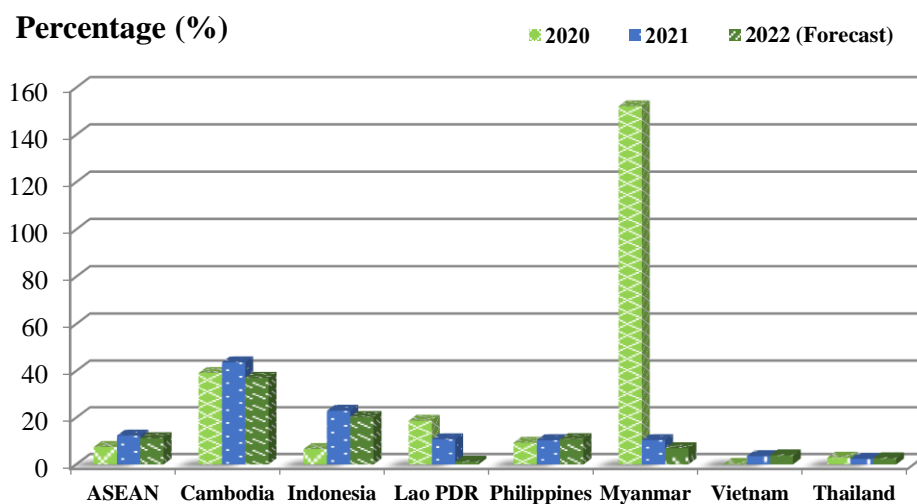


Figure 29 Ratio of maize beginning stock to domestic utilization in ASEAN countries, 2020 – 2022

US\$/Ton

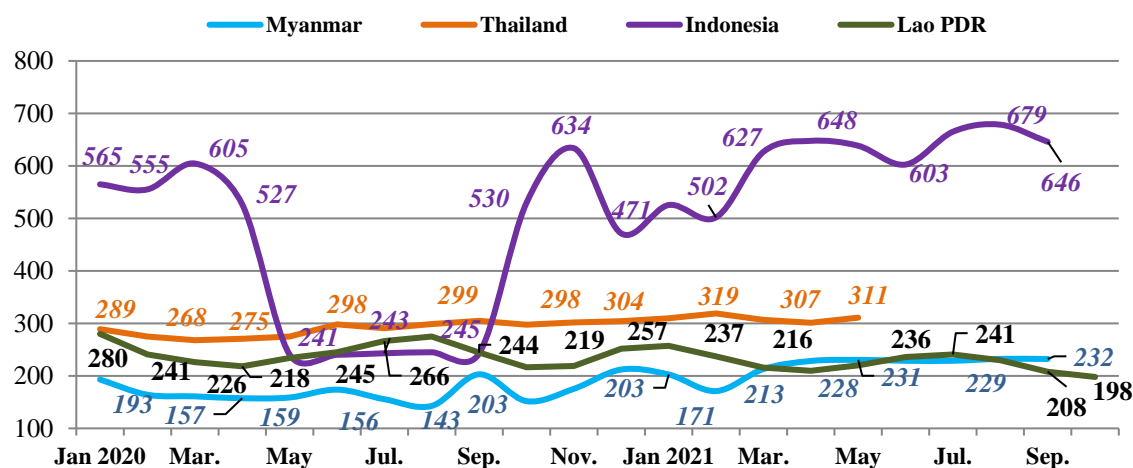


Figure 30 FOB price (US\$/Ton) of maize of selected countries in ASEAN in 2020 – 2021

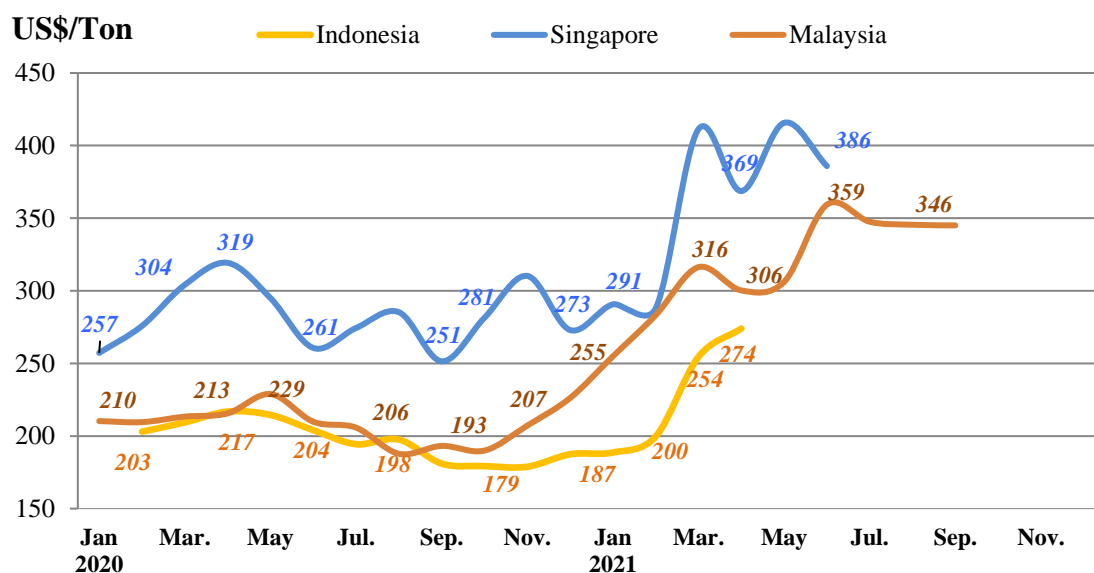


Figure 31 CIF price (US\$/Ton) of maize of selected countries in ASEAN in 2020– 2021

Sugar Outlook for 2022



ASEAN sugar supply is forecast to increase by approximately 2.78 percent or 0.84 million tons from 30.26 million tons in 2021 to 31.10 million tons in 2022, especially with the increase in beginning stock and production (Table 31).

The beginning stock of sugar in 2022 is estimated at 8.32 million tons, which increases from 7.60 million tons in 2021.

The sugar production in 2022 is estimated at 14.20 million tons, which increases from 13.89 million tons in 2021.

The sugar's import of 2022 is forecast to be 8.59 million tons, which decreases around 1.94 percent from 8.76 million tons in 2021.

The export of sugar from ASEAN in 2022 is expected to decrease from 6.66 million tons in 2021 to 6.00 million tons in 2022.

The production to domestic utilization ratio for sugar in 2022 is forecast to be about 89.70 percent, which decreases from 90.91 percent in 2021.

The beginning stock to domestic utilization ratio in 2022 is forecast to be about 52.55 percent, which increases from 49.73 percent in 2021.

Table 31 Summary of the ASEAN sugar situation, 2021 – 2022

Unit: Million Tons

Items	2021	2022	Change	
			Quantity	%
Supply (Million tons)	30.26	31.10	0.84	2.78
Beginning stock	7.60	8.32	0.72	9.47
Production	13.89	14.20	0.31	2.23
Import	8.76	8.59	-0.17	-1.94
Demand (Million tons)	30.26	31.10	0.84	2.78
Domestic utilization	15.28	15.83	0.55	3.60
Export	6.66	6.00	-0.66	-9.91
Ending stock	8.32	9.27	0.95	11.42
Ratio of production to domestic utilization (%)	90.91	89.70	-1.21	-
Ratio of beginning stock to domestic utilization (%)	49.73	52.55	2.82	-

ASEAN Sugar Situation in 2021

► **Production**

Sugarcane production in ASEAN in 2021 (2020/21 crop year) was estimated at 145.59 million tons, down 7.67 million tons from 153.26 million tons in 2020 or about 5.00 percent (Table 32, Figure 32). The decrease in production was due to the decrease in the production of Thailand, Vietnam, and Myanmar. The harvested area of sugarcane in ASEAN in 2021 was estimated at 2.70 million hectares, significantly decreasing from 2.94 million hectares in 2020 (Table 34).

Thailand, the largest sugar producing country in the region, the production was estimated to decrease mainly due to the declining in planted area resulted from farmers' response to price decreases (Table 32-35, Figure 32-35).

Vietnam was estimated to decrease its production due to the decrease in the planted area and yield. The decreasing in planted area was due to farmers' response to price decreases and unfavorable weather. The decreasing in yield was because farmers used less fertilizer.

In **the Philippines**, the production was estimated to rise due to the increase in planted area and yield, resulting from sufficient and timely fertilizer application during reproductive stage as well as an adequate water supply.

Myanmar was estimated to decrease its production due to the decrease in planted area and harvested area.

For **Lao PDR**, the production was estimated to decrease due to the decrease in planted area. The decline in the planted area came from the increase in prices of competing crops and government policy.

The production in **Indonesia** was estimated to rise due to the increase in planted area and yield. The expansion of planted area was caused by the 3 new sugarcane companies that have been opening to produce sugarcane since 2021. While, the increase in yield was caused by favorable weather.

Production in **Cambodia** was estimated to increase due to the increase in the planted area caused by favorable weather.

In **Brunei**, the production was estimated to decrease. The sugarcane produced domestically was not processed into sugar, however, it was processed into sugarcane juice.

► **Utilization and Stock**

Regarding domestic utilization of sugar in the ASEAN, it has significantly increased to 15.28 million tons in 2021 from 16.42 million tons in 2020 (Table 37-38). The beginning stock of sugar in ASEAN in 2021 was estimated at 7.60 million tons, which significantly increased about 7.89 percent from 2020. The ending stock of sugar in ASEAN in 2021 was estimated to be about 8.32 million tons, an increase of about 9.42 percent from 2020.

The ratio of sugar production to domestic utilization in 2021 was estimated to be about 90.91 percent. This indicated that the ASEAN itself produced inadequate sugar for the regional consumption (Table 40, Figure 43).

The ratio of beginning stock to domestic utilization was estimated to be about 49.73 percent in 2021, compared to 42.92 percent in 2020. This indicated that the sugar availability in the region was slightly up from the previous year (Table 41, Figure 44).

► *Trade*

The sugar's export from ASEAN in 2021 was 6.66 million tons, which decreased about 0.54 million tons or 7.49 percent from 2020 (Table 37-38, Figure 36-37). Thailand is the major sugar exporting country in the region, which constituted about 71.80 percent of the total ASEAN export or about 4.78 million tons.

For the import, ASEAN in 2021 as a whole imported sugar around 8.76 million tons, decreasing about 4.5 percent from the previous year (Table 37-38, Figure 39-40).

The quantity and value of sugar export by countries of destination and the quantity and value of import by countries of origin are given in Tables 42 and 43, respectively.

► *Prices*

The FOB and CIF prices of sugar in exporting and importing countries in ASEAN during 2020-2021 are shown in Tables 44-45. The annual average of Thailand FOB prices of raw sugar and white sugar in 2021 (January-October) were 373 US\$/ton and 460 US\$/ton, respectively. The prices of raw sugar of 2021 were higher than those of 2020, likewise, the prices of white sugar of 2021 were higher than those of 2020. The average CIF price (January- December) in Singapore in 2021 was 512 US\$/ton, which was higher than in 2020.

► *Damaged Area*

The sugarcane damaged area in ASEAN in 2021 was reported to be 153 hectares. The most affected area caused by flood (125 hectares) occurred in Myanmar (Table 36).

Prospects for Sugar in 2022

► *Production*

*Sugarcane production in ASEAN is forecast to increase from 145.59 million tons in 2021 to 162.68 million tons in 2022 (Table 32-35, Figure 32-35). **Thailand**, the largest sugar-producing country in the region, is forecast to increase its production from 66.73 million tons in 2021 to 85.48 million tons in 2022. The increase in Thai production is mainly caused by increasing in planted area and yield due to farmers' response to price increases.*

The second increase in terms of quantity is found in **the Philippines**, which is expected to increase its production from 25.13 million tons in 2021 to 26.61 million tons in 2022. The increase in its production is due to the increase in planted area and yield.

Cambodia, the production is expected to increase from 0.68 million tons in 2021 to 0.69 million tons in 2022, the increase comes from the expansion of the planted area.

For **Brunei**, the smallest sugar-producing country in the region, is expected to remain its production.

On the contrary, **Indonesia** is expected to decrease its production from 32.15 million tons in 2021 to 30.93 million tons in 2022. The decrease in Indonesia's production is due to the decrease in planted area and yield.

Lao PDR is also forecast to decrease its production from 1.26 million tons in 2021 to 1.24 million tons in 2022, the decrease comes from government policies and price of competing crop increases.

For **Myanmar**, the production is forecast to decrease from 11.56 million tons in 2021 to 11.28 million tons in 2022 due to the decrease in planted area.

For **Vietnam**, the production is forecast to decrease from 8.07 million tons in 2021 to 6.46 million tons in 2022. The main reason is due to the decrease in planted area.

► *Utilization and Stock*

The domestic utilization of sugar in ASEAN is forecast to increase from 15.28 million tons of sugar in 2021 to 15.83 million tons in 2022, which increases about 0.54 million tons (Table 38-39). The beginning stock in ASEAN is estimated at 8.32 million tons of sugar in 2022, an increase of 0.72 million tons from 7.60 million tons in the previous year. The ending stock of sugar in ASEAN in 2022 is forecast to be 9.27 million tons which increases about 0.95 million tons from the previous year.

The ratio of production to domestic utilization in 2022 is forecast to be 89.70 percent, which is slightly lower than the previous year (Table 40, Figure 43).

The ratio of the beginning stock to domestic utilization in 2022 is forecast to be about 52.55 percent, which moderately increases from 2021 (Table 41, Figure 44). This indicates that the domestic availability of sugar in the region is expected to increase moderately compared to the previous year.

► *Trade*

The export is predicted to decrease from 6.66 million tons in 2021 to 6.00 million tons in 2022 (Table 38-39, Figure 36-38). The import is forecast to be 8.59 million tons in 2022, which decreases from 8.76 million tons in the previous year (Tables 38-39, Figure 39-41).

Table 32 Sugarcane production in ASEAN countries, 2020 – 2022

Unit: 1,000 Tons

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	153,256.38	145,587.97	-7,668.41	-5.00	162,680.76	17,092.80	11.74
Brunei	0.10	0.08	-0.03	-24.64	0.08	0.00	5.00
Cambodia	680.66	682.70	2.04	0.30	685.44	2.73	0.40
Indonesia	29,737.78	32,153.21	2,415.43	8.12	30,927.93	-1,225.27	-3.81
Lao PDR	1,191.24	1,257.40	66.16	5.55	1,235.41	-21.99	-1.75
Malaysia	N/A						
Myanmar	11,846.18	11,560.32	-285.86	-2.41	*11,281.36	-278.96	-2.41
Philippines	23,297.81	25,134.63	1,836.82	7.88	*26,612.54	1,477.92	5.88
Singapore	N/A						
Thailand	74,968.07	66,725.46	-8,242.61	-10.99	85,478.66	18,753.20	28.11
Vietnam	11,534.54	8,074.18	-3,460.36	-30.00	6,459.34	-1,614.84	-20.00

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.**Table 33 Sugarcane planted area in ASEAN countries, 2020 – 2022**

Unit: 1,000 Hectares

Country	2020 (2019/20)	2021 (2020/21)	change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	2,936.36	2,695.26	-241.11	-8.21	2,659.32	-35.94	-1.33
Brunei	N/A						
Cambodia	16.41	16.49	0.08	0.47	16.58	0.10	0.60
Indonesia	420.51	444.83	24.33	5.79	432.56	-12.28	-2.76
Lao PDR	31.51	29.70	-1.80	-5.72	21.86	-7.84	-26.40
Malaysia	N/A						
Myanmar	182.44	*177.58	-4.86	-2.66	*172.85	-4.73	-2.66
Philippines	385.70	402.08	16.38	4.25	*415.15	13.07	3.25
Singapore	N/A						
Thailand	1,714.14	1,485.32	-228.81	-13.35	1,488.91	3.59	0.24
Vietnam	185.66	139.25	-46.42	-25.00	111.40	-27.85	-20.00

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.**Table 34 Sugarcane harvested area in ASEAN countries, 2020 – 2022**

Unit: 1,000 Hectares

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	2,936.06	2,695.10	-240.96	-8.21	2,659.29	-35.81	-1.33
Brunei	N/A						
Cambodia	16.39	16.46	0.07	0.43	16.53	0.08	0.47
Indonesia	420.51	444.83	24.33	5.79	432.56	-12.28	-2.76
Lao PDR	31.51	29.70	-1.80	-5.72	21.86	-7.84	-26.40
Malaysia	N/A						
Myanmar	182.16	177.46	-4.70	-2.58	*172.88	-4.58	-2.58
Philippines	385.70	402.08	16.38	4.25	*415.15	13.07	3.25
Singapore	N/A						
Thailand	1,714.14	1,485.32	-228.81	-13.35	1,488.91	3.59	0.24
Vietnam	185.66	139.25	-46.42	-25.00	111.40	-27.85	-20.00

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.

Table 35 Sugarcane yield in ASEAN countries, 2020 – 2022

Unit: Ton/Hectare

Country	2020 (2019/20)	2021 (2020/21)	change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	52.20	54.02	1.82	3.49	61.17	7.15	13.24
Brunei	N/A						
Cambodia	41.54	41.48	-0.06	-0.14	41.46	-0.02	-0.05
Indonesia	70.72	72.28	1.56	2.21	71.50	-0.78	-1.08
Lao PDR	37.81	42.33	4.52	11.95	56.51	14.18	33.50
Malaysia	N/A						
Myanmar	65.03	65.14	0.11	0.17	*65.26	0.12	0.18
Philippines	60.40	62.51	2.11	3.49	*64.10	1.59	2.54
Singapore	N/A						
Thailand	43.74	44.92	1.18	2.70	57.41	12.49	27.80
Vietnam	62.13	57.98	-4.15	-6.68	57.98	0.00	0.00

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.**Table 36 Sugarcane damaged area in ASEAN by cause of damage, 2021**

Unit: Hectares

Country	Cause of Damage (Hectares)						
	Flood	Drought	Pests	Diseases	Others	Unspecified	Total
ASEAN	125	-	-	-	-	28	153
Brunei	N/A						
Cambodia	-	-	-	-	-	28	28
Indonesia	N/A						
Lao PDR.	N/A						
Malaysia	N/A						
Myanmar	125	-	-	-	-	-	125
Philippines	N/A						
Singapore	N/A						
Thailand	N/A						
Vietnam	N/A						

Remark: N/A refers to data that is not available.

