

ASEAN FOOD SECURITY INFORMATION SYSTEM



ASEAN AGRICULTURAL COMMODITY OUTLOOK



NO. 28 JUNE 2022



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ASEAN FOOD SECURITY INFORMATION SYSTEM (AFSIS)

Report on

ASEAN Agricultural Commodity Outlook

No. 28 June 2022

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The ACO report activity represents the hard work and well collaboration between the ASEAN member countries. The ACO report No.28 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

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Foreword

ASEAN 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 ASEAN Agricultural Commodity Outlook, it provides both national and regional information on production, utilization, monitoring the global food crisis and food insecurity, stock, trade, and FOB/CIF 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



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Rice Outlook for 2023



Rice supply in ASEAN is forecast to increase about 6.45 percent from 163.97 million tons of milled rice in 2022 to 170.42 million tons in 2023 (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 19.33 percent or 6.10 million tons from 31.56 million tons in 2022 to 37.66 million tons in 2023.

The rice production in 2023 is forecast to be 128.14 million tons, increasing from 127.80 million tons in 2022, or 0.26 percent increase. The import is expected to increase 0.43 percent or 0.02 million tons from 4.60 million tons in 2022 to 4.62 million tons in 2023.

Considering only available data, rice export is expected to increase 8.21 percent from 17.42 million tons in 2022 to 18.85 million tons in 2023.

The ratio of production to domestic utilization (self-sufficiency ratio) for the region is expected to be 116.56 percent in 2023. The beginning stock to domestic utilization ratio (food security ratio) is estimated to be 34.26 percent in 2023 (Table 1).

Table 1 Summary of the ASEAN rice situation, 2022-2023 (milled rice)

Unit: Million tons

Items	2022	2023	Change	
			Quantity	%
Supply (Million tons)	163.97	170.42	6.45	3.93
Beginning stock	31.56	37.66	6.10	19.33
Production	127.80	128.14	0.34	0.26
Import	4.60	4.62	0.02	0.43
Demand (Million tons)	163.97	170.42	6.45	3.93
Domestic utilization	108.89	109.94	1.05	0.96
Export	17.42	18.85	1.43	8.21
Ending stock	37.66	41.64	3.98	10.57
Ratio of production to domestic utilization (%)	117.37	116.56	-0.81	-
Ratio of beginning stock to domestic utilization (%)	28.99	34.26	5.27	-

ASEAN Rice Situation in 2022

► Production

ASEAN paddy production in 2022 (crop year 2021/22) was estimated at 199.24 million tons, increasing 6.56 million tons or 3.40 percent from 192.68 million tons in 2021 (crop year 2020/21). The increase was due to the increasing in planted and harvested areas. The increase in production was found in Cambodia, Thailand, Indonesia, Brunei, the Philippines, Malaysia, Myanmar and Lao PDR (Table 2-5, Figure 1-4).

For **Brunei**, the increase in production is attributed to the increase in planted and harvested areas. The increase in planted and harvested areas came from government policy, which is the expansion of new rice farming areas in Kandol. Besides, rice yield remained the same as previous year 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 and government policy. 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 planted area due to government policy together with favorable weather.

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

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

For **Myanmar**, the increase in production is attributed 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 took better care of the rice crop together with favorable weather.

For **the Philippines**, the increase in production came from the increase in planted area, harvested area, and yield because farmers used more fertilizer and took better care of the rice crop together with favorable weather and sufficient irrigation and water supply in Central Visayas.

For **Thailand**, the increase in production came from the increase in planted area, harvested area, and yield was due to favorable weather together with sufficient irrigation and water supply.

For **Vietnam**, the decrease in production is attributed to the decrease in planted area, harvested area, and yield, which was caused by government policy.

► Utilization and Stock

The domestic utilization of rice (milled rice) within ASEAN in 2022 (calendar year) was estimated to be 108.89 million tons, which increased from 105.31 million tons in 2021. The increase was about 3.58 million tons or 3.40 percent (Table 7-8).

The ratio of production to domestic utilization (self-sufficient ratio) of ASEAN in 2022 was estimated at 117.37 percent compared to 117.38 percent in 2021. 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 Cambodia, Indonesia, Lao PDR, Malaysia, and Thailand. While the self-sufficient ratio of Brunei, Myanmar, the

Philippines, and Vietnam 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 Cambodia, Thailand, Vietnam, and Indonesia, respectively, while the lowest ratio was in Brunei (Table 10, Figure 12).

The beginning stock in 2022 (January 2022) of ASEAN was estimated at 31.56 million tons, increasing 6.62 million tons from 24.94 million tons in 2021 or 26.55 percent. Myanmar carried 11.23 million tons or 35.59 percent of the ASEAN stock, followed by Thailand with 8.08 million tons or 25.61 percent of the total stock in ASEAN (Table 7-8).

The ratio of the beginning stock to the domestic utilization (**food security ratio**) in 2022 for the whole ASEAN was estimated at 28.99 percent, which increased about 5.31 percent from the previous year. Brunei, Cambodia, Myanmar, and Thailand have the ratios above 20 percent of the optimum level (Table 11, Figure 13).

For the overall production, the data from major crop namely rice, the staple food of ASEAN region, demonstrates that many countries in the region **have self-dependency in terms of food production and have food security.** However, they still have to deal with the problem of high food prices which is one of the determinants that cause food insecurity. As most of the producing countries in ASEAN are developing countries, the majority of populations in the countries have low-income and middle-income which will affect the most from high food prices crisis. This might raise the concerns of food insecurity in the future. On the other hand, this situation can be advantages for rice export of ASEAN countries, especially for countries that have excessive supply for generating income from export.

► Trade

In 2022, ASEAN as a whole exported 17.42 million tons of milled rice, which increased of 1.34 million tons or 8.32 percent from 16.08 million tons exported in 2021. Vietnam and Thailand, the two major exporting countries, exported about 7.23 million tons and 7.00 million tons, respectively (Table 7-8, Figure 5-6).

The total import by ASEAN in 2022 is estimated to be 4.60 million tons, an increase of 0.20 million tons or about 4.56 percent from 4.40 million tons in 2021. The Philippines was the biggest importer in the region, which imported 2.20 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 2021-2022 (January-December) are shown in Table 14-15 and Figure 14-16.

► Damaged Area

The damaged area of paddy in ASEAN in 2022 (crop year 2021/22) was estimated to be 0.55 million hectares. Of which, 0.52 million hectares or 95.94 percent were caused by flood. The damage caused by flood occurred mostly in Thailand, which equals to 0.47 million hectares or 90.69 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 2023

► Production

ASEAN paddy production in 2023 (crop year 2022/23) is estimated at 199.69 million tons, increasing by 0.45 million tons, which is 0.23 percent from 199.24 million tons in 2022 (crop year 2021/22) by assuring without extreme natural disasters. The production is predicted to increase in all countries, except Indonesia, which are caused by the increase in either harvested area or yield (Table 2-5, Figure 1-4).

► Utilization and Stock

The domestic utilization of milled rice in ASEAN in 2023 is projected to be 109.94 million tons, increasing about 1.05 million tons or 0.97 percent compared to 108.89 million tons in 2022 (Table 8-9).

The beginning stock in 2023 is predicted to be 37.66 million tons, which increased by 6.10 million tons or 19.34 percent from 31.56 million tons in 2022. The ending stock is also expected to increase by 3.97 million tons or 10.55 percent from 37.66 million tons in 2022 to 41.64 million tons in 2023 (Table 8-9, Figure 11).

The ratio of production to domestic utilization (**self-sufficient ratio**) is forecast to be 116.56 percent in 2023, which will decrease by 0.81 percent from 2022. 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 (**food security ratio**) in ASEAN in 2023 is forecast to increase from 28.99 percent in 2022 to 34.26 percent in 2023 (Table 11, Figure 13).

► Trade

With missing data from some countries, rice import from ASEAN is forecast to increase from 4.60 million tons in 2022 to 4.62 million tons in 2023 (Table 8-9, Figure 8 and 10).

For the export, the whole ASEAN is forecast to export 18.85 million tons in 2023, increasing of 1.43 million tons or about 8.20 percent compared to 17.42 million tons in 2022 (Table 8-9, Figure 5 and 7).

Table 2 Paddy production in ASEAN countries, 2021 - 2023

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	192,681.43	199,240.69	6,559.27	3.40	199,690.59	449.90	0.23
Brunei	4.11	4.24	0.12	3.00	4.45	0.21	5.00
Cambodia	10,935.62	12,206.99	1,271.37	11.63	12,223.09	16.10	0.13
Indonesia	54,415.29	57,449.83	3,034.53	5.58	56,153.15	-1,296.68	-2.26
Lao PDR	3,660.05	3,688.05	28.00	0.76	3,917.50	229.45	6.22
Malaysia	2,363.43	2,399.67	36.23	1.53	2,418.40	18.73	0.78
Myanmar	25,982.53	26,274.73	292.20	1.12	26,590.03	315.30	1.20
Philippines	19,708.04	20,091.45	383.41	1.95	20,593.73	502.29	2.50
Singapore			N/A				
Thailand	31,734.27	33,582.01	1,847.74	5.82	34,135.07	553.06	1.65
Vietnam	43,878.08	43,543.74	-334.34	-0.76	43,655.18	111.44	0.26

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, 2021 – 2023

Unit: 1,000 Hectares

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	45,769.63	47,302.11	1,532.48	3.35	47,089.46	-212.65	-0.45
Brunei	1.58	1.63	0.05	3.00	1.71	0.08	5.00
Cambodia	3,404.13	3,552.73	148.59	4.37	3,545.23	-7.50	-0.21
Indonesia	10,497.82	11,228.20	730.38	6.96	10,805.25	-422.95	-3.77
Lao PDR	940.82	936.60	-4.22	-0.45	919.18	-17.42	-1.86
Malaysia	636.75	644.96	8.21	1.29	647.14	2.17	0.34
Myanmar	6,961.93	7,053.36	91.42	1.31	7,145.98	92.62	1.31
Philippines	4,761.28	4,827.09	65.82	1.38	4,947.77	120.68	2.50
Singapore			N/A				
Thailand	11,324.84	11,845.99	521.15	4.60	11,849.12	3.13	0.03
Vietnam	7,240.49	7,211.57	-28.92	-0.40	7,228.10	16.53	0.23

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, 2021 – 2023**

Unit: 1,000 Hectares

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	45,026.69	46,584.48	1,557.79	3.46	46,478.01	-106.47	-0.23
Brunei	1.48	1.52	0.04	3.00	1.60	0.08	5.00
Cambodia	3,268.97	3,497.68	228.71	7.00	3,504.26	6.58	0.19
Indonesia	10,411.80	11,213.99	802.19	7.70	10,805.25	-408.74	-3.64
Lao PDR	939.66	936.60	-3.06	-0.33	919.18	-17.42	-1.86
Malaysia	628.82	644.96	16.14	2.57	647.14	2.17	0.34
Myanmar	6,830.05	6,887.16	57.12	0.84	6,944.76	57.60	0.84
Philippines	4,761.28	4,827.09	65.82	1.38	4,947.77	120.68	2.50
Singapore			N/A				
Thailand	10,944.15	11,363.90	419.75	3.84	11,479.96	116.06	1.02
Vietnam	7,240.50	7,211.57	-28.93	-0.40	7,228.10	16.53	0.23

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, 2021 – 2023**

Unit: Ton/Hectare

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	4.28	4.28	0.00	0.00	4.30	0.02	0.47
Brunei	2.79	2.79	0.00	0.00	2.79	0.00	0.00
Cambodia	3.35	3.49	0.14	4.18	3.49	0.00	0.00
Indonesia	5.23	5.12	-0.11	-2.10	5.20	0.08	1.56
Lao PDR	3.90	3.94	0.04	1.03	4.26	0.32	8.12
Malaysia	3.76	3.72	-0.04	-1.06	3.74	0.02	0.54
Myanmar	3.80	3.82	0.02	0.53	3.83	0.01	0.26
Philippines	4.14	4.16	0.02	0.48	4.16	0.00	0.00
Singapore			N/A				
Thailand	2.90	2.96	0.06	2.07	2.97	0.01	0.34
Vietnam	6.06	6.04	-0.02	-0.33	6.04	0.00	0.00

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, 2022

Unit: Hectares

Country	Cause of Damage (Hectares)						
	Flood	Drought	Pests	Diseases	Other	Unspecified	Total
ASEAN	523,448	20,996	756	30	358	0	545,587
Brunei	25	28	28	30	-	-	111
Cambodia	31,154	20,335	-	-	-	-	51,489
Indonesia	13,475	17		717	-	-	14,208
Lao PDR				N/A			
Malaysia				N/A			
Myanmar	4,079	616	11	-	358	-	5,064
Philippines				N/A			
Singapore				N/A			
Thailand	474,714			-	-	-	474,714
Vietnam				N/A			

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

Table 7 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	24,940,510	123,607,330	4,403,788	152,951,628	105,309,293	16,080,916	31,561,419	152,951,628
Brunei	21,563	2,675	23,017	47,254	29,344	-	17,910	47,254
Cambodia	3,604,987	6,998,796	-	10,603,783	3,834,853	1,573,581	5,195,349	10,603,783
Indonesia	981,647	34,140,156	19,641	35,141,444	*33,741,456	246	1,399,742	35,141,444
Lao PDR	194,533	2,196,030	29,885	2,420,448	2,283,640	17,366	119,442	2,420,448
Malaysia		1,631,655	1,148,909	2,780,564	*2,684,304	96,260	-	2,780,564
Myanmar	*10,576,492	*16,368,992	-	26,945,484	*14,817,485	*894,737	*11,233,262	26,945,484
Philippines	2,332,000	13,121,000	2,000,000	17,453,000	15,080,000	-	2,373,000	17,453,000
Singapore	-	-	381,450	381,450	229,207	152,243	-	381,450
Thailand	*4,640,000	20,627,274	*45,243	25,312,517	11,113,450	6,117,369	*8,081,698	25,312,517
Vietnam	2,589,288	28,520,753	755,644	31,865,684	21,495,554	7,229,114	3,141,016	31,865,684

Remark: * The value is estimated by AFSIS Secretariat.

Table 8 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	31,561,419	127,802,756	4,604,462	163,968,638	108,885,808	17,418,305	37,664,525	163,968,638
Brunei	17,910	2,755	29,560	50,224	32,017	-	18,208	50,224
Cambodia	5,195,349	7,812,472	-	13,007,821	3,720,686	2,053,166	7,233,969	13,007,821
Indonesia	1,399,742	36,044,021	*18,604	37,462,366	*34,506,538	*406	2,955,423	37,462,366
Lao PDR	119,442	2,212,828	26,537	2,358,807	2,258,017	18,175	82,614	2,358,807
Malaysia	-	1,669,601	*1,154,653	2,824,254	*2,727,513	*96,741	-	2,824,254
Myanmar	11,233,262	16,553,081	164	27,786,507	16,576,787	872,632	10,337,088	27,786,507
Philippines	2,373,000	*13,376,261	2,200,000	17,949,261	*15,670,261	-	2,279,000	17,949,261
Singapore	-	-	368,777	368,777	221,592	147,185	-	368,777
Thailand	*8,081,698	21,828,306	*49,768	29,959,772	11,496,600	*7,000,000	*11,463,172	29,959,772
Vietnam	3,141,016	28,303,433	756,399	32,200,849	21,675,798	7,230,000	3,295,051	32,200,849

Remark: * The value is estimated by AFSIS Secretariat.

Table 9 Rice balance sheet of ASEAN countries, 2023 (milled rice)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	37,664,525	128,139,128	4,618,462	170,422,114	109,938,318	18,845,866	41,637,931	170,422,114
Brunei	18,208	2,893	30,446	51,546	33,032	-	18,514	51,546
Cambodia	7,233,969	7,822,776	-	15,056,746	*3,775,262	*2,669,116	8,612,368	15,056,746
Indonesia	2,955,423	35,230,483	*18,183	38,204,089	*34,877,225	*385	3,326,480	38,204,089
Lao PDR	82,614	2,350,500	27,339	2,460,453	2,212,664	19,901	227,888	2,460,453
Malaysia	-	1,677,656	*1,160,224	2,837,880	*2,740,672	*97,208	-	2,837,880
Myanmar	10,337,088	*16,780,490	-	27,117,578	*16,804,521	*859,542	9,453,514	27,117,578
Philippines	2,279,000	*13,710,667	*2,200,000	18,189,667	*15,811,293	-	2,378,374	18,189,667
Singapore	-	-	375,114	375,114	225,400	149,714	-	375,114
Thailand	*11,463,172	22,187,795	*50,000	33,700,967	11,570,250	*8,000,000	*14,130,717	33,700,967
Vietnam	3,295,051	28,375,868	757,156	32,428,075	21,887,998	7,050,000	3,490,077	32,428,075

Remark: * The value is estimated by AFSIS Secretariat.

Table 10 Ratio of rice production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2021 – 2023

Unit: Tons

Country	2021			2022			2023		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	123,607,330	105,309,293	117.38	127,802,756	108,885,808	117.37	128,139,128	109,938,318	116.56
Brunei	2,675	29,344	9.11	2,755	32,017	8.60	2,893	33,032	8.76
Cambodia	6,998,796	3,834,853	182.50	7,812,472	3,720,686	209.97	7,822,776	3,775,262	207.21
Indonesia	34,140,156	33,741,456	101.18	36,044,021	34,506,538	104.46	35,230,483	34,877,225	101.01
Lao PDR	2,196,030	2,283,640	96.16	2,212,828	2,258,017	98.00	2,350,500	2,212,664	106.23
Malaysia	1,631,655	2,684,304	60.79	1,669,601	2,727,513	61.21	1,677,656	2,740,672	61.21
Myanmar	16,368,992	14,817,485	110.47	16,553,081	16,576,787	99.86	16,780,490	16,804,521	99.86
Philippines	13,121,000	15,080,000	87.01	13,376,261	15,670,261	85.36	13,710,667	15,811,293	86.71
Singapore	-	229,207	-	-	221,592	-	-	225,400	-
Thailand	20,627,274	11,113,450	185.61	21,828,306	11,496,600	189.87	22,187,795	11,570,250	191.77
Vietnam	28,520,753	21,495,554	132.68	28,303,433	21,675,798	130.58	28,375,868	21,887,998	129.64

Table 11 Ratio of rice beginning stock to domestic utilization in ASEAN countries, 2021– 2023

Unit: Tons

Country	2021			2022			2023		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	24,940,510	105,309,293	23.68	31,561,419	108,885,808	28.99	37,664,525	109,938,318	34.26
Brunei	21,563	29,344	73.48	17,910	32,017	55.94	18,208	33,032	55.12
Cambodia	3,604,987	3,834,853	94.01	5,195,349	3,720,686	139.63	7,233,969	3,775,262	191.62
Indonesia	981,647	33,741,456	2.91	1,399,742	34,506,538	4.06	2,955,423	34,877,225	8.47
Lao PDR	194,533	2,283,640	8.52	119,442	2,258,017	5.29	82,614	2,212,664	3.73
Malaysia	-	2,684,304	-	-	2,727,513	-	-	2,740,672	-
Myanmar	10,576,492	14,817,485	71.38	11,233,262	16,576,787	67.77	10,337,088	16,804,521	61.51
Philippines	2,332,000	15,080,000	15.46	2,373,000	15,670,261	15.14	2,279,000	15,811,293	14.41
Singapore	-	229,207	0.00	-	221,592	0.00	-	225,400	-
Thailand	4,640,000	11,113,450	41.75	8,081,698	11,496,600	70.30	11,463,172	11,570,250	99.07
Vietnam	2,589,288	21,495,554	12.05	3,141,016	21,675,798	14.49	3,295,051	21,887,998	15.05

Table 12 Quantity and Value of Rice Export by Countries of Destination in 2022

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														
Indonesia													375	220,500
Lao PDR														
Malaysia					45,418	18,208,634								
Myanmar									1,625	569,000			108,076	35,640,000
Philippines														
Singapore	N/A													
Thailand	2,184	1,409,724	1,278	519,899	5,494	2,288,172	13,302	5,358,897	25,074	10,488,791	1,373	475,928	51,522	19,654,149
Vietnam					11,799	5,665,625			116,164	53,946,799			915,534	422,161,667

[6]

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					1,096,654	-	1,096,654	-	315,015	-	1,411,669	-
Indonesia							375	220,500	31	29,693	406	250,193
Lao PDR			1,193	631,072	4,971	2,606,376	6,164	3,237,448	8,231	4,660,879	14,395	7,898,327
Malaysia	15.7	14,477					45,433	18,223,111			45,433	18,223,111
Myanmar	523	196,000	225	75,000	2,500	888,000	112,949	37,368,000	759,683	233,710,000	872,632	271,078,000
Philippines							-	-	51,250	62,856	51,250	62,856
Singapore	N/A											
Thailand	31,467	24,834,154			4,480	2,584,019	136,173	67,613,733	2,155,743	1,110,560,732	2,291,916	1,178,174,466
Vietnam	28,703	16,264,404					1,072,200	498,038,495	986,612	508,769,000	2,058,812	1,006,807,495

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 2022

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		16,428		10,719		12	21,514							
Myanmar														
Philippines											51,378,962	13,449,940		
Singapore		7,069		5,112,925		0.50	1,080			55	65,487	2,636	1,173,601	
Thailand											219.006	12,235		
Vietnam		-	218,306,919		-	287,690		-	3,158,479	-	86,492	-	1,105,300	-
														14,418

[01]

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	0.002	60					0.002	60	16.00	47,430	16	47,490	
Lao PDR			6,514	2,240,613	6,287	2,126,835	12,801	4,367,448	10,275	4,782,989	23,076	9,150,437	
Malaysia			42,249	18,944,958	141,638	69,540,395	200,328	88,517,586	328,225	142,868,744	528,553	231,386,330	
Myanmar								-	-	164	134,000	164	134,000
Philippines	1,860,656.0	599685	62,133,071	20,373,178	446,633,048	141,865,977	562,005,737	176,288,780	44,969,251	17,290,828	606,974,989	193,579,608	
Singapore			100,151	84,851,921	90,375	53,757,507	200,286	144,962,522	168,492	97,618,157	368,777	242,580,679	
Thailand	0.002	9			322	210,042	541	222,286	2,703	2,789,208	3,244	3,011,494	
Vietnam	-	1,364,697	-	2,136,454			-	226,460,449		72,396,419	-	298,856,868	

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

Table 15 CIF Price of rice in selected ASEAN countries

Unit: US\$/Ton

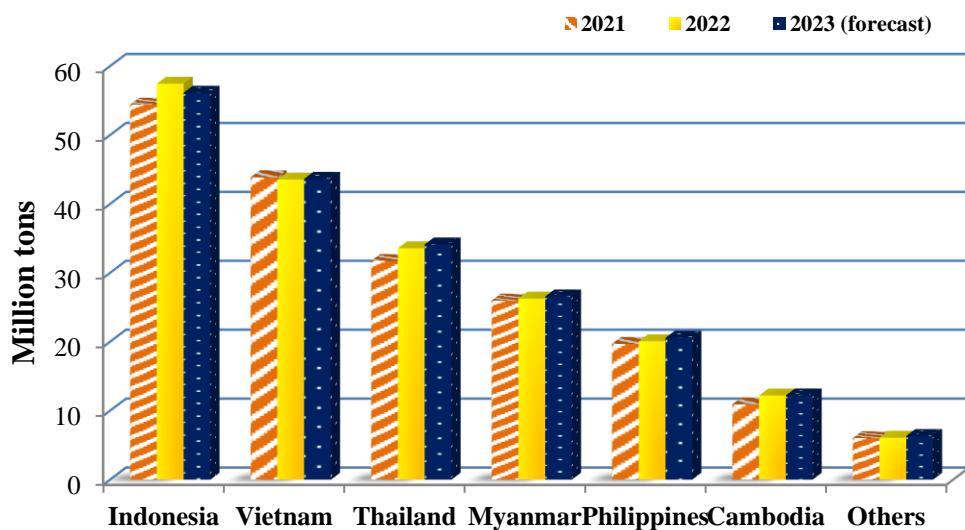


Figure 1 Paddy production of selected countries in ASEAN, 2021 – 2023

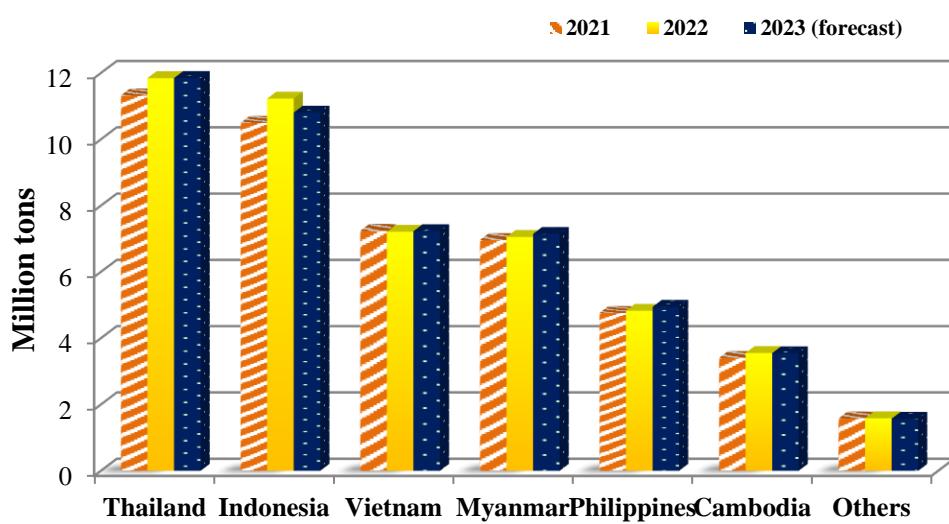


Figure 2 Paddy planted area of selected countries in ASEAN, 2021 – 2023

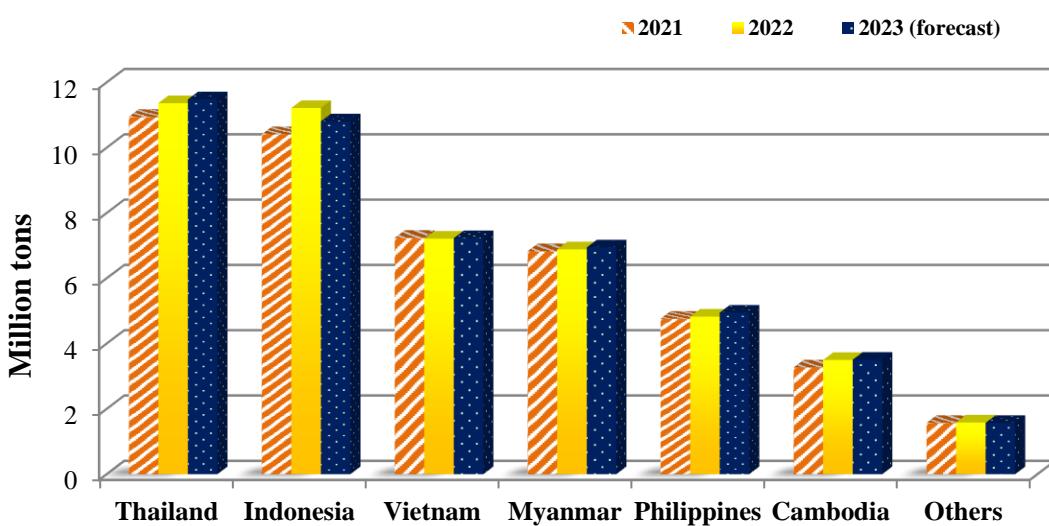


Figure 3 Paddy harvested area of selected countries in ASEAN, 2021 – 2023

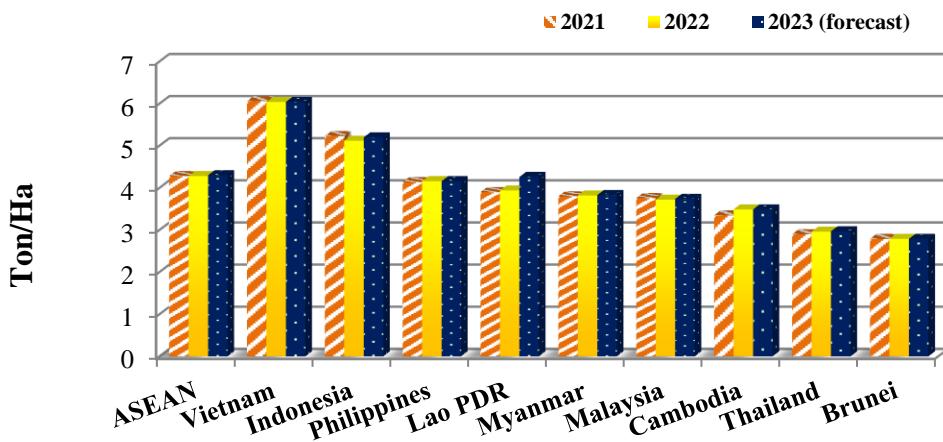


Figure 4 Paddy yield of countries in ASEAN, 2021 – 2023

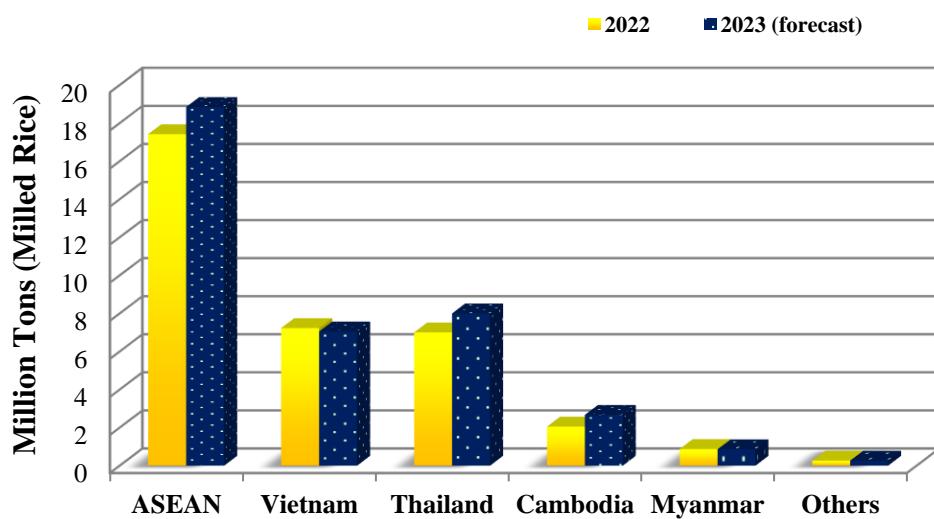
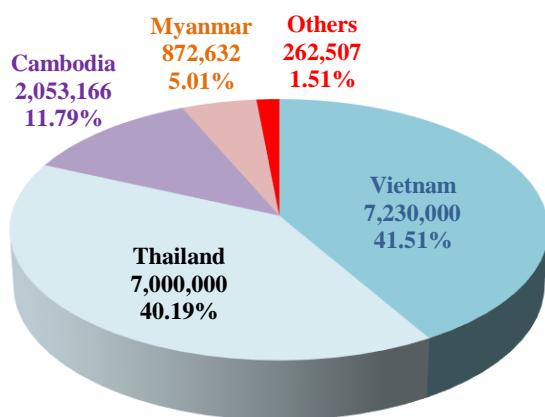
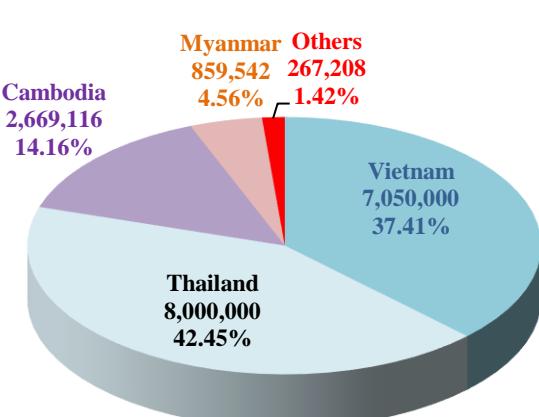


