



ASEAN Food Security Information System

ASEAN Agricultural Commodity Outlook

No. 23 December 2019

Released by AFSIS Secretariat
Office of Agricultural Economics (OAE)
Ministry of Agriculture and Cooperatives
Bangkok, Thailand
<http://www.aptfsis.org>



ASEAN FOOD SECURITY INFORMATION SYSTEM (AFSIS)

Report on

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Acknowledgement

This ACO Report No. 23 cannot be existed without highly contribution and effort of “AFSIS Folks”.

The word “AFSIS Folks” does not represent those who work in AFSIS Secretariat Office, but this word means all of us who always support, work hand-in-hand along the way of AFSIS since 2002. Of course, during the long historical period, many dreams have been brought to doorstep; some were success, some just lie there. When my first step into the world of AFSIS as a successor of the former Manager, in June 2019, I had much doubt that how those young guys in the AFSIS Secretariat Office deal with our obligation to release the delayed of AFSIS’s core papers since December 2018 — ACO and EWI, upcoming activities under many problems and constraints in that time. To be very frank, I worried!, but I kept my mouth shut.



With strong support from all AFSIS Focal Points, ACO Report No. 21 and EWI Report No. 22 were released in July 2019. Then, ACO Report No. 22 was released in another next month, and EWI Report No. 23 was issued in November 2019. Thus, this means we can get our core reports back on track, including this latest ACO Report in your hand. Although, the rolling “3-point-turn” coordinating basis has been set out by Secretariat to ensure the on time report, it will not effective without kindly support and really hard works of all Focal Points and your staff. This is another proven of the old-fashioned proverb — Need two to tango.

Another responsibility that the Secretariat to resolve the problem that we deserved is rebuilding AFSIS Database. To date, the problem remains incompletely solved, but our friends, AFSIS Focal Points, already sent or expressed intention to send the loss database back to us. AFSIS Secretariat extremely appreciated your kindness to our mistake and more than that, your support reflected the liability of AFSIS.

Many capacity building activities have long been supported by our Plus Three Countries and other organization, once again, please accept our highly sincere appreciation.

Up to this point, I would like to clarify why I love to use the word “AFSIS Folks”. I personally believe that people working with AFSIS are grater relationship than the formal word as “AFSIS Focal Point”.

AFSIS’s jobs could not be done without my teammate — namely in Thai Nickname as follows: Aoy, Mod, Make, Ear, Toe, Golf, including the ones who already left the team or remain work behind the scene — Louk-kwan, Ice, Noon, Toon, Fai and so on. You guys are Great!

Lastly, I have worked for AFSIS only 7 months, but I feel like much longer than that. I am not wondering why people said: once AFSIS, always AFSIS.

Thank You.

A handwritten signature in blue ink, appearing to read 'Vinit Atisook'.

Vinit Atisook

Expert on International
Agricultural Economics Policy,
AFSIS Manager

Foreword

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

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

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

Global Situation and ASEAN Outlook in 2019/20

Global Situation in 2019/20

On a global level, several commodity prices have been suppressed as a result of abundant supplies, improved productivity, and slow demand growth. Least developed and developing countries have a higher demand for food as their population are constantly increasing whereas developed countries encounter less birthrate over the past years. Rice, maize, cassava, soybeans, and sugar productions would benefit from the increasing population in LDC where most consumes staple foods rather than proteins as compared to the rest of the world. Thailand, for instance, exports a significant amount of rice to the Sub-Saharan Africa. Also, maize and soybeans are main ingredients in feed production which would gain some demand from an increasing need of animal food products.

Global rice production is expected to be lower in 2019/20 as Thailand faces with drought in the dry season and lower production in other main producers. Near-historic low reservoir levels in 2019 due to the limited rainfall caused Thai farmers to abstain from dry-season planting. Meanwhile, US production is forecasted to have a decline in yield and modest production. China and India, the world's two largest rice producers, are also projected to have large declines in both production and harvested area.

Global maize production in 2019/20 expected to be smaller than the previous year. However, strong competition in the world maize market arises as a result of high output of corn in the major exporters – Brazil, Argentina, and Ukraine.

World sugar supply exceeds the demand and will continue to suppress international prices of raw and refined sugar. Since the global production peaked in 2017/18 while demand remains stable and lower, sugar stocks hit record level in 2018/19.

ASEAN Outlook in 2019/20

ASEAN rice supply in 2019/20 is forecasted at 149.60 million tons, up 2.03 million tons above the year earlier. In contrary, aggregate rice export from ASEAN countries is projected to shrink by 2.53 percent to 19.35 million tons in 2020 whereas the import grows by 20.58 percent, resulting in the rise of ending stock by 7.43 percent. Thailand, Indonesia, and Vietnam 2019 rice production were decrease caused by unfavorable weather. Thai rice production hit by severe drought in the early 2020 will reduce dry-season rice as farmers in some areas avoid paddy cultivation. Rice production in 2020 is expected to decrease in Thailand, Indonesia, and the Philippines, while Brunei, Cambodia, Lao PDR, Malaysia, Myanmar, and Vietnam show an increase.