Table 37 Sugar balance sheet of ASEAN countries, 2020

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	7,045,091	14,992,492	9,176,397	31,213,980	16,416,164	7,196,588	7,601,226	31,213,979
Brunei	3,531	-	5,397	8,928	5,582	-	3,346	8,928
Cambodia	-	68,066	-	68,066	20,410	47,656	-	68,066
Indonesia	494,439	2,130,720	5,171,254	7,796,413	7,249,991	45,562	500,860	7,796,413
Lao PDR	1,261,987	238,248	22	1,500,257	-	71,740	1,428,517	1,500,257
Malaysia	-	-	2,359,905	2,359,905	1,881,374	478,531	-	2,359,905
Myanmar	2,013,272	947,694	-	2,960,966	787,341	627,035	1,546,590	2,960,966
Philippines	619,570	2,164,310	104,082	2,887,962	2,235,952	109,408	542,601	2,887,961
Singapore	-	-	253,381	253,381	201,714	51,666	-	253,381
Thailand	*2,525,250	8,290,000	82,356	10,897,606	2,310,000	5,493,497	*3,094,109	10,897,606
Vietnam	127,043	1,153,454	1,200,000	2,480,496	1,723,800	271,493	485,203	2,480,496

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.**Table 38 Sugar balance sheet of ASEAN countries, 2021**

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	7,601,226	13,894,520	8,763,520	30,259,265	15,284,344	6,657,350	8,317,572	30,259,265
Brunei	3,346	-	5,612	8,958	5,468	-	3,490	8,958
Cambodia	-	68,270	-	68,270	21,399	46,872	-	68,270
Indonesia	500,860	2,418,589	4,853,888	7,773,337	6,530,841	265,055	977,440	7,773,337
Lao PDR	1,428,517	251,480	64	1,680,061	-	69,759	1,610,301	1,680,061
Malaysia	-	-	2,019,023	2,019,023	1,637,774	381,250	-	2,019,023
Myanmar	1,546,590	924,089	-	2,470,679	728,333	749,616	992,730	2,470,679
Philippines	542,601	1,834,674	-	2,377,275	1,819,385	112,008	445,882	2,377,275
Singapore	-	-	307,709	307,709	244,965	62,744	-	307,709
Thailand	*3,094,109	7,590,000	77,224	10,761,333	2,400,000	*4,780,000	*3,581,333	10,761,333
Vietnam	485,203	807,418	1,500,000	2,792,621	1,896,180	190,045	706,396	2,792,621

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.

Table 39 Sugar balance sheet of ASEAN countries, 2022

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	8,317,572	14,196,129	8,586,338	31,100,039	15,826,690	6,004,037	9,269,312	31,100,039
Brunei	3,490	-	6,091	9,581	5,482	-	4,100	9,581
Cambodia	-	68,544	-	68,544	21,352	47,191	-	68,544
Indonesia	977,440	2,345,398	4,555,874	7,878,712	6,778,999	24,529	1,075,184	7,878,712
Lao PDR	1,610,301	247,082	76	1,857,459	-	78,618	1,778,841	1,857,459
Malaysia	-	-	1,918,072	1,918,072	1,555,885	362,187	-	1,918,072
Myanmar	992,730	*901,832	-	1,894,562	*872,837	*511,845	*509,879	1,894,562
Philippines	445,882	2,200,000	100,000	2,745,882	*1,782,997	*114,248	*848,637	2,745,882
Singapore	-	-	280,545	280,545	223,339	57,205	-	280,545
Thailand	*3,581,333	7,787,340	*75,679	11,444,352	*2,500,000	*4,637,172	*4,307,180	11,444,352
Vietnam	706,396	645,934	1,650,000	3,002,330	2,085,798	171,041	745,491	3,002,330

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.

Table 40 Ratio of sugar production to domestic utilization in ASEAN countries, 2020 – 2022

Unit: Tons

Country	2020			2021			2022		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	14,992,492	16,416,164	91.33	13,894,520	15,284,344	90.91	14,196,129	15,826,690	89.70
Brunei	-	5,582	-	-	5,468	-	-	5,482	-
Cambodia	68,066	20,410	333.49	68,270	21,399	319.04	68,544	21,352	321.01
Indonesia	2,130,720	7,249,991	29.39	2,418,589	6,530,841	37.03	2,345,398	6,778,999	34.60
Lao PDR	238,248	-	-	251,480	-	-	247,082	-	-
Malaysia	-	1,881,374	-	-	1,637,774	-	-	1,555,885	-
Myanmar	947,694	787,341	120.37	924,089	728,333	126.88	901,832	872,837	103.32
Philippines	2,164,310	2,235,952	96.80	1,834,674	1,819,385	100.84	2,200,000	1,782,997	123.39
Singapore	-	201,714	-	-	244,965	-	-	223,339	-
Thailand	8,290,000	2,310,000	358.87	7,590,000	2,400,000	316.25	7,787,340	2,500,000	311.49
Vietnam	1,153,454	1,723,800	66.91	807,418	1,896,180	42.58	645,934	2,085,798	30.97

Remark: * The value is estimated by AFSIS Secretariat.**Table 41 Ratio of sugar beginning stock to domestic utilization in ASEAN countries, 2020 – 2022**

Unit: Tons

Country	2020			2021			2022		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	7,045,091	16,416,164	42.92	7,601,226	15,284,344	49.73	8,317,572	15,826,690	52.55
Brunei	3,531	5,582	63.25	3,346	5,468	61.19	3,490	5,482	63.67
Cambodia	-	20,410	-	-	21,399	-	-	21,352	-
Indonesia	494,439	7,249,991	6.82	500,860	6,530,841	7.67	977,440	6,778,999	14.42
Lao PDR	1,261,987	-	-	1,428,517	-	-	1,610,301	-	-
Malaysia	-	1,881,374	-	-	1,637,774	-	-	1,555,885	-
Myanmar	2,013,272	787,341	255.71	1,546,590	728,333	212.35	992,730	872,837	113.74
Philippines	619,570	2,235,952	27.71	542,601	1,819,385	29.82	445,882	1,782,997	25.01
Singapore	-	201,714	-	-	244,965	-	-	223,339	-
Thailand	2,525,250	2,310,000	109.32	3,094,109	2,400,000	128.92	3,581,333	2,500,000	143.25
Vietnam	127,043	1,723,800	7.37	485,203	1,896,180	25.59	706,396	2,085,798	33.87

Remark: * The value is estimated by AFSIS Secretariat.

Table 42 Quantity and Value of Sugar Export by Countries of Destination in 2021

Quantity: Tons Values: US\$

Exporting Country	Country of Destination													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A													
Cambodia	N/A													
Indonesia	26	29,311	44	21,641					202	189,778				
Lao PDR														
Malaysia	479	1,836,380			19,424	16,317,456					592	1,433,272	12,235	11,027,903
Myanmar	N/A													
Philippines														
Singapore	N/A													
Thailand	3,736	1,639,439	408,511	181,569,201	687,660	232,662,148	92,328	45,514,971	155,980	65,645,523	85,172	45,261,932	160,792	69,757,353
Vietnam			-	2,457,783	-	1,766,029	-	2,148,367	-	4,789,916	-	899,621	-	7,984,501

Exporting Country	Country of Destination						Total within ASEAN		Total outside ASEAN		Total	
	Singapore		Thailand		Vietnam							
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A											
Cambodia	N/A											
Indonesia	575	408,105			246,322	130,487,431	247,168	131,136,266	3,134	6,669,680	250,302	137,805,946
Lao PDR			36,727	33,937,702	10,740	8,526,170	47,467	42,463,873	22,292	18,585,240	69,759	61,049,112
Malaysia	31,826	26,613,380	3,317	6,524,367	136,479	71360389.26	204,351	135,113,146	81,586	78,121,553	285,937	213,234,699
Myanmar	N/A											
Philippines							-	-	112,008	61,205,018	112,008	61,205,018
Singapore	N/A											
Thailand	80,247	36,865,983			341,070	126,531,304	2,015,495	805,447,853	1,103,075	506,615,712	3,118,571	1,312,063,565
Vietnam	-	1,715,847	-	5,989,481			-	27,751,545		91,401,719	-	119,153,264

Remark: The data in this table is obtained from national focal points of member states and may not complete. N/A refers to data that is not available.

Table 43 Quantity and Value of Sugar Import by Countries of Origin in 2021

Quantity: Tons Values: US\$

Importing Country	Country of origin													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei														
Cambodia	N/A													
Indonesia									0.005	46				
Lao PDR														
Malaysia					52	82,110								
Myanmar	N/A													
Philippines	N/A													
Singapore					602	630,120			17,367	9,372,418	11	7,448	5	17,989
Thailand			0.005	47	99,284	36,558,213	18,177	3,003,679	2,421	5,035,878	1,186	276,103	978	3,878,675
Vietnam			-	48,701,019	-	180,782,136	-	24,881,539	-	88,287,606	-	77,440,701	-	8,244,433

Importing Country	Country of origin						Total within ASEAN		Total outside ASEAN		Total	
	Singapore		Thailand		Vietnam							
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei			5,612	-			5,612	-			5,612	-
Cambodia	N/A											
Indonesia	0.003	0.0030	732,991	324,378,294	21	24,278	733,012	324,402,618	3,800,313	1,611,661,497	4,533,325	1,936,064,115
Lao PDR			64	29,908			64	29,908			64	29,908
Malaysia	1,271	652,034	124,281	59,605,771	86	59,306	125,690	60,399,221	1,388,578	575,377,665	1,514,268	635,776,886
Myanmar	N/A											
Philippines	N/A											
Singapore			99,983	52,823,812	506	307,830	118,474	63,159,617	189,235	94,541,939	307,709	157,701,557
Thailand	363.12	1,037,515			1,937.878	9,297,345	124,346	59,087,454	661,900	240,045,296	786,247	299,132,750
Vietnam	-	9,828,845	-	166,133,854			-	604,300,132	-	229,749,020	-	834,049,152

Remark: The data in this table is obtained from national focal points of member states and may not complete. N/A refers to data that is not available.

Table 44 FOB Price of sugar in selected ASEAN countries

Unit: US\$/Ton

Country	Grade	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Indonesia	White Sugar	2020	325	343	368	348	331	336	335	338	356	342	335	350	342
		2021	397	396	421	425	412	437	428	446	454	-	-	-	424
Myanmar	Not specified	2020	46	53	47	41	37	-	-	-	-	-	37	9	38
		2021	38	38	37	37	40	35	-	-	-	-	-	-	37
Malaysia	Not specified	2020	787	767	686	571	633	594	568	563	539	544	581	648	623
		2021	771	754	715	715	868	764	683	764	751	-	-	-	754
Thailand	Raw Sugar	2020	287	294	288	292	302	261	276	286	286	290	315	316	291
		2021	349	337	350	362	366	364	395	388	391	425	-	-	373
	White Sugar	2020	343	353	350	377	362	355	360	371	374	385	-	-	363
		2021	421	426	441	453	471	451	467	488	494	488	-	-	460

Remark: N/A refers to data that is not available.

Table 45 CIF Price of sugar in selected ASEAN countries

Unit: US\$/Ton

Country	Grade	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Indonesia	White Sugar	2020	385	441	472	460	581	468	549	391	462	408	462	483	463
		2021	405	455	513	560	523	566	534	547	506	-	-	-	512
Lao PDR	Not specified	2020	N/A												
		2021	428	457	477	480	505	482	469	465	456	454	450	-	466
Malaysia	Not specified	2020	362	393	411	478	411	387	411	381	410	384	378	423	403
		2021	457	405	444	494	503	484	556	438	572	-	-	-	484
Singapore	Sugar	2020	418	443	441	459	428	465	434	465	448	420	461	469	446
		2021	459	490	485	517	487	538	533	548	550	512	512	512	512

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.

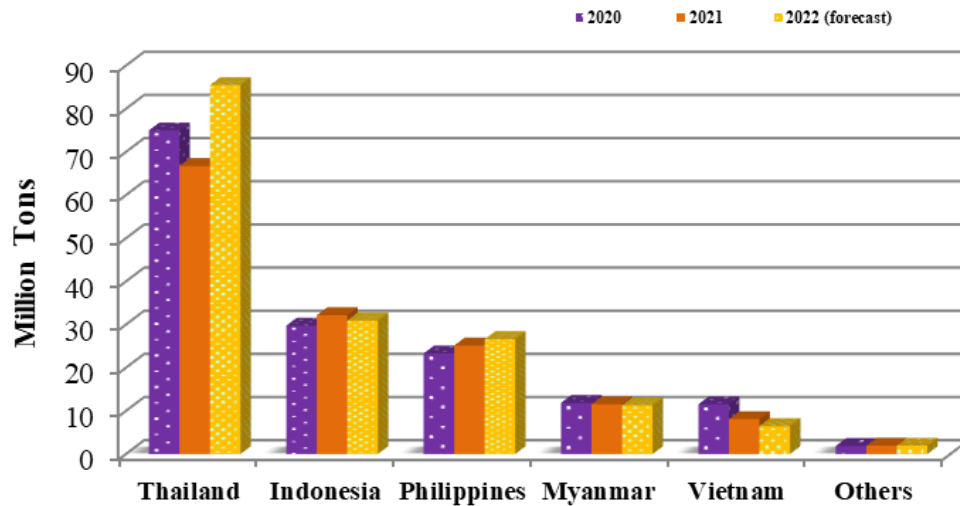


Figure 32 Sugarcane production of selected countries in ASEAN, 2020 – 2022

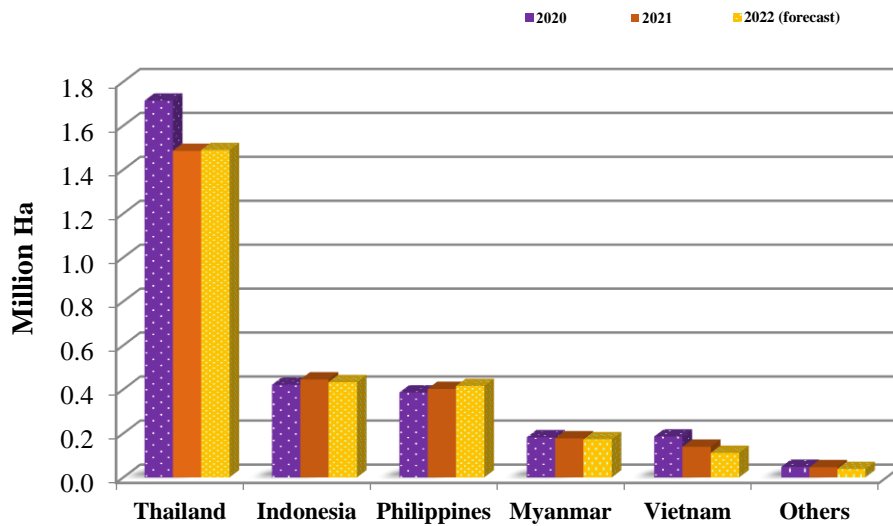


Figure 33 Sugarcane planted area of selected countries in ASEAN, 2020 – 2022

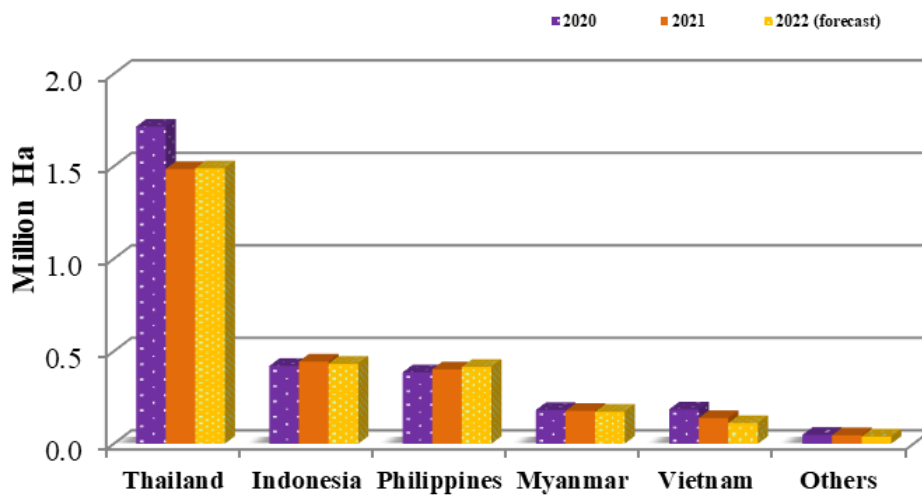


Figure 34 Sugarcane harvested area of selected countries in ASEAN, 2020 – 2022

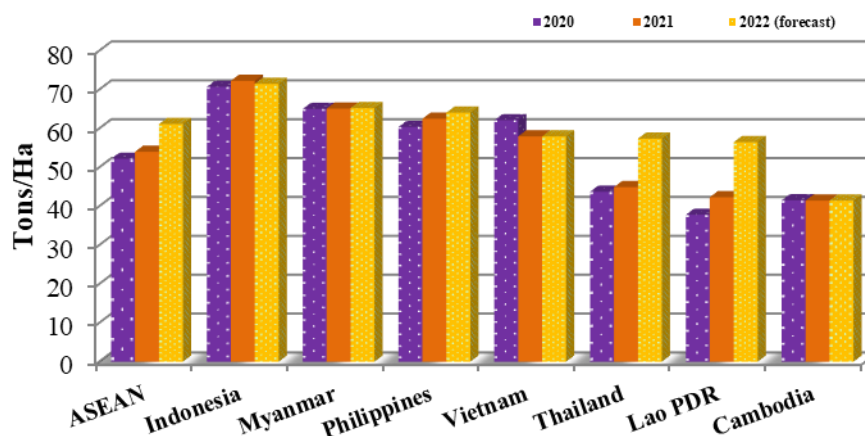


Figure 35 Sugarcane yield of selected countries in ASEAN, 2020 – 2022

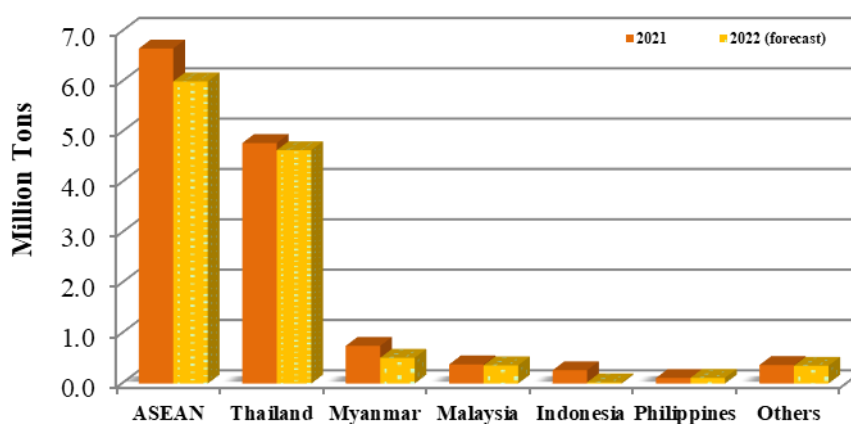
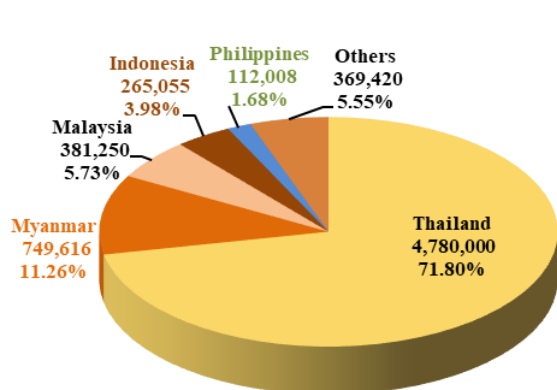
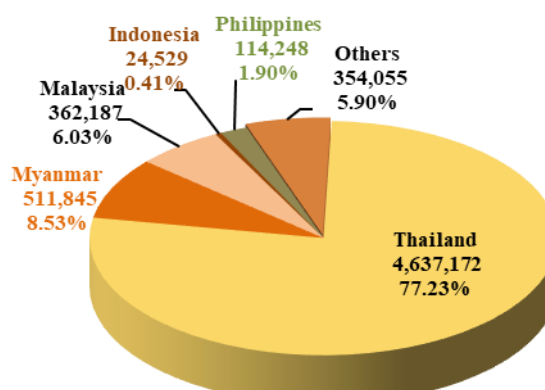