Figure 5 Amount of rice export (million tons) of selected countries in ASEAN in 2022 – 2023



Total 17.42 million tons

Figure 6 Share of rice export (tons) among ASEAN countries, 2022



Total 18.85 million tons

Figure 7 Share of rice export (tons) among ASEAN countries, 2023

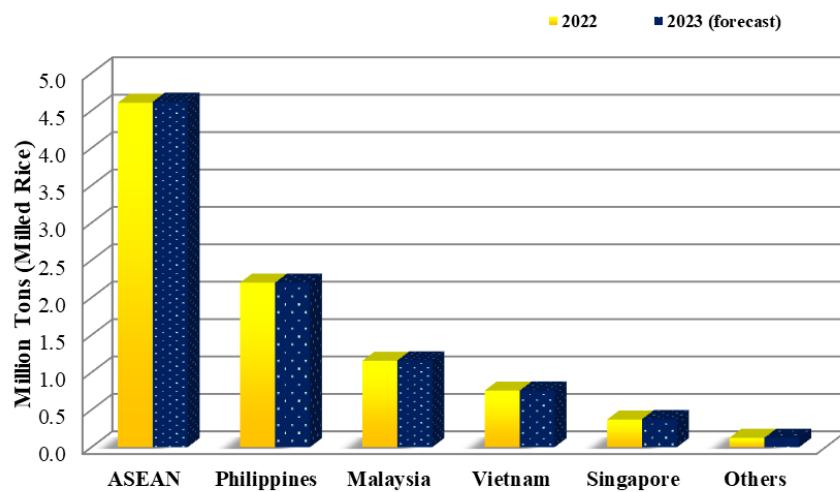


Figure 8 Amount of rice import (million tons) by selected countries in ASEAN in 2022 – 2023

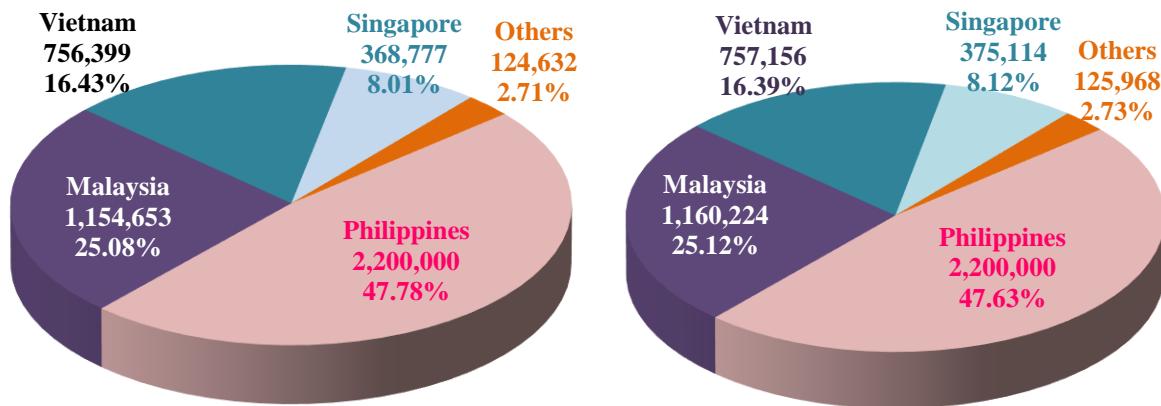


Figure 9 Share of rice import (tons) among ASEAN countries, 2022

Figure 10 Share of rice import (tons) among ASEAN countries, 2023

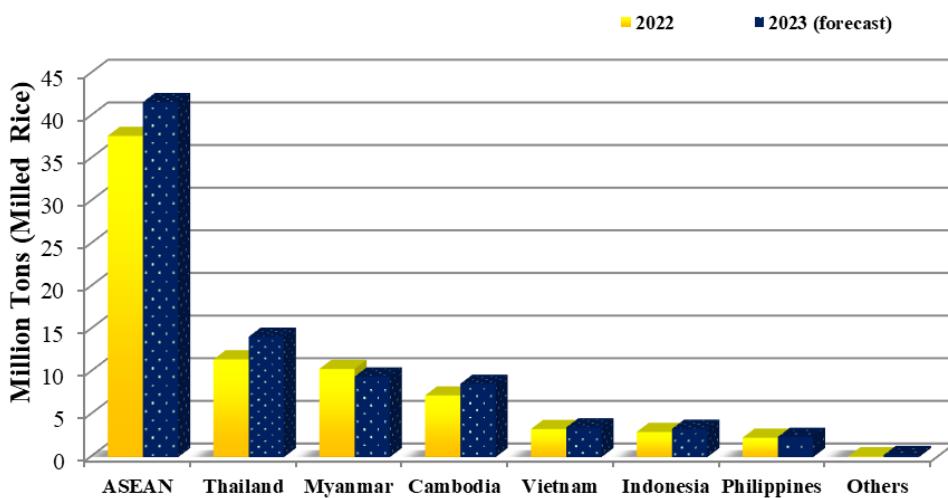


Figure 11 Amount of ending stock of rice in ASEAN countries, 2022 – 2023

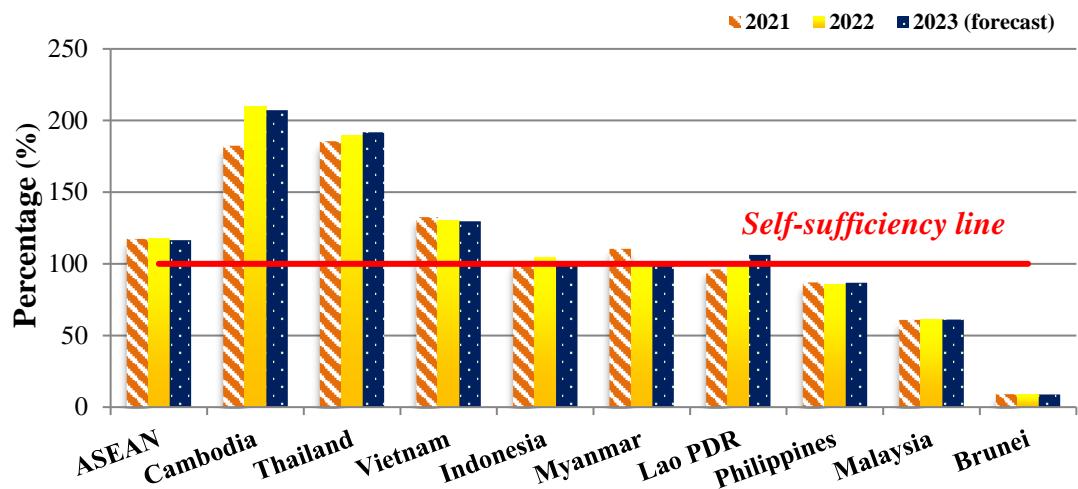


Figure 12 Ratio of rice production to domestic utilization in ASEAN countries, 2021– 2023

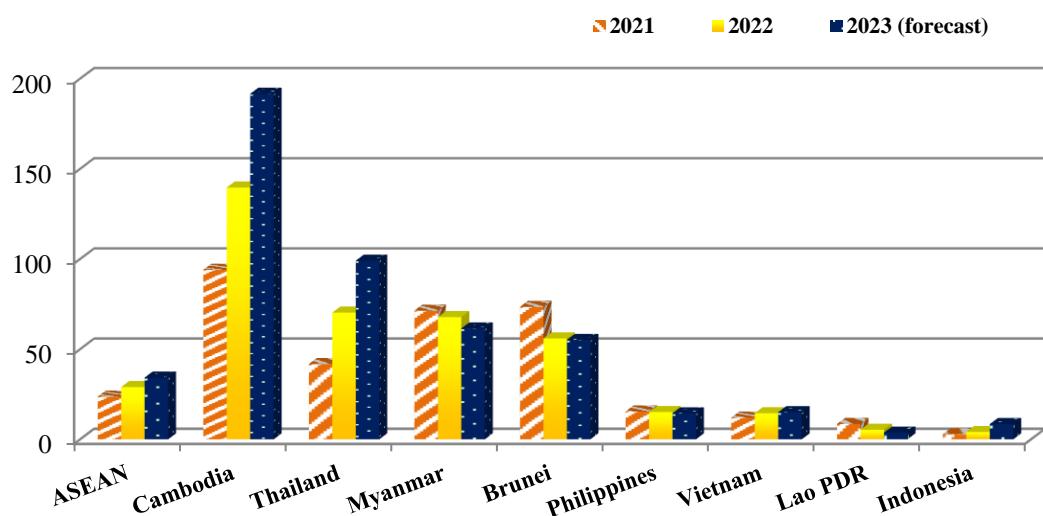


Figure 13 Ratio of rice beginning stock to domestic utilization in ASEAN countries, 2021 – 2023

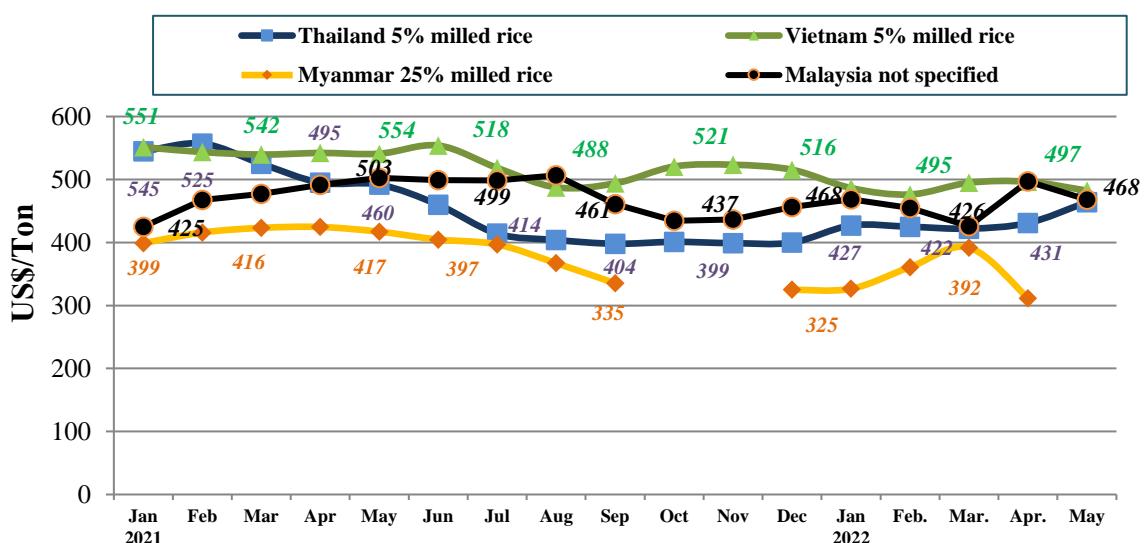


Figure 14 FOB price (US\$/Ton) of milled rice of selected countries in ASEAN in 2021 – 2022

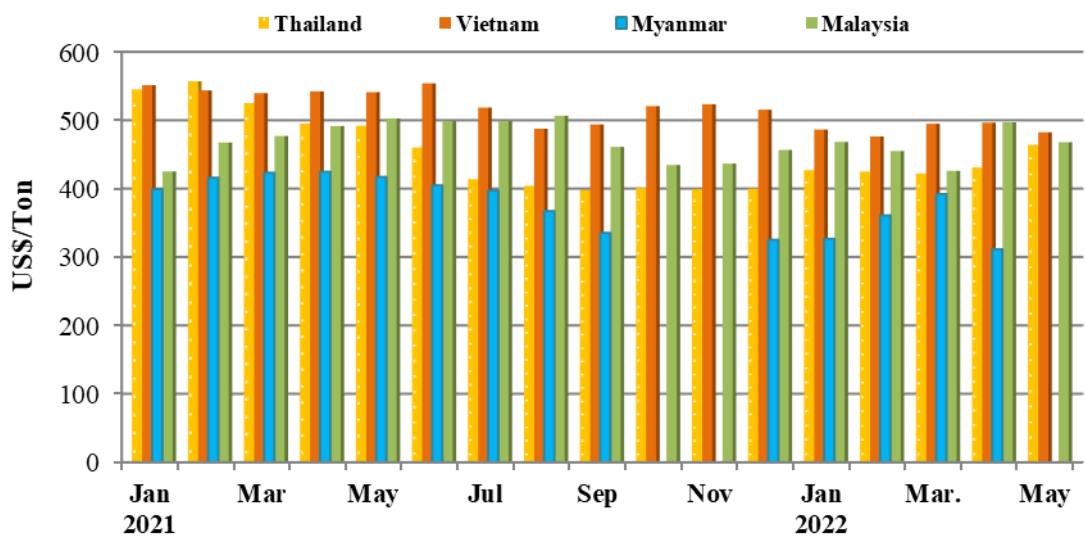


Figure 15 FOB price (US\$/Ton) of milled rice of selected countries in ASEAN in 2021 – 2022

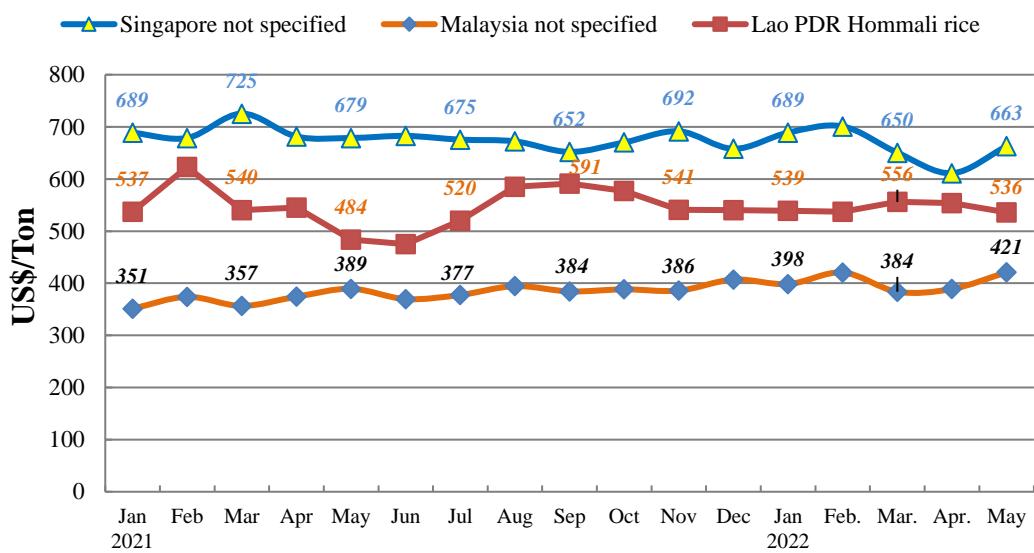


Figure 16 CIF price (US\$/Ton) of milled rice of selected countries in ASEAN in 2021 – 2022

Maize Outlook for 2023



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 3.16 percent or 1.99 million tons from 62.90 million tons in 2022 to 60.91 million tons in 2023 (Table 16).

Maize production is forecast to increase around 0.59 million tons or 1.41 percent from 41.98 million tons in 2022 to 42.57 million tons in 2023. The beginning stock is expected to decrease around 14.06 percent or 0.80 million tons from 5.69 million tons in 2022 to 4.89 million tons in 2023.

Maize's demand in 2023 is expected to decrease around 3.16 percent. Domestic utilization is predicted to decrease by 2.13 million tons from 56.25 million tons in 2022 to 54.12 million tons in 2023. The export of maize is expected to increase around 9.66 percent from 1.76 million tons in 2022 to 1.93 million tons in 2023.

The ending stock of maize is expected to decrease around 0.61 percent from 4.89 million tons in 2022 to 4.86 million tons in 2023.

The ratio of production to domestic utilization (self-sufficiency ratio) for the region is expected to increase by 4.03 percent from 74.62 percent in 2022 to 78.65 percent in 2023.

The beginning stock to domestic utilization ratio (food security ratio) in 2023 is forecast to decrease around 1.09 percent from 10.12 percent in 2022 to 9.03 percent in 2023. **This indicates that the food (feed) security situation in the ASEAN region is decreasing.**

Table 16 Summary of the ASEAN maize situation, 2022 – 2023

Unit: Million tons

Items	2022	2023	Change	
			Quantity	%
Supply (Million tons)	62.90	60.91	-1.99	-3.16
Beginning stock	5.69	4.89	-0.80	-14.06
Production	41.98	42.57	0.59	1.41
Import	15.23	13.46	-1.77	-11.62
Demand (Million tons)	62.90	60.91	-1.99	-3.16
Domestic utilization	56.25	54.12	-2.13	-3.79
Export	1.76	1.93	0.17	9.66
Ending stock	4.89	4.86	-0.03	-0.61
Ratio of production to domestic utilization (%)	74.62	78.65	4.03	-
Ratio of beginning stock to domestic utilization (%)	10.12	9.03	-1.09	-

ASEAN Maize Situation in 2022

► Production

ASEAN maize production in 2022 (crop year 2021/22) was estimated at 44.89 million tons, which increased by 0.61 million tons or about 1.38 percent from 44.28 million tons in 2021 (crop year 2020/21). An increase in maize production in 2021 was found in Brunei, Indonesia, Lao PDR, Myanmar, the Philippines, and Vietnam due to the increase in either planted area and yield. While, the production of Cambodia and Thailand 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.

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 increase in production is attributed to the increase in planted area, harvested area and yield because farmers took better care of their crops together with 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 yield because farmers used more fertilizer and improved varieties.

For Thailand, the decrease in production is attributed to the increase in the planted and harvested areas caused by the increase in the price of competing crop, unfavorable weather, and high production cost (seed and pesticide spraying).

For **Vietnam**, the increase in production is attributed to the increase in yield because farmers took better care of their crops.

► Utilization and Stock

Maize utilization in ASEAN in 2022 was estimated at 56.25 million tons, which increased 3.55 million tons or 6.73 percent compared to 52.71 million tons in 2021 (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, Cambodia, Indonesia, Malaysia and Myanmar.

The beginning stock of maize in ASEAN in 2022 was estimated at 5.69 million tons, which increased by 2.72 million tons from 2.97 million tons in 2021 (Table 22-23).

The ratio of maize production to domestic utilization (**self-sufficient ratio**) for the whole ASEAN in 2022 was estimated at 74.62 percent compared to 78.20 percent in year 2021. 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. Thus, these countries still need to import maize for their domestic utilization.

The ratio of beginning stock to domestic utilization (**food security ratio**) for the ASEAN in 2022 was estimated to be 10.12 percent and all of country have the ratio less than 20 percent. This indicated that the region is not secure enough in terms of feed requirement (Table 26, Figure 29).

Overall, despite maize production in ASEAN was increased, the production volume was considerably insufficient for consumption within the ASEAN region because maize is the important raw material for animal feed industry. Therefore, many ASEAN countries still rely heavily on maize import from abroad.

Additionally, the impact from Russia-Ukraine war has led to the increasing prices of fertilizer and shortage, high energy prices, and increasing price of food, especially maize as these two countries are the major maize producers and exporters in the world. This situation has direct impact to most countries in ASEAN region because they are agricultural producing countries, main income of population in the country comes from agricultural activities which lead to high demand for fertilizers and energy. When the energy price is high, agricultural equipment will be more expensive and fertilizer will also be costly and shortage resulting in the increase of production costs suddenly. This will affect Maize producing countries in ASEAN region and could possibly lead to maize shortage or food insecurity in the future.

► Trade

The maize exported from ASEAN in 2022 is forecast to be 1.76 million tons compared to 15.23 million tons of maize

imported (Table 23, Figure 21-22, 24-25). In 2022, Myanmar, the biggest exporter in ASEAN, is expected to export 1.32 million tons or around 75.14 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 2021 and 2022 are shown in Table 29-30 and Figure 30-31. The annual average of Indonesia FOB prices in 2022 (January-March) was 675 US\$/ton, which increase from 591 US\$/ton as the yearly average in 2021. For Lao PDR (January-June), Myanmar (January-April), and Thailand (January-May), average FOB prices of 2022 were 224, 251, and 366 US\$/ton, respectively. The average CIF prices in 2022 in Indonesia (January-March), Singapore (January-June) and Vietnam (January-May) were 330, 486, and 344 respectively.

► Damaged Area

The damaged area of maize in 2022 is estimated to be 15,341 hectares, of which 10,609 hectares were caused by flood. The most affected areas were caused by flood, which occurred in Thailand, Indonesia, and Myanmar, respectively (Table 21).

Prospects for Maize in 2023

► **Production**

Maize production in ASEAN in 2023 (crop year 2022/23) was estimated at 45.62 million tons. The increase has occurred in Brunei, Cambodia, Indonesia, Lao PDR, Myanmar, Thailand, and Vietnam. The most increase in terms of quantity was found in Vietnam at approximately 0.49 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 increase in production is attributed to the increase in planted and harvested areas.

For **Indonesia**, the biggest maize producer in ASEAN, the increase in production is attributed to the increase in planted area, which comes from 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 and harvested areas.

The **Philippines**, the maize production is forecast to decrease due to the decreasing in planted area and yield.

For **Thailand**, the increase in production is attributed to the increase in yield caused by 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 54.12 million tons in 2023, a decrease of 2.13 million tons from 56.25 million tons in 2022 (Table 23-24). The estimate of the beginning stock for 2023 is around 4.89 million tons, a decrease of 0.80 million tons from 5.69 million tons in 2022.

In 2023, the ratio of production to domestic utilization (**self-sufficient ratio**) is expected to be 78.65 percent, increasing 4.03 percent from 74.62 percent in 2022 (Table 25, Figure 28). The ratio of beginning stock to domestic utilization ratio (**food security ratio**) in 2023 is expected to be 9.03 percent, which decreases 1.09 percent from 2022 (Table 26, Figure 29).

► **Trade**

The maize export from ASEAN is projected to be 1.93 million tons in 2023, an increase of 0.18 million tons compared to 1.76 million tons in 2022. For the import by ASEAN, it is forecast to be 13.46 million tons in 2023, decreasing from 15.23 million tons in 2022 (Table 23-24, Figure 21, 23, 24, and 26).