A high beginning stock plays a large part in ASEAN maize supply increase which is projected to grow by 7.48 percent to 84.91 million tons in 2020. Indonesia expected to show the biggest increase in 2020 followed by Thailand, Myanmar, and Lao PDR as farmers respond to price increase coupled with favorable weather and government policy supported.

ASEAN Sugar supply in 2020 is forecasted to shrink by 0.54 percent from 46.26 million tons in 2019. Thailand, the biggest producer in ASEAN and second largest in the world, is expected to show a decrease in sugar production caused by the drought. Meanwhile, the rest of ASEAN are expected to increase from the year earlier.

ASEAN cassava supply is projected to increase by 3.87 million tons to 90.41 million tons in 2020 due to the increase in stock from the previous year. Most of cassava produced would be shipped to China - the largest importer of ASEAN's cassava. The production to domestic utilization ratio is normally high at approximately 160 percent; estimated at 160.52 percent in 2020. Conditions that explain the cassava production change are different in each country.

Soybean supply in ASEAN is expected to increase to 13.4 million tons in 2020, up 7.03 percent from the previous year. High stock carried over and increase in yield contribute to high supply and production. Indonesia as the biggest producer in ASEAN estimated to have a higher yield when farmers apply more fertilizer and with improved varieties.

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Rice Outlook for 2020



Rice supply in ASEAN is forecasted to increase about 1.37 percent from 147.57 million tons of milled rice in 2019 to 149.60 million tons in 2020 (Table 1).

The increase in supply is mostly due to the increase in stock carried over from previous year.

The rice production in 2020 is forecasted to be 118.41 million tons, declining from 120.24 million tons in 2019, or 1.52 percent decreased.

The beginning stock is forecasted to be increase 13.38 percent or 3.29 million tons from 24.55 million tons in 2019 to 27.83 million tons in 2020. The import is expected to increase 20.58 percent or 0.57 million tons from 2.79 million tons in 2019 to 3.36 million tons in 2020.

Considering only available data, rice export is expected to decrease 2.53 percent from 19.85 million tons in 2019 to 19.35 million tons in 2020.

The ratio of production to domestic utilization (self-sufficiency ratio) for the region is expected to be 117.99 percent in 2020. The beginning stock to domestic utilization ratio (food security ratio) is estimated to be 27.73 percent in 2020 (Table 1).

Table 1 Summary of the ASEAN rice situation, 2019-2020 (milled rice)

Unit: Million tons

Items	2019	2020	Change	
			Quantity	%
Supply (Million tons)	147.57	149.60	2.03	1.37
Beginning stock	24.55	27.83	3.29	13.38
Production	120.24	118.41	-1.83	-1.52
Import	2.79	3.36	0.57	20.58
Demand (Million tons)	147.57	149.60	2.03	1.37
Domestic utilization	99.89	100.35	0.46	0.46
Export	19.85	19.35	-0.50	-2.53
Ending stock	27.83	29.90	2.07	7.43
Ratio of production to domestic utilization (%)	120.37	117.99	-2.38	-
Ratio of beginning stock to domestic utilization (%)	24.57	27.73	3.16	-

ASEAN Rice Situation in 2019

► *Production*

ASEAN paddy production in 2019 (crop year 2018/19) was estimated at 192.93 million tons, decreasing 4.92 million tons or 2.49 percent from 197.85 million tons in 2018 (crop year 2017/18). The decrease was due to the declining in planted area and yield. The decrease in production was found in Indonesia, Myanmar, the Philippines, Thailand, and Vietnam (Table 2-5, Figure 1-4).

For **Brunei**, the increase in production is attributed to the increase in planted area. The increase in planted area came from favorable weather together with government policy. On the contrary, yield has decreased due to unfavorable weather, drought, pests, and diseases.

For **Cambodia**, the increase in production is attributed to the increase in planted area and yield. The increase in planted area caused by farmers' response to the price increase together with government policy. The increase in yield was due to better caring of the rice crop from farmers as well as favorable weather.

For **Indonesia**, the decrease in production attributed to the decrease in planted area and yield. The decrease in planted area was due to the unfavorable weather and increasing price of competing crops. The decrease in yield was due to unfavorable weather which caused by El Niño effects.

For **Lao PDR**, the increase in production is attributed to the increase in planted area and yield. The expansion of planted area caused by favorable weather together with government policy. The increase in yield occurred because farmers used more improved varieties and took better care of their crop.

For **Malaysia**, the increase in production was due to the increase in planted area and yield. The increase in planted area caused by favorable weather. The increase in yield occurred because farmers used more improved varieties and took better care of their crop.

For **Myanmar**, the decrease in production was due to the decrease in planted area which caused by farmers' response to decreasing price as well as unfavorable weather.

For **the Philippines**, the decrease in production was due to the reduction in planted area and yield as a result of unfavorable weather caused by Monsoon ("Habagat").

For **Thailand**, the decrease in production was due to the reduction in planted area and yield as a result of unfavorable weather, drought, and government policy.

For **Vietnam**, the decrease in production was due to the decrease in planted area which caused by unfavorable weather and government policy.

► *Utilization and Stock*

The domestic utilization of rice (milled rice) within ASEAN in 2019 (calendar year) was estimated to be 99.89 million tons, which decreased from 102.27 million tons in 2018. The decrease was about 2.38 million tons or 2.33 percent (Table 7-8).