Figure 36 Amount of Sugar export (million tons) of selected countries in ASEAN in 2021 – 2022



Total 6.66 Million Tons

Figure 37 Share of sugar export (tons) among ASEAN countries, 2021



Total 6.00 Million Tons

Figure 38 Share of sugar export (tons) among ASEAN countries, 2022

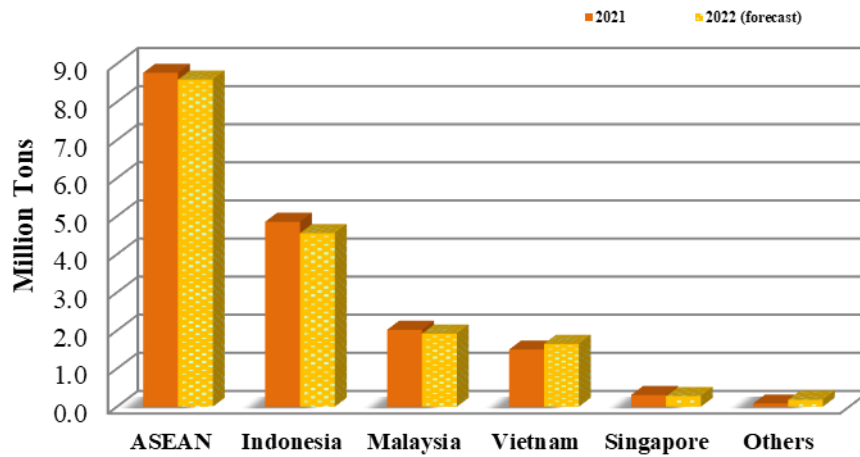
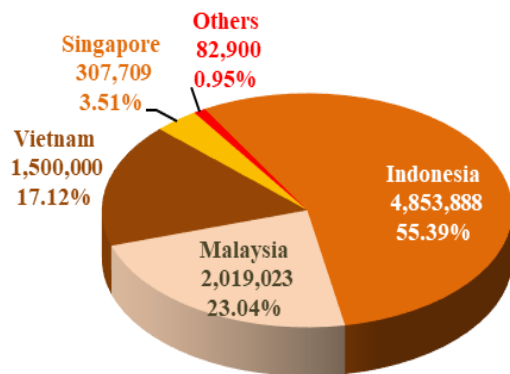
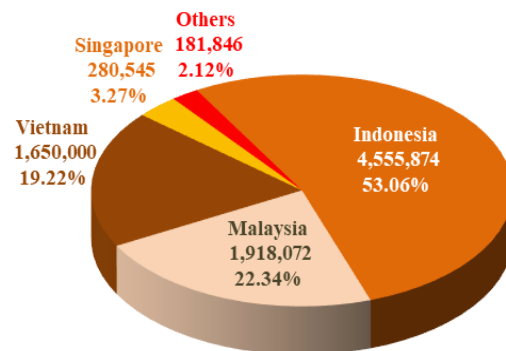


Figure 39 Amount of sugar import (million tons) by selected countries in ASEAN in 2021 – 2022



Total 8.76 Million Tons

Figure 40 Share of sugar import (tons) among ASEAN countries, 2021



Total 8.59 Million Tons

Figure 41 Share of sugar import (tons) among ASEAN countries, 2022

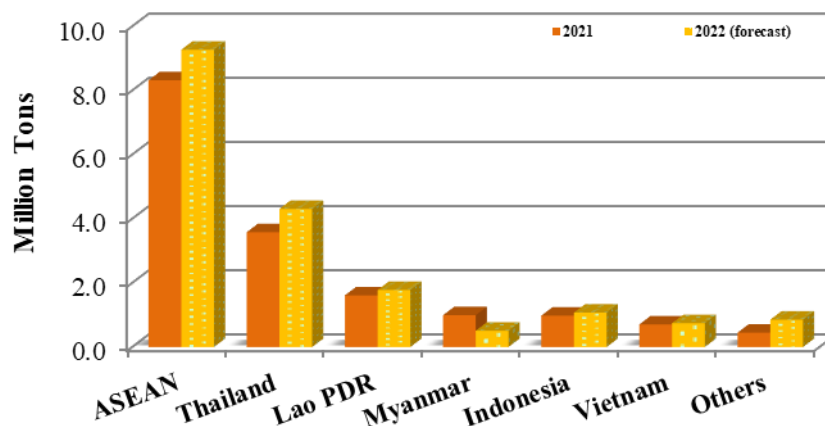


Figure 42 Amount of ending stock of Sugar in ASEAN countries in 2021– 2022

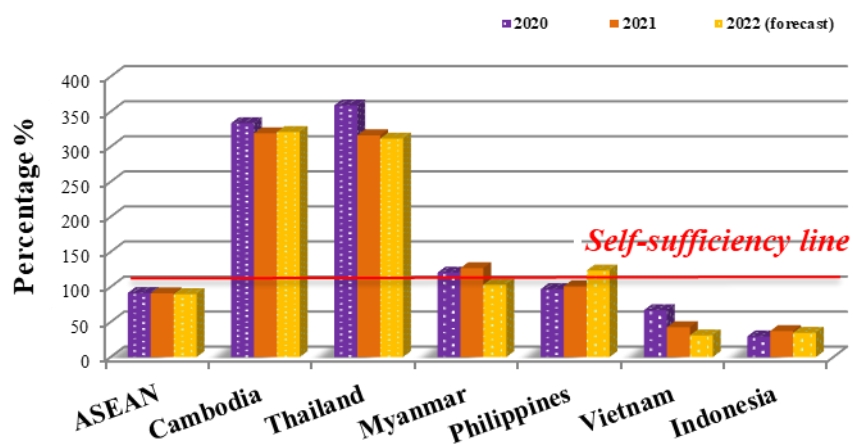


Figure 43 Ratio of sugar production to domestic utilization in ASEAN countries, 2020 – 2022

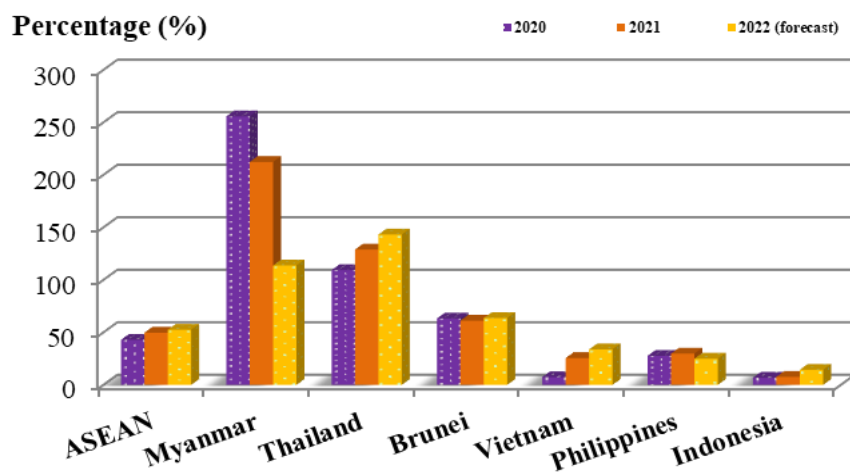


Figure 44 Ratio of sugar beginning stock to domestic utilization in ASEAN countries, 2020 – 2022

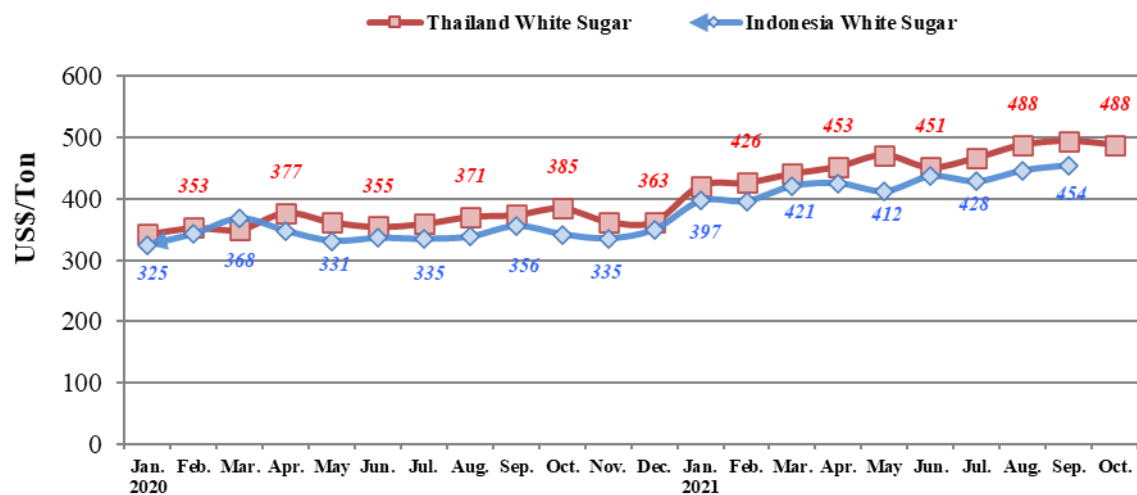


Figure 45 FOB price (US\$/Ton) of sugar of selected countries in ASEAN in 2020 – 2021

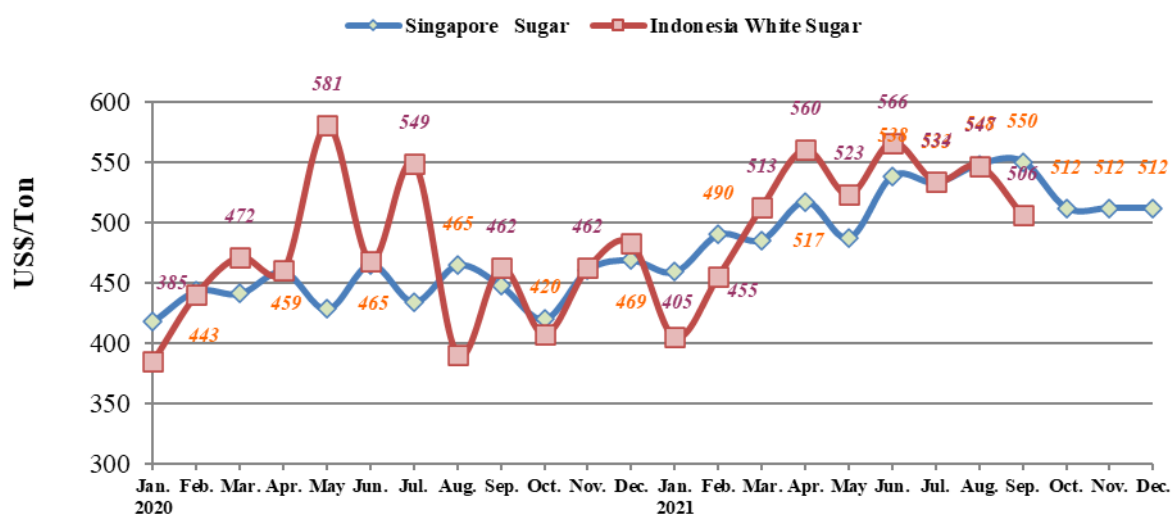


Figure 46 CIF price (US\$/Ton) of sugar of selected countries in ASEAN in 2020 – 2021

Soybean Outlook for 2022

Highlights

The supply of ASEAN soybean in 2022 is forecast to increase from 10.79 million tons in 2021 to 11.02 million tons or approximately 2.13 percent (Table 46). The growth in supply mainly comes from the increase in production and import, which increase by approximately 27.40 percent and 2.30 percent, respectively. The soybean production is predicted to be 0.93 million tons in 2022, which increases from the previous year at 0.20 million tons.

In 2022, the beginning stock of soybean in ASEAN is forecast to decline to 0.31 million tons, which decreases by 0.18 million tons from 0.49 million tons in 2021. Additionally, the ending stock is expected to be 0.20 million tons in 2022, a decrease by 0.11 million tons or approximately 35.48 percent from 0.31 million tons in 2021.

In terms of soybean's demand in ASEAN in 2022, the domestic utilization is estimated at 10.80 million tons, which increases in the demand for 0.34 million tons from 10.46 million tons in 2021.

The import of soybean is forecast to increase from 9.57 million tons in 2021 to 9.79 million tons in 2022. Besides, the export in 2022 is forecast to be 0.02 million tons. This indicates that ASEAN exports very few amounts of soybeans.

The production to domestic utilization ratio (self-sufficiency ratio) in 2022 is forecast to be 8.58 percent, which increases by 1.64 percent from the previous year.

The beginning stock to domestic utilization ratio (food security ratio) is predicted to be 2.84 percent in 2022, which decreases by approximately 1.87 percent from 2021.

Table 46 Summary of the ASEAN soybean situation, 2021 – 2022

Unit: Million tons

Items	2021	2022	Change	
			Quantity	%
Supply (Million tons)	10.79	11.02	0.23	2.13
Beginning stock	0.49	0.31	-0.18	-36.73
Production	0.73	0.93	0.20	27.40
Import	9.57	9.79	0.22	2.30
Demand (Million tons)	10.79	11.02	0.23	2.13
Domestic utilization	10.46	10.80	0.34	3.25
Export	0.03	0.02	-0.01	-33.33
Ending stock	0.31	0.20	-0.11	-35.48
Ratio of production to domestic utilization (%)	6.94	8.58	1.64	-
Ratio of beginning stock to domestic utilization (%)	4.71	2.84	-1.87	-

ASEAN Soybean Situation 2021

► **Production**

The estimate of soybean production in ASEAN in 2021 (crop year 2020/21) was 0.72 million tons, an increase of 0.11 million tons from 0.61 million tons in 2020 (crop year 2020/21). The increase in production was due to the increase in planted area and yield. Indonesia is ranked first in soybean production in the region, followed by Myanmar, Vietnam, Cambodia, Thailand, Lao PDR, and the Philippines. The production of soybean decreased in Myanmar, the Philippines, Thailand, and Vietnam (Table 47-50, Figure 47-50).

For **Cambodia**, the increase in production was due to the increase in planted area.

For **Indonesia**, the estimated soybean production in 2021 has increased to 0.39 million tons, increasing approximately 45.87 percent from 0.27 million tons in 2020. The increase in production is attributed to the increase in planted area and yield. The increasing in planted area is caused by farmers' response to the price increase. The yield has increased because farmers took care of the soybean crop better.

For **Lao PDR**, the increase in production was due to the increase in planted area and yield, which caused by favorable weather and sufficient sunlight for plants together with government policy.

For **Myanmar**, the second-largest soybean producing country in ASEAN, the production has decreased due to the reduction of the planted area and yield. The decline in the planted area came from unfavorable weather affected by heavy rainfall. The yield has decreased because it was also affected by the flood.

For the **Philippines**, the decrease in production was due to the decrease in planted area.

For **Thailand**, the decrease in production was due to the decrease in planted area, which caused by unfavorable weather affected by drought, labor shortage, high production costs, and lack of the development of mechanical soybean harvesting technology.

For **Vietnam**, the decrease in production was due to the decrease in planted area and harvested area.

► **Utilization and Stock**

The domestic utilization of soybean in ASEAN in 2021 was estimated at 10.46 million tons, a decrease of 0.03 million tons or about 0.31 percent from 10.49 million tons in 2020. While the beginning stock was estimated at 0.49 million tons in 2021, a sharp decrease by 0.62 million tons or 55.78 percent from 1.11 million tons in 2020. Indonesia had the greatest soybean stock in the region (Table 52-53).

The ratio of production to domestic utilization (self-sufficiency ratio) of ASEAN in 2021 was 6.94 percent, which increased by approximately 1.11 percent from the previous year. However, none of the member countries has the ratio above 100 percent except Cambodia, Lao PDR, and Myanmar (Table 55, Figure 58). The ratio of the beginning stock to the domestic utilization of ASEAN in 2021 was estimated to be 4.71 percent, which dropped from the previous year (Table 56, Figure 59).

► *Trade*

In 2021, ASEAN altogether exported soybean 25,184 tons, which decreased 17,956 tons compared to 43,139 tons in 2020 (Table 52-53, Figure 51-52).

The quantity and value of soybean export by countries of destination and the quantity and value of soybean import by countries of origin are given in Table 57-58.

► *Prices*

The monthly FOB price of soybean for exporting countries during 2020-2021 are shown in Table 59 and the monthly CIF prices for importing countries are shown in Table 60. The annual average FOB prices in 2021 in Myanmar was 567 US\$/ton, in Cambodia was 918 US\$/ton, and in Indonesia was 219 US\$/ton (Table 59, Figure 60).

For CIF prices of 2021, the annual average in Thailand was 557 US\$/ton, in Indonesia was 547 US\$/ton, in Lao PDR was 562 US\$/ton, and in Singapore was 804 US\$/ton (Table 60, Figure 61).

► *Damaged Area*

The total damaged area of soybean in the ASEAN in 2021 was estimated to be 1,348 hectares. The major cause of damage was drought, which constituted about 65.43 percent of the overall damaged area. The majority of drought areas had occurred in Thailand (Table 51).

Prospects for Soybean in 2022

► *Production*

*Soybean production of ASEAN in 2022 is forecast to be 0.93 million tons, which increase from 2021 approximately 28.54 percent (Table 47, Figure 47). The increase in production is expected in Cambodia, Indonesia, Lao PDR, Thailand, and Vietnam. **Indonesia**, the biggest soybean-producing country in ASEAN, is forecast to increase in its production from 0.39 million tons in 2021 to 0.59 million tons in 2022, which accounted for 50.56 percent increase. The growth in Indonesian production is derived from the increasing in planted area and yield. (Table 47-50, Figure 47-50). The increase in production is also expected in Cambodia, Lao PDR, Thailand, and Vietnam, which is mainly caused by the expansion of the planted area. The increase in planted area is because farmers respond to soybean's price increase.*

► *Utilization and Stock*

The domestic utilization of soybeans in ASEAN is forecast to increase by 3.25 percent from 10.46 million tons in 2021 to 10.80 million tons in 2022 (Table 53-54).