Table 17 Maize production in ASEAN countries, 2021 – 2023

Unit: 1,000 Tons

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	44,283.56	44,893.39	609.83	1.38	45,621.31	727.92	1.62
Brunei	0.49	0.51	0.02	5.00	0.54	0.03	5.00
Cambodia	821.80	791.51	-30.29	-3.69	805.55	14.04	1.77
Indonesia	23,172.07	23,342.44	170.37	0.74	23,492.53	150.09	0.64
Lao PDR	535.37	649.20	113.83	21.26	670.03	20.83	3.21
Malaysia				N/A			
Myanmar	2,072.86	2,274.61	201.75	9.73	*2,382.27	107.66	4.73
Philippines	*8,280.00	*8,462.00	182.00	2.20	*8,385.04	-76.96	-0.91
Singapore				N/A			
Thailand	4,995.17	4,937.77	-57.40	-1.15	4,961.36	23.59	0.48
Vietnam	4,405.82	4,435.35	29.53	0.67	4,924.00	488.65	11.02

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, 2021 – 2023

Unit: 1,000 Hectares

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	9,673.62	9,721.88	48.26	0.50	10,549.19	827.30	8.51
Brunei				N/A			
Cambodia	178.06	139.21	-38.86	-21.82	152.74	13.53	9.72
Indonesia	4,240.92	4,361.70	120.78	2.85	5,077.32	715.61	16.41
Lao PDR	110.91	130.73	19.82	17.87	136.50	5.77	4.41
Malaysia				N/A			
Myanmar	556.55	607.66	51.11	9.18	*631.96	24.31	4.00
Philippines	*2,557.03	*2,477.75	-79.28	-3.10	*2,457.00	-20.75	-0.84
Singapore				N/A			
Thailand	1,134.23	1,111.58	-22.66	-2.00	1,103.68	-7.90	-0.71
Vietnam	895.92	893.27	-2.65	-0.30	990.00	96.73	10.83

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, 2021 – 2023

Unit: 1,000 Hectares

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	8,848.65	9,702.68	854.03	9.65	10,552.80	850.13	8.76
Brunei				N/A			
Cambodia	170.13	135.16	-34.97	-20.55	149.24	14.08	10.41
Indonesia	3,454.91	4,361.10	906.19	26.23	5,077.32	716.21	16.42
Lao PDR	110.91	130.73	19.82	17.87	136.50	5.77	4.41
Malaysia				N/A			
Myanmar	538.29	603.74	65.45	12.16	*646.00	42.26	7.00
Philippines	*2,557.03	2,477.75	-79.28	-3.10	*2,457.00	-20.75	-0.84
Singapore				N/A			
Thailand	1,121.46	1,100.93	-20.53	-1.83	1,096.75	-4.18	-0.38
Vietnam	895.92	893.27	-2.65	-0.30	990.00	96.73	10.83

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

Table 20 Maize yield in ASEAN countries, 2021 – 2023

Unit: Tons/Hectares

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	5.00	4.63	-0.37	-7.40	4.32	-0.31	-6.70
Brunei			N/A				
Cambodia	4.83	5.86	1.03	21.33	5.40	-0.46	-7.85
Indonesia	6.71	5.35	-1.36	-20.27	4.63	-0.72	-13.46
Lao PDR	4.83	4.97	0.14	2.90	4.91	-0.06	-1.21
Malaysia			N/A				
Myanmar	3.85	3.77	-0.08	-2.08	*3.69	-0.08	-2.12
Philippines	3.24	3.42	0.18	5.56	3.41	-0.01	-0.29
Singapore			N/A				
Thailand	4.45	4.49	0.04	0.90	4.52	0.03	0.67
Vietnam	4.92	4.97	0.05	1.02	4.97	0.00	0.00

Remark: N/A refers to data that is not available.**Table 21 Maize damaged area in ASEAN by cause of damage, 2022**

Unit: Hectares

Country	Cause of Damage (Hectares)						
	Flood	Drought	Pests	Diseases	Unspecified	Others	Total
ASEAN	10,609	638	49	-	-	-	15,341
Brunei			N/A				
Cambodia	-	-	-	-	4,045	-	4,045
Indonesia	530	29		44		-	602
Lao PDR			N/A				
Malaysia			N/A				
Myanmar	45	-	6	-	-	-	50
Philippines							
Singapore			N/A				
Thailand	10,035	609		-	-		10,644
Vietnam			N/A				

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

Table 22 Maize balance sheet of ASEAN countries, 2021

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	2,966,935	41,214,517	16,751,138	60,932,591	52,705,069	2,537,154	5,690,367	60,932,591
Brunei	-	487	91	578	578	-	-	578
Cambodia	216,116	821,798	-	1,037,914	*699,075	201,589	137,250	1,037,914
Indonesia	854,713	20,159,699	902,564	21,916,976	18,252,235	64,741	3,600,000	21,916,976
Lao PDR	56,684	535,367	1,469	593,520	515,926	72,405	5,189	593,520
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	1,062,000	8,280,000	500,000	9,842,000	8,796,000	-	1,046,000	9,842,000
Singapore	-	-	11,427	11,427	11,183	244	-	11,427
Thailand	*200,000	4,938,492	*3,613,707	8,752,199	8,570,109	26,479	*155,611	8,752,199
Vietnam	557,742	4,405,817	10,019,600	14,983,158	13,975,415	274,270	733,473	14,983,158

Remark: * The value is estimated by AFSIS Secretariat.**Table 23 Maize balance sheet of ASEAN countries, 2022**

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	5,690,367	41,978,780	15,227,245	62,896,393	56,254,131	1,755,367	4,886,895	62,896,393
Brunei	-	511	100	611	611	-	-	611
Cambodia	137,250	791,512	-	928,762	*713,057	*150,000	65,705	928,762
Indonesia	3,600,000	20,307,919	*941,049	24,848,969	*23,204,033	*64,935	1,580,000	24,848,969
Lao PDR	5,189	649,200	1,300	655,689	501,196	113,514	40,979	655,689
Malaysia	-	-	*1,783,771	*1,783,771	*1,780,414	*3,357	-	1,783,771
Myanmar	12,844	2,274,613	9,924	2,297,381	201,310	1,318,931	777,141	2,297,381
Philippines	1,046,000	8,462,000	748,000	10,256,000	8,716,000	-	1,540,000	10,256,000
Singapore	-	-	10,035	10,035	9,821	214	-	10,035
Thailand	*155,611	5,057,676	*3,000,000	8,213,287	7,975,471	*20,000	*217,816	8,213,287
Vietnam	733,473	4,435,349	8,733,066	13,901,888	13,152,218	84,416	665,254	13,901,888

Remark: * The value is estimated by AFSIS Secretariat.**Table 24 Maize balance sheet of ASEAN countries, 2023**

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	4,886,895	42,567,283	13,459,666	60,913,843	54,119,931	1,932,332	4,861,580	60,913,843
Brunei	-	537	110	647	647	-	-	647
Cambodia	65,705	805,549	-	871,254	*720,538	*130,000	20,716	871,254
Indonesia	1,580,000	20,438,498	*952,944	22,971,441	*21,870,104	*65,260	*1,036,077	22,971,441
Lao PDR	40,979	670,030	1,196	712,205	522,614	108,911	80,680	712,205
Malaysia	-	-	*1,872,960	*1,872,960	*1,869,435	*3,525	-	1,872,960
Myanmar	777,141	*2,382,275	*10,000	3,169,415	*214,882	*1,516,770	*1,437,763	3,169,415
Philippines	1,540,000	*8,385,038	*300,000	10,225,038	*8,636,724	-	1,588,314	10,225,038
Singapore	-	-	10,731	10,731	10,502	229	-	10,731
Thailand	*217,816	4,961,357	*2,700,000	7,879,174	*7,576,697	*19,000	*283,476	7,879,174
Vietnam	665,254	4,924,000	7,611,725	13,200,979	12,697,788	88,637	414,553	13,200,979

Remark: * The value is estimated by AFSIS Secretariat.

Table 25 Ratio of maize production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2021 – 2023

Unit: Tons

Country	2021			2022			2023		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	41,214,517	52,705,069	78.20	41,978,780	56,254,131	74.62	42,567,283	54,119,931	78.65
Brunei	487	578	84.31	511	611	83.68	537	647	83.04
Cambodia	821,798	699,075	117.56	791,512	713,057	111.00	805,549	720,538	111.80
Indonesia	20,159,699	18,252,235	110.45	20,307,919	23,204,033	87.52	20,438,498	21,870,104	93.45
Lao PDR	535,367	515,926	103.77	649,200	501,196	129.53	670,030	522,614	128.21
Malaysia	-	1,695,632	0.00	-	1,780,414	0.00	-	1,869,435	-
Myanmar	2,072,858	188,917	1,097.23	2,274,613	201,310	1,129.91	2,382,275	214,882	1,108.64
Philippines	8,280,000	8,796,000	94.13	8,462,000	8,716,000	97.09	8,385,038	8,636,724	97.09
Singapore	-	11,183	0.00	-	9,821	0.00	-	10,502	-
Thailand	4,938,492	8,570,109	57.62	5,057,676	7,975,471	63.42	4,961,357	7,576,697	65.48
Vietnam	4,405,817	13,975,415	31.53	4,435,349	13,152,218	33.72	4,924,000	12,697,788	38.78

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), 2021 – 2023

Unit: Tons

Country	2021			2022			2023		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	2,966,935	52,705,069	5.63	5,690,367	56,254,131	10.12	4,886,895	54,119,931	9.03
Brunei	-	578	-	-	611	-	-	647	-
Cambodia	216,116	699,075	30.91	137,250	713,057	19.25	65,705	720,538	9.12
Indonesia	854,713	18,252,235	4.68	3,600,000	23,204,033	15.51	1,580,000	21,870,104	7.22
Lao PDR	56,684	515,926	10.99	5,189	501,196	1.04	40,979	522,614	7.84
Malaysia	-	1,695,632	-	-	1,780,414	-	-	1,869,435	-
Myanmar	19,680	188,917	10.42	12,844	201,310	6.38	777,141	214,882	361.66
Philippines	1,062,000	8,796,000	12.07	1,046,000	8,716,000	12.00	1,540,000	8,636,724	17.83
Singapore	-	11,183	-	-	9,821	-	-	10,502	-
Thailand	200,000	8,570,109	2.33	155,611	7,975,471	1.95	217,816	7,576,697	2.87
Vietnam	557,742	13,975,415	3.99	733,473	13,152,218	5.58	665,254	12,697,788	5.24

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 2022

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														
Indonesia									32	26,026				
Lao PDR														
Malaysia									N/A					
Myanmar													176,863	43,875,000
Philippines														
Singapore									N/A					
Thailand					12	5,287	305	102,414			5	7,168		
Vietnam			-	2,753,856			-	663,304					-	5,499,571

[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			42,350	-	158,250	-	200,600		989	-	201,589	-
Indonesia	100	67,134					132	93,160	32	17,291	164	110,451
Lao PDR			39,412	8,535,101	17,912	3,919,150	57,324	12,454,251	56,190	12,582,635	113,514	25,036,886
Malaysia							N/A					
Myanmar	169	-	821,735	206,983,000	235,969	42,000	1,234,736	250,900,000	84,195	17,949,000	1,318,931	268,849,000
Philippines					97,010	325,881	97,010	325,881	209.00	1,494	97,219	327,375
Singapore							N/A					
Thailand							322	114,869	75	28,795	397	143,664
Vietnam	-	19,550					-	8,936,282	-	709,301	-	9,645,583

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 2022

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	N/A													
Myanmar														
Philippines									250,000	87,500	142,409,842	44,396,339		
Singapore					500	355,518			7,067	2,889,323	0.14	9,758	0.61	510
Thailand							16,686	3,007,316			765,363	204,018,352		
Vietnam							12,258	3,557,790						

[26]

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	0.006	29					0.006	29	255,037	84,407,350	255,037	84,407,379	
Lao PDR			544	247,295	510	232,457	1,054	479,752	246	112,375	1,300	592,127	
Malaysia	N/A												
Myanmar			2,598	10,549,000			2,598	10,549,000	7,326	22,451,000	9,924	33,000,000	
Philippines	3.60	36.00	1,586	39,340	12,946,890	3,341,886	155,608,322	47,865,101	3,416,985	2,346,831	159,025,307	50,211,932	
Singapore			45	75,679			7,613	3,330,788	2,422	1,063,537	10,035	4,394,325	
Thailand							782,049	207,025,668			782,049	207,025,668	
Vietnam			1,904	6,627,639			14,162	10,185,429	2,556,301	841,449,459	2,570,463	851,634,888	

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
Indonesia	2021	525	502	627	648	638	603	665	679	646	485	719	351	591
	2022	657	650	719	-	-	-	-	-	-	-	-	-	675
Lao PDR	2021	257	237	216	210	220	236	241	230	208	198	203	215	223
	2022	244	225	217	208	219	230	-	-	-	-	-	-	224
Myanmar	2021	203	171	213	228	231	229	229	232	232			235	220
	2022	227	246	218	312	-	-	-	-	-	-	-	-	251
Thailand	2021	310	236	307	301	303	315	321	311	342	330	325	316	310
	2022	329	343	385	386	385	-	-	-	-	-	-	-	366

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	2021	189	200	254	274	281	294	309	320	315	309	317	335	283
	2022	342	334	313	-	-	-	-	-	-	-	-	-	330
Singapore	2021	291	288	411	369	416	386	348	384	464	466	475	569	406
	2022	488	639	461	355	486	486	486	486	486	486	486	486	486
Vietnam	2021	206	269	276	284	288	302	321	307	308	286	307	318	289
	2022	320	323	336	360	381	-	-	-	-	-	-	-	344

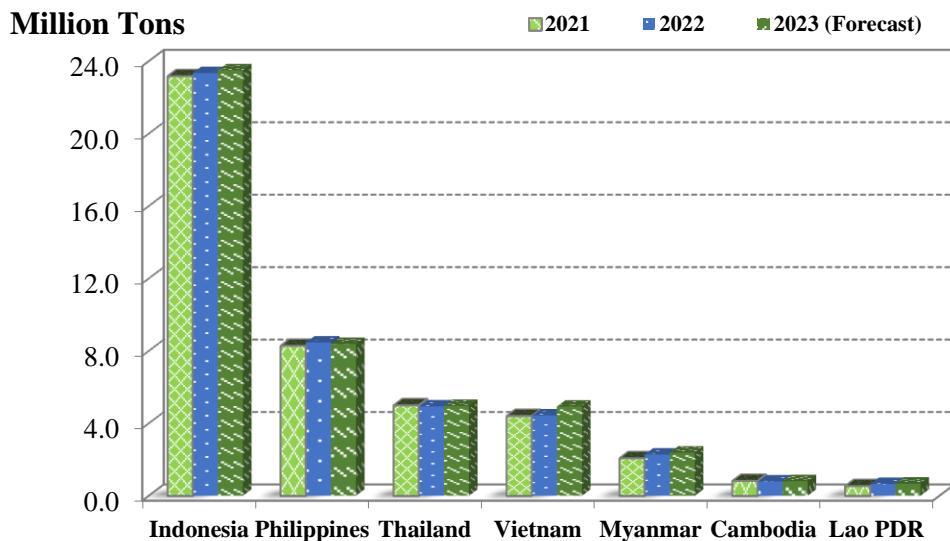


Figure 17 Maize production of selected countries in ASEAN, 2021 – 2023

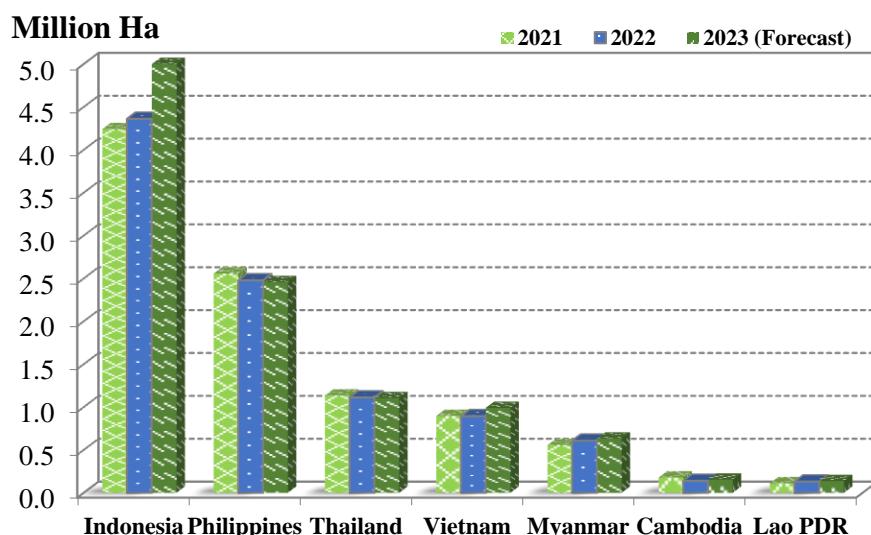


Figure 18 Maize planted area of selected countries in ASEAN, 2021 – 2023

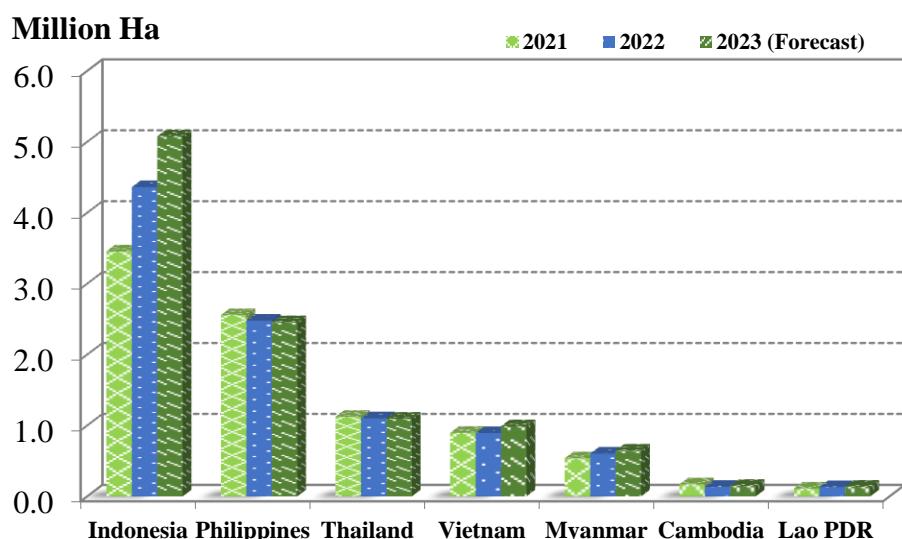


Figure 19 Maize harvested area of selected countries in ASEAN, 2021 – 2023

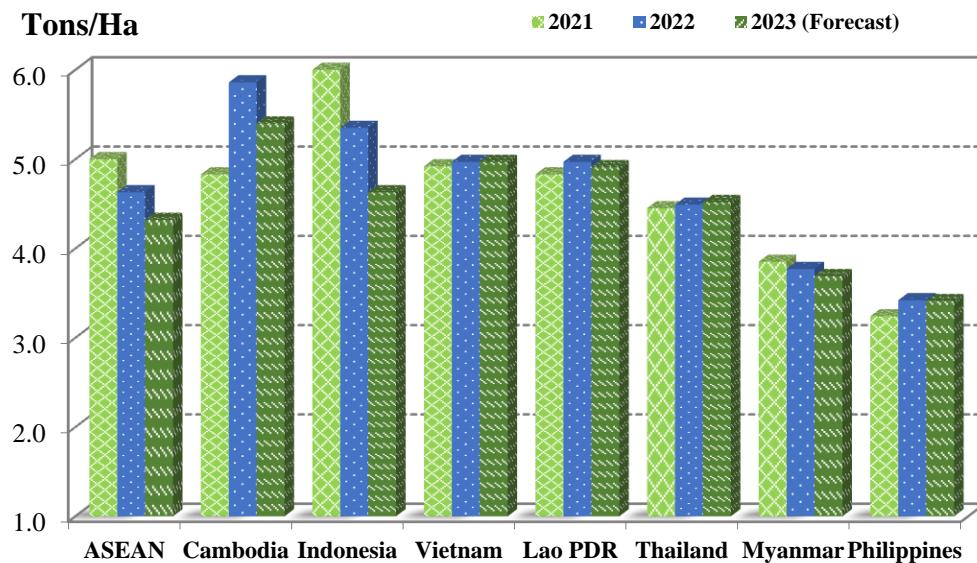


Figure 20 Maize yield of countries in ASEAN, 2021 – 2023

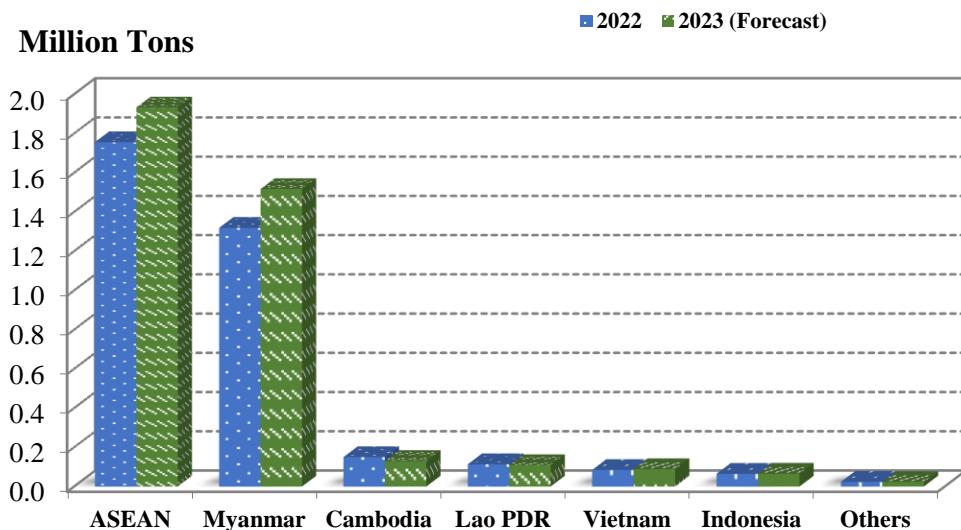
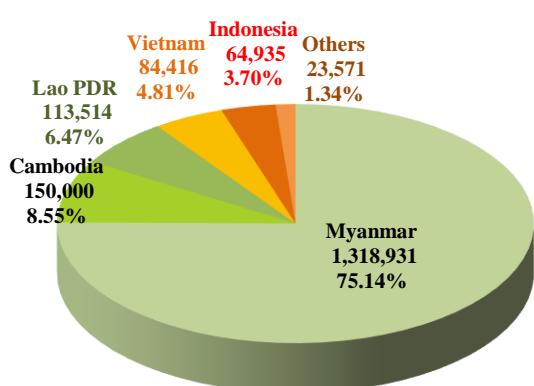
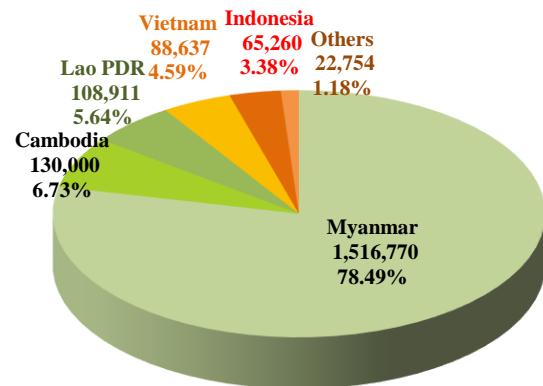


Figure 21 Amount of maize export (million tons) of selected countries in ASEAN in 2022– 2023



Total 1.76 million ton
Figure 22 Share of maize export (tons)
among ASEAN countries, 2022



Total 1.93 million tons
Figure 23 Share of maize export (tons)
among ASEAN countries, 2023

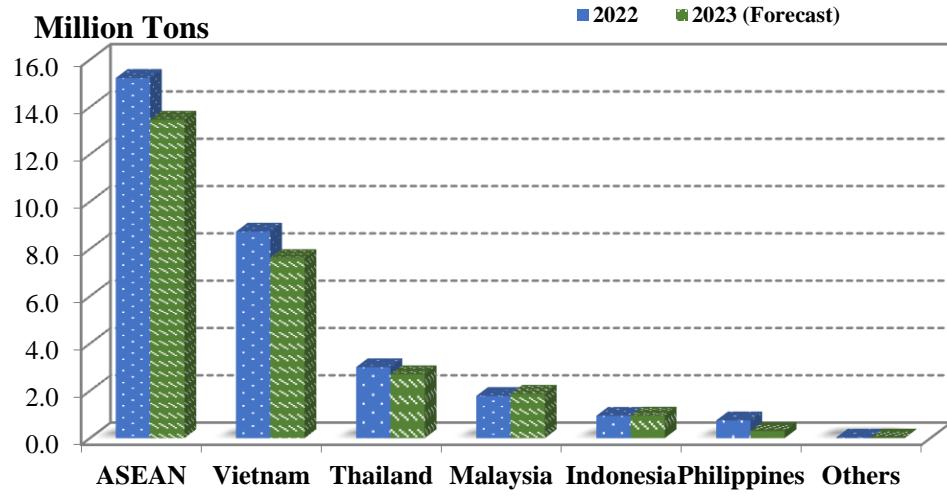
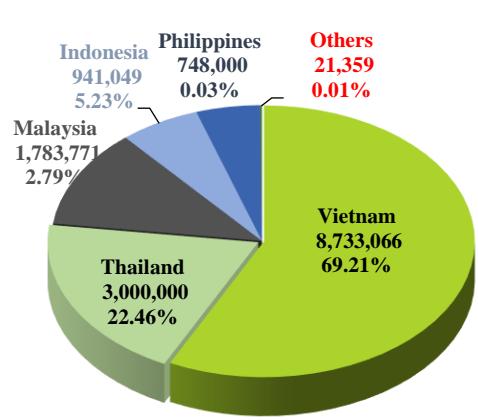
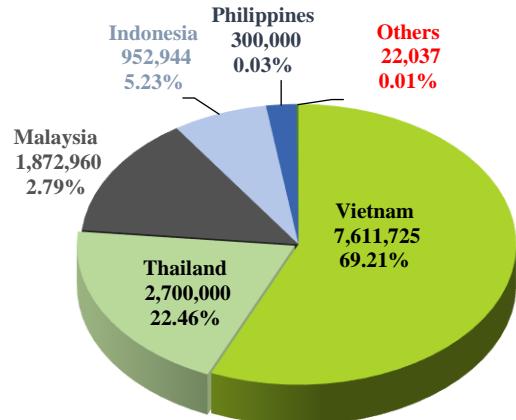


Figure 24 Amount of maize import (million tons) by selected countries in ASEAN in 2022– 2023



Total 15.23 million tons

Figure 25 Share of maize import (tons) among ASEAN countries, 2022



Total 13.46 million tons

Figure 26 Share of maize import (tons) among ASEAN countries, 2023

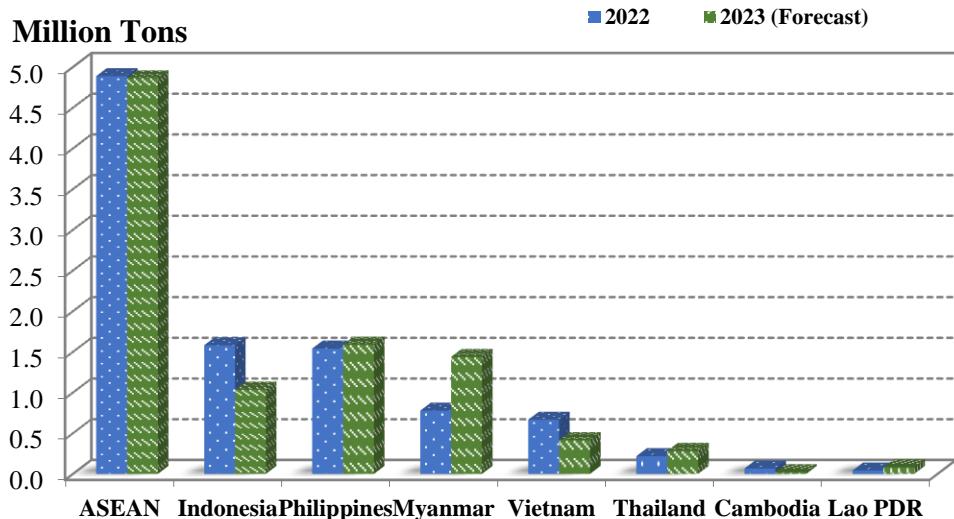


Figure 27 Amount of ending stock of maize in ASEAN countries in 2022 – 2023

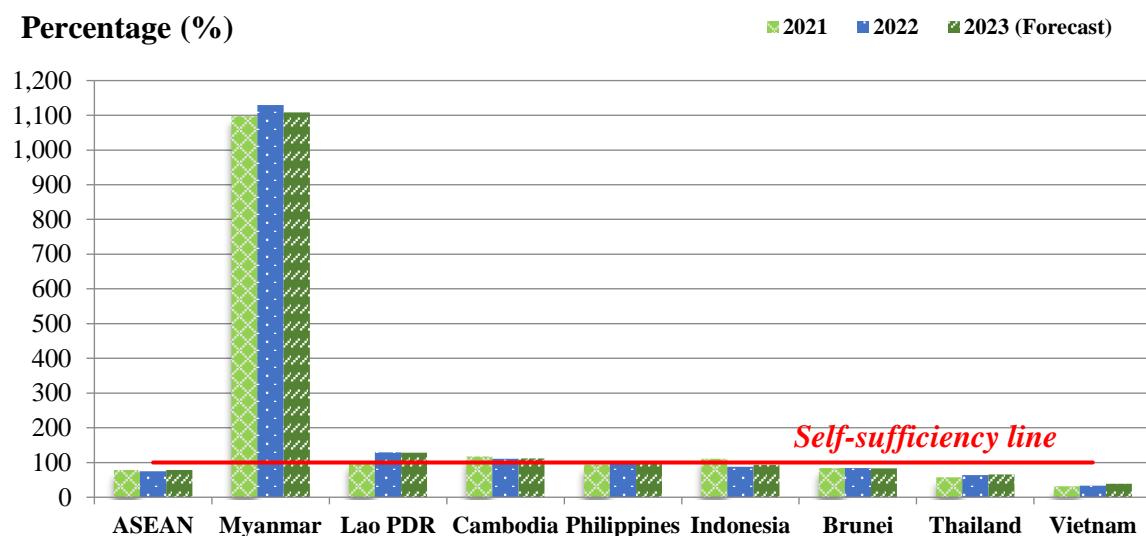


Figure 28 Ratio of maize production to domestic utilization in ASEAN countries, 2021 – 2023