The ratio of production to domestic utilization (self-sufficient ratio) of ASEAN in 2019 was estimated at 120.37 percent compared to 116.11 percent in 2018. This indicated that rice production in ASEAN in year 2019, aggregately, is sufficient for rice demand in ASEAN. The increase in the self-sufficient ratio of production to

domestic utilization occurred in Brunei, Cambodia, Lao PDR Thailand and Vietnam. While the self-sufficient ratio of Indonesia Myanmar and the Philippines decreased. However, on the country by country basis, some countries in the region still need to import rice for their domestic consumption. Comparing only available data, the lowest ratio was in Brunei (Table 10, Figure 12).

The beginning stock in 2019 (January 2019) of ASEAN was estimated at 24.55 million tons, increasing 3.28 million tons from 21.27 million tons in 2018 or 15.40 percent. Myanmar carried 8.07 million tons or 32.86 percent of the ASEAN stock and followed by Indonesia 5.42 million tons or 22.06 percent of the total stock in the ASEAN (Table 7-8).

The ratio of the beginning stock to the domestic utilization in 2019 for the whole ASEAN was estimated at 24.57 percent, which increased about 3.77 percent from the previous year. Brunei, Cambodia, Myanmar, and Thailand have the ratio above 20 percent optimum level (Table 11, Figure 13).

► *Trade*

In 2019, ASEAN as a whole exported 19.85 million tons of milled rice, an increase of 1.90 million tons or 10.61 percent from 17.95 million tons exported in 2018. Thailand and Vietnam, the two major exporting countries, exported about 11.00 million tons and 7.25 million tons, respectively (Table 7-8, Figure 5-6).

The total import by the ASEAN in 2019 estimated to be 2.79 million tons, which decreased 1.9 million tons or about 41.21 percent from 4.74 million tons in 2018. The large amount of decline in the total import by the ASEAN is due to the fact that Indonesia is expected to decrease a large amount of import from 2.25 million tons in 2018 to 0.30 million tons in 2019. The Philippines was the biggest importer in the region, which imported 2.03 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 2018-2019 (January-December) are shown in Table 14-15 and Figure 14-16.

► *Damaged Area*

The damaged area of paddy in ASEAN in 2019 (crop year 2018/19) was estimated to be 1.00 million hectares. Of which, 0.56 million hectares or 56.14 percent caused by drought. The damage caused by drought occurred mostly in Thailand, which equals to 0.53 million hectares or 94.82 percent of the whole ASEAN. The damage was also caused by many factors such as flood, pests, and diseases (Table 6).

Prospects for Rice in 2020

► Production

ASEAN paddy production in 2020 (crop year 2019/20) is estimated at 188.77 million tons, decreasing about of 4.16 million tons which is 2.16 percent from 192.93 million tons in 2019 (crop year 2018/19) by assuring without extreme natural disaster. The production is predicted to decrease in Thailand, Indonesia, and the Philippines, which caused by the decrease in planted area and yield (Table 2-5, Figure 1-4).

► Utilization and Stock

With missing data from some countries, the domestic utilization of milled rice in ASEAN in 2020 is projected to be 100.35 million tons, increase about 0.46 million tons or 0.46 percent compared to 99.89 million tons in 2019 (Table 8-9).

The beginning stock in 2020 is predicted to be 27.83 million tons, which increases about 3.28 million tons or 13.38 percent from 24.55 million tons in 2019. The ending stock is also expected to increase by 2.07 million tons or 7.43 percent from 27.83 million tons in 2019 to 29.90 million tons in 2020 (Table 8-9, Figure 11).

The ratio of production to domestic utilization is forecasted to be 117.99 percent in 2020, which decreases 2.38 percent from 2019. This indicates that rice production in ASEAN is still enough for consumption within the region (Table 10, Figure 12).

The ratio of the beginning stock to the domestic utilization in ASEAN in 2020 is forecasted to increase from 24.57 percent in 2019 to 27.73 percent in 2020 (Table 11, Figure 13).

► Trade

With missing data from some countries, rice export from ASEAN is forecasted to decrease from 19.85 million tons in 2019 to 19.35 million tons in 2020 (Table 8-9, Figure 5 and 7).

For the import, the whole ASEAN is forecasted to import 3.36 million tons in 2020, increasing of 0.57 million tons or about 20.58 percent compared to 2.79 million tons in 2019 (Table 8-9, Figure 8 and 10).

Table 2 Paddy production in ASEAN countries, 2018 - 2020

Unit: 1,000 Tons

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	197,854.05	192,934.18	-4,919.87	-2.49	188,773.24	-4,160.95	-2.16
Brunei	2.41	2.42	0.00	0.18	3.43	1.01	41.96
Cambodia	10,518.34	10,891.74	373.40	3.55	10,955.19	63.45	0.58
Indonesia	57,468.84	52,978.75	-4,490.09	-7.81	50,903.15	-2,075.59	-3.92
Lao PDR	3,279.11	4,144.80	865.69	26.40	4,744.45	599.65	14.47
Malaysia	2,639.20	2,873.28	234.08	8.87	3,206.88	333.60	11.61
Myanmar	27,647.66	27,573.41	-74.25	-0.27	27,747.63	174.22	0.63
Philippines	19,420.38	18,622.25*	-798.12	-4.11	18,005.86*	-616.40	-3.31
Singapore	N/A						
Thailand	32,898.90	32,348.08	-550.83	-1.67	29,131.55	-3,216.53	-9.94
Vietnam	43,979.20	43,499.46	-479.74	-1.09	44,075.10	575.64	1.32