The beginning stock in ASEAN in 2022 is forecast to decrease by 0.19 million tons or about 37.81 percent from 0.49 million tons in

2021 to 0.31 million tons in 2022 (Table 53-54). Likewise, the ending stock in ASEAN in 2022 is forecast to decrease from 0.31 million tons in 2021 to 0.20 million tons, which decreases about 35.07 percent (Table 53-54, Figure 57).

In 2022, the ratio of production to domestic utilization (self-sufficiency ratio) is forecast to be 8.58 percent, which increases from 6.94 percent in 2021 (Table 55, Figure 58). The ratio of beginning stock to the domestic utilization (food security ratio) is forecast to be 2.84 percent, which decreases 1.87 percent from the previous year (Table 56, Figure 59).

► *Trade*

In 2022, the export of soybeans from the ASEAN is forecast to reach 23,005 tons, decreasing 2,179 tons or 8.65 percent compared to the previous year. While the total import by the ASEAN in 2022 is forecast to be 9.79 million tons, increasing 0.22 million tons from 9.57 million tons in 2021 (Table 53-54, Figure 51, 53, 54, and 56).

Table 47 Soybean production in ASEAN countries, 2020 – 2022

Unit: 1,000 Tons

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	611.24	720.83	109.59	17.93	926.58	205.74	28.54
Brunei	N/A						
Cambodia	30.01	30.96	0.94	3.15	31.95	0.99	3.20
Indonesia	270.72	394.89	124.17	45.87	594.53	199.64	50.56
Lao PDR	4.62	5.74	1.11	24.05	5.91	0.18	3.05
Malaysia	N/A						
Myanmar	204.40	194.60	-9.80	-4.80	*185.39	-9.21	-4.73
Philippines	0.55	0.53	-0.02	-3.18	0.53	0.00	-0.34
Singapore	N/A						
Thailand	35.53	30.81	-4.72	-13.28	35.76	4.95	16.06
Vietnam	65.41	63.31	-2.09	-3.20	72.51	9.20	14.53

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.

Table 48 Soybean planted area in ASEAN countries, 2020 – 2022

Unit: 1,000 Hectares

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	404.72	445.66	40.95	10.12	564.44	118.78	26.65
Brunei	N/A						
Cambodia	18.88	19.83	0.94	5.00	20.82	0.99	5.00
Indonesia	182.43	233.68	51.26	28.10	344.45	110.77	47.40
Lao PDR	1.84	2.13	0.29	15.46	2.69	0.56	26.35
Malaysia	N/A						
Myanmar	137.49	131.61	-5.88	-4.27	*130.50	-1.10	-0.84
Philippines	*0.40	*0.38	-0.02	-4.39	*0.38	0.00	-1.12
Singapore	N/A						
Thailand	22.10	18.56	-3.54	-16.04	20.50	1.94	10.48
Vietnam	41.58	39.48	-2.10	-5.05	45.10	5.62	14.24

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.

Table 49 Soybean harvested area in ASEAN countries, 2020 – 2022

Unit: 1,000 Hectares

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	402.77	444.32	41.55	10.32	557.71	113.40	25.52
Brunei	N/A						
Cambodia	17.44	19.83	2.39	13.69	20.82	0.99	5.00
Indonesia	182.06	233.66	51.60	28.35	344.45	110.79	47.42
Lao PDR	1.84	2.13	0.29	15.46	2.69	0.56	26.35
Malaysia	N/A						
Myanmar	137.48	131.25	-6.23	-4.53	*123.87	-7.38	-5.62
Philippines	0.40	0.38	-0.02	-4.39	0.38	0.00	-1.12
Singapore	N/A						
Thailand	21.97	17.59	-4.38	-19.95	20.41	2.82	16.03
Vietnam	41.58	39.48	-2.10	-5.05	45.10	5.62	14.24

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.

Table 50 Soybean yield in ASEAN countries, 2020 – 2022

Unit: Tons/Hectares

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	1.52	1.62	0.10	6.90	1.66	0.04	2.41
Brunei	N/A						
Cambodia	1.72	1.56	-0.16	-9.27	1.53	-0.03	-1.71
Indonesia	1.49	1.69	0.20	13.65	1.73	0.04	2.13
Lao PDR	2.51	2.69	0.19	7.45	2.20	-0.50	-18.44
Malaysia	N/A						
Myanmar	1.49	1.48	0.00	-0.28	*1.50	0.01	0.94
Philippines	1.38	1.40	0.02	1.27	1.41	0.01	0.79
Singapore	N/A						
Thailand	1.62	1.75	0.13	8.33	1.75	0.00	0.03
Vietnam	1.57	1.60	0.03	1.95	1.61	0.00	0.26

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.

Table 51 Soybean damaged area in ASEAN by cause of damage, 2021

Unit: Hectares

Country	Cause of Damage (Hectares)						
	Flood	Drought	Pests	Diseases	Others	Unspecify	Total
ASEAN	381	882	-	-	-	85	1,348
Brunei	N/A						
Cambodia							
Indonesia	22	-	-		-	-	22
Lao PDR	N/A						
Malaysia	N/A						
Myanmar	359	-	-	-	-	-	359
Philippines	N/A						
Singapore	N/A						
Thailand	-	882	-	-	-	85	967
Vietnam	N/A						

Remark: N/A refers to data that is not available.

Table 52 Soybean balance sheet of ASEAN countries, 2020

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	1,115,005	611,550	9,301,768	11,028,323	10,492,095	43,139	493,089	11,028,323
Brunei	-	-	680	680	680	-	-	680
Cambodia	-	30,014	-	30,014	20,299	9,715	-	30,014
Indonesia	*1,027,507	270,717	2,475,287	3,773,511	3,360,748	2,763	410,000	3,773,511
Lao PDR	426	4,623	150	5,199	3,532	805	862	5,199
Malaysia	-	-	732,891	732,891	720,792	12,098	-	732,891
Myanmar	16,162	204,400	371	220,933	203,817	14,892	2,224	220,933
Philippines	-	554	152,487	153,041	153,040	1	-	153,041
Singapore	-	-	20,459	20,459	20,068	390	-	20,459
Thailand	-	35,836	4,044,716	4,080,552	4,078,834	1,718	-	4,080,552
Vietnam	70,910	65,405	1,874,728	2,011,044	1,930,284	757	80,002	2,011,044

Remark: * The value is estimated by AFSIS Secretariat.

Table 53 Soybean balance sheet of ASEAN countries, 2021

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	493,089	725,949	9,571,918	10,790,956	10,459,137	25,184	306,634	10,790,955
Brunei	-	-	748	748	748	-	-	748
Cambodia	-	30,958	-	30,958	22,736	8,222	-	30,958
Indonesia	410,000	394,886	2,746,404	3,551,290	*3,358,424	2,866	190,000	3,551,290
Lao PDR	862	5,735	243	6,840	3,724	1,994	1,122	6,840
Malaysia	-	-	709,059	709,059	701,864	7,195	-	709,059
Myanmar	2,224	194,598	6,353	203,175	194,537	3,388	5,250	203,175
Philippines	-	*530	*149,437	149,968	*149,939	*29	-	149,968
Singapore	-	-	21,328	21,328	20,921	407	-	21,328
Thailand	-	35,930	3,900,000	3,935,930	3,935,330	600	-	3,935,930
Vietnam	80,002	63,312	2,038,346	2,181,661	2,070,915	483	110,262	2,181,661

Remark: * The value is estimated by AFSIS Secretariat.

Table 54 Soybean balance sheet of ASEAN countries, 2022

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	306,634	926,470	9,789,347	11,022,452	10,800,339	23,005	199,108	11,022,452
Brunei	-	-	822	822	822	-	-	822
Cambodia	-	31,949	-	31,949	23,563	8,386	-	31,949
Indonesia	190,000	594,529	*2,787,600	3,572,129	*3,459,320	*2,909	*109,900	3,572,129
Lao PDR	1,122	5,910	200	7,232	3,880	1,867	1,485	7,232
Malaysia	-	-	673,606	673,606	666,051	7,555	-	673,606
Myanmar	5,250	*185,385	1,531	192,167	*191,028	944	*195	192,167
Philippines	-	*529	*148,929	149,458	*149,429	*29	-	149,458
Singapore	-	-	20,893	20,893	20,495	398	-	20,893
Thailand	-	35,659	4,000,000	4,035,659	4,035,159	500	-	4,035,659
Vietnam	110,262	72,509	2,155,765	2,338,537	2,250,592	417	87,528	2,338,537

Remark: * The value is estimated by AFSIS Secretariat.

Table 55 Ratio of soybean production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2020 – 2022

Unit: Tons

Country	2020			2021			2022		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	611,550	10,492,095	5.83	725,949	10,459,137	6.94	926,470	10,800,339	8.58
Brunei	-	680	-	-	748	-	-	822	-
Cambodia	30,014	20,299	147.86	30,958	22,736	136.16	31,949	23,563	135.59
Indonesia	270,717	3,360,748	8.06	394,886	3,358,424	11.76	594,529	3,459,320	17.19
Lao PDR	4,623	3,532	130.89	5,735	3,724	154.00	5,910	3,880	152.32
Malaysia	-	720,792	0.00	-	701,864	-	-	666,051	-
Myanmar	204,400	203,817	100.29	194,598	194,537	100.03	185,385	191,028	97.05
Philippines	554	153,040	0.36	530	149,939	0.35	529	149,429	0.35
Singapore	-	20,068	-	-	20,921	-	-	20,495	-
Thailand	35,836	4,078,834	0.88	35,930	3,935,330	0.91	35,659	4,035,159	0.88
Vietnam	65,405	1,930,284	3.39	63,312	2,070,915	3.06	72,509	2,250,592	3.22

Remark: * The value is estimated by AFSIS Secretariat.

Table 56 Ratio of soybean beginning stock to domestic utilization in ASEAN countries (Food security ratio), 2020 – 2022

Unit: Tons

Country	2020			2021			2022		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	1,115,005	10,492,095	10.63	493,089	10,459,137	4.71	306,634	10,800,339	2.84
Brunei	-	680	-	-	748	-	-	822	-
Cambodia	-	20,299	-	-	22,736	-	-	23,563	-
Indonesia	1,027,507	3,360,748	30.57	410,000	3,358,424	12.21	190,000	3,459,320	5.49
Lao PDR	426	3,532	12.06	862	3,724	23.14	1,122	3,880	28.91
Malaysia	-	720,792	-	-	701,864	-	-	666,051	-
Myanmar	16,162	203,817	7.93	2,224	194,537	1.14	5,250	191,028	2.75
Philippines	-	153,040	-	-	149,939	-	-	149,429	-
Singapore	-	20,068	-	-	20,921	-	-	20,495	-
Thailand	-	4,078,834	-	-	3,935,330	-	-	4,035,159	-
Vietnam	70,910	1,930,284	3.67	80,002	2,070,915	3.86	110,262	2,250,592	4.90

Remark: * The value is estimated by AFSIS Secretariat.

Table 57 Quantity and Value of Soybean Export by Countries of Destination in 2021

Quantity: Tons Values: US\$

Exporting Country	Country of Destination													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A													
Cambodia	N/A													
Indonesia									0.2	53				
Lao PDR														
Malaysia	200	524,924	1	11,605	4,543	3,107,179							27	3,106
Myanmar														
Philippines													0.4	2,303
Singapore	N/A													
Thailand			38	36,061			362.14	266,395	5	8,396	6	7,582		
Vietnam			-	1,436,218			-	39,280						

Exporting Country	Country of Destination						Total within ASEAN		Total outside ASEAN		Total	
	Singapore		Thailand		Vietnam							
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A											
Cambodia	N/A											
Indonesia	0.02	12					2	65	839	277,436	840	277,501
Lao PDR							-	-	816	310,080	816	310,080
Malaysia	345	299,176			26	8,493	5,143	3,954,484	253	244,449	5,396	4,198,933
Myanmar							-	-	944	627,500	944	627,500
Philippines							-	2,303	33	100,367	34	102,670
Singapore	N/A											
Thailand	12	23,417			0.003	8	423	341,859	30	28,709	454	370,568
Vietnam							-	1,475,498		24,087	-	1,499,585

Remark: The data in this table is obtained from national focal points of member states and may not complete.

Table 58 Quantity and Value of Soybean Import by Countries of Origin in 2021

Quantity: Tons Values: US\$

Importing Country	Country of Origin													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A													
Cambodia	N/A													
Indonesia									1,434	701,632				
Lao PDR														
Malaysia	150	64,526												
Myanmar														
Philippines														
Singapore									2,496	2,751,035				
Thailand			3,688	1,652,142					0.2	2,127	494	249,565		
Vietnam			6,956	4,439,630										

[59]

Importing Country	Country of origin						Total within ASEAN		Total outside ASEAN		Total	
	Singapore		Thailand		Vietnam							
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A											
Cambodia	N/A											
Indonesia	0.08	434	0.003	10			1,434	702,076	1,040,305	576,949,711	1,041,739	577,651,787
Lao PDR					143	81,280	143	81,280	100	55,000	243	136,280
Malaysia			8	10,880			158	75,405	590,724	351,938,337	590,882	352,013,743
Myanmar							-	-	1,531	1,196,000	1,531	1,196,000
Philippines	2.73	2,591			360	296,400	363	298,991	1,972,782	1,030,738,659	1,973,145	1,031,037,650
Singapore							2,496	2,751,035	18,832	14,650,462	21,328	17,401,497
Thailand					0.03	212	4,181	1,904,046	3,162,689	1,669,310,762	3,166,870	1,671,214,808
Vietnam							6,956	4,439,630	1,691,666	984,562,445	1,698,622	989,002,075

Remark: The data in this table is obtained from national focal points of member states and may not complete.

Table 59 FOB Price of soybean in selected ASEAN countries

Unit: US\$/Tons

Country	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Cambodia	2020	915	939	853	1,002	901	961	952	952	943	1,031	952	938	945
	2021	842	889	948	916	996	-	-	-	-	-	-	-	918
Indonesia	2020	163	204	166	100	120	146	168	180	173	185	210	266	174
	2021	*219	275	162	-	-	-	-	-	-	-	-	-	219
Lao PDR	2020	N/A												
	2021	271	380	397	379	380	382	385	383	381	380	-	-	372
Malaysia	2020	534	602	820	556	495	580	468	479	497	509	545	524	551
	2021	427	462	486	504	526	504	517	543	563	-	-	-	503
Myanmar	2020	404	378	361	491	513	521	625	499	507	633	653	523	509
	2021	611	499	625	302	656	614	665	-	-	-	-	-	567

Remark: N/A refers to data that is not available.

Table 60 CIF Price of soybean in selected ASEAN countries

Unit: US\$/Tons

Country	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Indonesia	2020	409	406	394	389	402	393	388	395	399	403	444	457	407
	2021	495	516	575	603	-	-	-	-	-	-	-	-	547
Lao PDR	2020	N/A												
	2021	480	480	680	546	586	590	560	580	562	560	-	-	562
Malaysia	2020	407	404	408	421	431	405	415	427	425	433	448	466	424
	2021	403	355	380	442	414	443	487	404	491	-	-	-	424
Myanmar	2020	621	-	-	-	-	629	-	-	-	637	-	629	630
	2021	637	663	562	730	-	-	-	-	-	-	-	-	707
Singapore	2020	651	716	817	809	684	666	664	679	651	658	650	672	693
	2021	705	724	796	771	789	830	853	865	902	804	804	804	804
Thailand	2020	413	396	391	401	397	402	381	389	395	397	421	469	404
	2021	490	508	517	512	568	590	588	615	622	-	-	-	557

Remark: N/A refers to data that is not available.