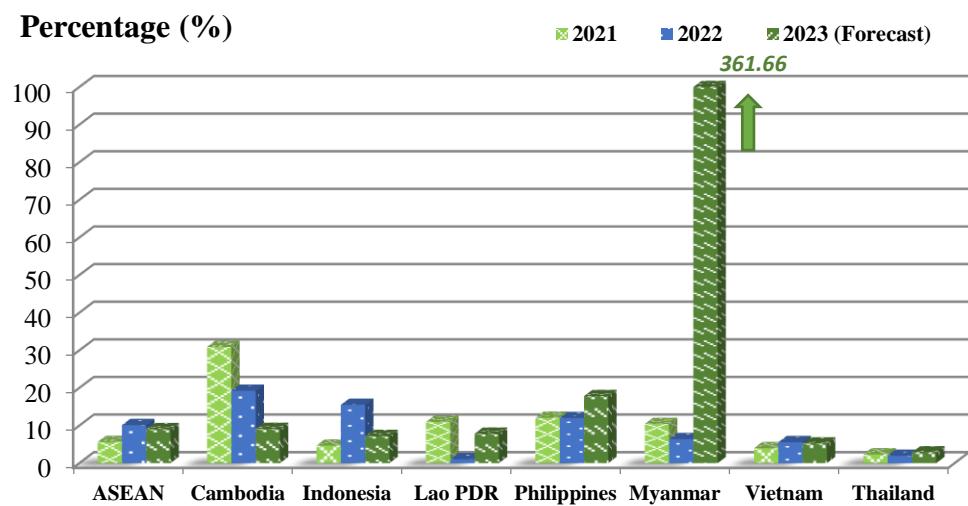


Figure 29 Ratio of maize beginning stock to domestic utilization in ASEAN countries, 2021 – 2023

US\$/Ton

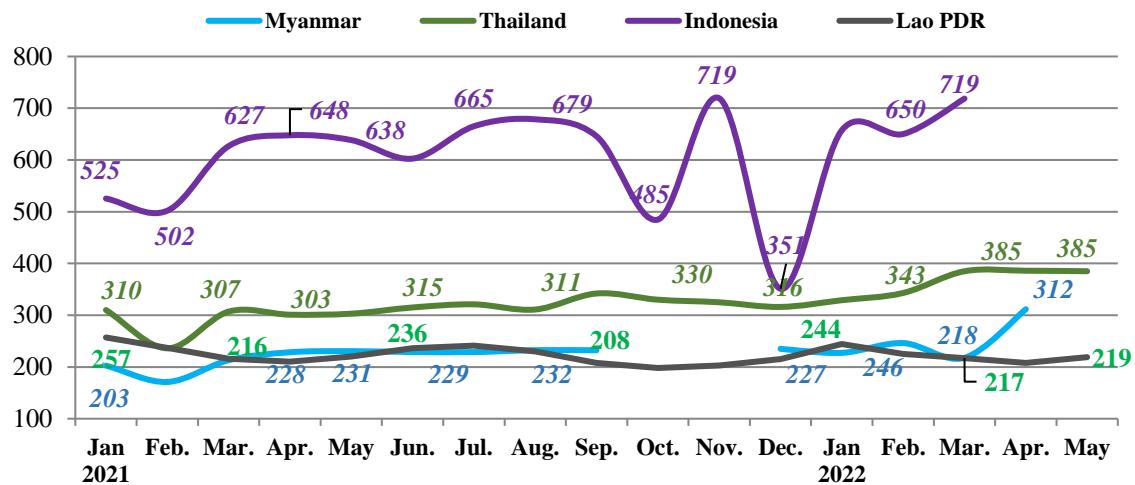


Figure 30 FOB price (US\$/Ton) of maize of selected countries in ASEAN in 2021 – 2022

US\$/Ton

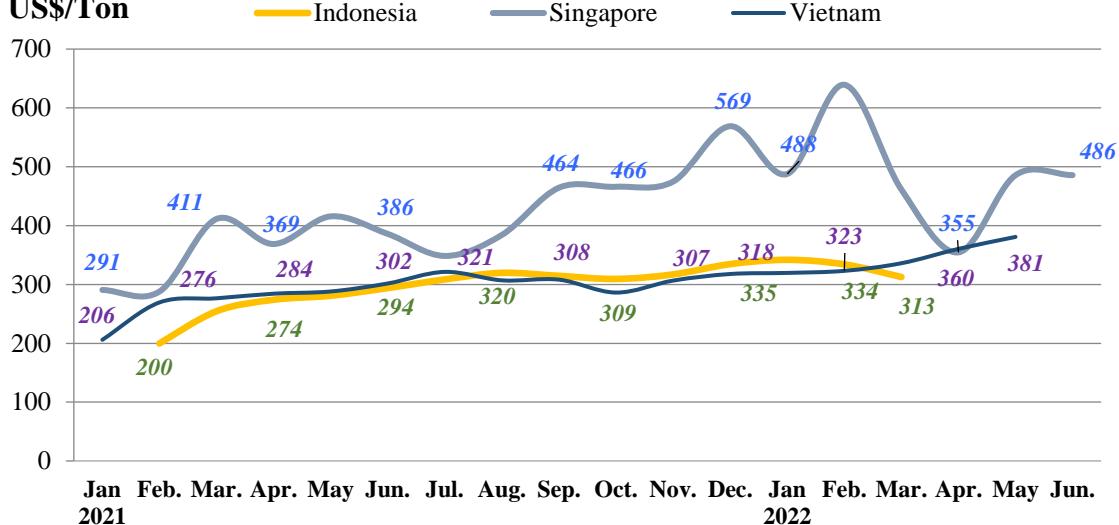


Figure 31 CIF price (US\$/Ton) of maize of selected countries in ASEAN in 2021– 2022

Sugar Outlook for 2023



ASEAN sugar supply is forecast to increase by approximately 7.47 percent or 2.58 million tons from 34.56 million tons in 2022 to 37.14 million tons in 2023, especially with the increase in beginning stock and production (Table 31).

The beginning stock of sugar in 2023 is estimated at 9.55 million tons, which increases from 8.24 million tons in 2022.

The sugar production in 2023 is estimated at 18.11 million tons, which increases from 16.58 million tons in 2022.

The sugar's import of 2023 is forecast to be 9.48 million tons, which decreases around 2.67 percent from 9.74 million tons in 2022.

The export of sugar from ASEAN in 2023 is expected to increase from 8.19 million tons in 2022 to 9.92 million tons in 2023.

The production to domestic utilization ratio (self-sufficiency ratio) for sugar in 2023 is forecast to be about 105.27 percent, which increases from 98.59 percent in 2022.

The beginning stock to domestic utilization ratio (food security ratio) in 2023 is forecast to be about 55.51 percent, which increases from 49.00 percent in 2022.

Table 31 Summary of the ASEAN sugar situation, 2022 – 2023

Items	2022	2023	Change	
			Quantity	%
Supply (Million tons)	34.56	37.14	2.58	7.47
Beginning stock	8.24	9.55	1.31	15.90
Production	16.58	18.11	1.53	9.23
Import	9.74	9.48	-0.26	-2.67
Demand (Million tons)	34.56	37.14	2.58	7.47
Domestic utilization	16.82	17.20	0.38	2.26
Export	8.19	9.92	1.73	21.12
Ending stock	9.55	10.02	0.47	4.92
Ratio of production to domestic utilization (%)	98.59	105.27	6.68	-
Ratio of beginning stock to domestic utilization (%)	49.00	55.51	6.51	-

ASEAN Sugar Situation in 2022

► Production

Sugarcane production in ASEAN in 2022 (2021/22 crop year) was estimated at 175.47 million tons, rise 25.26 million tons from 150.21 million tons in 2021 or about 16.82 percent (Table 32, Figure 32). The increase in production was due to the increase in the production of Thailand, Indonesia, Vietnam, and Lao PDR. The harvested area of sugarcane in ASEAN in 2022 was estimated at 2.746 million hectares, slightly decreasing from 2.751 million hectares in 2021 (Table 34).

Thailand, the largest sugar producing country in the region, the production was estimated to increase mainly due to farmers' response to price increase together with government policy (Table 32-35, Figure 32-35).

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 farmers' response to price increase. While, the increase in yield was caused by favorable weather.

Vietnam was estimated to increase its production due to the increase in the planted area and yield. The increasing in planted area was due to farmers' response to price increases. The increasing in yield was because farmers took better care of their crops.

In the **Philippines**, the production was estimated to down due to the decrease in planted area and yield.

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 increase due to the increase in planted area. The increase in the planted area came from government policy and better taking care of the crops by farmers.

Production in **Cambodia** was estimated to decrease due to the decrease in yield.

In **Brunei**, the production was estimated to increase. 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 16.82 million tons in 2022 from 15.85 million tons in 2021 (Table 37-38). The beginning stock of sugar in ASEAN in 2022 was estimated at 8.24 million tons, which significantly increased about 11.61 percent from 2021. The ending stock of sugar in ASEAN in 2022 was estimated to be about 9.55 million tons, an increase of about 15.88 percent from 2021.

The ratio of sugar production to domestic utilization (**self-sufficient ratio**) in 2022 was estimated to be about 98.59 percent. This indicated that the ASEAN itself produced inadequate sugar for the regional consumption (Table 40, Figure 43). However, on the country-by-country basis, sugar production in Myanmar and Thailand exceeds the demand for their domestic consumption.

The ratio of beginning stock to domestic utilization (**food security ratio**) was estimated to be about 49.00 percent in 2022, compared to 46.58 percent in 2021. This indicated that the sugar availability in the region was slightly up from the previous year (Table 41, Figure 44).

Overall, despite sugar production in ASEAN was increased, the production volume was slightly insufficient for consumption within the ASEAN region. Therefore, many ASEAN countries still rely on sugar import from abroad. Even though sugar may not be a staple food for the

ASEAN region, it is an important ingredient used in many kinds of food, especially in the desserts industry. *Sugar is also an alternative food ingredient for people in many countries in the world, which are facing food crisis.* According to the analysis of sugar price, world export, and demand of sugar, the sugar producing countries will produce more sugar in order to meet the demand in ASEAN region. Thus, these countries will earn high revenue from their export.

► **Trade**

The sugar's export from ASEAN in 2022 was 8.19 million tons, which increased about 1.20 million tons or 17.11 percent from 2021 (Table 37-38, Figure 36-37). Thailand is the major sugar exporting country in the region, which constituted about 79.36 percent of the total ASEAN export or about 6.50 million tons.

For the import, ASEAN in 2022 as a whole imported sugar around 9.74 million tons, increasing about 8.26 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 2021-2022 are shown in Tables 44-45. The annual average of Thailand FOB prices of raw sugar and white sugar in 2022 (January-March) were 431 US\$/ton and 503 US\$/ton, respectively. The prices of raw sugar of 2022 were higher than those of 2021, likewise, the prices of white sugar of 2022 were higher than those of 2021. The average CIF price (January-May) in Singapore in 2022 was 587 US\$/ton, which was higher than in 2021.

► **Damaged Area**

The sugarcane damaged area in ASEAN in 2022 was reported to be 79 hectares, which occurred in Myanmar (Table 36).

Prospects for Sugar in 2023

► Production

Sugarcane production in ASEAN is forecast to increase from 175.47 million tons in 2022 to 190.55 million tons in 2023 (Table 32-35, Figure 32-35). Thailand, the largest sugar-producing country in the region, is forecast to increase its production from 92.10 million tons in 2022 to 105.86 million tons in 2023. 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 **Indonesia**, which is expected to increase its production from 36.45 million tons in 2022 to 37.94 million tons in 2023. The increase in its production is due to the increase in planted area and yield.

For **Vietnam**, the production is forecast to increase from 11.40 million tons in 2022 to 11.75 million tons in 2023. The main reason is due to the decrease in planted area and yield.

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

Cambodia, the production is expected to decrease from 2.40 million tons in 2022 to 2.38 million tons in 2023, the decrease comes from the decrease in yield.

Lao PDR is also forecast to decrease its production from 1.35 million tons in 2022 to 1.27 million tons in 2023, the decrease comes price of competing crop increases.

The Philippines is expected to decrease its production from 20.45 million tons in 2022 to 20.25 million tons in 2023. The decrease in the Philippines production is due to the decrease in planted area and yield.

For **Myanmar**, the production is forecast to decrease from 11.33 million tons in 2022 to 11.11 million tons in 2023 due to the decrease in planted area.

► Utilization and Stock

The domestic utilization of sugar in ASEAN is forecast to increase from 16.82 million tons of sugar in 2022 to 17.20 million tons in 2023, which increases about 0.39 million tons (Table 38-39). The beginning stock in ASEAN is estimated at 9.55 million tons of sugar in 2023, an increase of 1.31 million tons from 8.24 million tons in the previous year. The ending stock of sugar in ASEAN in 2023 is forecast to be 10.02 million tons which increases about 0.47 million tons from the previous year.

The ratio of production to domestic utilization in 2023 is forecast to be 105.27 percent, which is greater than the previous year (Table 40, Figure 43).

The ratio of the beginning stock to domestic utilization in 2023 is forecast to be about 55.51 percent, which moderately increases from 2022 (Table 41, Figure 44). This indicates that the domestic availability of sugar in the region is expected to increase significantly compared to the previous year.

► Trade

The export is predicted to increase from 8.19 million tons in 2022 to 9.92 million tons in 2023 (Table 38-39, Figure 36-38). The import is forecast to be 9.48 million tons in 2023, which decreases from 9.74 million tons in the previous year (Tables 38-39, Figure 39-41).

Table 32 Sugarcane production in ASEAN countries, 2021 – 2023

Unit: 1,000 Tons

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	150,208.40	175,472.48	25,264.08	16.82	190,548.04	15,075.56	8.59
Brunei	0.08	0.08	0.00	5.00	0.08	0.00	5.00
Cambodia	2,421.97	2,397.75	-24.22	-1.00	2,374.01	-23.73	-0.99
Indonesia	32,153.21	36,447.28	4,294.08	13.36	37,941.62	1,494.34	4.10
Lao PDR	1,141.20	1,345.00	203.80	17.86	1,273.37	-71.63	-5.33
Malaysia			N/A				
Myanmar	11,560.32	11,333.35	-226.97	-1.96	11,106.68	-226.67	-2.00
Philippines	25,134.63	*20,449.55	-4,685.08	-18.64	*20,251.19	-198.36	-0.97
Singapore			N/A				
Thailand	66,725.46	92,095.78	25,370.32	38.02	105,855.28	13,759.50	14.94
Vietnam	11,071.55	11,403.70	332.15	3.00	11,745.81	342.11	3.00

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, 2021 – 2023

Unit: 1,000 Hectares

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	2,752.47	2,746.50	-5.96	-0.22	2,849.78	103.27	3.76
Brunei			N/A				
Cambodia	46.95	47.42	0.47	1.00	48.37	0.95	2.00
Indonesia	444.83	463.72	18.89	4.25	482.27	18.55	4.00
Lao PDR	23.01	27.25	4.24	18.41	25.32	-1.93	-7.08
Malaysia			N/A				
Myanmar	177.58	173.17	-4.41	-2.48	166.40	-6.78	-3.91
Philippines	*402.08	*333.73	-68.35	-17.00	*330.56	-3.17	-0.95
Singapore			N/A				
Thailand	1,485.32	1,525.07	39.75	2.68	1,617.20	92.13	6.04
Vietnam	172.68	176.13	3.45	2.00	179.66	3.52	2.00

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, 2021 – 2023

Unit: 1,000 Hectares

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	2,751.09	2,746.43	-4.67	-0.17	2,849.78	103.35	3.76
Brunei			N/A				
Cambodia	45.71	47.42	1.72	3.76	48.37	0.95	2.00
Indonesia	444.83	463.72	18.89	4.25	482.27	18.55	4.00
Lao PDR	23.01	27.25	4.24	18.41	25.32	-1.93	-7.08
Malaysia			N/A				
Myanmar	177.46	173.10	-4.36	-2.46	166.40	-6.70	-3.87
Philippines	402.08	*333.73	-68.35	-17.00	*330.56	-3.17	-0.95
Singapore			N/A				
Thailand	1,485.32	1,525.07	39.75	2.68	1,617.20	92.13	6.04
Vietnam	172.68	176.13	3.45	2.00	179.66	3.52	2.00

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

Table 35 Sugarcane yield in ASEAN countries, 2021 – 2023

Unit: Ton/Hectare

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	54.60	63.89	9.29	17.01	66.86	2.97	4.65
Brunei			N/A				
Cambodia	52.99	50.56	-2.43	-4.59	49.08	-1.48	-2.93
Indonesia	72.28	78.60	6.32	8.74	78.67	0.07	0.09
Lao PDR	49.59	49.36	-0.23	-0.46	50.29	0.93	1.88
Malaysia			N/A				
Myanmar	65.14	65.47	0.33	0.51	66.75	1.28	1.96
Philippines	62.51	61.28	-1.23	-1.97	61.26	-0.02	-0.03
Singapore			N/A				
Thailand	44.92	60.39	15.47	34.44	65.46	5.07	8.40
Vietnam	64.12	64.74	0.62	0.97	65.38	0.64	0.99

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, 2022**

Unit: Hectares

Country	Cause of Damage (Hectares)						
	Flood	Drought	Pests	Diseases	Others	Unspecified	Total
ASEAN	-	-	-	-	-	79	79
Brunei				N/A			
Cambodia				N/A			
Indonesia				N/A			
Lao PDR.				N/A			
Malaysia				N/A			
Myanmar	-	-	-	-	-	79	79
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, 2021

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	7,383,026	14,706,399	8,993,668	31,083,093	15,849,096	6,994,092	8,239,905	31,083,093
Brunei	3,346	-	5,502	8,848	5,216	-	3,632	8,848
Cambodia	-	242,197	-	242,197	21,223	*220,974	-	242,197
Indonesia	500,860	2,418,589	4,853,888	7,773,337	6,837,998	265,055	*670,284	7,773,337
Lao PDR	1,428,517	228,240	64	1,656,821	-	69,759	1,587,061	1,656,821
Malaysia	-	-	*2,019,023	2,019,023	*1,637,773	*381,250	-	2,019,023
Myanmar	1,546,590	924,089	-	2,470,679	728,333	749,616	992,730	2,470,679
Philippines	324,401	2,199,526	-	2,523,927	2,081,761	112,008	330,158	2,523,927
Singapore	-	-	300,071	300,071	246,793	53,278	-	300,071
Thailand	*3,094,109	7,586,604	85,714	10,766,427	2,290,000	*4,895,094	*3,581,333	10,766,427
Vietnam	485,203	1,107,155	1,729,407	3,321,765	2,000,000	247,058	1,074,707	3,321,765

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

[63]

Table 38 Sugar balance sheet of ASEAN countries, 2022

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	8,239,905	16,579,609	9,736,991	34,556,504	16,817,190	8,190,835	9,548,480	34,556,504
Brunei	3,632	-	5,590	9,223	5,418	-	3,805	9,223
Cambodia	-	239,775	-	239,775	22,388	*217,387	-	239,775
Indonesia	*670,284	2,624,477	5,349,468	8,644,228	7,141,433	420,323	*1,095,127	8,644,228
Lao PDR	1,587,061	269,000	67	1,856,128	-	78,618	1,777,510	1,856,128
Malaysia	-	-	*1,918,072	1,918,072	*1,555,885	*362,187	-	1,918,072
Myanmar	992,730	905,988	-	1,898,718	1,189,151	170,430	539,137	1,898,718
Philippines	330,158	1,800,000	216,000	2,346,158	2,099,721	-	246,437	2,346,158
Singapore	-	-	262,446	262,446	215,849	46,597	-	262,446
Thailand	*3,581,333	9,600,000	*83,000	13,264,333	2,500,000	*6,500,000	*4,264,333	13,264,333
Vietnam	1,074,707	1,140,370	1,902,347	4,117,424	2,100,000	395,293	1,622,131	4,117,424

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, 2023

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	9,548,480	18,108,228	9,484,776	37,141,484	17,202,287	9,919,807	10,019,389	37,141,484
Brunei	3,805	-	5,969	9,774	5,419	-	4,355	9,774
Cambodia	-	237,401	-	237,401	21,352	*216,049	-	237,401
Indonesia	*1,095,127	2,729,456	5,012,571	8,837,154	7,355,286	462,355	*1,018,691	8,837,154
Lao PDR	1,777,510	254,674	52	2,032,236	-	67,934	1,964,302	2,032,236
Malaysia	-	-	*1,889,301	1,889,301	*1,532,547	*356,754	-	1,889,301
Myanmar	539,137	*887,868	-	1,427,005	*729,823	*173,838	*523,343	1,427,005
Philippines	246,437	1,790,000	218,160	2,254,597	2,120,718	-	133,879	2,254,597
Singapore	-	-	281,258	281,258	231,321	49,937	-	281,258
Thailand	*4,264,333	11,034,249	*80,000	15,378,582	*3,000,000	*8,000,000	*4,378,582	15,378,582
Vietnam	1,622,131	1,174,581	1,997,465	4,794,176	2,205,000	592,939	1,996,237	4,794,176

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

[40]

Table 40 Ratio of sugar production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2021 – 2023

Unit: Tons

Country	2021			2022			2023		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	14,706,399	15,849,096	92.79	16,579,609	16,817,190	98.59	18,108,228	17,202,287	105.27
Brunei	-	5,216	-	-	5,418	-	-	5,419	-
Cambodia	242,197	21,223	1,141.20	239,775	22,388	1,071.00	237,401	21,352	1,111.83
Indonesia	2,418,589	6,837,998	35.37	2,624,477	7,128,778	36.82	2,729,456	7,356,107	37.10
Lao PDR	228,240	-	-	269,000	-	-	254,674	-	-
Malaysia	-	1,637,773	-	-	1,555,885	-	-	1,532,547	-
Myanmar	924,089	728,333	126.88	905,988	1,189,151	76.19	887,868	729,823	121.66
Philippines	2,199,526	2,081,761	105.66	1,800,000	2,099,721	85.73	1,790,000	2,120,718	84.41
Singapore	-	246,793	-	-	215,849	-	-	231,321	-
Thailand	7,586,604	2,290,000	331.29	9,600,000	2,500,000	384.00	11,034,249	3,000,000	367.81
Vietnam	1,107,155	2,000,000	55.36	1,140,370	2,100,000	54.30	1,174,581	2,205,000	53.27

Remark: * The value is estimated by AFSIS Secretariat.

Table 41 Ratio of sugar beginning stock to domestic utilization in ASEAN countries (food security ratio), 2021 – 2023

Unit: Tons

Country	2021			2022			2023		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	7,383,026	15,849,096	46.58	8,239,905	16,817,190	49.00	9,548,480	17,202,287	55.51
Brunei	3,346	5,216	64.15	3,632	5,418	67.05	3,805	5,419	70.22
Cambodia	-	21,223	-	-	22,388	-	-	21,352	-
Indonesia	500,860	6,837,998	7.32	670,284	7,128,778	9.40	1,095,127	7,356,107	14.89
Lao PDR	1,428,517	-	-	1,587,061	-	-	1,777,510	-	-
Malaysia	-	1,637,773	-	-	1,555,885	-	-	1,532,547	-
Myanmar	1,546,590	728,333	212.35	992,730	1,189,151	83.48	539,137	729,823	73.87
Philippines	324,401	2,081,761	15.58	330,158	2,099,721	15.72	246,437	2,120,718	11.62
Singapore	-	246,793	-	-	215,849	-	-	231,321	-
Thailand	3,094,109	2,290,000	135.11	3,581,333	2,500,000	143.25	4,264,333	3,000,000	142.14
Vietnam	485,203	2,000,000	24.26	1,074,707	2,100,000	51.18	1,622,131	2,205,000	73.57

Remark: * The value is estimated by AFSIS Secretariat.

Table 42 Quantity and Value of Sugar Export by Countries of Destination in 2022

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	N/A													
Lao PDR														
Malaysia	N/A													
Myanmar														
Philippines	N/A													
Singapore	N/A													
Thailand	1,703	1,015,899	221,608	113,070,664	1,207,645	515,411,785	153,136	79,192,848	113,449	51,462,035	61,016	36,619,012	34,642	13,878,076
Vietnam			-	951,824	-	1,454,269	-	735,174	-	2,876,398	-	742,828	-	6,263,064

[42]

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	N/A												
Lao PDR			33,010	25,935,118	10,280	7,768,829	43,290	33,703,947	35,328	30,782,087	78,618	64,486,034	
Malaysia	N/A												
Myanmar	11	1,000					11	1,000	170,419	9,593,000	170,430	9,594,000	
Philippines	N/A												
Singapore	N/A												
Thailand	34,980	18,998,520			56,925	27,159,726	1,885,104	856,808,564	1,055,383	502,137,398	2,940,487	1,358,945,963	
Vietnam	-	507,871	-	2,818,274			-	16,349,702		51,312,370	-	67,662,072	

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 2022

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									N/A					
Lao PDR														
Malaysia									N/A					
Myanmar									N/A					
Philippines									N/A					
Singapore					294	451,377			16,456	10,515,781	11	6,773	6	21,538
Thailand					2,306	8,381,157	14,012	2,531,275	706	1,653,962	122	167,330	433	1,545,959
Vietnam			-	38,679,041	-	84,914,200	-	35,304,489	-	47,347,273	-	16,374,250	-	3,907,337

[43]

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							N/A					
Lao PDR			67	30,753			67	30,753			67	30,753
Malaysia							N/A					
Myanmar							N/A					
Philippines							N/A					
Singapore			100,572	59,795,701	739	630,768	118,078	71,421,939	144,369	80,387,080	262,446	151,809,019
Thailand	286.60	904,338			909.387	5,003,818	18,774	20,187,838	152,650	99,893,023	171,424	120,080,861
Vietnam	-	4,317,454	-	31,357,006			-	262,201,048		102,073,864	-	364,274,912

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
Myanmar	Not specified	2021	38	38	37	37	40	35	-	-	-	-	-	40	38
		2022	52	56	80	57	-	-	-	-	-	-	-	-	61
Thailand	Raw Sugar	2021	349	337	350	362	367	364	395	388	391	425	415	427	381
		2022	440	448	405	-	-	-	-	-	-	-	-	-	431
	White Sugar	2021	421	426	441	453	471	451	467	488	494	488	507	492	467
		2022	511	507	490	-	-	-	-	-	-	-	-	-	503

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	Refine Sugar	2021	405	455	513	560	523	566	534	547	506	539	548	537	519
		2022	564	555	593	557	-	-	-	-	-	-	-	-	567
Lao PDR	Not specified	2021	428	457	477	480	505	482	469	465	456	454	450	463	465
		2022	433	446	455	468	481	472	-	-	-	-	-	-	459
Singapore	Sugar	2021	459	490	485	517	487	538	533	548	550	556	591	578	528
		2022	562	563	615	607	587	587	587	587	587	587	587	587	587