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

Table 3 Paddy planted area in ASEAN countries, 2018 - 2020

Unit: 1,000 Hectares

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	46,922.44	46,171.06	-751.38	-1.60	45,207.75	-963.31	-2.09
Brunei	1.28	1.35	0.07	5.44	1.39	0.04	3.00
Cambodia	3,206.52	3,335.93	129.41	4.04	3,305.88	-30.05	-0.90
Indonesia	10,990.01	10,290.70	-699.30	-6.36	9,974.53	-316.17	-3.07
Lao PDR	948.00	1,038.98	90.99	9.60	1,061.92	22.94	2.21
Malaysia	699.98	700.27	0.29	0.04	700.57	0.30	0.04
Myanmar	7,256.29	7,228.27	-28.02	-0.39	7,117.32	-110.96	-1.54
Philippines	4,843.92	4,741.26*	-102.66	-2.12	4,665.40	-75.86	-1.60
Singapore	N/A						
Thailand	11,406.05	11,356.19	-49.86	-0.44	10,804.93	-551.26	-4.85
Vietnam	7,570.40	7,478.10	-92.30	-1.22	7,575.82	97.72	1.31

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

Table 4 Paddy harvested area in ASEAN countries, 2018 - 2020

Unit: 1,000 Hectares

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	46,038.05	45,170.69	-867.36	-1.88	44,192.70	-977.99	-2.17
Brunei	1.16	1.22	0.06	5.44	1.26	0.04	3.00
Cambodia	3,189.49	3,248.06	58.58	1.84	3,242.05	-6.01	-0.19
Indonesia	10,990.01	10,290.70	-699.30	-6.36	9,974.53	-316.17	-3.07
Lao PDR	854.61	915.87	61.26	7.17	1,061.92	146.05	15.95
Malaysia	699.86	698.67	-1.19	-0.17	698.98	0.30	0.04
Myanmar	7,168.92	7,149.46	-19.46	-0.27	7,073.32	-76.14	-1.07
Philippines	4,843.92	4,741.26*	-102.66	-2.12	4,665.40	-75.86	-1.60
Singapore	N/A						
Thailand	10,719.70	10,647.94	-71.76	-0.67	9,899.43	-748.52	-7.03
Vietnam	7,570.40	7,477.50	-92.90	-1.23	7,575.82	98.32	1.31

Remark: * The value is estimated by AFSIS Secretariat, ** Vietnam reported only planted area. N/A refers to data is not available.

Table 5 Paddy yield in ASEAN countries, 2018 - 2020

Unit: Ton/Hectare

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	4.30	4.27	-0.03	-0.70	4.27	0.00	0.00
Brunei	2.08	1.98	-0.10	-4.81	2.72	0.74	37.37
Cambodia	3.30	3.35	0.05	1.52	3.38	0.03	0.90
Indonesia	5.23	5.15	-0.08	-1.53	5.10	-0.05	-0.97
Lao PDR	3.84	4.53	0.69	17.97	4.47	-0.06	-1.32
Malaysia	3.77	4.11	0.34	9.02	4.59	0.48	11.68
Myanmar	3.86	3.86	0.00	0.00	3.92	0.06	1.55
Philippines	4.01	3.93	-0.08	-2.00	3.86	-0.07	-1.78
Singapore	N/A						
Thailand	3.07	3.04	-0.03	-0.98	2.94	-0.10	-3.29
Vietnam	5.81	5.82	0.01	0.17	5.82	0.00	0.00

Remark: Yield related to harvested area except Vietnam which related to planted area, * The value is estimated by AFSIS Secretariat. N/A refers to data is not available.

Table 6 Paddy damaged area in ASEAN by cause of damage, 2019

Unit: Hectares

Country	Cause of Damage (Hectares)						
	Flood	Drought	Pests	Diseases	Other	Unspecified	Total
ASEAN	366,895	561,605	39,389	31,897	579	0	1,000,365
Brunei		67	30	26			122
Cambodia	85,132	2,736					87,868
Indonesia	N/A						
Lao PDR	105,358	17,365	392				123,116
Malaysia	1,599						1,599
Myanmar	68,747	9,470	13		579		78,809
Philippines	N/A						
Singapore	N/A						
Thailand	105,459	531,967	38,954	31,871			708,251
Vietnam	600						600

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

Table 7 Rice balance sheet of ASEAN countries, 2018 (milled rice)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	21,270,564	118,753,223	4,744,435	144,768,221	102,274,004	17,948,143	24,546,075	144,768,222
Brunei	7,599	1,569	33,621	42,789	33,767		9,022	42,789
Cambodia	1,922,933	6,064,517		7,987,450	5,252,297	626,225	2,108,928	,987,450
Indonesia	978,538	32,950,000*	2,254,292	36,182,830	30,763,141	3,996	5,415,693*	36,182,830*
Lao PDR	656,734	2,055,453	26,815	2,739,001	2,399,970	45,267	293,764	2,739,001
Malaysia	N/A							
Myanmar	7,637,274	17,451,204		25,088,478	14,072,831	2,949,817	8,065,830	25,088,478
Philippines	2,290,000*	12,469,000*	2,002,000*	16,761,000	14,209,000*	1,000*	2,551,000*	16,761,000
Singapore			287,943	287,943	247,865	40,078		287,943
Thailand	4,238,000*	19,175,000	14,988	23,427,988	13,418,488*	7,000,500	3,009,000*	23,427,988
Vietnam	3,539,486	28,586,480	124,777	32,250,743	21,876,645	7,281,260	3,092,838	32,250,743

Remark: * The value is estimated by AFSIS Secretariat.