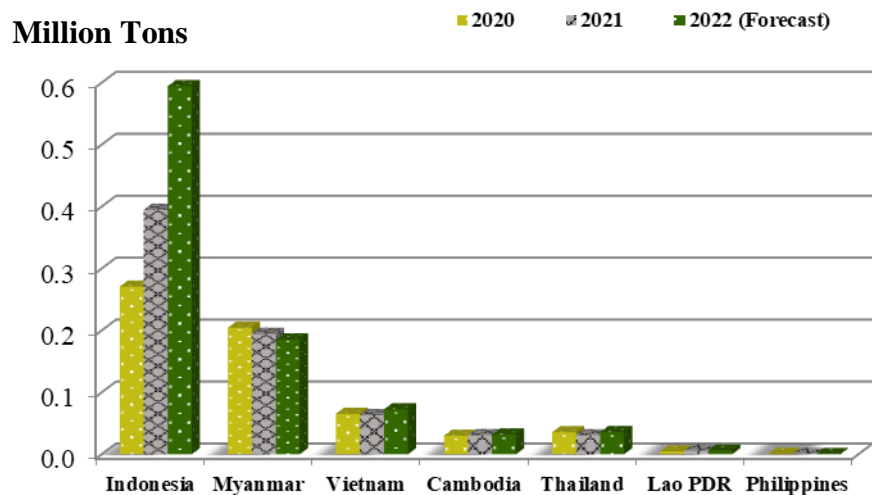


Figure 47 Soybean production of selected countries in ASEAN, 2020 – 2022

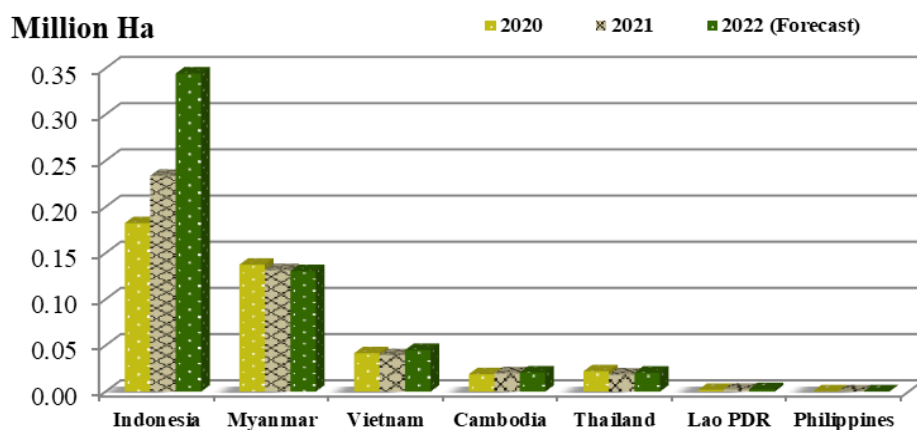


Figure 48 Soybean planted area of selected countries in ASEAN, 2020 – 2022

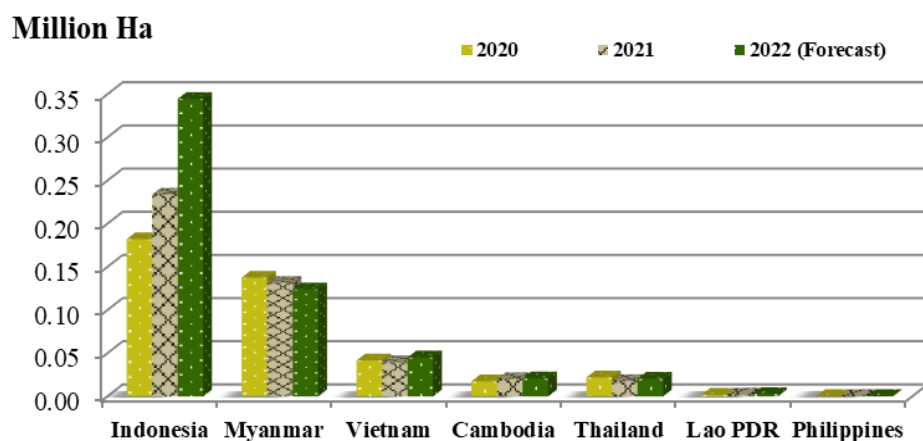


Figure 49 Soybean harvested area of selected countries in ASEAN, 2020 – 2022

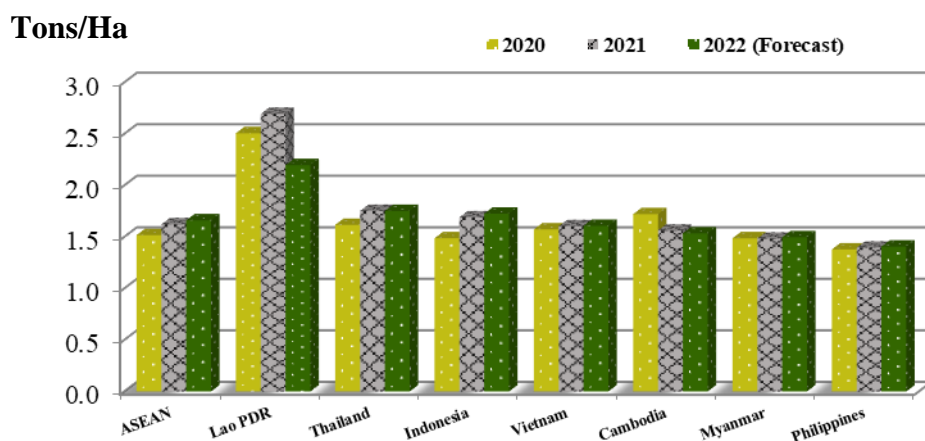


Figure 50 Soybean yield of countries in ASEAN, 2020 – 2022

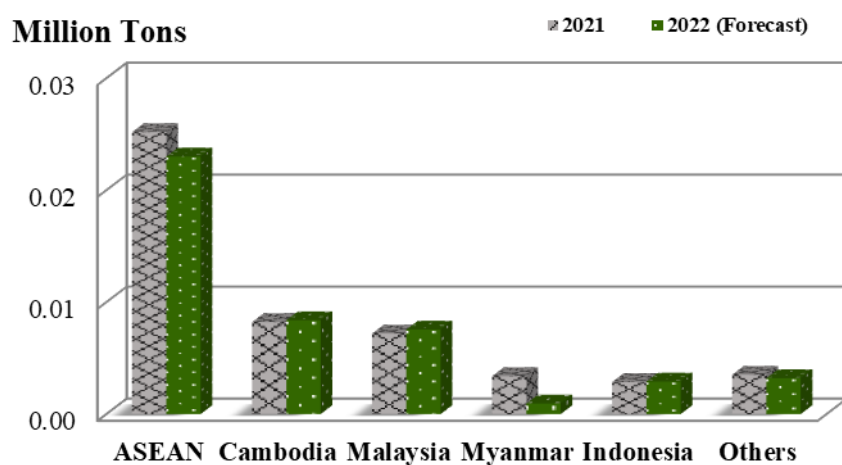
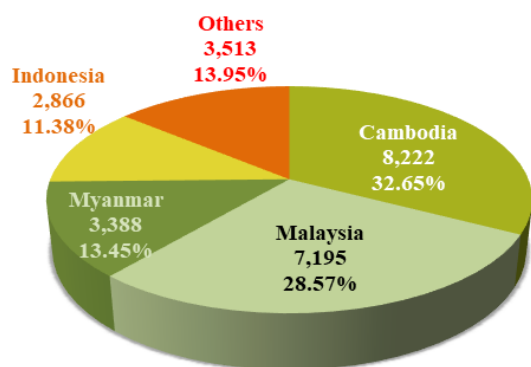
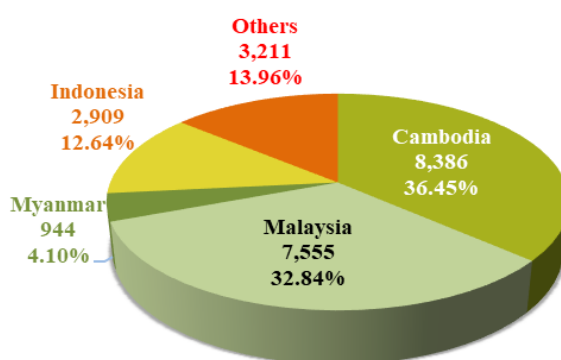


Figure 51 Amount of soybean export (million tons) of selected countries in ASEAN in 2021 – 2022



Total 0.025 million tons

Figure 52 Share of soybean export (tons) among ASEAN countries, 2021



Total 0.023 million tons

Figure 53 Share of soybean export (tons) among ASEAN countries, 2022

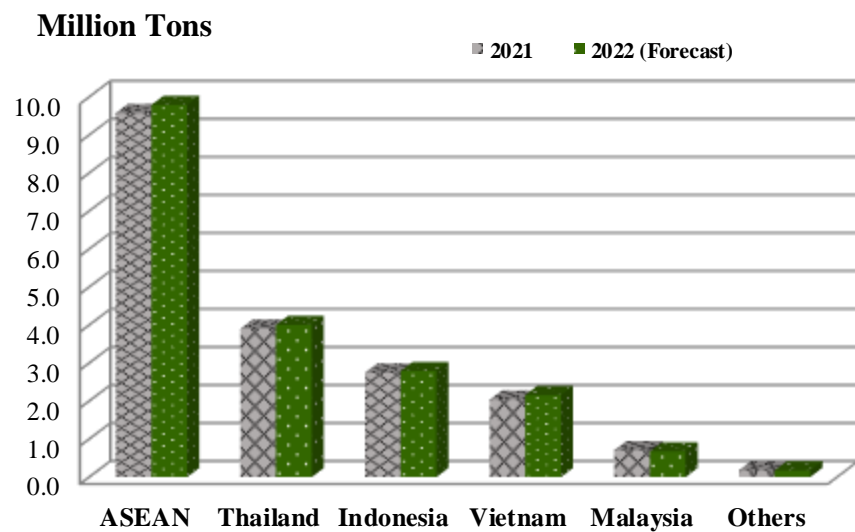
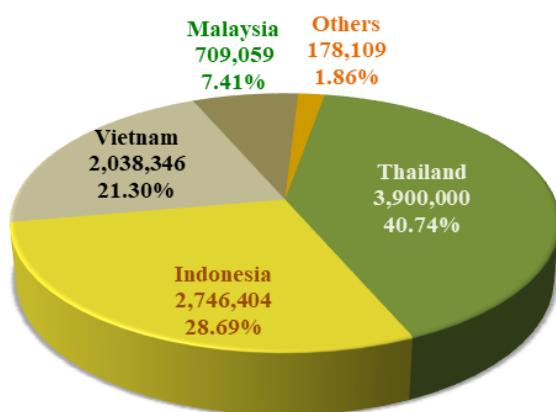
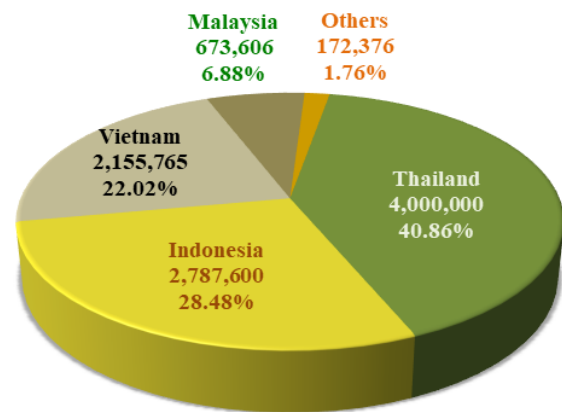


Figure 54 Amount of soybean import (million tons) by selected countries in ASEAN in 2021 – 2022



Total 9.57 million tons

Figure 55 Share of soybean import (tons) among ASEAN countries, 2021



Total 9.79 million tons

Figure 56 Share of soybean import (tons) among ASEAN countries, 2022

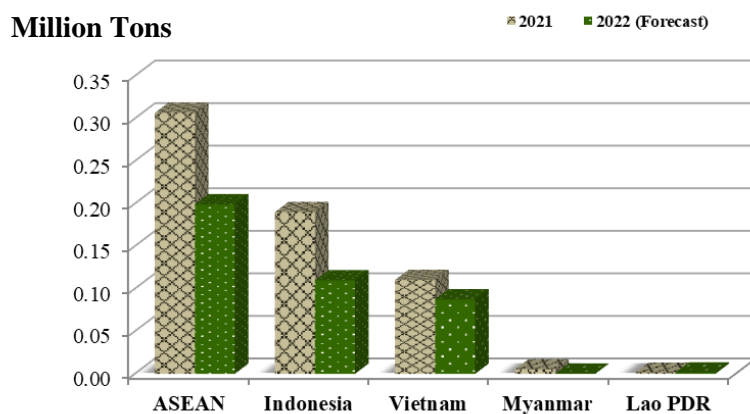


Figure 57 Amount of ending stock of soybean in ASEAN countries in 2021 – 2022

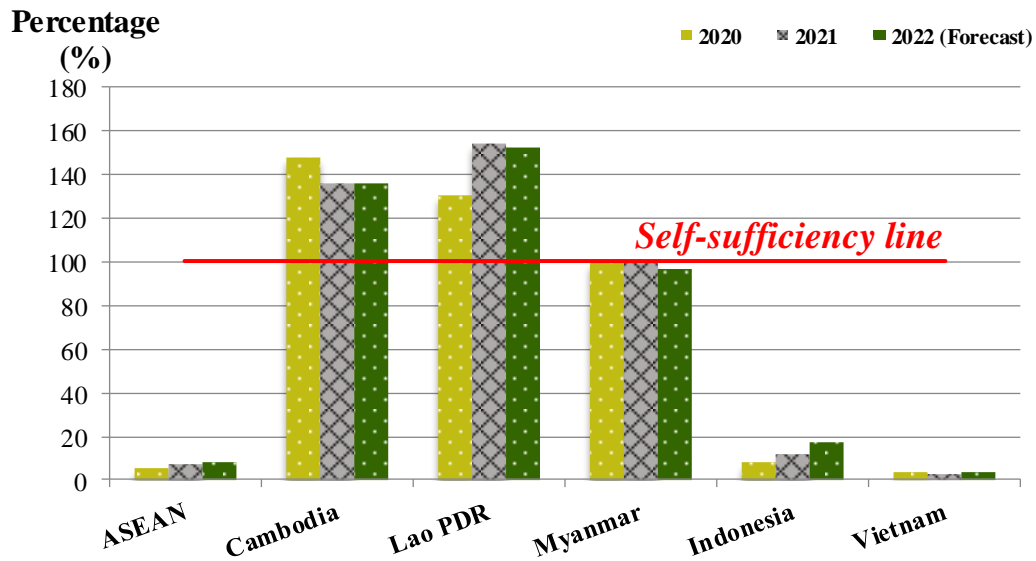


Figure 58 Ratio of soybean production to domestic utilization in ASEAN countries, 2020 – 2022

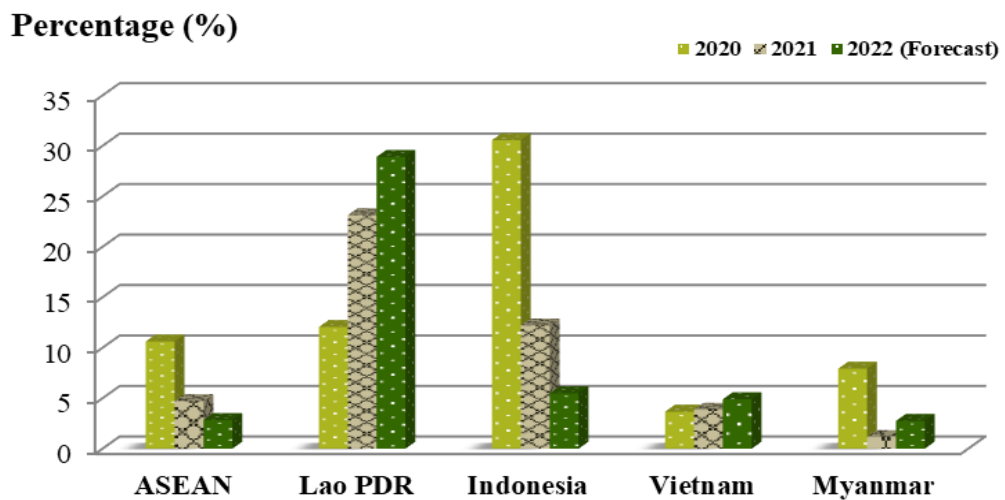


Figure 59 Ratio of soybean beginning stock to domestic utilization in ASEAN countries, 2020 – 2022

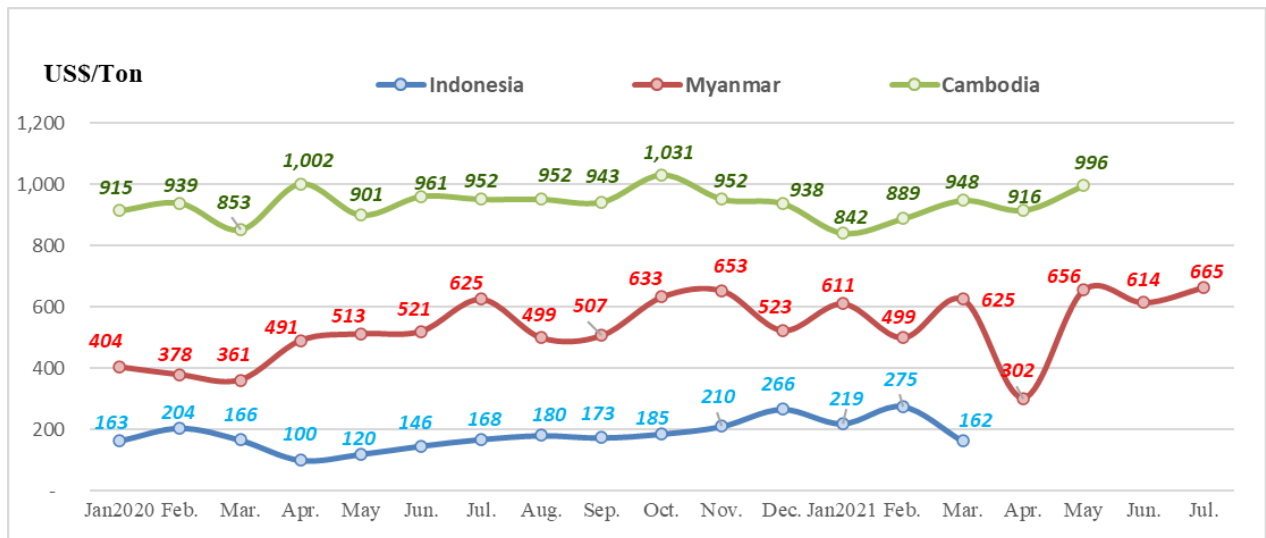


Figure 60 FOB price (US\$/Ton) of soybean of selected countries in ASEAN in 2020 – 2021

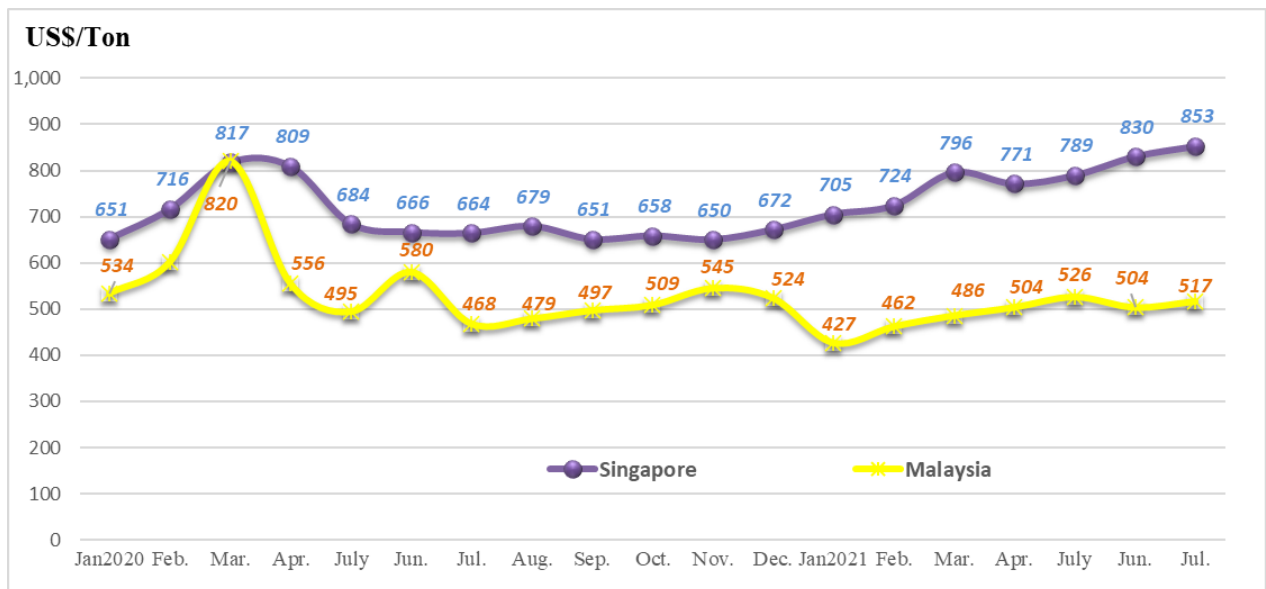


Figure 61 CIF price (US\$/Ton) of soybean of selected countries in ASEAN in 2020 – 2021

Cassava Outlook for 2022



In 2022, the supply of cassava in ASEAN is forecast to be 100.73 million tons, an increase of 3.44 million tons or about 3.54 percent from 97.29 million tons in 2021 (Table 61). The rise in supply is due to the increase in beginning stock and production.