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

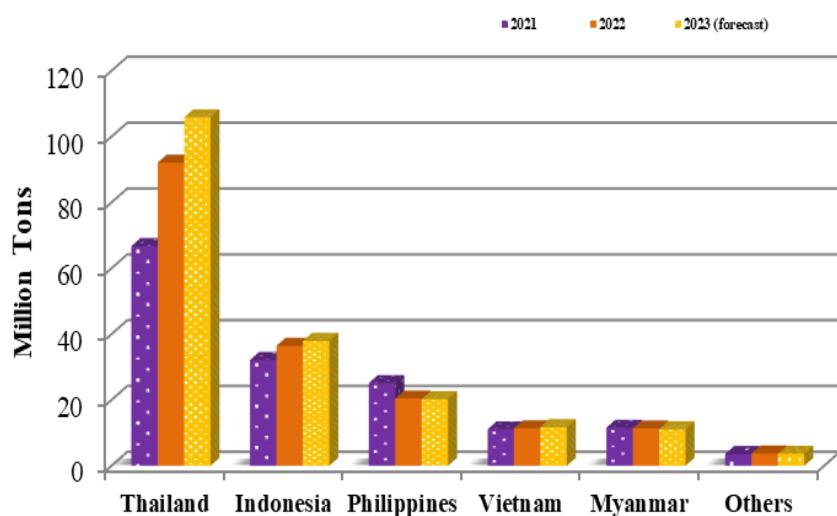


Figure 32 Sugarcane production of selected countries in ASEAN, 2021 – 2023

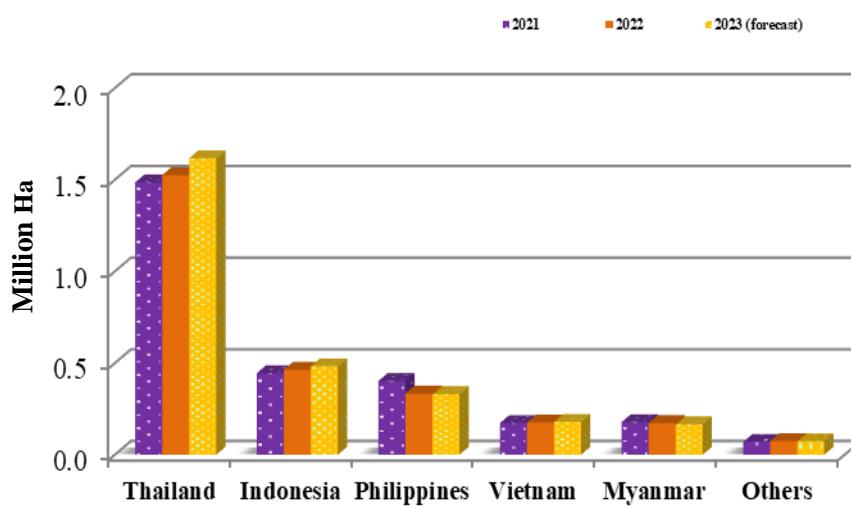


Figure 33 Sugarcane planted area of selected countries in ASEAN, 2021 – 2023

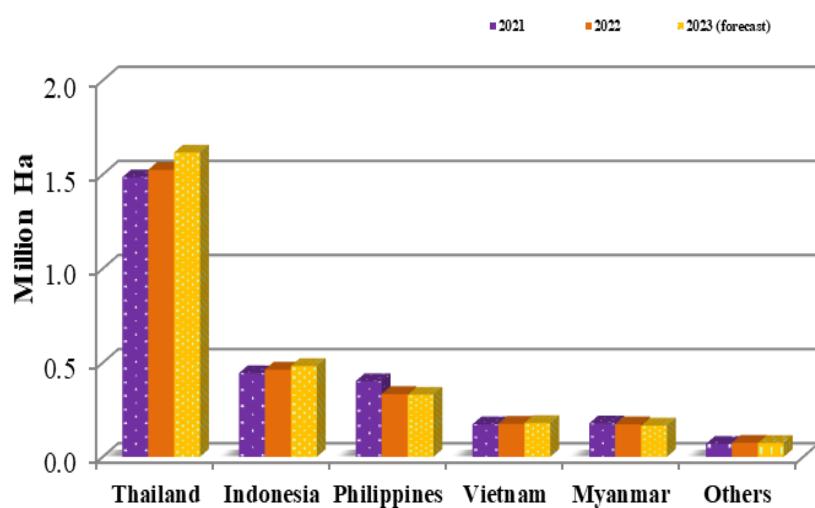


Figure 34 Sugarcane harvested area of selected countries in ASEAN, 2021 – 2023

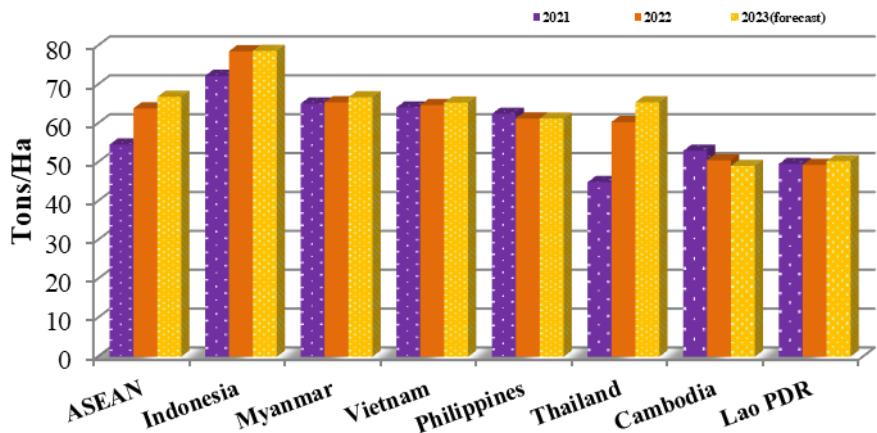


Figure 35 Sugarcane yield of selected countries in ASEAN, 2021 – 2023

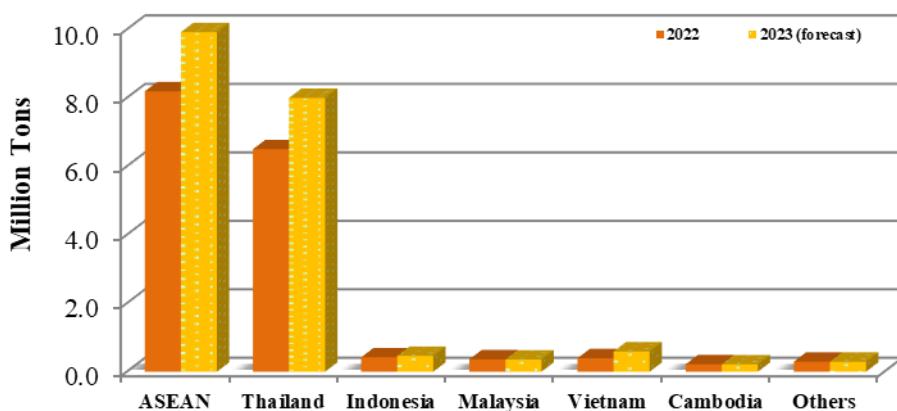
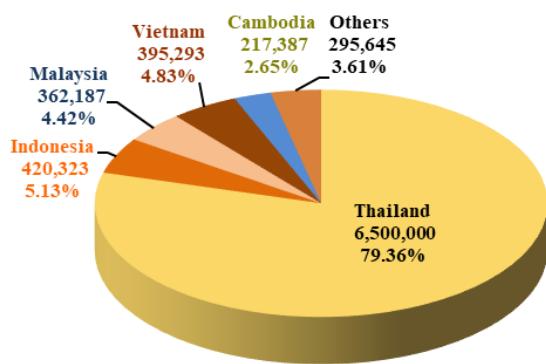
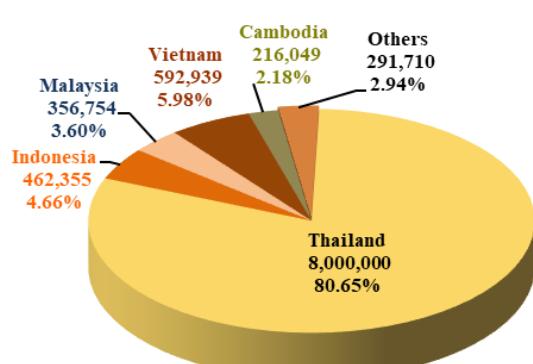


Figure 36 Amount of Sugar export (million tons) of selected countries in ASEAN in 2022 – 2023



Total 8.19 Million Tons

Figure 37 Share of sugar export (tons) among ASEAN countries, 2022



Total 9.92 Million Tons

Figure 38 Share of sugar export (tons) among ASEAN countries, 2023

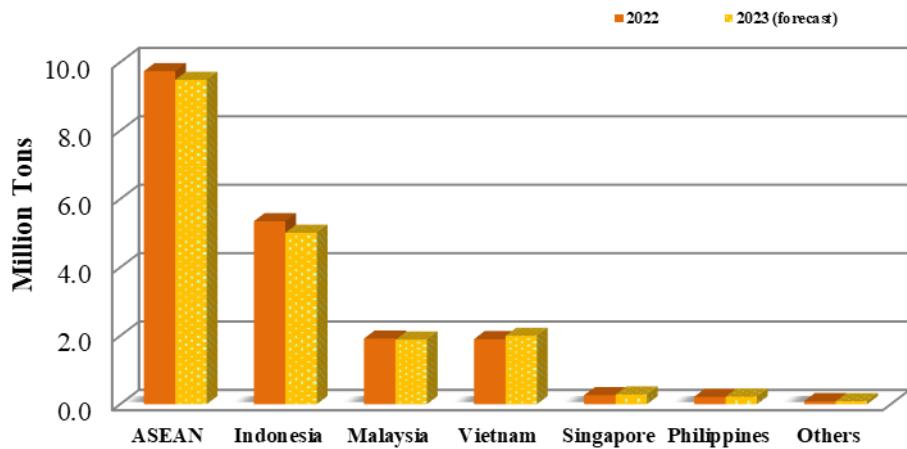
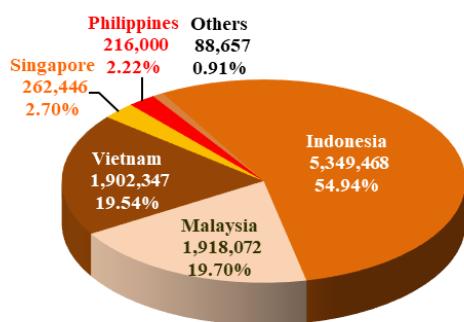
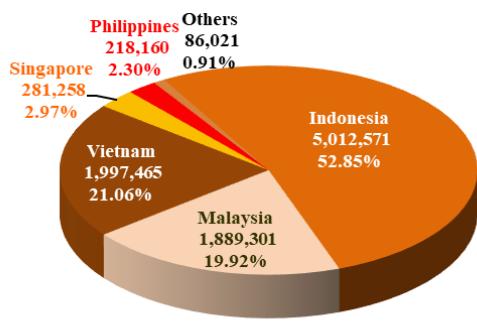


Figure 39 Amount of sugar import (million tons) by selected countries in ASEAN in 2022 – 2023



Total 9.74 Million Tons

Figure 40 Share of sugar import (tons) among ASEAN countries, 2022



Total 9.48 Million Tons

Figure 41 Share of sugar import (tons) among ASEAN countries, 2023

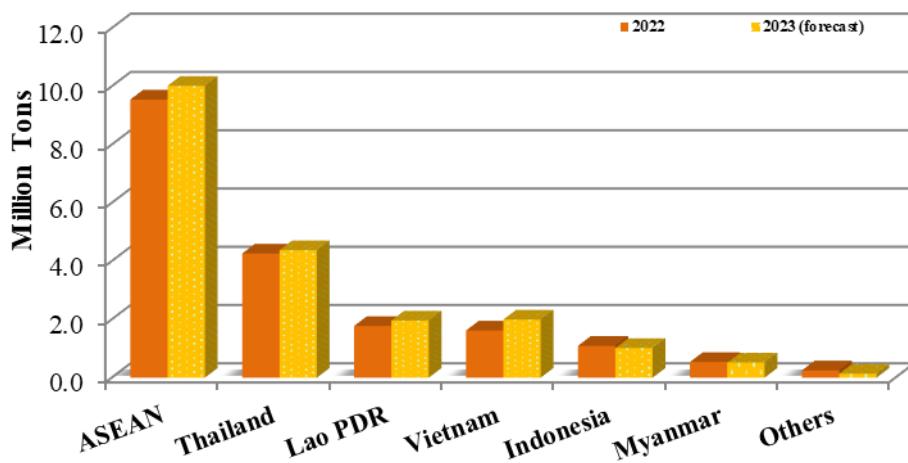


Figure 42 Amount of ending stock of Sugar in ASEAN countries in 2022– 2023

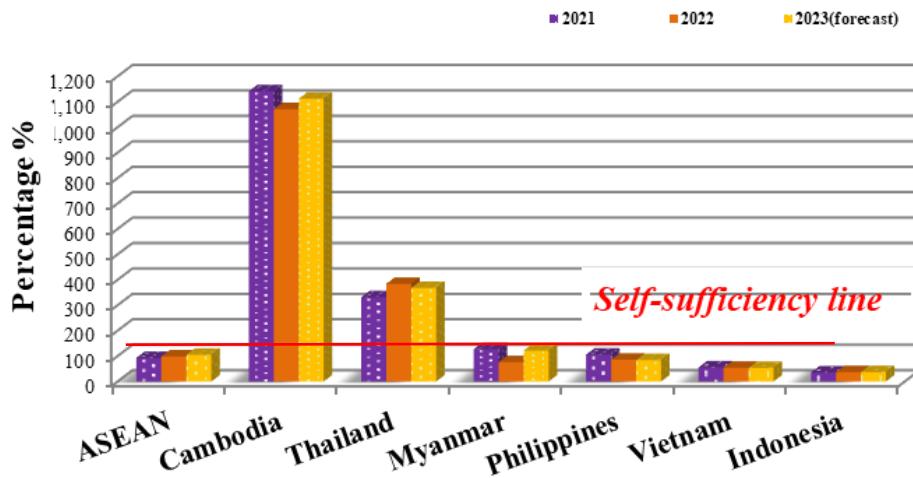


Figure 43 Ratio of sugar production to domestic utilization in ASEAN countries, 2021 – 2023

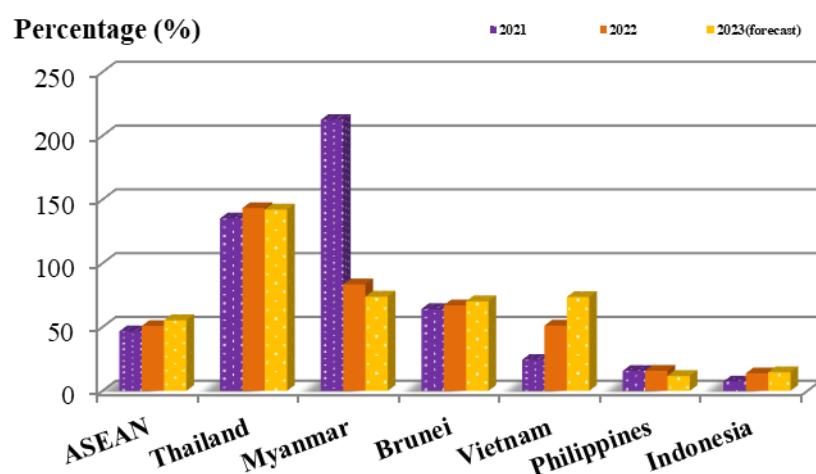


Figure 44 Ratio of sugar beginning stock to domestic utilization in ASEAN countries, 2021 – 2023

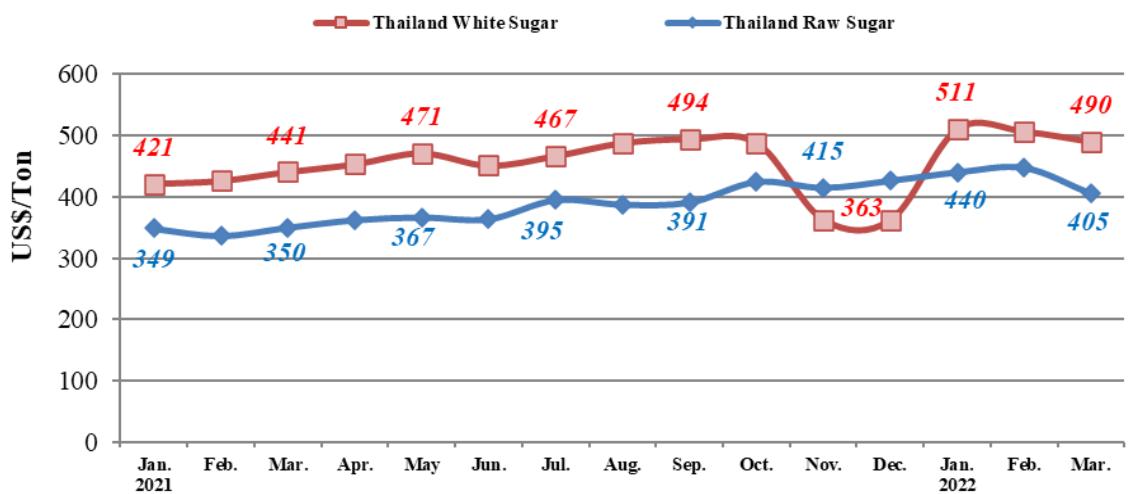


Figure 45 FOB price (US\$/Ton) of white sugar and raw sugar in Thailand in 2021 – 2022

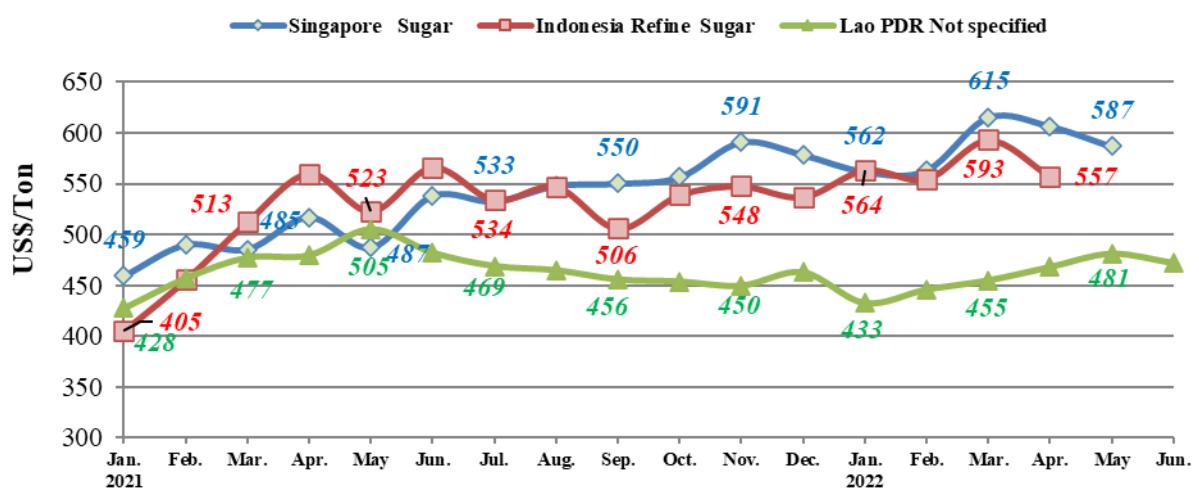


Figure 46 CIF price (US\$/Ton) of sugar of selected countries in ASEAN in 2021 – 2022

Soybean Outlook for 2023

Highlights

The supply of ASEAN soybean in 2023 is forecast to increase from 10.94 million tons in 2022 to 11.28 million tons or approximately 3.11 percent (Table 46). The growth in supply mainly comes from the increase in import, which increase by approximately 4.31 percent. The soybean production is predicted to be 0.88 million tons in 2023, which decreases from the previous year at 0.02 million tons.

In 2023, the beginning stock of soybean in ASEAN is forecast to decline to 0.24 million tons, which decreases by 0.06 million tons from 0.30 million tons in 2022. Additionally, the ending stock is expected to be 0.36 million tons in 2023, an increase by 0.12 million tons or approximately 50 percent from 0.24 million tons in 2022.

In terms of soybean's demand in ASEAN in 2023, the domestic utilization is estimated at 11.28 million tons, which increases in the demand for 0.34 million tons from 10.94 million tons in 2022.

The export in 2023 is forecast to be 0.04 million tons. This indicates that ASEAN exports very few amounts of soybeans.

The production to domestic utilization ratio (self-sufficiency ratio) in 2023 is forecast to be 8.07 percent, which decreases by 0.36 percent from the previous year.

The beginning stock to domestic utilization ratio (food security ratio) is predicted to be 2.20 percent in 2023, which decreases by approximately 0.59 percent from 2022.

Table 46 Summary of the ASEAN soybean situation, 2022 – 2023

Items	2022	2023	Change	
			Quantity	%
Supply (Million tons)	10.94	11.28	0.34	3.11
Beginning stock	0.30	0.24	-0.06	-20.00
Production	0.90	0.88	-0.02	-2.22
Import	9.74	10.16	0.42	4.31
Demand (Million tons)	10.94	11.28	0.34	3.11
Domestic utilization	10.66	10.89	0.23	2.16
Export	0.04	0.04	0.00	0.00
Ending stock	0.24	0.36	0.12	50.00
Ratio of production to domestic utilization (%)	8.43	8.07	-0.36	-
Ratio of beginning stock to domestic utilization (%)	2.79	2.20	-0.59	-

ASEAN Soybean Situation 2022

► Production

The estimate of soybean production in ASEAN in 2022 (crop year 2021/22) was 0.90 million tons, an increase of 0.20 million tons from 0.70 million tons in 2021 (crop year 2021/22). 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, Thailand, Cambodia, Lao PDR, and the Philippines. The production of soybean decreased in Myanmar and the Philippines (Table 47-50, Figure 47-50).

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

For **Indonesia**, the estimated soybean production in 2022 has increased to 0.59 million tons, increasing approximately 50.56 percent from 0.39 million tons in 2021. 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 and favorable weather. 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 harvested area, which caused by farmers' response to the price increase.

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 high production costs. The yield has decreased because farmers used less fertilizer.

For the **Philippines**, the decrease in production was due to the decrease in planted area and yield, which caused by white mold on some plants and heavy rainfall.

For **Thailand**, the increase in production was due to the increase in planted area and yield, which caused by favorable weather and sufficient water for plants together with better taking care of the crops by farmers.

For **Vietnam**, the increase in production was due to the increase in planted area and harvested area, which caused by government policy.

► Utilization and Stock

The domestic utilization of soybean in ASEAN in 2022 was estimated at 10.66 million tons, a decrease of 0.39 million tons or about 3.79 percent from 10.27 million tons in 2021. While the beginning stock was estimated at 0.30 million tons in 2022, a sharp decrease by 0.20 million tons or 39.73 percent from 0.49 million tons in 2021. Indonesia had the greatest soybean stock in the region, followed by Vietnam (Table 52-53).

The ratio of production to domestic utilization (**self-sufficiency ratio**) of ASEAN in 2022 was 8.43 percent, which increased by approximately 1.66 percent from the previous year. However, none of the member countries has the ratio above 100 percent except Lao PDR (Table 55, Figure 58). The ratio of the beginning stock to the domestic utilization (**food security ratio**) of ASEAN in 2022 was estimated to be 2.79 percent, which dropped from the previous year (Table 56, Figure 59).

Overall, despite soybean production in ASEAN was increased, the production volume was considered insufficient for consumption within the ASEAN region. As a result, many ASEAN countries still rely heavily on soybean import and still have a tendency to increase soybean imports. Even though soybean is not an important crop for consumption in ASEAN region, it is still crucial as it is raw material for animal feed and cooking oil production because the population need to consume a variety of products resulted from the economic growth.

As mentioned before, the impact from Russia-Ukraine war has led to the increasing prices of fertilizer and shortage, high energy prices, and increasing price of food. This situation also affects soybean producing countries in ASEAN region and could possibly lead to soybean shortage or food insecurity in the future.

► Trade

In 2022, ASEAN altogether exported soybean 38,081 tons, which increased 1,576 tons compared to 36,506 tons in 2021 (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 2021-2022 are shown in Table 59 and the monthly CIF prices for importing countries are shown in Table 60. The annual average FOB prices in 2022 in Myanmar (January-April) was 809 US\$/ton, in Lao PDR (January-June) was 349 US\$/ton, and in Indonesia (January-March) was 530 US\$/ton (Table 59, Figure 60).

For CIF prices of 2022, the annual average in Thailand was 590 US\$/ton, in Indonesia was 605 US\$/ton, in Lao PDR was 551 US\$/ton, and in Singapore was 894 US\$/ton (Table 60, Figure 61).

► Damaged Area

The total damaged area of soybean in the ASEAN in 2022 was estimated to be 177 hectares. The major cause of damage was flood, which constituted about 92.10 percent of the overall damaged area. The majority of flood areas had occurred in Myanmar, followed by Indonesia and Cambodia (Table 51).

Prospects for Soybean in 2023

► Production

Soybean production of ASEAN in 2023 is forecast to be 0.88 million tons, which decrease from 2022 approximately 2.26 percent (Table 47, Figure 47). The decrease in production is expected in Cambodia, Indonesia, Myanmar, and Thailand. While the increase in production is expected in Lao PDR, the Philippines, and Vietnam. Indonesia, the biggest soybean-producing country in ASEAN, is forecast to decrease in its production from 0.59 million tons in 2022 to 0.58 million tons in 2023, which accounted for 3.07 percent decrease. The decrease in Indonesian production is derived from the declining in planted area and harvested area (Table 47-50, Figure 47-50). The decrease in production is also expected in Cambodia, Myanmar, and Thailand, which is mainly caused by the reduction of the planted area and yield.

► Utilization and Stock

The domestic utilization of soybeans in ASEAN is forecast to increase by 2.13 percent from 10.66 million tons in 2022 to 10.89 million tons in 2023 (Table 53-54).

The beginning stock in ASEAN in 2023 is forecast to decrease by 0.06 million tons or

about 19.27 percent from 0.30 million tons in 2022 to 0.24 million tons in 2023 (Table 53-54). On the contrary, the ending stock in ASEAN in 2023 is forecast to increase from 0.24 million tons in 2022 to 0.40 million tons, which increases about 49.86 percent (Table 53-54, Figure 57).

In 2023, the ratio of production to domestic utilization (**self-sufficiency ratio**) is forecast to be 8.07 percent, which decreases from 8.43 percent in 2022 (Table 55, Figure 58). The ratio of beginning stock to the domestic utilization (**food security ratio**) is forecast to be 2.20 percent, which decreases 0.59 percent from the previous year (Table 56, Figure 59).

► Trade

In 2023, the export of soybeans from the ASEAN is forecast to reach 37,272 tons, decreasing 809 tons or 2.13 percent compared to the previous year. While the total import by the ASEAN in 2023 is forecast to be 10.16 million tons, increasing 0.42 million tons from 9.74 million tons in 2022 (Table 53-54, Figure 51, 53, 54, and 56).

Table 47 Soybean production in ASEAN countries, 2021 – 2023

Unit: 1,000 Tons

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	695.55	898.78	203.24	29.22	878.46	-20.32	-2.26
Brunei			N/A				
Cambodia	16.21	17.83	1.62	10.00	17.18	-0.65	-3.63
Indonesia	394.89	594.53	199.64	50.56	576.26	-18.27	-3.07
Lao PDR	6.34	6.49	0.15	2.29	6.91	0.43	6.55
Malaysia			N/A				
Myanmar	194.60	192.46	-2.14	-1.10	190.34	-2.12	-1.10
Philippines	0.53	0.40	-0.13	-23.94	0.42	0.02	5.00
Singapore			N/A				
Thailand	22.80	23.48	0.68	2.99	22.99	-0.49	-2.08
Vietnam	60.18	63.60	3.42	5.67	64.36	0.76	1.19

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, 2021 – 2023

Unit: 1,000 Hectares

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	436.96	547.03	110.07	25.19	528.52	-18.51	-3.38
Brunei			N/A				
Cambodia	16.22	16.06	-0.16	-1.00	16.38	0.32	2.02
Indonesia	235.23	344.50	109.28	46.46	326.86	-17.64	-5.12
Lao PDR	2.41	2.53	0.12	5.10	2.69	0.16	6.20
Malaysia			N/A				
Myanmar	131.61	130.08	-1.52	-1.16	128.58	-1.51	-1.16
Philippines	0.38	0.29	-0.09	-22.46	0.31	0.01	5.00
Singapore			N/A				
Thailand	13.76	14.08	0.32	2.33	13.60	-0.48	-3.39
Vietnam	37.35	39.48	2.13	5.69	40.10	0.62	1.57

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, 2021 – 2023

Unit: 1,000 Hectares

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	434.93	546.75	111.82	25.71	528.43	-18.32	-3.35
Brunei			N/A				
Cambodia	16.18	16.06	-0.12	-0.75	16.38	0.32	2.02
Indonesia	233.66	344.45	110.79	47.42	326.86	-17.59	-5.11
Lao PDR	2.41	2.53	0.12	5.10	2.69	0.16	6.20
Malaysia			N/A				
Myanmar	131.25	129.87	-1.38	-1.05	128.51	-1.36	-1.05
Philippines	0.38	0.29	-0.09	-22.46	0.31	0.01	5.00
Singapore			N/A				
Thailand	13.70	14.06	0.36	2.64	13.58	-0.48	-3.39
Vietnam	37.35	39.48	2.13	5.69	40.10	0.62	1.57

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

Table 50 Soybean yield in ASEAN countries, 2021 – 2023

Unit: Tons/Hectares

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	1.60	1.64	0.04	2.79	1.66	0.02	1.13
Brunei			N/A				
Cambodia	1.00	1.11	0.11	10.83	1.05	-0.06	-5.54
Indonesia	1.69	1.73	0.04	2.13	1.76	0.04	2.14
Lao PDR	2.63	2.56	-0.07	-2.68	2.57	0.01	0.33
Malaysia			N/A				
Myanmar	1.48	1.48	0.00	-0.05	1.48	0.00	-0.05
Philippines	1.40	1.37	-0.03	-1.91	1.37	0.00	0.00
Singapore			N/A				
Thailand	1.66	1.67	0.01	0.34	1.69	0.02	1.35
Vietnam	1.61	1.61	0.00	-0.01	1.60	-0.01	-0.37

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, 2022

Unit: Hectares

Country	Cause of Damage (Hectares)						
	Flood	Drought	Pests	Diseases	Others	Unspecify	Total
ASEAN	163	14	-	-	-	-	177
Brunei			N/A				
Cambodia	40	-	-	-	-	-	40
Indonesia	45	-	-	-	-	-	45
Lao PDR			N/A				
Malaysia							
Myanmar	68	-	-	-	-	-	68
Philippines			N/A				
Singapore			N/A				
Thailand	10	14	-	-	-	-	24
Vietnam			N/A				

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

Table 52 Soybean balance sheet of ASEAN countries, 2021

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	493,088	695,547	9,414,575	10,603,210	10,269,521	36,506	297,183	10,603,210
Brunei	-	-	597	597	597	-	-	597
Cambodia	-	16,208	*21,628	37,836	22,736	*15,100	-	37,836
Indonesia	410,000	394,886	2,489,690	3,294,576	*3,102,399	2,178	190,000	3,294,577
Lao PDR	862	6,340	243	7,445	3,724	1,994	1,727	7,445
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	*149,934	*34	-	149,968
Singapore	-	-	21,467	21,467	20,997	470	-	21,467
Thailand	-	22,800	3,996,772	4,019,572	*4,018,630	942	-	4,019,572
Vietnam	80,002	60,185	2,019,328	2,159,515	2,054,105	5,204	100,207	2,159,515

Remark: * The value is estimated by AFSIS Secretariat.