Table 8 Rice balance sheet of ASEAN countries, 2019 (milled rice)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	24,546,075	120,237,353	2,789,107	147,572,534	99,889,723	19,851,825	27,830,987	147,572,534
Brunei	9,022	1,571	31,892	42,485	32,968		9,517	42,485
Cambodia	2,108,928	7,011,720		9,120,648	4,837,385	514,149	3,769,114	9,120,648
Indonesia	5,415,693*	30,356,823*	299,598	36,072,114	30,329,906	717	5,741,491*	36,072,114
Lao PDR	293,764	2,486,242	25,570	2,805,576	2,498,665	55,023	251,888	2,805,576
Malaysia	N/A							
Myanmar	8,065,830	17,404,337		25,470,167	15,278,799	989,739	9,201,629	25,470,167
Philippines	2,551,000*	11,956,558*	2,032,030*	16,539,588	14,251,158*	1,000*	2,287,431*	16,539,589
Singapore			290,893	290,893	249,696	41,197		290,893
Thailand	3,009,000*	22,745,450	29,408	25,783,858	11,084,858*	11,000,000	3,699,000*	25,783,858
Vietnam	3,092,838	28,274,651	79,716	31,447,205	21,326,289	7,250,000	2,870,916	31,447,205

Remark: * The value is estimated by AFSIS Secretariat.

Table 9 Rice balance sheet of ASEAN countries, 2020 (milled rice)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	27,830,987	118,404,638	3,363,226	149,598,850	100,350,969	19,349,374	29,898,508	149,598,851
Brunei	9,517	2,231	32,849	44,597	34,569	-	10,027	44,597
Cambodia	3,769,114	6,680,348		10,449,462	4,837,385	655,234	4,956,843	10,449,462
Indonesia	5,741,491*	29,167,507*	305,590*	35,214,588	30,067,595	724*	5,146,269	35,214,588
Lao PDR	251,888	2,628,000	22,300	2,902,188	2,586,598	65,231	250,359	2,902,188
Malaysia	N/A							
Myanmar	9,201,629	17,514,303		26,715,932	15,467,551	1,385,635	9,862,746	26,715,932
Philippines	2,287,431*	11,560,796*	2,594,737*	16,442,965	14,464,925*	1,000*	1,977,040*	16,442,965
Singapore			291,830	291,830	250,280	41,550		291,830
Thailand	3,699,000*	22,202,635	23,527	25,925,162	11,113,490*	10,000,000	4,811,672*	25,925,162
Vietnam	2,870,916	28,648,817	92,393	31,612,127	21,528,575	7,200,000	2,883,551	31,612,127

Remark: * The value is estimated by AFSIS Secretariat.

Table 10 Ratio of rice production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2018 - 2020

Unit: Tons

Country	2018			2019			2020		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	118,753,223	102,274,004	116.11	120,237,353	99,889,723	120.37	118,404,638	100,350,969	117.99
Brunei	1,569	33,767	4.65	1,571	32,968	4.77	2,231	34,569	6.45
Cambodia	6,064,517	5,252,297	115.46	7,011,720	4,837,385	144.95	6,680,348	4,837,385	138.10
Indonesia	32,950,000	30,763,141	107.11	30,356,823	30,329,906	100.09	29,167,507	30,067,595	97.01
Lao PDR	2,055,453	2,399,970	85.64	2,486,242	2,498,665	99.50	2,628,000	2,586,598	101.60
Malaysia	N/A								
Myanmar	17,451,204	14,072,831	124.01	17,404,337	15,278,799	113.91	17,514,303	15,467,551	113.23
Philippines	12,469,000	14,209,000	87.75	11,956,558	14,251,158	83.90	11,560,796	14,464,925	79.92
Singapore		247,865			249,696			250,280	
Thailand	19,175,000	13,418,488	142.90	22,745,450	11,084,858	205.19	22,202,635	11,113,490	199.78
Vietnam	28,586,480	21,876,645	130.67	28,274,651	21,326,289	132.58	28,648,817	21,528,575	133.07

Table 11 Ratio of rice beginning stock to domestic utilization in ASEAN countries, 2018 - 2020