The beginning stock of cassava in 2022 is projected to be 13.13 million tons, which increases from 10.66 million tons in 2021 due to the increase in stock in Cambodia and Lao PDR (Table 61, 68-69). While the ending stock in 2022 is expected to reach 14.53 million tons, which increases from 13.13 million tons in 2021 (Table 61).

The export of cassava is expected to increase by 0.42 million tons or around 1.14 percent from 37.00 million tons in 2021 to 37.42 million tons in 2022. While, the import of cassava is forecast to be 5.91 million tons in 2022, which decreases about 9.91 percent from 6.56 million tons in 2021 (Table 61).

The ratio of production to domestic utilization in 2022 is forecast to be 167.44 percent, which decreases about 2.35 percent from 169.79 percent in 2021. The ratio of beginning stock to domestic utilization in 2022 is forecast to be 26.91 percent, which increases about 4.31 percent from 22.60 percent in 2021 (Table 61).

Table 61 Summary of the ASEAN cassava situation, 2021-2022

Unit: Million tons

Items	2021	2022	Change	
			Quantity	%
Supply (Million tons)	97.29	100.73	3.44	3.54
Beginning stock	10.66	13.13	2.47	23.17
Production	80.07	81.69	1.62	2.02
Import	6.56	5.91	-0.65	-9.91
Demand (Million tons)	97.29	100.73	3.44	3.54
Domestic utilization	47.16	48.79	1.63	3.46
Export	37.00	37.42	0.42	1.14
Ending stock	13.13	14.53	1.40	10.66
Ratio of production to domestic utilization (%)	169.79	167.44	-2.35	-
Ratio of beginning stock to domestic utilization (%)	22.60	26.91	4.31	-

ASEAN Cassava Situation in 2021

► *Production*

The estimated cassava production (root fresh) in ASEAN in 2021 (crop year 2020/21) was 80.87 million tons, which increased from 77.33 million tons in 2020 or about 4.58 percent. The increase has occurred in Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar and Thailand (Table 62-65, Figure 62-65).

For the country that reported the highest volume in production, **Thailand**, the production was reported to increase about 12.07 percent or 3.50 million tons (from 29.00 million tons in 2020 to 32.50 million tons in 2021). The increase in production came from the increase in planted area and yield. The expansion of planted area caused by price of competing crop decrease. The increase in yield was because farmers used more fertilizer and took better care of the crop.

For **Cambodia**, the production was reported to increase about 3.00 percent or 0.38 million tons (from 12.68 million tons in 2020 to 13.06 million tons in 2021). The planted area increased from the previous year as the price of cassava raised up. Additionally, the government supported to grow cassava by using good varieties and farmers also used more fertilizer.

For **Lao PDR**, the production was reported to increase about 0.31 percent or 0.02 million tons (from 4.63 million tons in 2020 to 4.65 million tons in 2021). The increase in production came from the increase in planted area and harvested area caused by government policy and favorable weather.

Indonesia, the production was reported to increase by 1.31 percent or 0.23 million tons (from 17.49 million tons in 2020 to 17.72 million tons in 2021). The increase in production came from the increase in yield due to farmers' response to price increases and better taking care of the crops by farmers, together with favorable weather.

For **Myanmar**, the increase in production was approximately 0.10 percent or 3,800 tons (from 0.392 million tons in 2020 to 0.393 million tons in 2021). The increase in production was attributed to increase in planted area caused by favorable weather.

For **Malaysia**, the production was reported to increase about 8.53 percent or 3,200 tons (from 0.038 million tons in 2020 to 0.041 million tons in 2021). The increase in cassava production was attributed to increase in planted area and yield.

For **Brunei**, the production was reported to increase about 6.75 percent or 15 tons from 304 tons in 2020 to 324 tons in 2021. The increase in production was because farmers took better care of the crop.

For **Vietnam**, the decrease in production was approximately 5.00 percent or 0.52 million tons (from 10.49 million tons in 2020 to 9.96 million tons in 2021). The decrease in production was due to the decrease in planted area and harvested area, which was affected by decreasing demand for cassava as a result of COVID-19.

For **the Philippines**, the production was reported to decrease by 2.44 percent or 0.06 million tons (from 2.60 million tons in 2020 to 2.54 million tons in 2021). The decrease in production came from the decrease in planted area and yield.

► *Utilization and Stock*

Cassava root in ASEAN, in general, it can be used for human food, animal feed, and ethanol production. In 2021, the domestic utilization of cassava for all purposes in ASEAN was estimated at 47.16 million tons, which decreased by 0.43 million tons or about 0.91 percent from 47.59 million tons in 2020 (Table 67-68).

The beginning stock in 2021 was estimated at 10.66 million tons, which increased sharply around 3.03 million tons compared to 7.62 million tons in 2020. The ending stock of cassava in 2021 was estimated to be 13.13 million tons, which increased around 2.47 million tons compared to 10.66 million tons in 2020. This came from the increase in ending stock of Cambodia, Lao PDR and Vietnam.

The ratio of production to domestic utilization in 2021 was estimated to be 169.79 percent, which increased from 162.47 percent in 2020. This indicated that, aggregately, the cassava production in ASEAN is sufficient for the demand within ASEAN (Table 70, Figure 73).

In 2021, the ratio of the ASEAN beginning stock to domestic utilization is estimated to be 22.60 percent, which increased from 16.02 percent in 2020 (Table 71, Figure 74).

► **Trade**

The cassava exported from ASEAN in 2021 is expected to be 37.00 million tons, which increased 3.65 million tons from 33.35 million tons in 2020. The cassava imported by ASEAN in 2021 was estimated to be 6.56 million tons, which decreased by approximately 0.09 million tons from 6.65

million tons in 2020 (Table 67-68, Figure 66-67, and 69-70).

The quantity and value of cassava export by countries of destination and the quantity and value of cassava import by counties of origin are given in Table 72 and 73.

► **Prices**

The FOB prices of cassava in Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam between 2020 and 2021, and the CIF prices of Indonesia, Malaysia, Myanmar, and Singapore are presented in Table 74-75. The average FOB prices of starch in Thailand in 2021 increased from 2020, while the average FOB prices of pellets in Thailand in 2021 decreased from 2020. Besides, the average FOB prices of shredded in Thailand in 2021 increased from 2020.

► **Damaged Area**

In 2021, the cassava damaged area in ASEAN was reported to be 90,863 hectares, of which 86,360 hectares or about 95.04 percent was caused by flood and occurred in Thailand (Table 66).

Prospects for Cassava in 2022

► **Production**

*The cassava production in ASEAN in 2022 is forecast to be 81.70 million tons, which increases by 0.84 million tons or about 1.03 percent from 80.87 million tons in 2021. The increase in production is expected in all countries except Lao PDR and the Philippines (Table 62). The greatest increase in terms of quantity is expected in **Vietnam**, which is forecast to be 10.49 million tons or an increase by 5.26 percent from 9.96 million tons in 2021 by expansion of the planted area.*

*The increase in production in **Thailand**, which is forecast to be 32.73 million tons or an increase of 0.23 million tons from 32.50 million tons in 2021, is due to increase in yield. The rising in yield is due to favorable weather and better taking care of the crops by farmers. (Table 62-65, Figure 62-65).*

*The increase in production in **Indonesia**, which is forecast to be 17.99 million tons or an increase by 1.57 percent from 17.72 million tons in 2021, is due to the increase in yield.*

*The increase in production in **Myanmar**, which is forecast to be 0.3931 million tons or an increase by 0.10 percent from 0.3928 million tons in 2021, is due to the increase in planted area.*

*The increase in production in **Malaysia**, which is forecast to be 0.044 million tons or an increase by 8.53 percent from 0.041 million tons in 2021, is due to the increase in planted area and yield.*

*The increase in production in **Brunei**, which is forecast to be 340 million tons or an increase of 5.00 percent from 324 million tons in 2021, is because farmers took better care of the crop.*

► **Utilization and Stock**

The domestic utilization of cassava is predicted to increase to 48.79 million tons in 2022 compared to 47.16 million tons in 2021, an increase by 1.63 million tons. The beginning stock in 2022 is forecast to be 13.13 million tons, an increase by 2.47 million tons, compared to 10.66 million tons in 2021. The ending stock in 2022 is predicted to be 14.53 million tons, an increase of 1.40 million tons from 13.13 million tons in 2021 (Table 68-69).

The ratio of production to domestic utilization for 2022 is forecast to be 167.44 percent, which decreases from 169.79 percent in 2021. This indicates that the self-sufficiency in cassava in ASEAN is slightly decreasing (Table 70, Figure 73). The ratio of beginning stock to the domestic utilization in 2022 is predicted to be 26.91 percent, compared to 22.60 percent in 2021. This indicates that the cassava supply situation in ASEAN is slightly increasing (Table 71, Figure 74).

► **Trade**

The cassava export from ASEAN is expected to increase to 37.42 million tons in 2022, an increase by 0.41 million tons compared to 37.00 million tons in 2021. For the import, it is estimated to be 5.91 million tons in 2022, a decrease about 0.65 million tons from 6.56 million tons in 2021 (Table 68-69, Figure 66, 68, 69, and 71).

Table 62 Cassava production in ASEAN countries, 2020 – 2022

Unit: 1,000 Tons

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	77,325.84	80,865.18	3,539.34	4.58	81,701.08	835.90	1.03
Brunei	0.30	0.32	0.02	6.75	0.34	0.02	5.00
Cambodia	12,683.99	13,064.51	380.52	3.00	13,195.15	130.65	1.00
Indonesia	17,486.89	17,715.96	229.07	1.31	17,994.78	278.82	1.57
Lao PDR	4,634.44	4,648.79	14.35	0.31	4,375.68	-273.11	-5.87
Malaysia	37.51	40.71	3.20	8.53	44.19	3.47	8.53
Myanmar	392.43	392.81	0.38	0.10	*393.19	0.38	0.10
Philippines	2,603.36	2,539.79	-63.57	-2.44	*2,479.92	-59.87	-2.36
Singapore	N/A						
Thailand	28,999.12	32,498.88	3,499.75	12.07	32,730.03	231.15	0.71
Vietnam	10,487.80	9,963.41	-524.39	-5.00	10,487.80	524.39	5.26

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.**Table 63 Cassava planted area in ASEAN countries, 2020 – 2022**

Unit: 1,000 Hectares

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	3,746.55	3,854.76	108.22	2.89	3,753.16	-101.60	-2.64
Brunei	N/A						
Cambodia	663.93	670.57	6.64	1.00	673.89	3.32	0.50
Indonesia	649.49	635.69	-13.80	-2.13	623.46	-12.23	-1.92
Lao PDR	140.95	142.95	2.00	1.42	135.46	-7.49	-5.24
Malaysia	2.75	2.83	0.08	3.02	2.92	0.09	3.00
Myanmar	33.07	33.32	0.25	0.75	*33.49	0.18	0.53
Philippines	*221.62	*217.41	-4.21	-1.90	*213.28	-4.13	-1.90
Singapore	N/A						
Thailand	1,510.24	1,653.73	143.49	9.50	1,546.16	-107.56	-6.50
Vietnam	524.50	498.28	-26.23	-5.00	524.50	26.23	5.26

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.**Table 64 Cassava harvested area in ASEAN countries, 2020 – 2022**

Unit: 1,000 Hectares

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	3,615.91	3,764.60	148.68	4.11	3,752.66	-11.94	-0.32
Brunei	N/A						
Cambodia	617.09	667.25	50.16	8.13	673.89	6.64	1.00
Indonesia	649.49	635.69	-13.80	-2.13	623.46	-12.23	-1.92
Lao PDR	140.95	142.95	2.00	1.42	135.46	-7.49	-5.24
Malaysia	2.28	2.35	0.07	2.99	2.42	0.07	3.03
Myanmar	33.07	33.32	0.25	0.75	*33.49	0.18	0.53
Philippines	221.62	217.41	-4.21	-1.90	*213.28	-4.13	-1.90
Singapore	N/A						
Thailand	1,426.92	1,567.37	140.45	9.84	1,546.16	-21.20	-1.35
Vietnam	524.50	498.28	-26.23	-5.00	524.50	26.23	5.26

Remark: * The value is estimated by AFSIS Secretariat. Brunei reported only production.

Table 65 Cassava yield in ASEAN countries, 2020 – 2022

Unit: Ton/Hectare

Country	2020 (2019/20)	2021 (2020/21)	Change 2021 over 2020		2022 (2021/22)	Change 2022 over 2021	
			Quantities	(%)		Quantities	(%)
ASEAN	21.38	21.48	0.10	0.47	21.77	0.29	1.35
Brunei	N/A						
Cambodia	20.55	19.58	-0.97	-4.72	19.58	0.00	0.00
Indonesia	26.92	27.87	0.95	3.53	28.86	0.99	3.55
Lao PDR	32.88	32.52	-0.36	-1.09	32.30	-0.22	-0.68
Malaysia	16.47	17.35	0.88	5.34	18.28	0.93	5.36
Myanmar	11.87	11.79	-0.08	-0.67	*11.74	-0.05	-0.42
Philippines	11.75	11.68	-0.07	-0.60	*11.63	-0.05	-0.43
Singapore	N/A						
Thailand	20.32	20.73	0.41	2.02	21.17	0.44	2.12
Vietnam	20.00	20.00	0.00	0.00	20.00	0.00	0.00

Remark: * The value is estimated by AFSIS Secretariat. N/A refers to data that is not available.**Table 66 Cassava damaged area in ASEAN by cause of damage, 2021**

Unit: Hectares

Country	Cause of Damage (Hectares)						
	Flood	Drought	Pests	Diseases	Others	Unspecify	Total
ASEAN	86,360	-	-	-	697	3,806	90,863
Brunei	N/A						
Cambodia	-	-	-	-	-	3,320	3,320
Indonesia	N/A						
Lao PDR	N/A						
Malaysia	-	-	-	-	-	486	486
Myanmar	-	-	-	-	697	-	697
Philippines	N/A						
Singapore	N/A						
Thailand	86,360	-	-	-	-	-	86,360
Vietnam	N/A						

Remark: N/A refers to data that is not available.

Table 67 Cassava balance sheet of ASEAN countries, 2020 (Cassava roots fresh)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	7,624,973	77,322,890	6,654,276	91,602,138	47,590,842	33,352,275	10,659,022	91,602,138
Brunei	-	304	3.12	307	307	-	-	307
Cambodia	2,957,204	12,683,987	-	15,641,191	4,439,476	7,203,128	3,998,587	15,641,191
Indonesia	-	17,486,890	150,974	17,637,864	*17,542,435	95,430	-	17,637,865
Lao PDR	1,664,253	4,634,436	-	6,298,689	2,220,468	253,362	3,824,859	6,298,689
Malaysia	-	29,283	1,110	30,393	29,876	518	-	30,393
Myanmar	12,523	392,430	509.00	405,462	392,882	55	12,525	405,462
Philippines	-	2,607,759	-	2,607,759	2,606,437	1,322	-	2,607,759
Singapore	-	-	1,945	1,945	1,942.98	2.49	-	1,945
Thailand	*2,661,185	29,000,000	5,830,000	37,491,185	11,970,000	22,990,000	*2,531,185	37,491,185
Vietnam	329,808	10,487,800	669,734	11,487,341	8,387,018	2,808,458	291,865	11,487,341

Remark: * The value is estimated by AFSIS Secretariat.

Table 68 Cassava balance sheet of ASEAN countries, 2021 (Cassava roots fresh)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	10,659,022	80,067,371	6,562,960	97,289,353	47,156,389	37,002,865	13,130,099	97,289,353
Brunei	-	324	3.44	328	328	-	-	328
Cambodia	3,998,587	13,064,507	-	17,063,094	4,515,778	8,118,384	4,428,932	17,063,094
Indonesia	-	17,715,961	55,371	17,771,332	*17,519,985	251,347	-	17,771,332
Lao PDR	3,824,859	4,648,790	-	8,473,649	2,189,493	260,742	6,023,414	8,473,649
Malaysia	-	31,781	888	32,669	32,061	608	-	32,669
Myanmar	12,525	392,809	235	405,569	398,894	345	*6,330	405,569
Philippines	-	2,539,789	-	2,539,789	*2,538,501	*1,287	-	2,539,788
Singapore	-	-	1,863	1,863	1,860	2	-	1,863
Thailand	*2,531,185	31,710,000	5,500,000	39,741,185	12,420,000	*25,000,000	*2,321,185	39,741,185
Vietnam	291,865	9,963,410	1,004,601	11,259,876	7,539,488	3,370,150	350,238	11,259,876

Remark: * The value is estimated by AFSIS Secretariat.

Table 69 Cassava balance sheet of ASEAN countries, 2022 (Cassava roots fresh)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	13,130,099	81,689,470	5,911,355	100,730,924	48,788,057	37,415,044	14,527,823	100,730,924
Brunei	-	340	3.61	344	344	-	-	344
Cambodia	4,428,932	13,195,152	-	17,624,084	4,664,245	8,385,295	4,574,544	17,624,084
Indonesia	-	17,994,782	*54,263	18,049,045	*17,793,928	*255,117	-	18,049,045
Lao PDR	6,023,414	4,375,680	-	10,399,094	2,156,148	239,470	8,003,476	10,399,094
Malaysia	-	32,576	843	33,419	32,708	711	-	33,419
Myanmar	*6,330	*393,188	*200	399,718	*378,982	*60	*20,675	399,718
Philippines	-	*2,479,923	-	2,479,923	*2,478,669	*1,254	-	2,479,923
Singapore	-	-	1,904	1,904	1,902	2	-	1,904
Thailand	*2,321,185	32,730,030	*4,950,000	40,001,215	*12,887,301	*25,500,000	*1,613,914	40,001,215
Vietnam	350,238	10,487,800	904,140	11,742,179	8,393,830	3,033,135	315,214	11,742,179

Remark: * The value is estimated by AFSIS Secretariat.