Table 53 Soybean balance sheet of ASEAN countries, 2022

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	297,183	898,784	9,740,825	10,936,793	10,658,801	38,081	239,910	10,936,793
Brunei	-	-	715	715	715	-	-	715
Cambodia	-	17,828	*11,287	29,115	20,055	*9,060	-	29,115
Indonesia	190,000	594,529	2,700,000	3,484,529	*3,382,592	1,937	100,000	3,484,529
Lao PDR	1,727	6,485	200	8,412	3,880	1,867	2,665	8,412
Malaysia	-	-	*673,606	673,606	*666,051	*7,555	-	673,606
Myanmar	5,250	192,456	*4,593	202,299	196,038	*944	5,317	202,299
Philippines	-	*403	*151,679	*152,082	*151,863	*220	-	152,083
Singapore	-	-	22,653	22,653	22,157	496	-	22,653
Thailand		23,482	4,000,000	4,023,482	4,022,407	*1,075	-	4,023,482
Vietnam	100,207	63,600	2,176,092	2,339,899	2,193,043	14,927	131,929	2,339,899

Remark: * The value is estimated by AFSIS Secretariat.

Table 54 Soybean balance sheet of ASEAN countries, 2023

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	239,910	878,459	10,163,944	11,282,314	10,885,503	37,272	359,538	11,282,314
Brunei	-	-	726	726	726	-	-	726
Cambodia	-	17,180	*9,000	26,180	18,180	*8,000	-	26,180
Indonesia	100,000	576,256	*3,000,000	3,676,256	*3,497,916	*1,898	*176,442	3,676,256
Lao PDR	2,665	6,910	173	9,748	3,938	2,024	3,786	9,748
Malaysia	-	-	*660,134	660,134	*652,466	*7,668	-	660,134
Myanmar	5,317	190,338	*4,363	200,018	*197,551	*930	*1,537	200,018
Philippines	-	*424	*153,954	*154,378	*154,147	*231	-	154,377
Singapore	-	-	22,060	22,060	21,577	483	-	22,060
Thailand	-	22,993	*4,020,633	4,043,626	*4,042,519	*1,107	-	4,043,626
Vietnam	131,929	64,359	2,292,900	2,489,188	2,296,484	14,930	177,774	2,489,188

Remark: * The value is estimated by AFSIS Secretariat.

Table 55 Ratio of soybean production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2021 – 2023

Unit: Tons

Country	2021			2022			2023		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	695,547	10,269,521	6.77	898,784	10,658,801	8.43	878,459	10,885,503	8.07
Brunei	-	597	-	-	715	-	-	726	-
Cambodia	16,208	22,736	71.29	17,828	20,055	88.90	17,180	18,180	94.50
Indonesia	394,886	3,102,399	12.73	594,529	3,382,592	17.58	576,256	3,497,916	16.47
Lao PDR	6,340	3,724	170.25	6,485	3,880	167.14	6,910	3,938	175.47
Malaysia	-	701,864	-	-	666,051	-	-	652,466	-
Myanmar	194,598	194,537	100.03	192,456	196,038	98.17	190,338	197,551	96.35
Philippines	530	149,934	0.35	403	151,863	0.27	424	154,147	0.27
Singapore	-	20,997	-	-	22,157	-	-	21,577	-
Thailand	22,800	4,018,630	0.57	23,482	4,022,407	0.58	22,993	4,042,519	0.57
Vietnam	60,185	2,054,105	2.93	63,600	2,193,043	2.90	64,359	2,296,484	2.80

Remark: * The value is estimated by AFSIS Secretariat.

Table 56 Ratio of soybean beginning stock to domestic utilization in ASEAN countries (Food security ratio), 2021 – 2023

Unit: Tons

Country	2021			2022			2023		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	493,088	10,269,521	4.80	297,183	10,658,801	2.79	239,910	10,885,503	2.20
Brunei	-	597	-	-	715	-	-	726	-
Cambodia	-	22,736	-	-	20,055	-	-	18,180	-
Indonesia	410,000	3,102,399	13.22	190,000	3,382,592	5.62	100,000	3,497,916	2.86
Lao PDR	862	3,724	23.14	1,727	3,880	44.51	2,665	3,938	67.67
Malaysia	-	701,864	-	-	666,051	-	-	652,466	-
Myanmar	2,224	194,537	1.14	5,250	196,038	2.68	5,317	197,551	2.69
Philippines	-	149,934	-	-	151,863	-	-	154,147	-
Singapore	-	20,997	-	-	22,157	-	-	21,577	-
Thailand	-	4,018,630	-	-	4,022,407	-	-	4,042,519	-
Vietnam	80,002	2,054,105	3.89	100,207	2,193,043	4.57	131,929	2,296,484	5.74

Remark: * The value is estimated by AFSIS Secretariat.

Table 57 Quantity and Value of Soybean Export by Countries of Destination in 2022

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														
Indonesia														
Lao PDR														
Malaysia									N/A					
Myanmar														
Philippines									213	295,994				
Singapore									N/A					
Thailand			9	540			116	1,973			101	1,080		
Vietnam			-	1,621,328			-	29,000						

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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					82,805	-	82,805	-	8.04	-	82,813	-
Indonesia									453	211,500	453	211,500
Lao PDR									2,024	781,656	2,024	781,656
Malaysia							N/A					
Myanmar									477	362,000	477	362,000
Philippines							213	295,994	7	13,893	220	309,887
Singapore							N/A					
Thailand							227	3,593	14	595	241	4,188
Vietnam							-	1,650,328	-	26,112	-	1,676,440

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 2022

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									1,146	566,394			0.029	86
Lao PDR														
Malaysia	N/A													
Myanmar														
Philippines														
Singapore									2,404	2,689,109				
Thailand		406	6,094						14	458				
Vietnam		4,228	3,088,400											

[6S]

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	0.008	112	0.005	144			1,146	566,736	589,468	360,436,515	590,614	361,003,251
Lao PDR					173	96,300	173	96,300			173	96,300
Malaysia	N/A											
Myanmar									388	330,000	388	330,000
Philippines					16,218	10,207,461	16,218	10,207,461	752,366	396,350,164	768,584	406,557,625
Singapore			0.06	743	1.12	239	2,405	2,690,090	20,249	17,608,956	22,653	20,299,046
Thailand							421	6,552	834,588	16,074,424	835,008	16,080,976
Vietnam							4,228	3,088,400	721,136	476,594,065	725,364	479,682,465

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	2021	842	889	948	916	996	-	-	-	-	-	-	-	918
	2022							N/A						
Indonesia	2021	632	275	162	595	257	286	366	168	199	551	361	315	347
	2022	777	500	312	-	-	-	-	-	-	-	-	-	530
Lao PDR	2021	271	380	397	379	380	382	385	383	381	380	331	316	364
	2022	280	322	352	371	384	387	-	-	-	-	-	-	349
Myanmar	2021	611	499	625	302	656	614	665	-	-	-	-	713	586
	2022	730	742	-	955	-	-	-	-	-	-	-	-	809

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	2021	495	516	575	603	608	640	637	629	637	640	627	581	599
	2022	568	586	662	-	-	-	-	-	-	-	-	-	605
Lao PDR	2021	480	480	680	546	586	590	560	580	562	560	550	543	560
	2022	490	496	545	588	590	598	-	-	-	-	-	-	551
Myanmar	2021	637	663	562	730	-	-	-	941	770	-	-	-	717
	2022	847	-	850	858	-	-	-	-	-	-	-	-	852
Singapore	2021	705	724	796	771	789	830	853	865	902	881	888	882	824
	2022	890	881	899	905	894	894	894	894	894	894	894	894	894
Thailand	2021	490	508	523	512	568	590	588	615	622	621	627	583	571
	2022	600	604	568	-	-	-	-	-	-	-	-	-	590
Vietnam	2021	512	544	560	570	569	602	616	614	622	639	617	592	588
	2022	609	626	687	723	724	-	-	-	-	-	-	-	674

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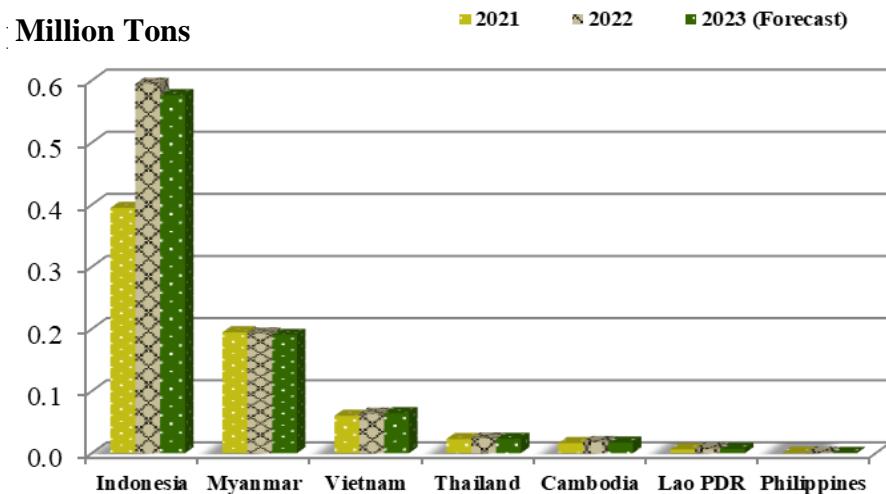


Figure 47 Soybean production of selected countries in ASEAN, 2021 – 2023

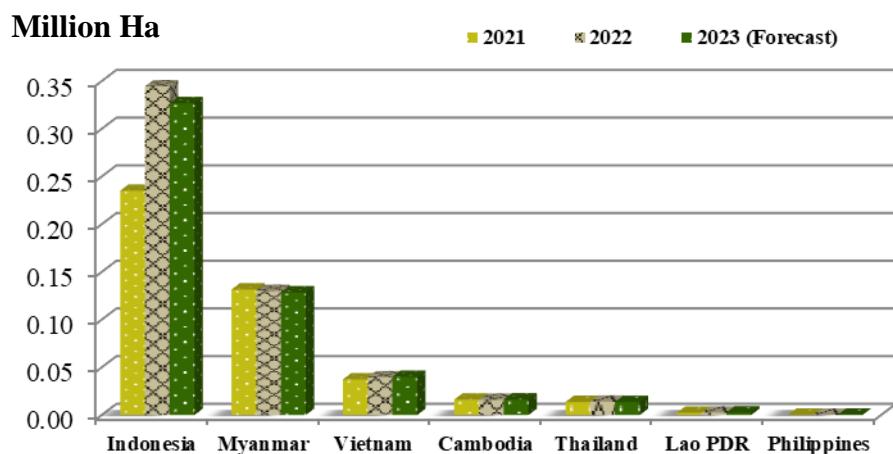


Figure 48 Soybean planted area of selected countries in ASEAN, 2021 – 2023

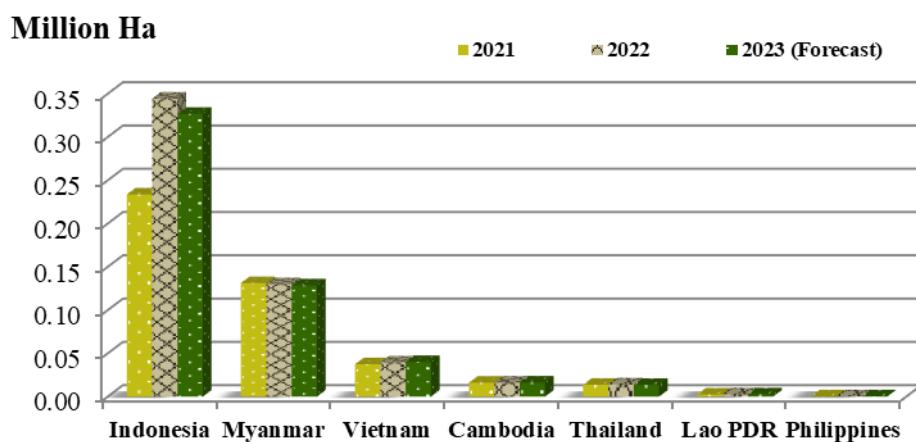


Figure 49 Soybean harvested area of selected countries in ASEAN, 2021 – 2023

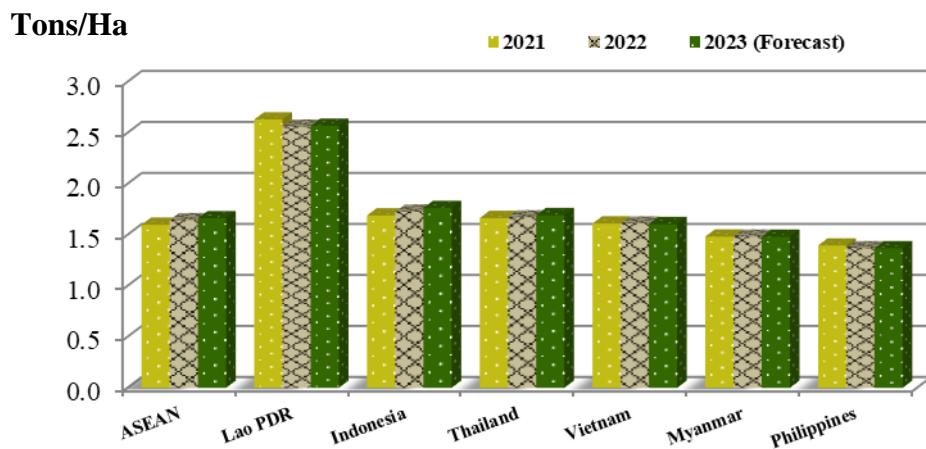


Figure 50 Soybean yield of countries in ASEAN, 2021 – 2023

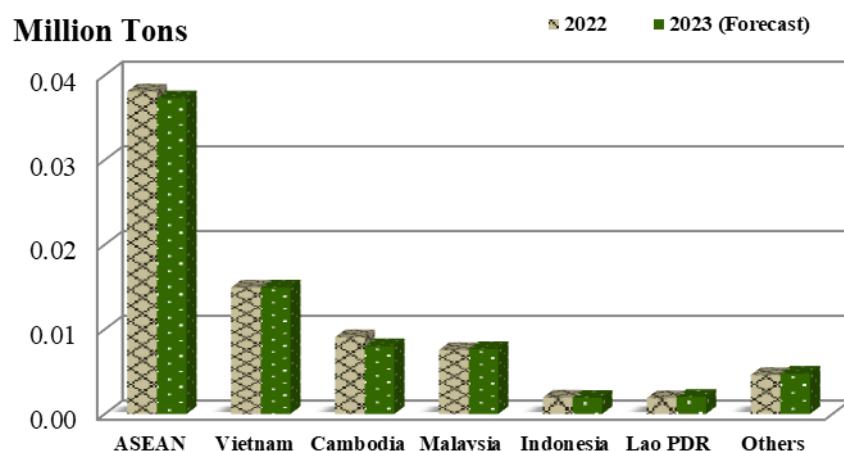
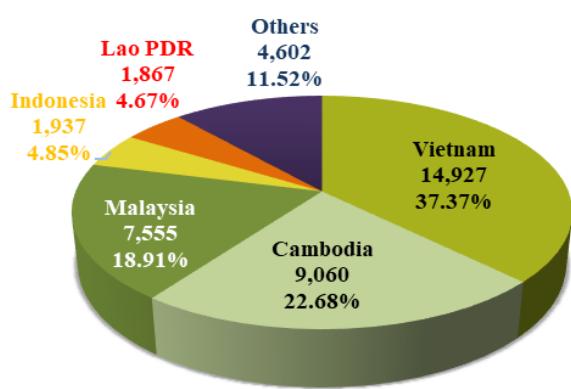
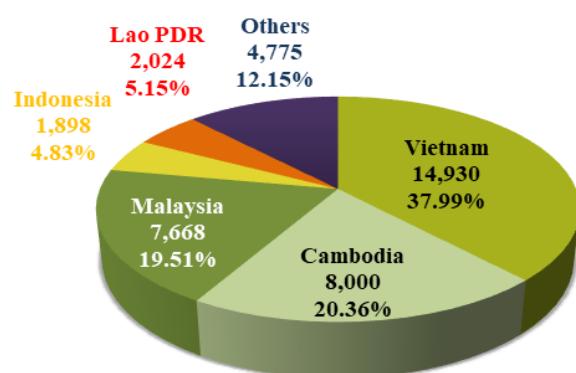


Figure 51 Amount of soybean export (million tons) of selected countries in ASEAN in 2022 – 2023



Total 0.038 million tons

Figure 52 Share of soybean export (tons) among ASEAN countries, 2022



Total 0.037 million tons

Figure 53 Share of soybean export (tons) among ASEAN countries, 2023

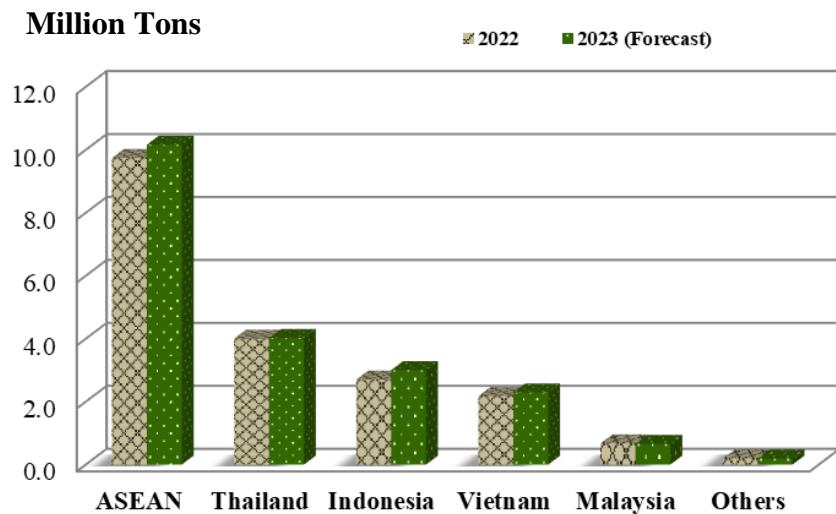
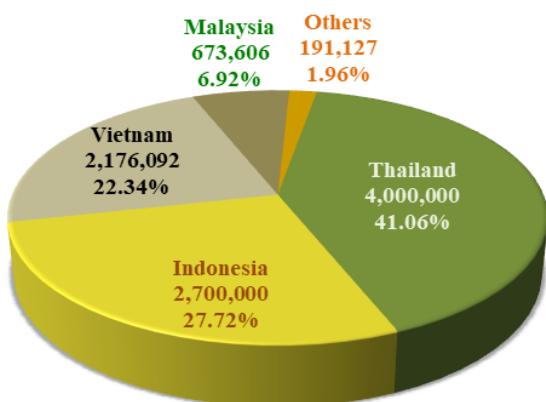
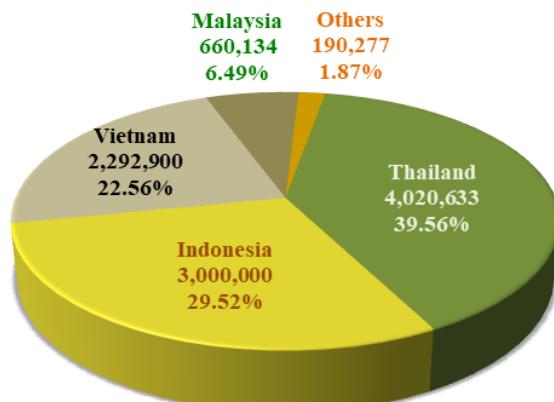


Figure 54 Amount of soybean import (million tons) by selected countries in ASEAN in 2022 – 2023



Total 9.74 million tons

Figure 55 Share of soybean import (tons) among ASEAN countries, 2022



Total 10.16 million tons

Figure 56 Share of soybean import (tons) among ASEAN countries, 2023

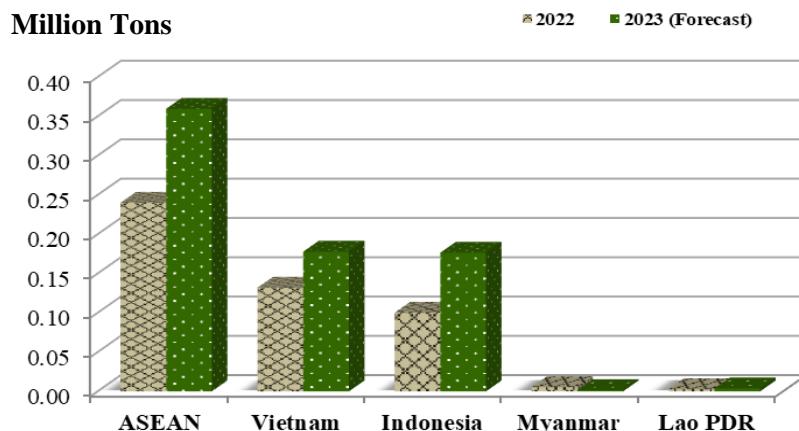


Figure 57 Amount of ending stock of soybean in ASEAN countries in 2022 – 2023

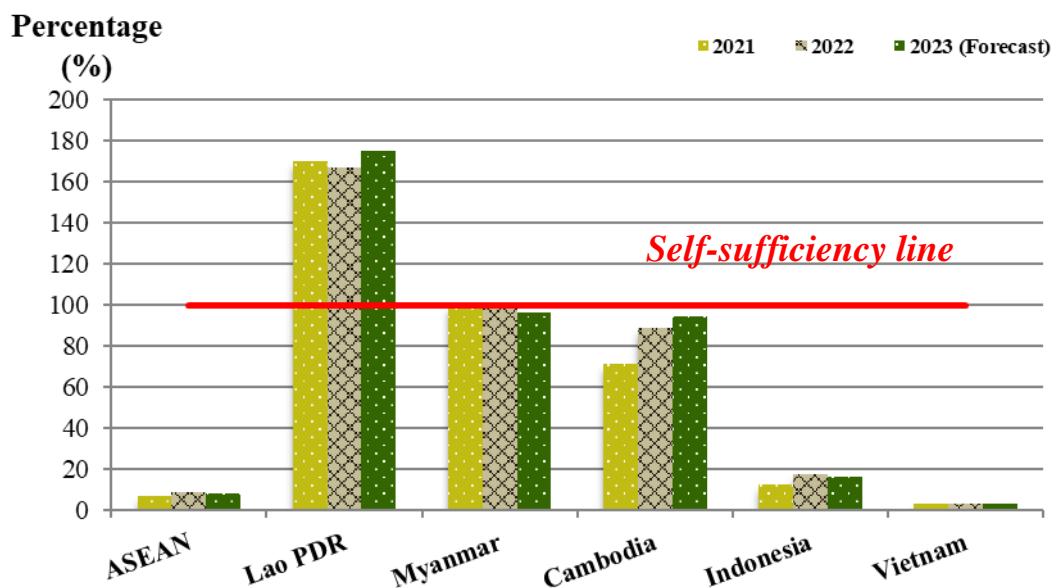


Figure 58 Ratio of soybean production to domestic utilization in ASEAN countries, 2021 – 2023

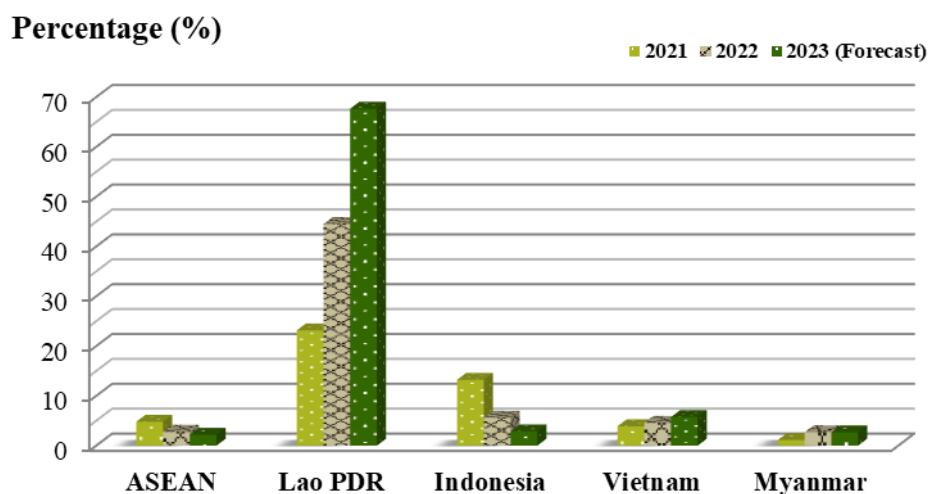


Figure 59 Ratio of soybean beginning stock to domestic utilization in ASEAN countries, 2021 – 2023

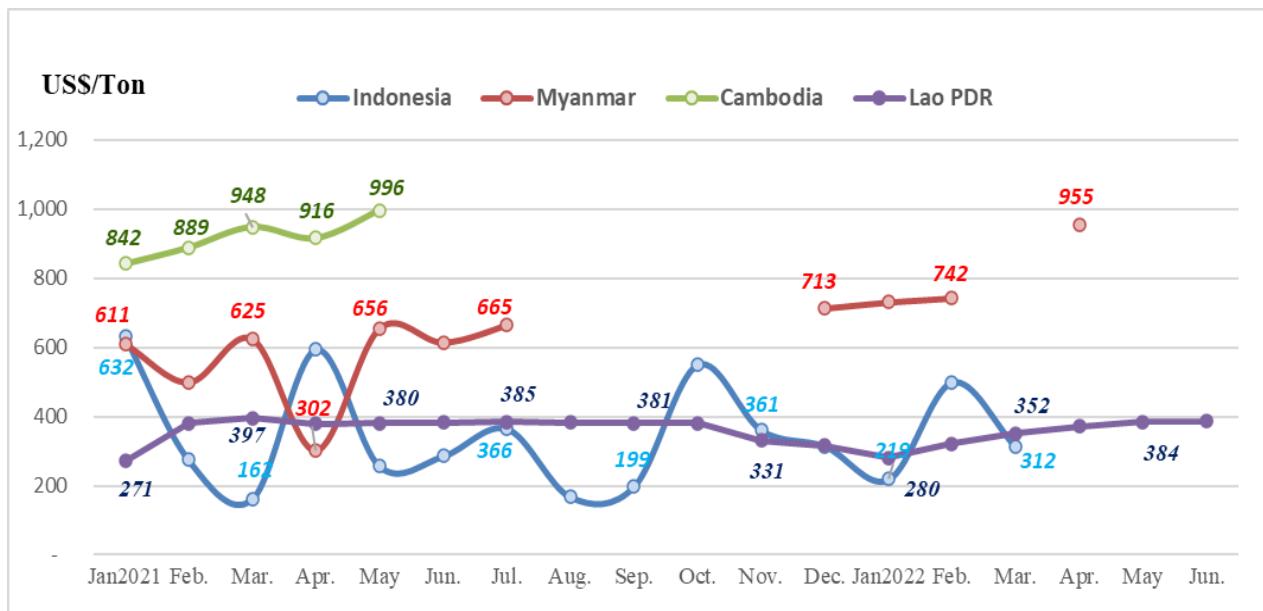


Figure 60 FOB price (US\$/Ton) of soybean of selected countries in ASEAN in 2021 – 2022

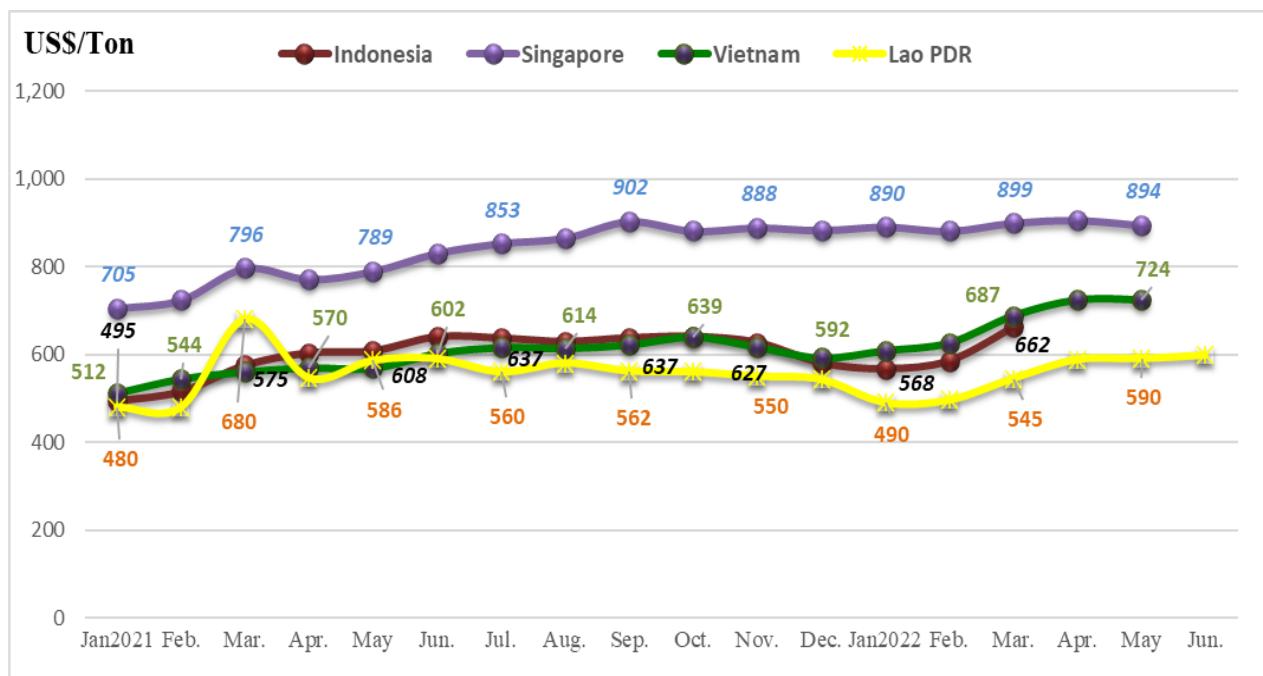


Figure 61 CIF price (US\$/Ton) of soybean of selected countries in ASEAN in 2021 – 2022

Cassava Outlook for 2023

Highlights

In 2023, the supply of cassava in ASEAN is forecast to be 117.87 million tons, an increase of 5.87 million tons or about 5.24 percent from 112.00 million tons in 2022 (Table 61). The rise in supply is due to the increase in beginning stock, production and import.