Unit: Tons

Country	2018			2019			2020		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	21,270,564	102,274,004	20.80	24,546,075	99,889,723	24.57	27,830,987	100,350,969	27.73
Brunei	7,599	33,767	22.51	9,022	32,968	27.37	9,517	34,569	27.53
Cambodia	1,922,933	5,252,297	36.61	2,108,928	4,837,385	43.60	3,769,114	4,837,385	77.92
Indonesia	978,538	30,763,141	3.18	5,415,693	30,329,906	17.86	5,741,491	30,067,595	19.10
Lao PDR	656,734	2,399,970	27.36	293,764	2,498,665	11.76	251,888	2,586,598	9.74
Malaysia	N/A								
Myanmar	7,637,274	14,072,831	54.27	8,065,830	15,278,799	52.79	9,201,629	15,467,551	59.49
Philippines	2,290,000	14,209,000	16.12	2,551,000	14,251,158	17.90	2,287,431	14,464,925	15.81
Singapore		247,865			249,696			250,280	
Thailand	4,238,000	13,418,488	31.58	3,009,000	11,084,858	27.15	3,699,000	11,113,490	33.28
Vietnam	3,539,486	21,876,645	16.18	3,092,838	21,326,289	14.50	2,870,916	21,528,575	13.34

Table 12 Quantity and Value of Rice Export by Countries of Destination in 2019

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	16,127								29,878		150			
Indonesia									0.13	82				
Lao PDR	N/A													
Malaysia		6,537				10,071,784								
Myanmar							125	50,000	33,674	10,815,000			124,901	38,373,000
Philippines	N/A													
Singapore	N/A													
Thailand	16,800	16,613,183	4,189	1,845,345	52,454	35,504,976	24,376	7,500,263	262,146	111,804,624	2,244	1,319,957	306,462	119,714,580
Vietnam	7,891	3,284,190			37,808	17,042,476			522,036	207,382,273			1,971,987	813,335,097

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	3,772.0		10,427		9,385		69,739		379,755		449,494	
Indonesia	0.10	158.46					0.23	241	117	237,056	117	237,296
Lao PDR			6,327	2,345,140	18,358	8,018,804	24,685	10,363,944	30,338	18,014,870	55,023	28,378,814
Malaysia		102,222						10,180,543		1,101		10,181,644
Myanmar	2,852	974,000	1,192	271,000	8,400	2,436,000	171,144	52,919,000	820,431	249,916,000	991,576	302,835,000
Philippines									194,890	238,184	194,890	238,184
Singapore	N/A											
Thailand	81,709	90,127,001			8,348	5,929,971	758,728	390,359,900	5,889,283	3,516,842,864	6,648,011	3,907,202,763
Vietnam	90,525	48,023,404					2,630,247	1,089,067,440	3,243,678	1,486,896,829	5,873,925	2,575,964,269

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 2019

Quantity: Tons Values: US\$

Importing Country	Country of Origin													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei														
Cambodia														
Indonesia									0.33	121				
Lao PDR														
Malaysia				17,718,173								7,985,102		
Myanmar														
Philippines											216,125	67,700,091		
Singapore			7,176	5,786,483	113	145,366			126	122,624	11,852	3,964,834		
Thailand			520.010	289,953			544.516	106,192			12,756.600	2,132,091		
Vietnam			5,092	2,032,335			8,806	3,514,771	2,426	968,497	13,352	5,329,145	57	22,650

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												
Cambodia												
Indonesia			75	66,000	906	399,859	981	465,980	30	80,344	1,011	546,324
Lao PDR			24,350	13,040,078	1,220	312,720	25,570	13,352,798			25,570	13,352,798
Malaysia		20,061		101,066,303		165,223,807		292,013,445		66,967,332		358,980,776
Myanmar												
Philippines	0.04	166	324,329	132,639,901	1,863,966	652,504,967	2,404,421	852,845,125	190,316	95,821,521	2,594,737	948,666,646
Singapore			86,580	90,451,155	85,080	46,119,820	190,926	146,590,281	99,966	68,694,714	290,893	215,284,995
Thailand	226	182,306			7,112	2,950,600	21,158	5,661,143	8,250	8,461,451	29,408	14,122,594
Vietnam	286	114,243	12,880	5,140,888			42,899	17,122,529	35,452	14,150,450	78,351	31,272,978

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

Table 14 FOB Price of rice in selected ASEAN countries

Unit: US\$/Ton

Country	Grade	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Cambodia	Milled Rice 5%	2018	442	483	480	483	490	490	485	480	480	480	407	470	473
		2019	390	402	385	393	393	400	403	405	400	396	405		397
Indonesia	Glutinous Rice	2018	1,491	377	497	421	799	1,355	1,078	1,287	1,129	452	913	1,234	919
		2019	1,374	827	1,053	666	1,470	972	1,168	947	721	770			997
Malaysia	Not specified	2018	538	525	471	558	495	503	507	515	479	383	370	431	481
Myanmar	Milled Rice 25%	2018	342	589	356	360	355	364	364	355	354	251	314	315	360
		2019	424	321	333	309	298	295	300	317	316	307			322
Thailand	Milled Rice 5%	2018	438	425	433	454	450	422	398	406	406	409	402	404	420
		2019	410	409	406	410	411	421	415	430	425	424	421	423	417
	Hom Mali Rice	2018	1,078	1,135	1,143	1,149	1,204	1,191	1,119	1,130	1,131	1,110	1,115	1,124	1,136
		2019	1,152	1,173	1,145	1,134	1,142	1,132	1,128	1,207	1,239	1,221	1,134	1,093	1,158
Vietnam	Milled Rice 5%	2018	486	497	514	505	512	522	499	489	483	517	486	479	499
		2019	446	424	430	415	433	443	437	447	440	463	460		440