Table 70 Ratio of cassava production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2020 – 2022

Unit: Tons

Country	2020			2021			2022		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	77,322,890	47,590,842	162.47	80,067,371	47,156,389	169.79	81,689,470	48,788,057	167.44
Brunei	304	307	98.98	324	328	98.95	340	344	98.95
Cambodia	12,683,987	4,439,476	285.71	13,064,507	4,515,778	289.31	13,195,152	4,664,245	282.90
Indonesia	17,486,890	17,542,435	99.68	17,715,961	17,519,985	101.12	17,994,782	17,793,928	101.13
Lao PDR	4,634,436	2,220,468	208.71	4,648,790	2,189,493	212.32	4,375,680	2,156,148	202.94
Malaysia	29,283	29,876	98.02	31,781	32,061	99.13	32,576	32,708	99.59
Myanmar	392,430	392,882	99.89	392,809	398,894	98.47	393,188	378,982	103.75
Philippines	2,607,759	2,606,437	100.05	2,539,789	2,538,501	100.05	2,479,923	2,478,669	100.05
Singapore	-	1,943	0.00	-	1,860	0.00	-	1,902	0.00
Thailand	29,000,000	11,970,000	242.27	31,710,000	12,420,000	255.31	32,730,030	12,887,301	253.97
Vietnam	10,487,800	8,387,018	125.05	9,963,410	7,539,488	132.15	10,487,800	8,393,830	124.95

Remark: * The value is estimated by AFSIS Secretariat.**Table 71 Ratio of cassava beginning stock to domestic utilization in ASEAN countries (Food security ratio), 2020 – 2022**

Unit: Tons

Country	2020			2021			2022		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	7,624,973	47,590,842	16.02	10,659,022	47,156,389	22.60	13,130,099	48,788,057	26.91
Brunei	-	307	0.00	-	328	0.00	-	344	-
Cambodia	2,957,204	4,439,476	66.61	3,998,587	4,515,778	88.55	4,428,932	4,664,245	94.95
Indonesia	-	17,542,435	0.00	-	17,519,985	0.00	-	17,793,928	-
Lao PDR	1,664,253	2,220,468	74.95	3,824,859	2,189,493	174.69	6,023,414	2,156,148	279.36
Malaysia	-	29,876	0.00	-	32,061	0.00	-	32,708	-
Myanmar	12,523	392,882	3.19	12,525	398,894	3.14	6,330	378,982	1.67
Philippines	-	2,606,437	0.00	-	2,538,501	0.00	-	2,478,669	-
Singapore	-	1,943	0.00	-	1,860	0.00	-	1,902	-
Thailand	2,661,185	11,970,000	22.23	2,531,185	12,420,000	20.38	2,321,185	12,887,301	18.01
Vietnam	329,808	8,387,018	3.93	291,865	7,539,488	3.87	350,238	8,393,830	4.17

Remark: * The value is estimated by AFSIS Secretariat.

Table 72 Quantity and Value of Cassava Export by Countries of Destination in 2021

Quantity: Tons, Values: US\$

Exporting Country	Country of destination													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A													
Cambodia	N/A													
Indonesia														
Lao PDR									210	52,244				
Malaysia														
Myanmar														
Philippines	N/A													
Singapore														
Thailand	338	204,643	676	613,870	124,630	70,988,738	32,013	14,445,657	117,223	55,292,656	5,659	4,059,264	85,823	41,023,878
Vietnam									2,824	1,386,286			5,037	2,272,033

Exporting Country	Country of destination						Total within ASEAN		Total outside ASEAN		Total	
	Singapore		Thailand		Vietnam							
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A											
Cambodia	N/A											
Indonesia	32	35,236					32	35,236	2,622	1,159,686	2,654	1,194,922
Lao PDR			112,425	7,059,130	88,447	5,283,026	201,082	12,394,400	59,870	5,388,300	260,952	17,782,700
Malaysia	606	168,901					606	168,901	1.3	2,697	608	171,598
Myanmar							-	-	60	9,000	60	9,000
Philippines	39	154,000					39	154,000	1,512	1,891,859	1,550	2,045,859
Singapore	N/A											
Thailand	41,614	17,574,846			38,471	24,524,418	446,447	228,727,970	7,264,716	2,473,729,150	7,711,164	2,702,457,120
Vietnam							7,861	3,658,319	2,306,049	922,965,155	2,313,910	926,623,474

Remark: The data in this table is obtained from national focal points of member. N/A refers to data that is not available.

Table 73 Quantity and Value of Cassava Import by Countries of Origin in 2021

Quantity: Tons Values: US\$

Importing Country	Country of origin													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A													
Cambodia														
Indonesia														
Lao PDR	N/A													
Malaysia					26	29,784								
Myanmar	N/A													
Philippines					3,436	1,377,755								
Singapore					2.16	9,423			1,855	568,584				
Thailand			1,224,357	169,730,157	1,844	3,334,786	1,030,929	152,614,602	32	140,074	13,228	2,136,810	0.11	1,681
Vietnam			-	229,210,400	-	11,834,212	-	44,465,828						

Importing Country	Country of origin						Total within ASEAN		Total outside ASEAN		Total	
	Singapore		Thailand		Vietnam							
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei	N/A											
Cambodia									1,625,461	-	1,625,461	-
Indonesia									0.005	86	0.005	86
Lao PDR	N/A											
Malaysia	0.03	252	0.3	73	438	153,095	464	183,203	202	314,356	666	497,559
Myanmar	N/A											
Philippines	47	127,987	69,468	33,978,214	6,406	3,016,284	79,358	38,500,240	1,553	1,133,984	80,911	39,634,224
Singapore			0.0001	4	0.01	8	1,857	578,018	6	18,029	1,863	596,047
Thailand	6.18	290,840					2,270,397	328,248,949	14,547	35,575,987	2,284,945	363,824,936
Vietnam	-	27,360	-	6,685,179			-	292,222,979	-	2,345,409	-	294,568,388

Remark: The data in this table is obtained from national focal points of member. N/A refers to data that is not available.

Table 74 FOB Price of Cassava in selected ASEAN countries

Unit: US\$/Ton

Country	Product	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Indonesia	Not specified	2020	1,350	1,375	1,516	2,629	2,065	965	1,829	1,530	378	269	257	473	1,220
		2021	331	1,196	1,623	674	-	-	-	-	-	-	-	-	956
Lao PDR	Not specified	2020	N/A												
		2021	42	45	66	77	90	94	101	74	50	46	-	-	69
Malaysia	Not specified	2020	305	313	1,079	356	0	335	217	319	323	456	237	318	355
		2021	306	263	284	293	297	280	371	289	269	-	-	-	295
Myanmar	Not specified	2020	-	-	-	-	400	-	-	-	-	-	-	-	400
		2021	-	321	50	429	329	150	-	150	-	-	-	-	238
Thailand	Starch	2020	424	410	404	409	412	427	411	418	415	421	434	435	418
		2021	444	446	440	459	470	471	456	460	458	456	-	-	456
	Pellets	2020	302	312	295	248	305	313	306	330	326	325	342	324	311
		2021	261	318	305	333	314	321	308	336	268	319	-	-	308
	Shredded	2020	213	204	204	208	210	217	225	245	245	252	265	269	230
		2021	256	247	245	242	249	248	237	250	252	248	-	-	247
Vietnam	Not specified	2020	344	314	349	349	354	341	367	364	395	390	380	371	360
		2021	370	368	378	376	405	434	417	444	441	439	-	-	407

Remark: N/A refers to data that is not available.**Table 75 CIF Price of Cassava in selected ASEAN countries**

Unit: US\$/Ton

Country	Product	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Indonesia	Not specified	2020	569.62	306.31	529	522	486	-	946	297	517	850	529	325	534
		2021	-	500	1,020	-	-	-	-	-	-	-	-	-	760
Malaysia	Not specified	2020	1,217	645	1,335	1,098	330	522	385	333	308	304	1,292	546	693
		2021	347	577	607	647	1,193	401	1,322	1,332	351	-	-	-	753
Myanmar	Not specified	2020	570	306	529	522	486	-	946	297	517	850	529	325	534
		2021	1000	500	1020	-	-	-	-	-	-	-	-	-	840
Singapore	Not specified	2020	304	307	329	311	299	304	347	301	297	301	559	540	350
		2021	299	300	334	377	306	313	314	317	315	319	319	319	319

Remark: N/A refers to data that is not available.

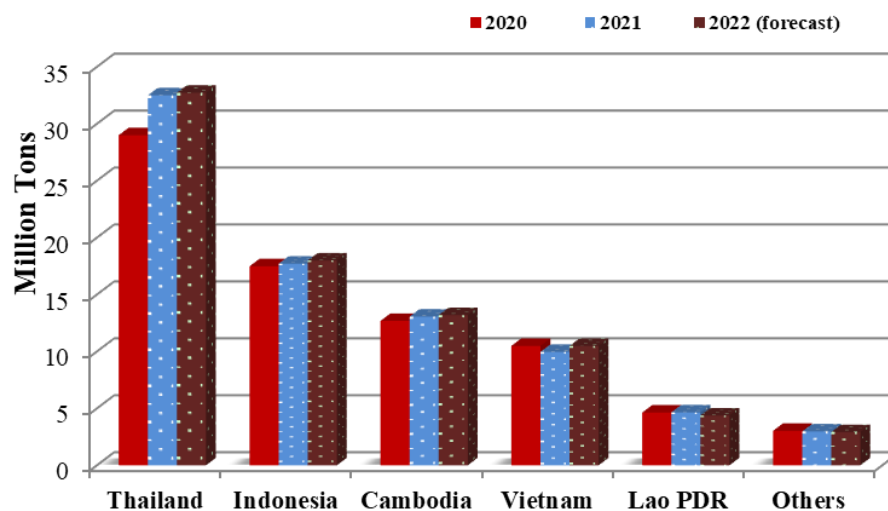


Figure 62 Cassava production of selected countries in ASEAN, 2020 – 2022

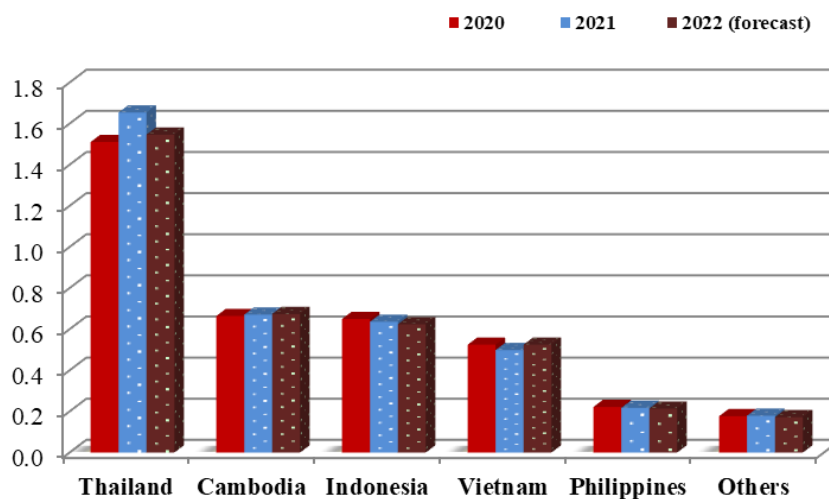


Figure 63 Cassava planted area of selected countries in ASEAN, 2020 – 2022

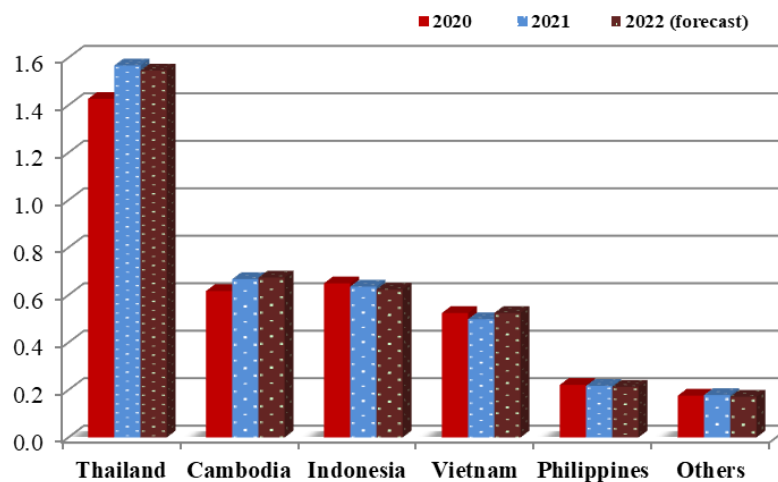


Figure 64 Cassava harvested area of selected countries in ASEAN, 2020 – 2022

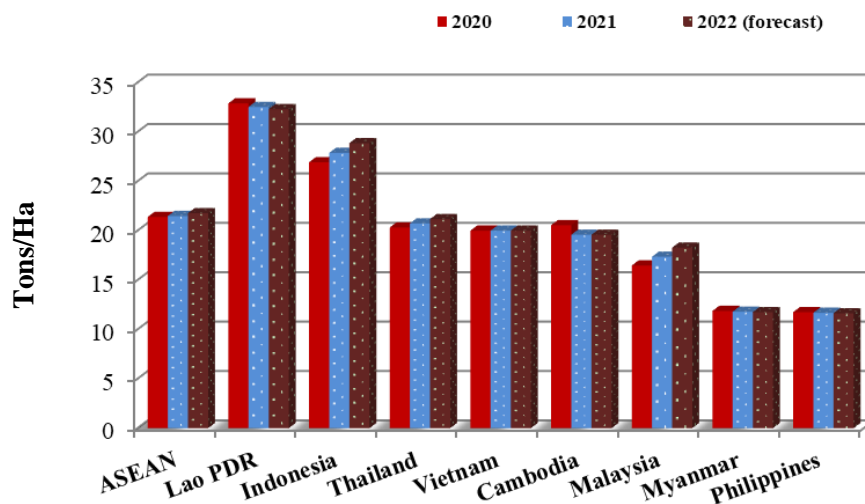


Figure 65 Cassava yield of countries in ASEAN, 2020 – 2022

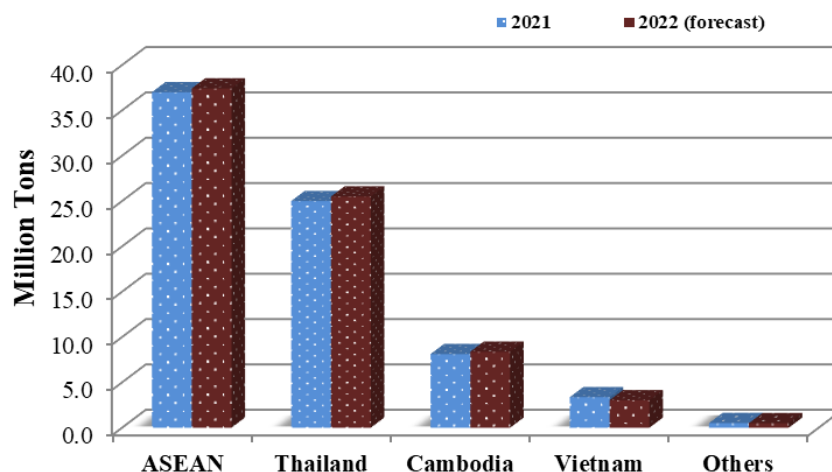
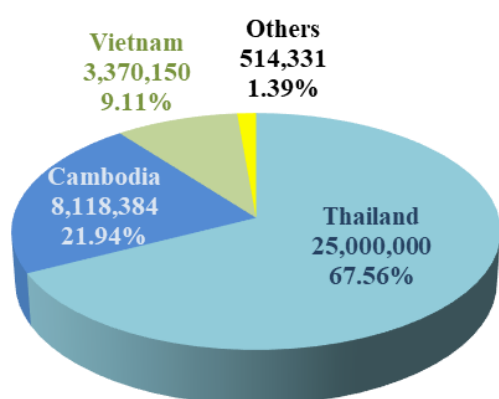
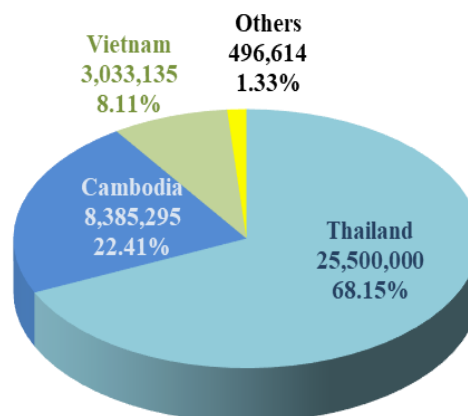


Figure 66 Amount of cassava export (million tons) of selected countries in ASEAN in 2021 – 2022



Total 37.00 Million Tons

Figure 67 Share of cassava export (tons) among ASEAN countries, 2021



Total 37.42 Million Tons

Figure 68 Share of cassava export (tons) among ASEAN countries, 2022

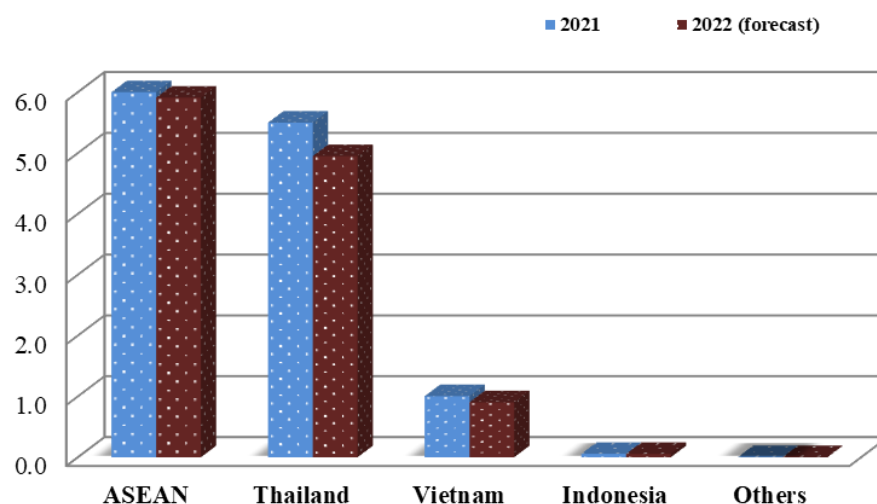
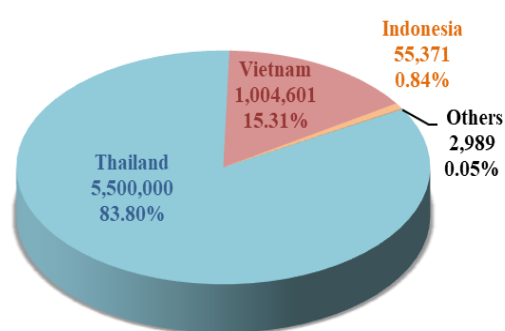
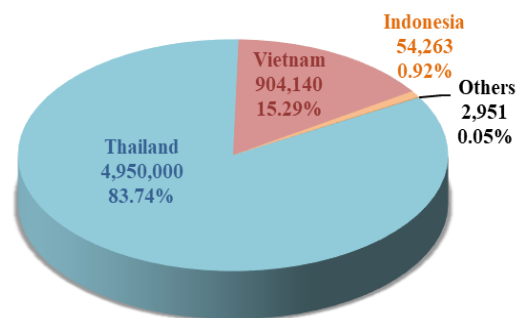


Figure 69 Amount of cassava import (million tons) by selected countries in ASEAN in 2021 – 2022