The beginning stock of cassava in 2023 is projected to be 16.93 million tons, which increases from 13.93 million tons in 2022 due to the increase in stock in Cambodia and Lao PDR (Table 61, 68-69). While the ending stock in 2023 is expected to reach 20.15 million tons, which increases from 16.93 million tons in 2022 (Table 61).

The export of cassava is expected to increase by 1.92 million tons or around 4.46 percent from 43.06 million tons in 2022 to 44.98 million tons in 2023. While, the import of cassava is forecast to be 13.34 million tons in 2023, which increases about 4.87 percent from 12.72 million tons in 2022 (Table 61).

The ratio of production to domestic utilization (self-sufficiency ratio) in 2023 is forecast to be 166.11 percent, which increases about 1.98 percent from 164.13 percent in 2022. The ratio of beginning stock to domestic utilization (food security ratio) in 2023 is forecast to be 32.11 percent, which increases about 5.32 percent from 26.79 percent in 2022 (Table 61).

Table 61 Summary of the ASEAN cassava situation, 2022-2023

Items	2022	2023	Change	
			Quantity	%
Supply (Million tons)	112.00	117.87	5.87	5.24
Beginning stock	13.93	16.93	3.00	21.54
Production	85.35	87.60	2.25	2.64
Import	12.72	13.34	0.62	4.87
Demand (Million tons)	112.00	117.87	5.87	5.24
Domestic utilization	52.00	52.74	0.74	1.42
Export	43.06	44.98	1.92	4.46
Ending stock	16.93	20.15	3.22	19.02
Ratio of production to domestic utilization (%)	164.13	166.11	1.98	-
Ratio of beginning stock to domestic utilization (%)	26.79	32.11	5.32	-

ASEAN Cassava Situation in 2022

► Production

The estimated cassava production (root fresh) in ASEAN in 2022 (crop year 2021/22) was 85.35 million tons, which increased from 84.98 million tons in 2021 or about 0.44 percent. The increase has occurred in Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines and Vietnam (Table 62-65, Figure 62-65).

For the country that reported the highest volume in production, **Thailand**, the production was reported to decrease about 1.15 percent or 0.40 million tons (from 35.09 million tons in 2021 to 34.69 million tons in 2022). The decrease in production came from the decrease in harvested area due to lack of labor for harvesting cassava crops.

For **Myanmar**, the decrease in production was approximately 17.64 percent or 0.07 million tons (from 0.40 million tons in 2021 to 0.33 million tons in 2022). The decrease in production was attributed to decrease in harvested area.

For **Brunei**, the production was reported to increase about 5.00 percent or 17 tons from 336 tons in 2021 to 353 tons in 2021. The increase in production was because farmers took better care of the crop.

For **Cambodia**, the production was reported to increase about 1.00 percent or 0.15 million tons (from 14.78 million tons in 2021 to 14.93 million tons in 2022). The increase in production came from the increase in planted area and harvested area.

For **Indonesia**, the production was reported to increase by 1.57 percent or 0.28 million tons (from 17.72 million tons in 2021 to 17.99 million tons in 2022). The increase in production came from the increase in yield due to farmers' taking better care of the crops, together with favorable weather.

For **Lao PDR**, the production was reported to increase about 4.58 percent or 0.17 million tons (from 3.71 million tons in 2021 to 3.88 million tons in 2022). The increase in production came from the increase in planted area and harvested area caused by farmers' response to price increases.

For **Malaysia**, the production was reported to increase about 8.53 percent or 3,360 tons (from 0.039 million tons in 2021 to 0.043 million tons in 2022). The increase in cassava production was attributed to increase in planted area, harvested area and yield.

For **the Philippines**, the production was reported to increase by 1.25 percent or 0.03 million tons (from 2.54 million tons in 2021 to 2.57 million tons in 2022). The increase in cassava production was attributed to increase in yield because farmers used more improved variety together with favorable weather and sufficient rainfall.

For **Vietnam**, the increase in production was approximately 2.00 percent or 0.21 million tons (from 10.70 million tons in 2021 to 10.91 million tons in 2022). The increase in production was due to the increase in planted area and harvested area due to increasing demand for cassava from China.

► Utilization and Stock

Cassava root in ASEAN, in general, it can be used for human food, animal feed, and ethanol production. In 2022, the domestic utilization of cassava for all purposes in ASEAN was estimated at 52.00 million tons, which increased by 1.80 million tons or about 3.59 percent from 50.20 million tons in 2021 (Table 67-68).

The beginning stock in 2022 was estimated at 13.93 million tons, which increased sharply around 3.27 million tons compared to 10.66 million tons in 2021. The ending stock of cassava in 2022 was estimated to be 16.93 million tons, which increased around 3.00 million tons compared to 13.93 million tons in 2021. This came from the increase in ending stock of Cambodia and Lao PDR.

The ratio of production to domestic utilization (**self-sufficient ratio**) in 2022 was estimated to be 164.13 percent, which decreased from 169.28 percent in 2021. *This indicated that, aggregate, the cassava production in ASEAN is sufficient for the demand within ASEAN* (Table 70, Figure 73). Thus, all countries in ASEAN region, except Singapore do not have much concern as they are major producers and are able to produce sufficient cassava to meet domestic demand.

In 2022, the ratio of the ASEAN beginning stock to domestic utilization (**food security ratio**) is estimated to be 26.79 percent, which increased from 21.23 percent in 2021 (Table 71, Figure 74).

For the overall production, the information of cassava in ASAEAN demonstrates that many countries in the region have self-dependency in terms of cassava production and have food security. Cassava is not a staple food for the ASEAN region; however, it is an important raw material used in animal feed and energy. For the current food crisis, some countries in ASEAN region that have excessive cassava supply can be advantages

from cassava export and obtain high revenue from the export.

► **Trade**

The cassava exported from ASEAN in 2022 is expected to be 43.06 million tons, which decreased 0.24 million tons from 43.30 million tons in 2021. The cassava imported by ASEAN in 2022 was estimated to be 12.72 million tons, which increased by approximately 0.92 million tons from 11.80 million tons in 2021 (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 countries 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 2021 and 2022, and the CIF prices of Malaysia, and Singapore are presented in Table 74-75. The average FOB prices of starch, pellets, and shredded in Thailand in 2022 increased from 2021.

► **Damaged Area**

In 2022, the cassava damaged area in ASEAN was reported to be 158,271 hectares, of which 143,278 hectares or about 90.53 percent occurred in Thailand (Table 66).

Prospects for Cassava in 2023

► Production

The cassava production in ASEAN in 2023 is forecast to be 87.60 million tons, which increases by 2.25 million tons or about 2.64 percent from 85.35 million tons in 2022. The increase in production is expected in all countries (Table 62). The greatest increase in terms of quantity is expected in **Thailand**, which is forecast to be 35.80 million tons or an increase by 3.20 percent from 34.69 million tons in 2022 by increasing in harvested area and 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 **Cambodia**, which is forecast to be 15.23 million tons or an increase by 2.00 percent from 14.93 million tons in 2022, is due to the increase in planted area, harvested area and yield.

The increase in production in **Indonesia**, which is forecast to be 18.29 million tons or an increase by 1.62 percent from 17.99 million tons in 2022, is due to the increase in yield. The increasing in yield is due to favorable weather and better taking care of the crops by farmers.

The increase in production in **Lao PDR**, which is forecast to be 4.13 million tons or an increase by 6.31 percent from 3.88 million tons in 2022, is due to the increase in planted area and yield caused by favorable weather and farmer's respond to price increase.

The increase in production in **Vietnam**, which is forecast to be 11.13 million tons or an increase by 2.00 percent from 10.91 million tons in 2022, is due to the increase in planted area.

The increase in production in **Myanmar**, which is forecast to be 0.40 million tons or an increase by 23.24 percent from 0.33 million tons in 2022, is due to the increase in planted and harvested areas.

The increase in production in **the Philippines**, which is forecast to be 2.58 million tons or an increase by 0.50 percent

from 2.57 million tons in 2022, is due to the increase in planted area.

The increase in production in **Malaysia**, which is forecast to be 0.046 million tons or an increase by 8.53 percent from 0.043 million tons in 2022, is due to the increase in planted area, harvested area, and yield.

► Utilization and Stock

The domestic utilization of cassava is predicted to increase to 52.74 million tons in 2023 compared to 52.00 million tons in 2022, an increase by 0.74 million tons. The beginning stock in 2023 is forecast to be 16.93 million tons, an increase by 3.00 million tons, compared to 13.93 million tons in 2022. The ending stock in 2023 is predicted to be 20.15 million tons, an increase of 3.22 million tons from 16.93 million tons in 2021 (Table 68-69).

The ratio of production to domestic utilization (**self-sufficient ratio**) for 2023 is forecast to be 166.11 percent, which increases from 164.13 percent in 2022. This indicates that the self-sufficiency in cassava in ASEAN is slightly increasing (Table 70, Figure 73). The ratio of beginning stock to the domestic utilization (**food security ratio**) in 2023 is predicted to be 32.11 percent, compared to 26.79 percent in 2022. 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 44.98 million tons in 2023, an increase by 1.92 million tons compared to 43.06 million tons in 2022. For the import, it is estimated to be 13.34 million tons in 2023, an increase about 0.62 million tons from 12.72 million tons in 2021 (Table 68-69, Figure 66, 68, 69, and 71).

Table 62 Cassava production in ASEAN countries, 2021 – 2023

Unit: 1,000 Tons

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	84,977.79	85,349.49	371.70	0.44	87,604.47	2,254.98	2.64
Brunei	0.336	0.353	0.02	5.00	0.37	0.02	5.00
Cambodia	14,784.07	14,931.91	147.84	1.00	15,230.55	298.64	2.00
Indonesia	17,716.23	17,994.53	278.30	1.57	18,286.23	291.71	1.62
Lao PDR	3,710.00	3,880.00	170.00	4.58	4,125.00	245.00	6.31
Malaysia	39.39	42.75	3.36	8.53	46.39	3.65	8.53
Myanmar	396.18	326.30	-69.88	-17.64	402.12	75.83	23.24
Philippines	2,539.79	2,571.51	31.73	1.25	2,584.37	12.86	0.50
Singapore			N/A				
Thailand	35,094.49	34,690.88	-403.61	-1.15	35,799.94	1,109.06	3.20
Vietnam	10,697.32	10,911.27	213.95	2.00	11,129.49	218.23	2.00

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, 2021 – 2023

Unit: 1,000 Hectares

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	4,017.01	4,097.11	80.10	1.99	3,989.08	-108.03	-2.64
Brunei			N/A				
Cambodia	739.43	776.40	36.97	5.00	784.17	7.76	1.00
Indonesia	635.69	635.69	0.00	0.00	611.46	-24.23	-3.81
Lao PDR	113.45	119.00	5.55	4.89	125.00	6.00	5.04
Malaysia	2.77	2.86	0.08	3.00	2.94	0.09	3.00
Myanmar	33.30	33.49	0.19	0.58	33.69	0.19	0.58
Philippines	217.39	213.93	-3.46	-1.59	215.00	1.07	0.50
Singapore			N/A				
Thailand	1,747.04	1,771.97	24.93	1.43	1,662.18	-109.79	-6.20
Vietnam	527.94	543.78	15.84	3.00	554.65	10.88	2.00

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, 2021 – 2023

Unit: 1,000 Hectares

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022	
			Quantities	(%)		Quantities	(%)
ASEAN	3,913.86	3,933.13	19.27	0.49	3,987.04	53.91	1.37
Brunei			N/A				
Cambodia	730.87	774.72	43.85	6.00	782.47	7.75	1.00
Indonesia	623.46	623.46	0.00	0.00	611.46	-12.00	-1.92
Lao PDR	113.45	119.00	5.55	4.89	125.00	6.00	5.04
Malaysia	2.45	2.52	0.07	3.00	2.59	0.08	3.00
Myanmar	33.30	27.04	-6.26	-18.80	33.69	6.65	24.59
Philippines	217.39	213.93	-3.46	-1.59	215.00	1.07	0.50
Singapore			N/A				
Thailand	1,665.01	1,628.69	-36.32	-2.18	1,662.18	33.49	2.06
Vietnam	527.94	543.78	15.84	3.00	554.65	10.88	2.00

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

Table 65 Cassava yield in ASEAN countries, 2021 – 2023

Country	2021 (2020/21)	2022 (2021/22)	Change 2022 over 2021		2023 (2022/23)	Change 2023 over 2022		Unit: Ton/Hectare
			Quantities	(%)		Quantities	(%)	
ASEAN	21.71	21.70	-0.01	-0.05	21.97	0.27	1.24	
Brunei								N/A
Cambodia	20.23	19.27	-0.96	-4.75	19.46	0.19	0.99	
Indonesia	28.42	28.86	0.44	1.55	29.91	1.05	3.64	
Lao PDR	32.70	32.61	-0.09	-0.28	33.00	0.39	1.20	
Malaysia	16.11	16.97	0.86	5.34	17.88	0.91	5.36	
Myanmar	11.90	12.07	0.17	1.43	11.94	-0.13	-1.08	
Philippines	11.68	12.02	0.34	2.91	12.02	0.00	0.00	
Singapore								N/A
Thailand	21.08	21.30	0.22	1.04	21.54	0.24	1.13	
Vietnam	20.26	20.07	-0.19	-0.94	20.07	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, 2022

Country	Cause of Damage (Hectares)							Unit: Hectares
	Flood	Drought	Pests	Diseases	Others	Unspecify	Total	
ASEAN	8,563	-	-	-	6,430	143,278	158,271	
Brunei								N/A
Cambodia	8,563	-	-	-	-	-	8,563	
Indonesia								N/A
Lao PDR								N/A
Malaysia								N/A
Myanmar	-	-	-	-	6,430	-	6,430	
Philippines								N/A
Singapore								N/A
Thailand	-	-	-	-	-	-	143,278	143,278
Vietnam								N/A

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

Table 67 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	10,659,021	84,977,790	11,798,037	107,434,848	50,199,877	43,304,013	13,930,958	107,434,848
Brunei	-	336	1.01	337	337	-	-	337
Cambodia	3,998,587	14,784,068	-	18,782,655	6,286,491	6,273,658	6,222,506	18,782,655
Indonesia	-	17,716,226	48,511	17,764,737	17,473,124	291,613	-	17,764,737
Lao PDR	3,824,859	3,710,000	-	7,534,859	2,189,493	260,742	5,084,624	7,534,859
Malaysia	-	39,387	432	39,819	38,939	880	-	39,819
Myanmar	12,525	396,179	235.00	408,939	398,894	345	9,700	408,939
Philippines	-	2,539,789	80,911	2,620,699	2,619,149	1,550	-	2,620,699
Singapore	-	-	1,874	1,874	1,870.03	3.92	-	1,874
Thailand	2,531,185	35,094,485	10,710,000	48,335,670	12,421,000	33,607,000	2,307,670	48,335,670
Vietnam	291,865	10,697,320	956,074	11,945,259	8,770,579	2,868,221	306,458	11,945,259

Remark: * The value is estimated by AFSIS Secretariat.**Table 68 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	13,930,958	85,349,488	12,715,954	111,996,400	52,000,036	43,062,169	16,934,196	111,996,401
Brunei	-	353	1.04	354	354	-	-	354
Cambodia	6,222,506	14,931,908	-	21,154,414	6,387,655	6,823,408	7,943,351	21,154,414
Indonesia	-	17,994,525	92,162	18,086,687	17,894,886	191,801	-	18,086,687
Lao PDR	5,084,624	3,880,000	-	8,964,624	2,156,148	239,470	6,569,006	8,964,624
Malaysia	-	42,747	734	43,480	42,770	711	-	43,481
Myanmar	9,700	326,295	-	335,995	317,151	8,783	10,062	335,995
Philippines	-	2,571,515	20,187	2,591,702	2,591,342	360	-	2,591,702
Singapore	-	-	1,706	1,706	1,703	4	-	1,706
Thailand	2,307,670	34,690,879	12,300,000	49,298,549	14,254,000	32,786,000	2,258,549	49,298,549
Vietnam	306,458	10,911,266	301,163	11,518,888	8,354,027	3,011,632	153,229	11,518,888

Remark: * The value is estimated by AFSIS Secretariat.**Table 69 Cassava balance sheet of ASEAN countries, 2023 (Cassava roots fresh)**

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	16,934,196	87,604,465	13,335,528	117,874,189	52,740,130	44,982,180	20,151,879	117,874,189
Brunei	-	371	1.09	372	372	-	-	372
Cambodia	7,943,351	15,230,546	-	23,173,897	6,490,764	6,943,694	9,739,438	23,173,897
Indonesia	-	18,286,234	96,771	18,383,005	18,199,835	183,170	-	18,383,005
Lao PDR	6,569,006	4,125,000	-	10,694,006	2,220,863	258,137	8,215,005	10,694,006
Malaysia	-	46,393	745	47,138	46,456	682	-	47,138
Myanmar	10,062	402,122	-	412,183	390,916	8,607	12,660	412,183
Philippines	-	2,584,372	20,000	2,604,372	2,604,000	372	-	2,604,372
Singapore	-	-	1,790	1,790	1,786	4	-	1,790
Thailand	2,258,549	35,799,936	12,900,000	50,958,485	14,532,285	34,425,300	2,000,900	50,958,485
Vietnam	153,229	11,129,492	316,221	11,598,942	8,252,854	3,162,214	183,875	11,598,942

Remark: * The value is estimated by AFSIS Secretariat.

Table 70 Ratio of cassava production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2021 – 2023

Unit: Tons

Country	2021			2022			2023		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	84,977,790	50,199,877	169.28	85,349,488	52,000,036	164.13	87,604,465	52,740,130	166.11
Brunei	336	337	99.70	353	354	99.71	371	372	99.71
Cambodia	14,784,068	6,286,491	235.17	14,931,908	6,387,655	233.76	15,230,546	6,490,764	234.65
Indonesia	17,716,226	17,473,124	101.39	17,994,525	17,894,886	100.56	18,286,234	18,199,835	100.47
Lao PDR	3,710,000	2,189,493	169.45	3,880,000	2,156,148	179.95	4,125,000	2,220,863	185.74
Malaysia	39,387	38,939	101.15	42,747	42,770	99.95	46,393	46,456	99.86
Myanmar	396,179	398,894	99.32	326,295	317,151	102.88	402,122	390,916	102.87
Philippines	2,539,789	2,619,149	96.97	2,571,515	2,591,342	99.23	2,584,372	2,604,000	99.25
Singapore	-	1,870	-	-	1,703	-	-	1,786	-
Thailand	35,094,485	12,421,000	282.54	34,690,879	14,254,000	243.38	35,799,936	14,532,285	246.35
Vietnam	10,697,320	8,770,579	121.97	10,911,266	8,354,027	130.61	11,129,492	8,252,854	134.86

Remark: * The value is estimated by AFSIS Secretariat.

Table 71 Ratio of cassava beginning stock to domestic utilization in ASEAN countries (Food security ratio), 2021 – 2023

Unit: Tons

Country	2021			2022			2023		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	10,659,021	50,199,877	21.23	13,930,958	52,000,036	26.79	16,934,196	52,740,130	32.11
Brunei	-	337	-	-	354	-	-	372	-
Cambodia	3,998,587	6,286,491	63.61	6,222,506	6,387,655	97.41	7,943,351	6,490,764	122.38
Indonesia	-	17,473,124	-	-	17,894,886	-	-	18,199,835	-
Lao PDR	3,824,859	2,189,493	174.69	5,084,624	2,156,148	235.82	6,569,006	2,220,863	295.79
Malaysia	-	38,939	-	-	42,770	-	-	46,456	-
Myanmar	12,525	398,894	3.14	9,700	317,151	3.06	10,062	390,916	2.57
Philippines	-	2,619,149	-	-	2,591,342	-	-	2,604,000	-
Singapore	-	1,870	-	-	1,703	-	-	1,786	-
Thailand	2,531,185	12,421,000	20.38	2,307,670	14,254,000	16.19	2,258,549	14,532,285	15.54
Vietnam	291,865	8,770,579	3.33	306,458	8,354,027	3.67	153,229	8,252,854	1.86

Remark: * The value is estimated by AFSIS Secretariat.

Table 72 Quantity and Value of Cassava Export by Countries of Destination in 2022

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														
Indonesia									9	5,079				
Lao PDR														
Malaysia	N/A													
Myanmar									3,523	990,000				
Philippines														
Singapore	N/A													
Thailand	191	130,906	422	376,377	146,674	79,432,485	12,162	6,042,064	104,266	51,865,359	3,026	2,068,944	49,646	26,590,228
Vietnam									2,162	1,111,325			9,602	4,889,162

[74]

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			1,298,195	-	1,382,647	-	2,680,842	-	113397		2,794,239	-	
Indonesia								9	5,079	191	328,781	200	333,860
Lao PDR			101,400	6,719,200	88,270	5,183,100	189,670	11,902,300	49,800	3,423,700	239,470	15,326,000	
Malaysia	N/A												
Myanmar			2,038	408,000			5,561	1,398,000	3,222	1,059,000	8,783	2,457,000	
Philippines								-	-	360	406,021	360	406,021
Singapore	N/A												
Thailand	17,864	8,386,282			20,242	13,234,595	354,493	188,127,241	4,115,642	1,427,819,293	4,470,135	1,615,946,535	
Vietnam							11,764	6,000,487	1,179,624	511,177,186	1,191,388	517,177,673	

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 2022

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								N/A						
Lao PDR								N/A						
Malaysia											124	46,738	1	308
Myanmar							N/A							
Philippines					64	23,876				2	3,281			
Singapore									1,695	561,657			0.004	215
Thailand		1,237,746	178,853,829	121	301,706	1,365,854	213,151,060	10	92,334	25,816	4,700,752	2.70	10,797	
Vietnam							-	13,846,624						

[SL]

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							N/A					
Lao PDR							N/A					
Malaysia	0.04	1,302			189	65,760	314	114,108	420	640,008	734	754,117
Myanmar							N/A					
Philippines			18,365	9,721,895	1,354	679,097	19,785	10,428,149	402	239,256	20,187	10,667,405
Singapore			0.0660	57	0.60	2,581	1,696	564,510	10	15,087	1,706	579,597
Thailand	5.14	235,900			29	69,283	2,629,584	397,415,661	5,368	16,586,628	2,634,952	414,002,289
Vietnam	-	9,120	-	2,946,232			-	16,801,976	-	1,143,324	-	17,945,300

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	2021	331	1,196	1,623	674	1,932	1,300	4,619	1,848	230	2,024	789	739	1,442
		2022	997	2,395	2,271	-	-	-	-	-	-	-	-	-	1,888
Lao PDR	flour	2021	223	330	367	366	343	350	398	402	339	332	320	331	342
		2022	308	315	360	410	395	367	-	-	-	-	-	-	359
	Pellets	2021	42	45	66	77	90	94	101	74	50	46	45	42	64
		2022	49	51	65	78	91	87	-	-	-	-	-	-	70
	Shredded	2021	142	143	138	139	145	148	141	139	140	138	135	137	140
		2022	144	147	150	146	144	145	-	-	-	-	-	-	146
Malaysia	Not specified	2021	326	542	571	608	1,065	377	1,243	1,252	330	489	417	1,320	712
		2022	341	445	2,848	537	1,412	-	-	-	-	-	-	-	1,117
Myanmar	Not specified	2021		321	50	429	329	150		150				261	241
		2022	330	271	295	224	-	-	-	-	-	-	-	-	280
Thailand	Starch	2021	473	476	483	483	483	483	483	479	478	478	483	488	480
		2022	488	488	490	497	513	-	-	-	-	-	-	-	495
	Pellets	2021	261	318	305	333	314	321	308	336	268	319	287	366	311
		2022	346	348	249	-	-	-	-	-	-	-	-	-	314
	Shredded	2021	249	265	265	262	260	260	260	252	250	250	253	253	257
		2022	245	247	262	277	288	-	-	-	-	-	-	-	264
Vietnam	Not specified	2021	370	368	378	376	405	434	417	444	441	446	458	433	414
		2022	423	411	444	447	-	-	-	-	-	-	-	-	431

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
Malaysia	Not specified	2021	288	247	267	275	279	264	349	272	253	253	0.00	256	250
		2022	456	520	706	537	432	-	-	-	-	-	-	-	531
Singapore	Not specified	2021	299	300	334	377	306	313	314	317	315	316	349	362	325
		2022	327	351	342	340	340	340	340	340	340	340	340	340	340