Table 15 CIF Price of rice in selected ASEAN countries

Unit: US\$/Ton

Country	Grade	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Indonesia	Not specified	2018	398	467	444	456	464	473	471	464	454	429	390	377	441
		2019	368	468	411	400	437	488	456	413	378	373			419
Malaysia	Not specified	2018	507	518	467	444	481	533	582	488	531	512	510	513	507
Lao PDR	Hom Mali Rice	2018									752	722	638		704
		2019									748	718	635		700
Singapore	Not specified	2018	702	747	777	791	789	813	795	800	805	799	804	795	785
		2019	730	710	670	752	747	782	764	793	726	717	746		740

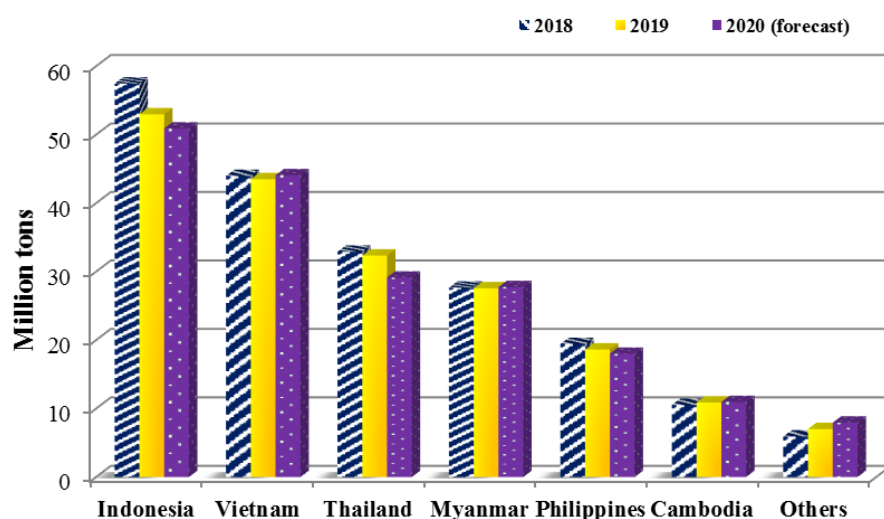


Figure 1 Paddy production of selected countries in ASEAN, 2018 - 2020

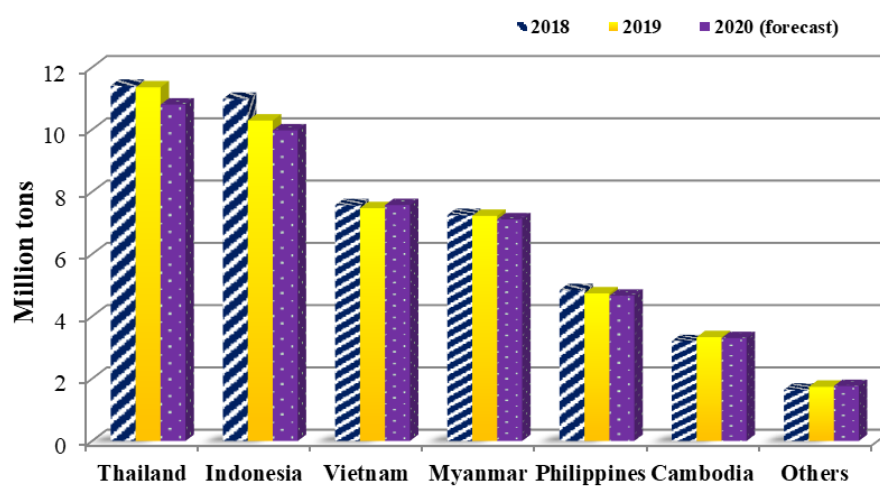