Total 6.56 Million Tons

Figure 70 Share of cassava import (tons) among ASEAN countries, 2021



Total 5.91 Million Tons

Figure 71 Share of cassava import (tons) among ASEAN countries, 2022

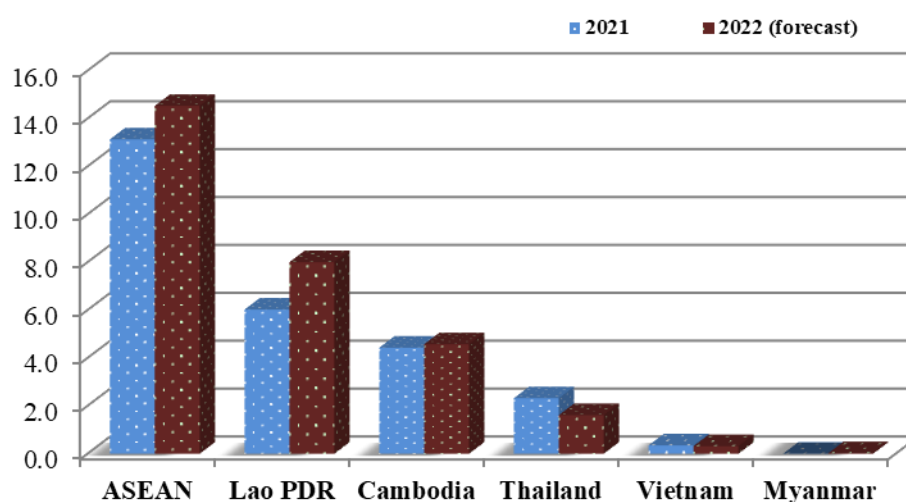


Figure 72 Amount of ending stock of cassava in ASEAN countries in 2021 – 2022

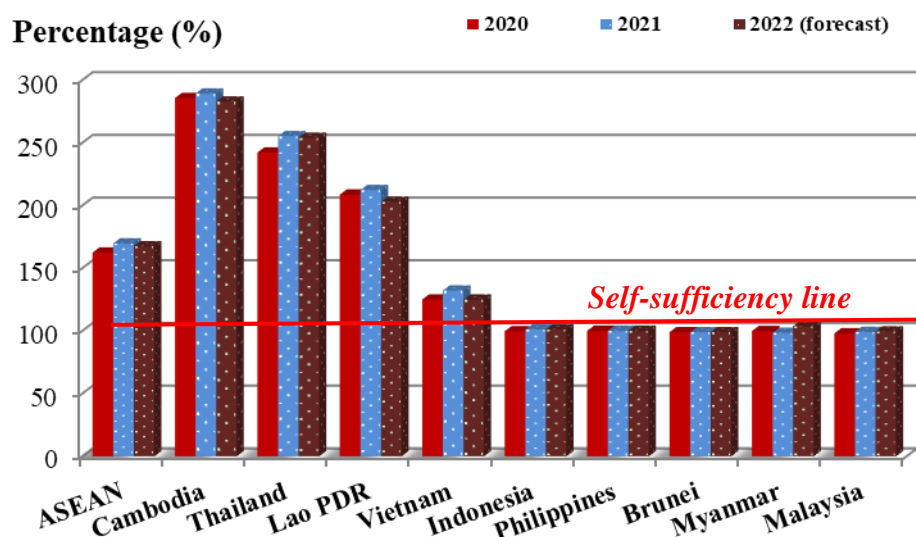


Figure 73 Ratio of cassava production to domestic utilization in ASEAN countries, 2020 – 2022

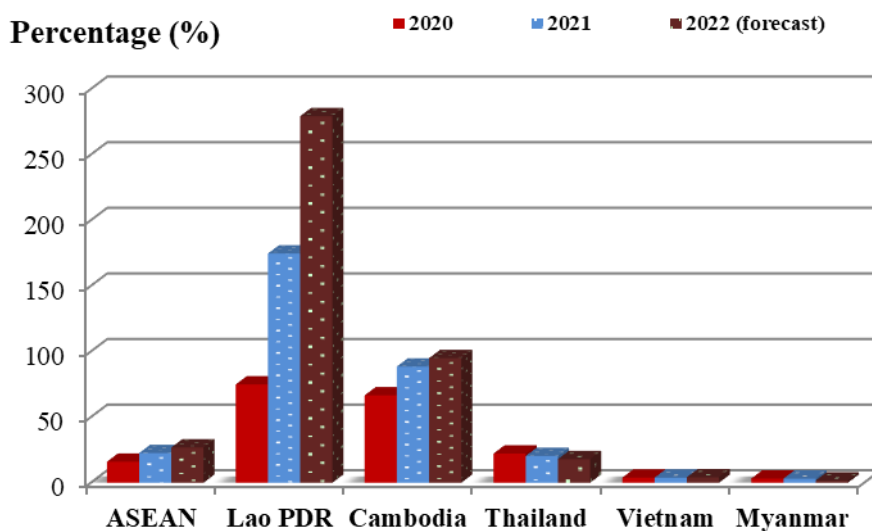


Figure 74 Ratio of cassava beginning stock to domestic utilization in ASEAN countries, 2020 – 2022

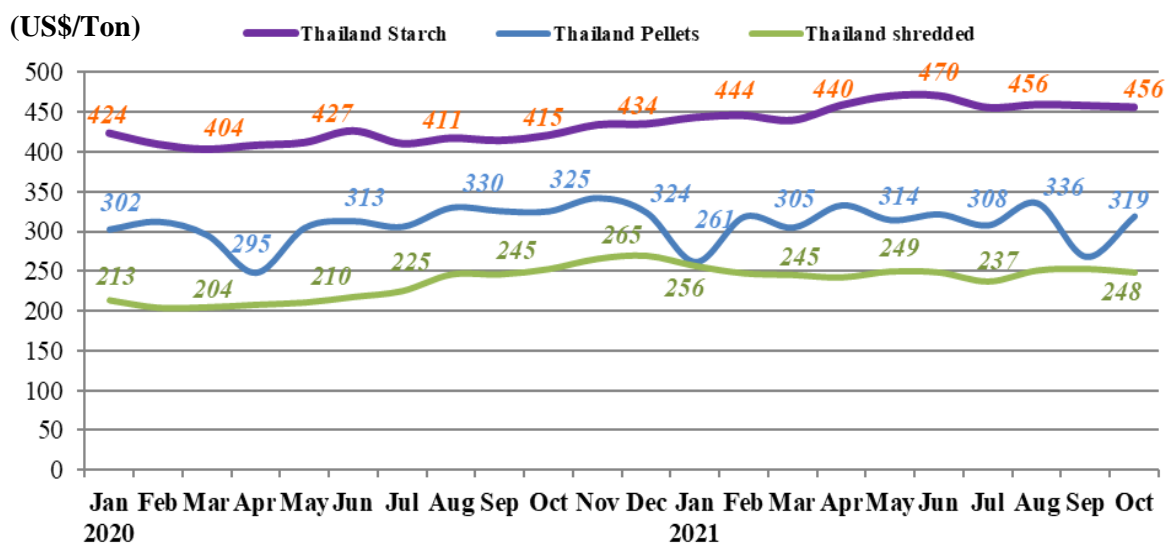


Figure 75 FOB price (US\$/Ton) of cassava of Thailand in 2020 – 2021

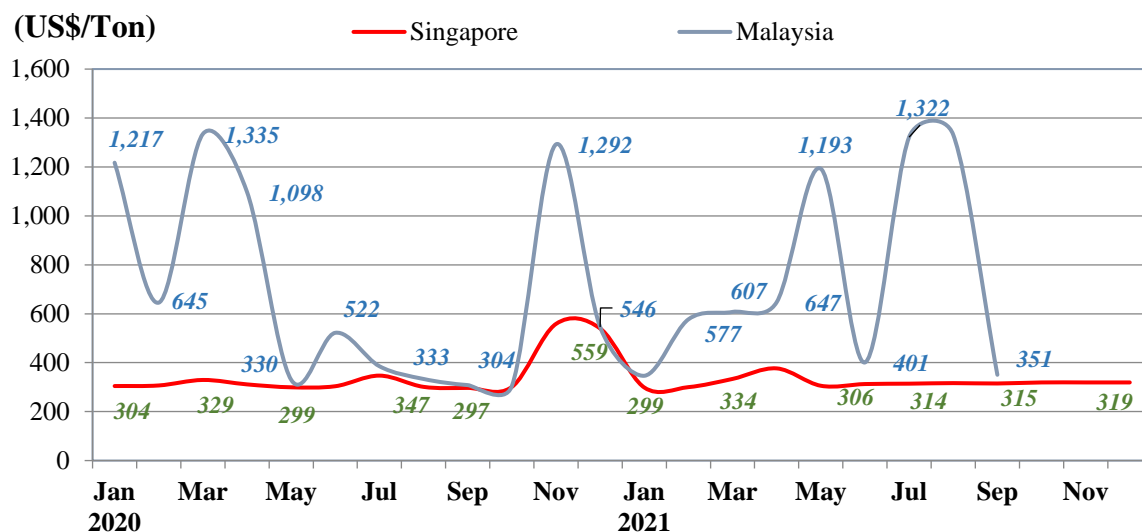


Figure 76 CIF price (US\$/Ton) of cassava of selected countries in ASEAN in 2020-2021

Explanatory Notes Production of Paddy for 2021

▶ **Brunei:**

- Wet season refers to the crop harvested during February to July 2021.
- Dry season refers to the crop harvested during July to December 2021.

▶ **Cambodia:**

- Wet season refers to the crop harvested during July to December 2020.
- Dry season refers to the crop harvested during February to April 2021.

▶ **Indonesia:**

- Wet season refers to the crop harvested during October 2020 to March 2021.
- Dry season refers to the crop harvested during April to September 2021.

▶ **Lao PDR:**

- Wet season refers to the crop harvested during September to December 2021.
- Dry season refers to the crop harvested during February to May 2021.

▶ **Malaysia:**

- Wet season refers to the crop harvested during August 2020 to February 2021.
- Dry season refers to the crop harvested during March to July 2021.

▶ **Myanmar:**

- Wet season refers to the crop harvested during August 2020 to February 2021.
- Dry season refers to the crop harvested during February to August 2021.

▶ **Philippines:**

- Wet season refers to the crop harvested during July to December 2020.
- Dry season refers to the crop harvested during January to June 2021.

▶ **Thailand:**

- Wet season refers to the crop harvested during August 2020 to April 2021.
- Dry season refers to the crop harvested during February to October 2021.

▶ **Vietnam:**

❖ **Spring-season**

- North refers to the crop harvested during May to July 2021.
- South refers to the crop harvested during March to June 2021.

❖ **Autumn-season**

- North refers to the crop harvested during August to October 2021.
- South refers to the crop harvested during July to September 2021.

❖ **Winter-season**

- North refers to the crop harvested during October to November 2021.
- South refers to the crop harvested during October to December 2021.



Production of Maize for 2021

▶ Brunei:

- Wet season refers to the crop harvested during January to June 2021.
- Dry season refers to the crop harvested during July to December 2021.

▶ Cambodia:

- Wet season refers to the crop harvested during July to September 2021.
- Dry season refers to the crop harvested during February to March 2021.

▶ Indonesia:

- 1st crop harvested during January to April 2021.
- 2nd crop harvested during May to August 2021.
- 3rd crop harvested during September to December 2021.

▶ Lao PDR:

- Wet season refers to the crop harvested during May to September 2021.
- Dry season refers to the crop harvested during November 2020 to March 2021.

▶ Myanmar:

- Wet season refers to the crop harvested during July to December 2020.
- Dry season refers to the crop harvested during January to June 2021.

▶ Philippines:

- Wet season refers to the crop harvested during July to December 2020.
- Dry season refers to the crop harvested during January to June 2021.

▶ Thailand:

- Wet season refers to the crop harvested during June 2021 to February 2022.
- Dry season refers to the crop harvested during February to May 2021.

▶ Vietnam:

- 1st crop harvested during May to June 2021.
- 2nd crop harvested during October to November 2021.



Production of Sugarcane for 2021

▶ Brunei:

- The crop harvested during January to December 2021.

▶ Cambodia:

- The crop harvested during November 2020 to January 2021.

▶ Indonesia:

- The crop harvested during January to December 2021.

▶ Lao PDR:

- The crop harvested during February to May 2021.

▶ Myanmar:

- The crop harvested during October 2020 to June 2021.

▶ Philippines:

- The crop harvested during October 2020 to June 2021.

▶ Thailand:

- The crop harvested during December 2020 to April 2021.

▶ Vietnam:

- The crop harvested during November 2020 to May 2021.



Production of Soybean for 2021

▶ **Cambodia:**

- The crop harvested during September to October 2021.

▶ **Indonesia:**

- 1st crop harvested during January to April 2021.
- 2nd crop harvested during May to August 2021.
- 3rd crop harvested during September to December 2021.

▶ **Lao PDR:**

- Wet season refers to the crop harvested during May to October 2021.
- Dry season refers to the crop harvested during November 2020 to February 2021.

▶ **Myanmar:**

- Wet season refers to the crop harvested during August 2020 to January 2021.
- Dry season refers to the crop harvested during December 2020 to May 2021.

▶ **Philippines:**

- Wet season refers to the crop harvested during July to December 2020.
- Dry season refers to the crop harvested during January to June 2021.

▶ **Thailand:**

- Wet season refers to the crop harvested during July to December 2020.
- Dry season refers to the crop harvested during January to May 2021.

▶ **Vietnam:**

- Wet season refers to the crop harvested during February to May 2021.
- Dry season refers to the crop harvested during August to November 2021.



Production of Cassava for 2021

▶ Brunei:

- The crop harvested during January to December 2021.

▶ Cambodia:

- The crop harvested during November 2020 to January 2021.

▶ Indonesia:

- 1st crop harvested during January to April 2021.
- 2nd crop harvested during May to August 2021.
- 3rd crop harvested during September to December 2021.

▶ Lao PDR:

- The crop harvested during October to November 2021.

▶ Malaysia:

- The crop harvested during October 2020 to December 2021.

▶ Myanmar:

- The crop harvested during September 2020 to June 2021.

▶ Philippines:

- 1st crop harvested during July to December 2020.
- 2nd crop harvested during January to June 2021.

▶ Thailand:

- The crop harvested during October 2020 to September 2021.

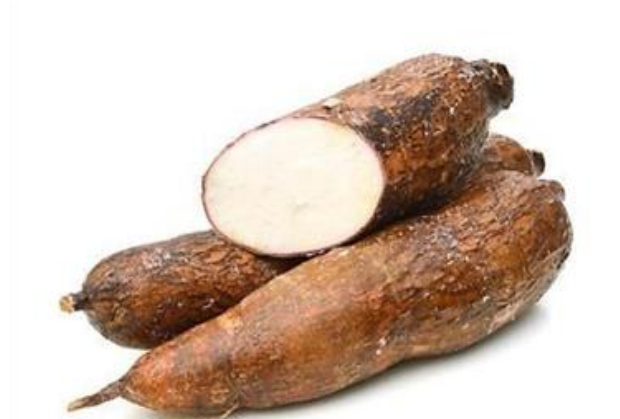
▶ Vietnam:

- Wet season refers to the crop harvested during September to October 2021.
- Dry season refers to the crop harvested during January to March 2021.

Domestic Utilization, Stock, Import and Export: refer to calendar year

N/A: The data is not available due to no collecting or reporting systems in the country yet.

nil: Small amount



Milling Rate of Rice (2021)

Unit: Tons

Country	Paddy	Rice
ASEAN	1	0.64
Brunei	1	0.65
Cambodia	1	0.64
Indonesia	1	0.63
Lao PDR	1	0.60
Malaysia	1	0.64
Myanmar	1	0.63
Philippines	1	0.67
Thailand	1	0.65
Vietnam	1	0.65

Extraction rate of Sugar (2021)

Unit: Tons

Country	Sugarcane	Sugar
ASEAN	1,000	95.44
Cambodia	1,000	100.00
Indonesia	1,000	75.22
Lao PDR	1,000	200.00
Myanmar	1,000	79.94
Philippines	1,000	72.99
Thailand	1,000	113.75
Vietnam	1,000	100.00



ANNEX 1

Rice crop calendar (harvested months) for crop year 2020/21 (2021) in ACO No.27 report

Country		2020						2021												2022	
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Brunei	Wet season																				
	Dry season																				
Cambodia	Wet season																				
	Dry season																				
Indonesia	Wet season																				
	Dry season																				
Lao PDR	Wet season																				
	Dry season																				
Malaysia	Wet season																				
	Dry season																				
Myanmar	Wet season																				
	Dry season																				
Philippines	Wet season																				
	Dry season																				
Thailand	Wet season																				
	Dry season																				
Vietnam	Spring																				
	Autumn																				
	Winter																				

ANNEX 2

Maize crop calendar (harvested months) for crop year 2020/21 (2021) in ACO No.27 report

Country	Crop	2020					2021												2022	
		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Brunei	Wet season																			
	Dry season																			
Cambodia	Wet season																			
	Dry season																			
Indonesia	1st																			
	2nd																			
	3rd																			
Lao PDR	Wet season																			
	Dry season																			
Myanmar	Wet season																			
	Dry season																			
Philippines	Wet season																			
	Dry season																			
Thailand	Wet season																			
	Dry season																			
Vietnam	1st																			
	2nd																			

ANNEX 3

Sugarcane crop calendar (harvested months) for crop year 2020/21 (2021) in ACO No.27 report

Country	Crop	2020				2021											
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Brunei																	
Cambodia																	
Indonesia																	
Lao PDR																	
Myanmar																	
Philippines																	
Thailand																	
Vietnam																	

ANNEX 4

Soybean crop calendar (harvested months) for crop year 2020/21 (2021) in ACO No.27 report

Country	Crop	2020					2021											
		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cambodia																		
Indonesia	1st																	
	2nd																	
	3rd																	
Lao PDR	Wet season																	
	Dry season																	
Myanmar	Wet season																	
	Dry season																	
Philippines	Wet season																	
	Dry season																	
Thailand	Wet season																	
	Dry season																	
Vietnam	Wet season																	
	Dry season																	

ANNEX 5

Cassava crop calendar (harvested months) for crop year 2020/21 (2021) in ACO No.27 report

Country	Crop	2020				2021											
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Brunei																	
Cambodia																	
Indonesia	1st																
	2nd																
	3rd																
Lao PDR																	
Malaysia																	
Myanmar																	
Philippines	1st																
	2nd																
Thailand																	
Vietnam	North																
	South																



AFSIS Secretariat
Office of Agricultural Economics,
Phahonyothin Road, Jatujak,
Bangkok 10900, Thailand



(+66)2 940 7468



<http://www.aptfsis.org/>



aptfsis@gmail.com