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

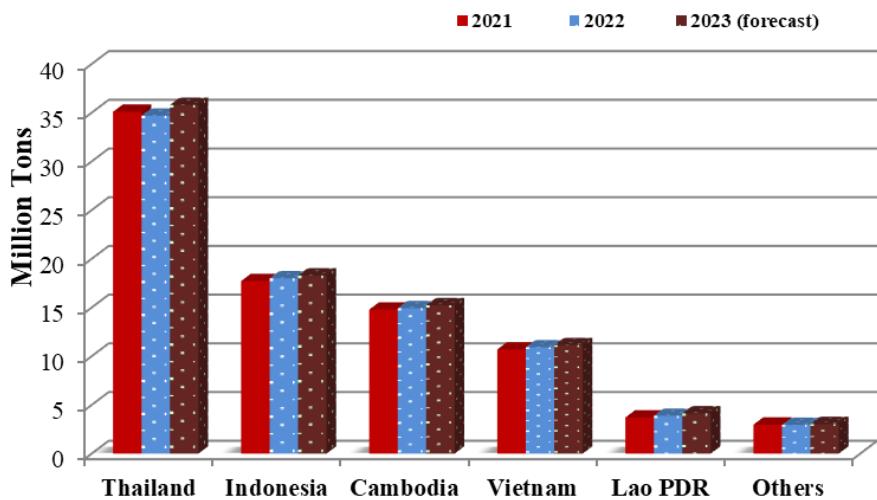


Figure 62 Cassava production of selected countries in ASEAN, 2021 – 2023

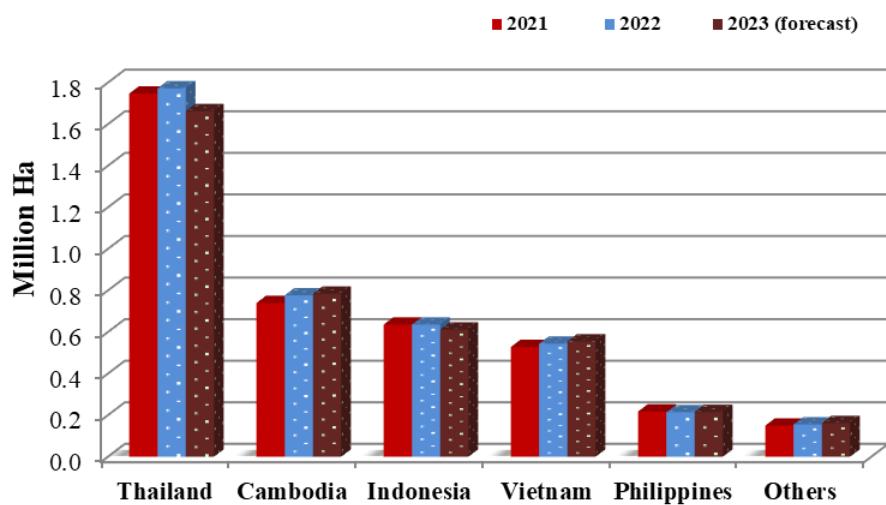


Figure 63 Cassava planted area of selected countries in ASEAN, 2021 – 2023

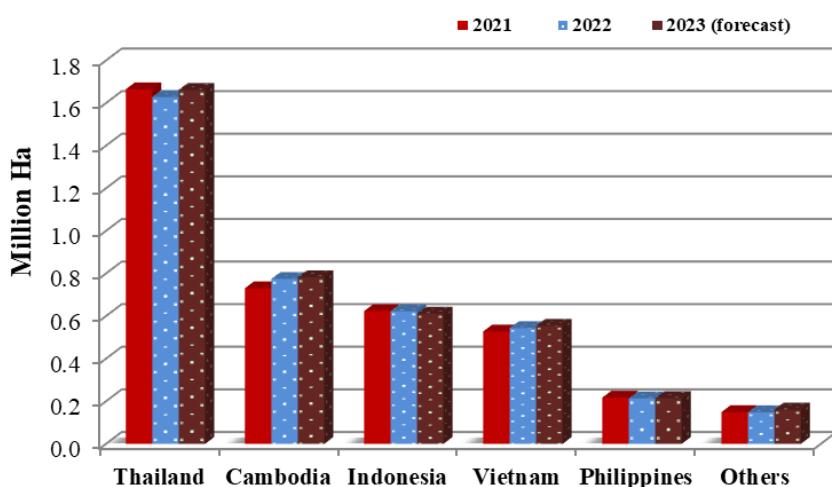


Figure 64 Cassava harvested area of selected countries in ASEAN, 2021 – 2023

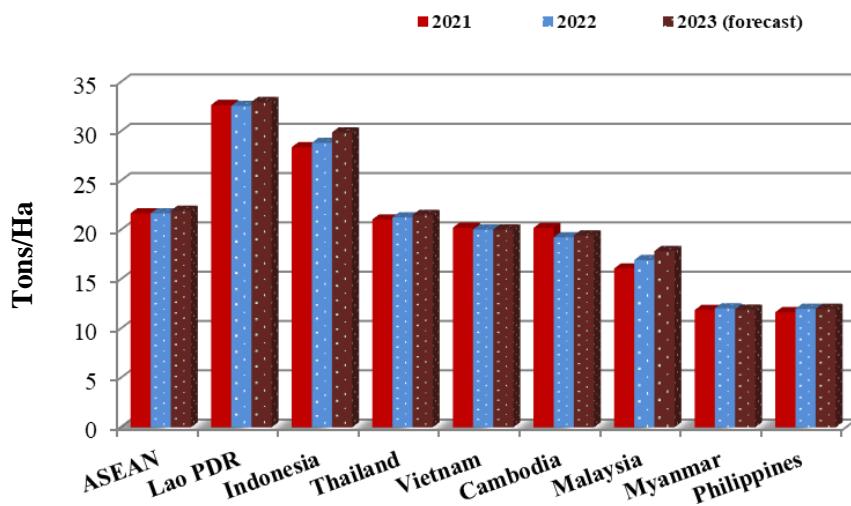


Figure 65 Cassava yield of countries in ASEAN, 2021 – 2023

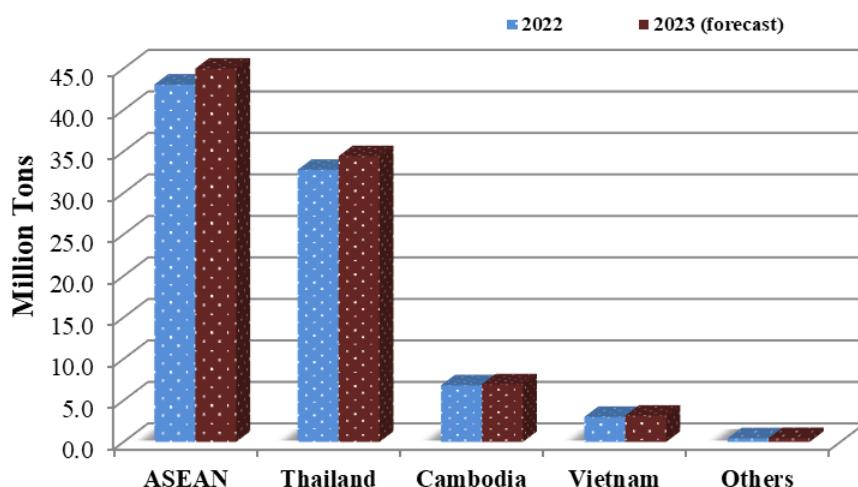


Figure 66 Amount of cassava export (million tons) of selected countries in ASEAN in 2022 – 2023

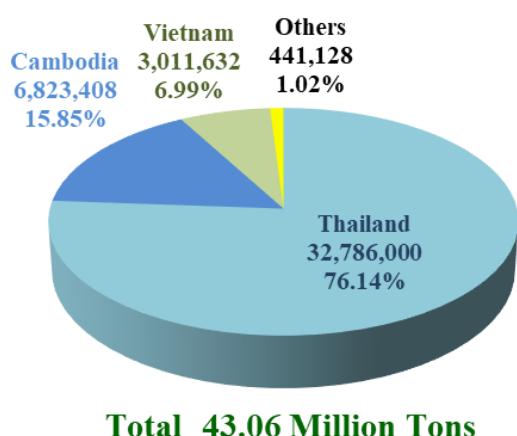


Figure 67 Share of cassava export (tons) among ASEAN countries, 2022

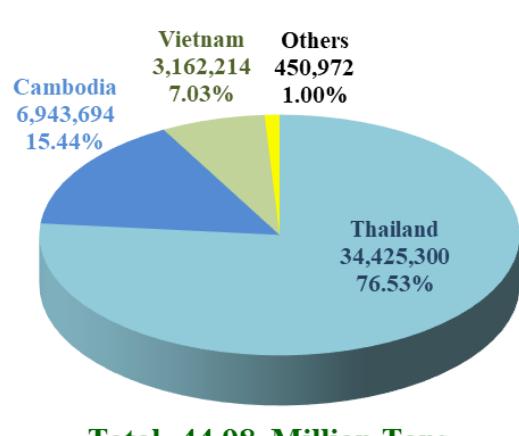


Figure 68 Share of cassava export (tons) among ASEAN countries, 2023

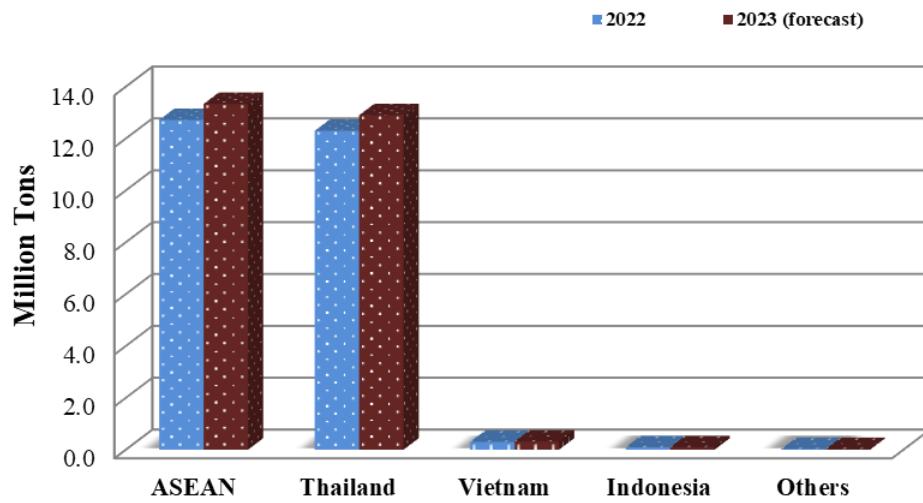


Figure 69 Amount of cassava import (million tons) by selected countries in ASEAN in 2022 – 2023

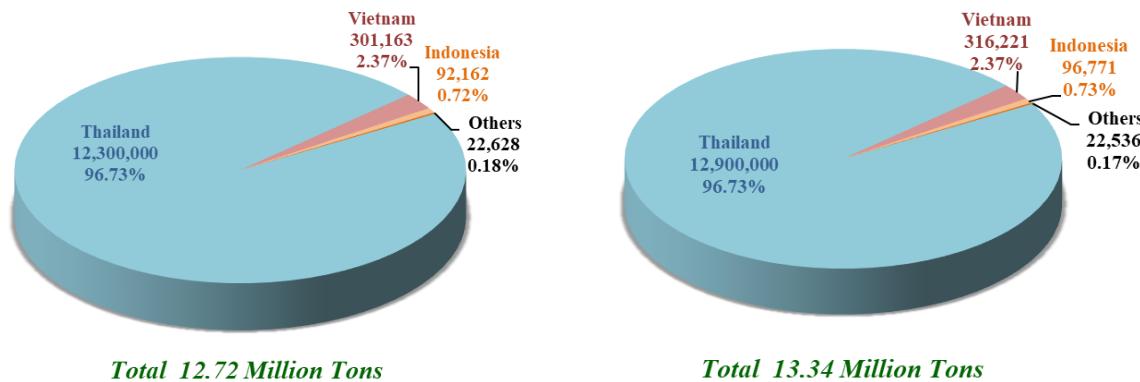


Figure 70 Share of cassava import (tons) among ASEAN countries, 2022

Figure 71 Share of cassava import (tons) among ASEAN countries, 2023

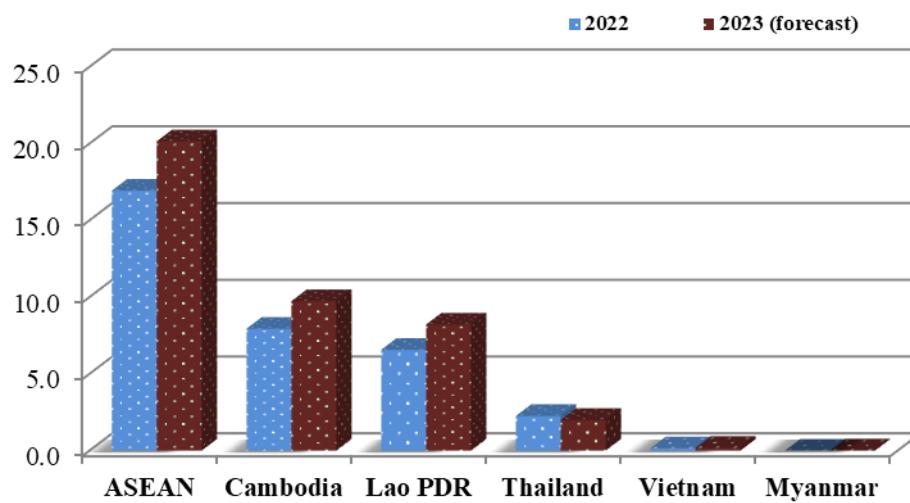


Figure 72 Amount of ending stock of cassava in ASEAN countries in 2022 – 2023

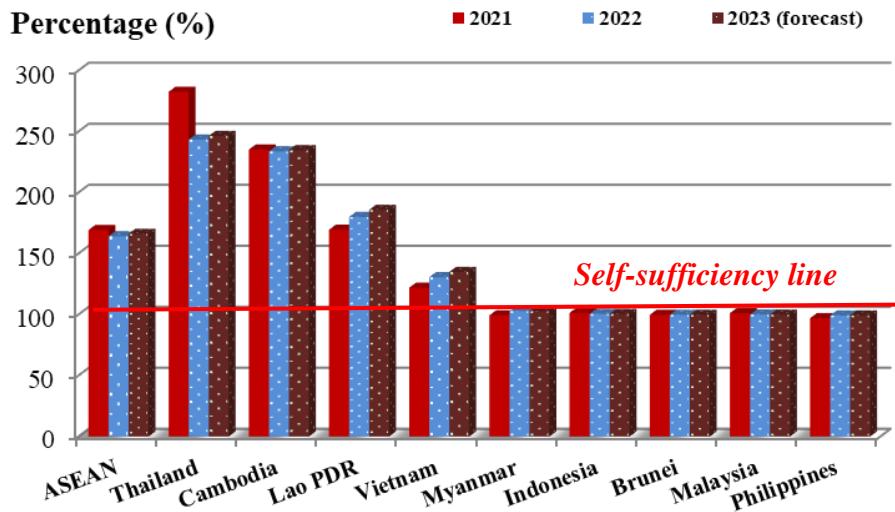


Figure 73 Ratio of cassava production to domestic utilization in ASEAN countries, 2021 – 2023

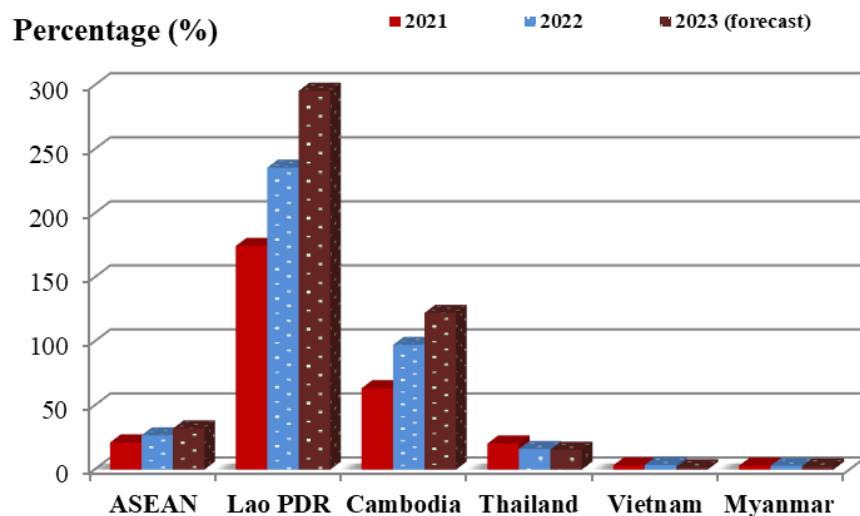


Figure 74 Ratio of cassava beginning stock to domestic utilization in ASEAN countries, 2021 – 2023

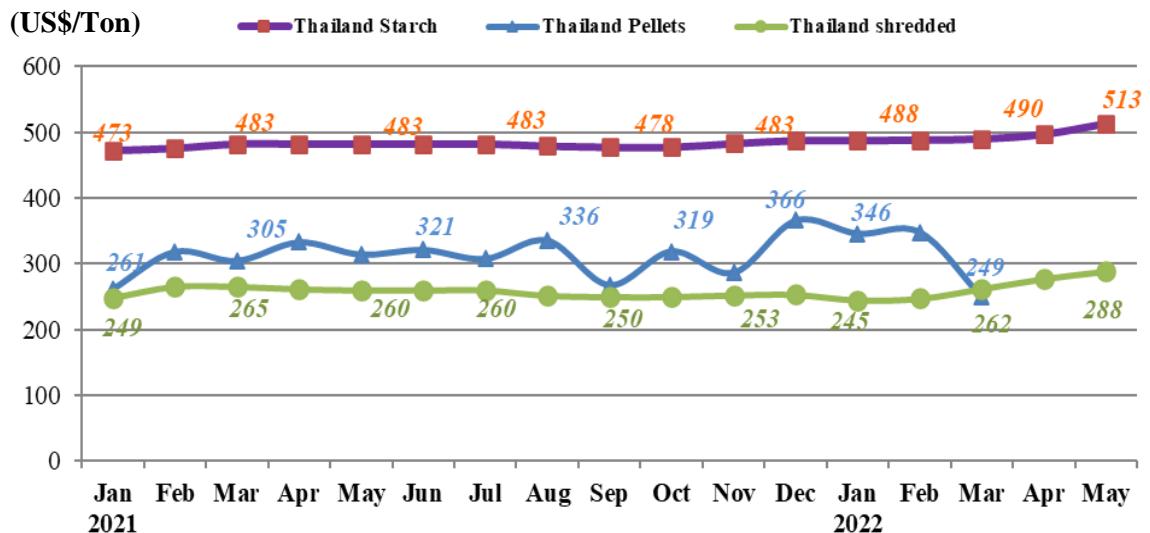


Figure 75 FOB price (US\$/Ton) of cassava of Thailand in 2021 – 2022

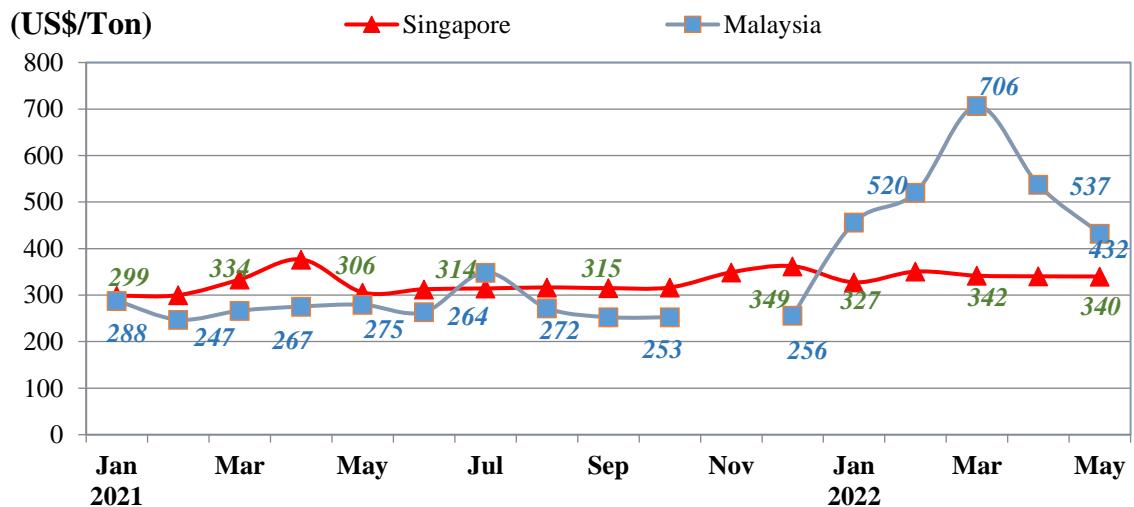


Figure 76 CIF price (US\$/Ton) of cassava selected countries in ASEAN in 2021-2022

Explanatory Notes **Production of Paddy for 2022**

► **Brunei:**

- Wet season refers to the crop harvested during February to July 2022.
- Dry season refers to the crop harvested during July to November 2022.

► **Cambodia:**

- Wet season refers to the crop harvested during August to December 2022.
- Dry season refers to the crop harvested during February to April 2022.

► **Indonesia:**

- Wet season refers to the crop harvested during January 2022 to June 2022.
- Dry season refers to the crop harvested during July to December 2022.

► **Lao PDR:**

- Wet season refers to the crop harvested during September to December 2022.
- Dry season refers to the crop harvested during February to May 2022.

► **Malaysia:**

- Wet season refers to the crop harvested during August 2021 to February 2022.
- Dry season refers to the crop harvested during February to July 2022.

► **Myanmar:**

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

► **Philippines:**

- Wet season refers to the crop harvested during July to December 2021.
- Dry season refers to the crop harvested during January to June 2022.

► **Thailand:**

- Wet season refers to the crop harvested during August 2021 to April 2022.
- Dry season refers to the crop harvested during February to October 2022.

► **Vietnam:**

❖ **Spring-season**

- North refers to the crop harvested during May to July 2022.
- South refers to the crop harvested during March to June 2022.

❖ **Autumn-season**

- North refers to the crop harvested during August to October 2022.
- South refers to the crop harvested during July to September 2022.

❖ **Winter-season**

- North refers to the crop harvested during October to November 2022.
- South refers to the crop harvested during October to December 2022.

Production of Maize for 2022

► Brunei:

- Wet season refers to the crop harvested during January to June 2022.
- Dry season refers to the crop harvested during July to December 2022.

► Cambodia:

- Wet season refers to the crop harvested during July to December 2022.
- Dry season refers to the crop harvested during February to March 2022.

► Indonesia:

- 1st crop harvested during January to April 2022.
- 2nd crop harvested during May to August 2022.
- 3rd crop harvested during September to December 2022.

► Lao PDR:

- Wet season refers to the crop harvested during May to September 2022.
- Dry season refers to the crop harvested during November 2021 to March 2022.

► Myanmar:

- Wet season refers to the crop harvested during August to December 2021.
- Dry season refers to the crop harvested during January to June 2022.

► Philippines:

- Wet season refers to the crop harvested during July to December 2021.
- Dry season refers to the crop harvested during January to June 2022.

► Thailand:

- Wet season refers to the crop harvested during June 2022 to February 2023.
- Dry season refers to the crop harvested during February to May 2022.

► Vietnam:

- 1st crop harvested during April to June 2022.
- 2nd crop harvested during October to November 2022.

Production of Sugarcane for 2022

► **Brunei:**

- The crop harvested during January to December 2022.

► **Cambodia:**

- The crop harvested during December 2021 to January 2022.

► **Indonesia:**

- The crop harvested during February to December 2022.

► **Lao PDR:**

- The crop harvested during February to May 2022.

► **Myanmar:**

- The crop harvested during October 2021 to June 2022.

► **Philippines:**

- The crop harvested during October 2021 to June 2022.

► **Thailand:**

- The crop harvested during December 2021 to April 2022.

► **Vietnam:**

- The crop harvested during November 2021 to May 2022.



Production of Soybean for 2022

► **Cambodia:**

- The crop harvested during September to October 2022.

► **Indonesia:**

- 1st crop harvested during January to April 2022.
- 2nd crop harvested during May to August 2022.
- 3rd crop harvested during September to December 2022.

► **Lao PDR:**

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

► **Myanmar:**

- Wet season refers to the crop harvested during August 2021 to January 2022.
- Dry season refers to the crop harvested during December 2021 to May 2022.

► **Philippines:**

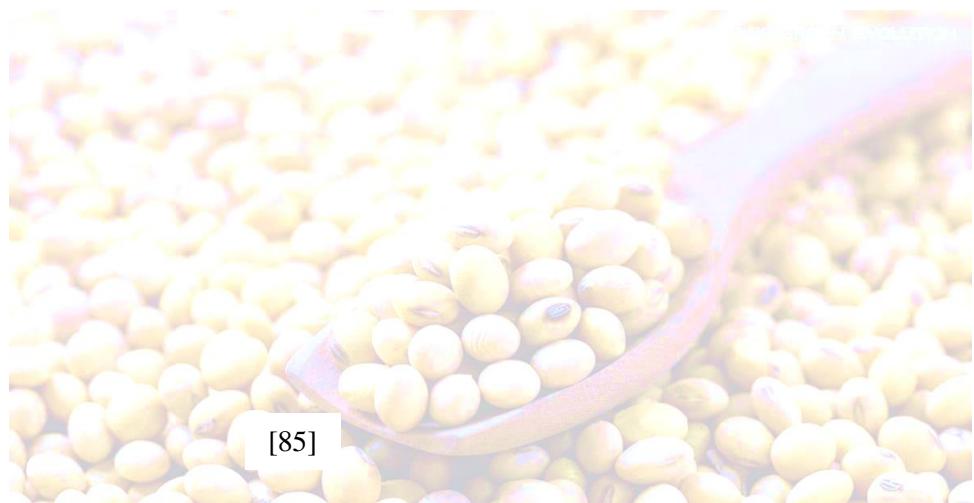
- Wet season refers to the crop harvested during August to December 2021.
- Dry season refers to the crop harvested during January to June 2022.

► **Thailand:**

- Wet season refers to the crop harvested during August to December 2021.
- Dry season refers to the crop harvested during January to May 2022.

► **Vietnam:**

- Wet season refers to the crop harvested during February to May 2022.
- Dry season refers to the crop harvested during August to November 2022.



Production of Cassava for 2022

► Brunei:

- The crop harvested during January to December 2022.

► Cambodia:

- The crop harvested during November 2021 to January 2022.

► Indonesia:

- 1st crop harvested during January to April 2022.
- 2nd crop harvested during May to August 2022.
- 3rd crop harvested during September to December 2022.

► Lao PDR:

- The crop harvested during October to November 2022.

► Malaysia:

- The crop harvested during October 2021 to December 2022.

► Myanmar:

- The crop harvested during September 2021 to June 2022.

► Philippines:

- 1st crop harvested during September to December 2021.
- 2nd crop harvested during January to June 2022.

► Thailand:

- The crop harvested during October 2021 to September 2022.

► Vietnam:

- Wet season refers to the crop harvested during September to October 2022.
- Dry season refers to the crop harvested during January to March 2023.

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 (2022)

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	0.70
Myanmar	1	0.63
Philippines	1	0.67
Thailand	1	0.65
Vietnam	1	0.65

Extraction rate of Sugar (2022)

Unit: Tons

Country	Sugarcane	Sugar
ASEAN	1,000	95.44
Cambodia	1,000	100.00
Indonesia	1,000	72.01
Lao PDR	1,000	200.00
Myanmar	1,000	79.94
Philippines	1,000	88.02
Thailand	1,000	104.24
Vietnam	1,000	100.00



ANNEX 1

Rice crop calendar (harvested months) for crop year 2021/22 (2022) in ACO No.28 report

Country		2021						2022						2023							
		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 2021/22 (2022) in ACO No.28 report

Country	Crop	2021					2022						2023							
		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 2021/22 (2022) in ACO No.28 report

Country	Crop	2021				2022											
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Brunei																	
Cambodia																	
Lao PDR																	
Indonesia																	
Myanmar																	
Philippines																	
Thailand																	
Vietnam																	

ANNEX 4

Soybean crop calendar (harvested months) for crop year 2021/22 (2022) in ACO No.28 report

Country	Crop	2021					2022										
		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
	Cambodia																
	Indonesia																
	Lao PDR																
	Myanmar																
	Philippines																
	Thailand																
	Vietnam																
Cambodia	1st	■	■	■	■	■											
	2nd	■	■	■	■	■											
	3rd	■	■	■	■	■											
Indonesia	Wet season	■	■	■	■	■											
	Dry season	■	■	■	■	■											
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 2021/22 (2022) in ACO No.28 report

Country	Crop	Brunei	2021				2022										
			Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Malaysia																	
Philippines	1st																
Philippines	2nd																
Philippines	3rd																
Vietnam	Thailand	Myanmar	Lao PDR	Indonesia	Brunei												
North																	
South																	



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