Figure 2 Paddy planted area of selected countries in ASEAN, 2018 - 2020

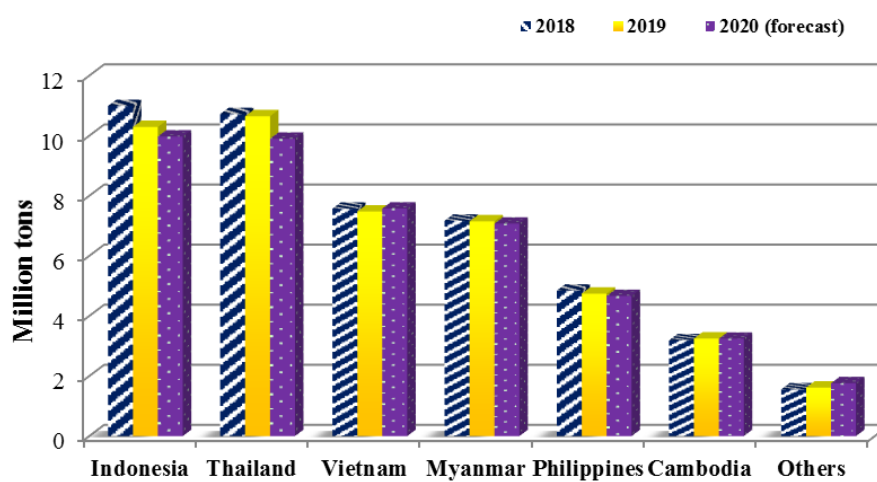


Figure 3 Paddy harvested area of selected countries in ASEAN, 2018 - 2020

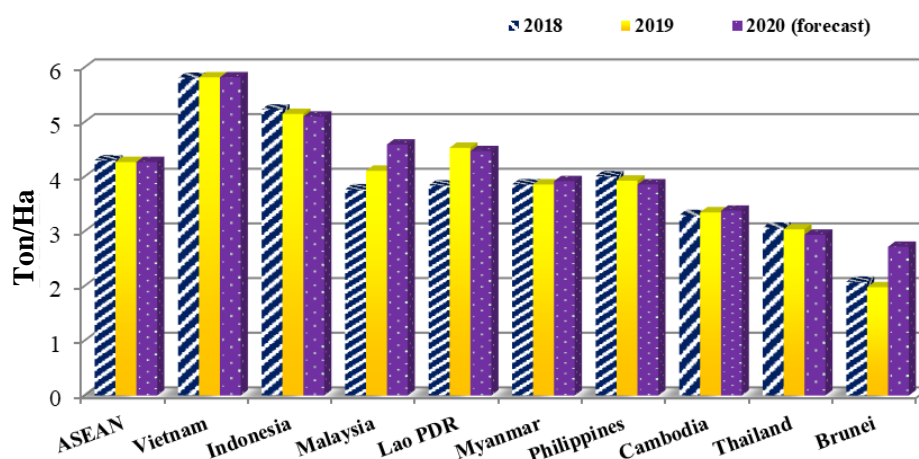


Figure 4 Paddy yield of countries in ASEAN, 2018 - 2020

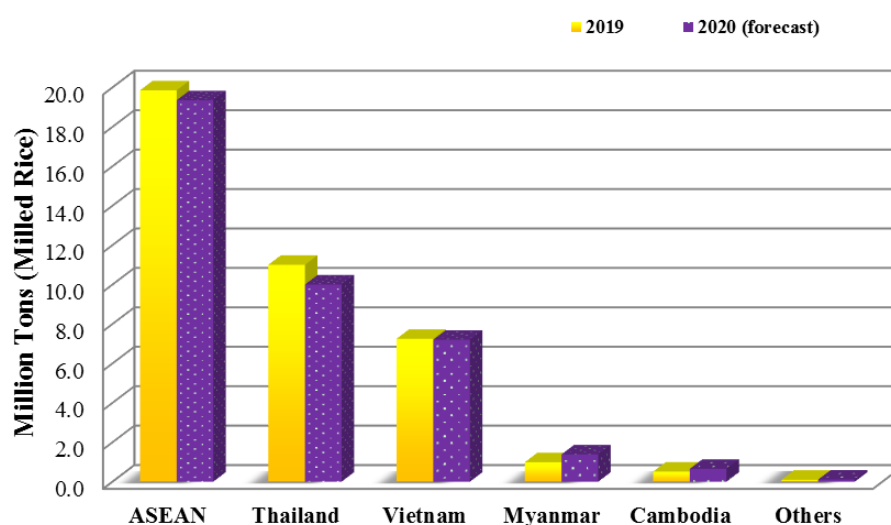
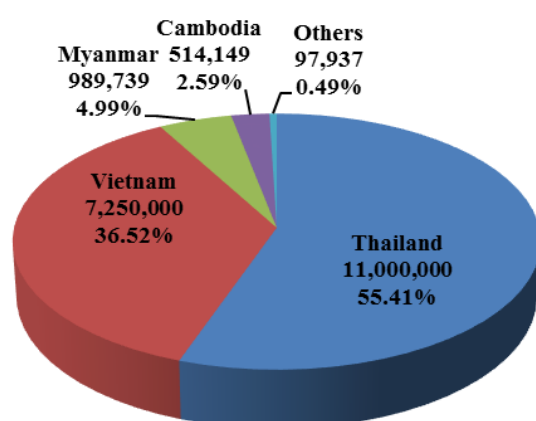
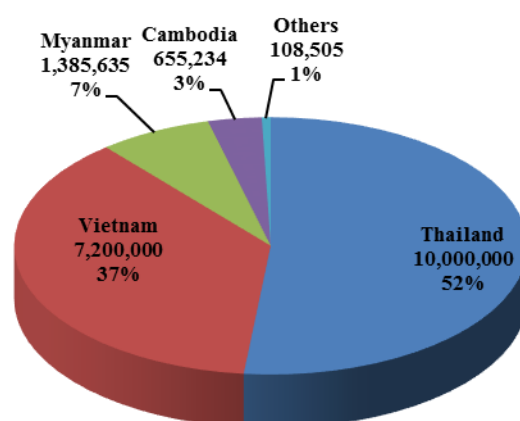


Figure 5 Amount of rice export (million tons) of selected countries in ASEAN in 2019 - 2020



Total 19.85 million tons

Figure 6 Share of rice export (tons) among ASEAN countries, 2019



Total 19.35 million tons

Figure 7 Share of rice export (tons) among ASEAN countries, 2020

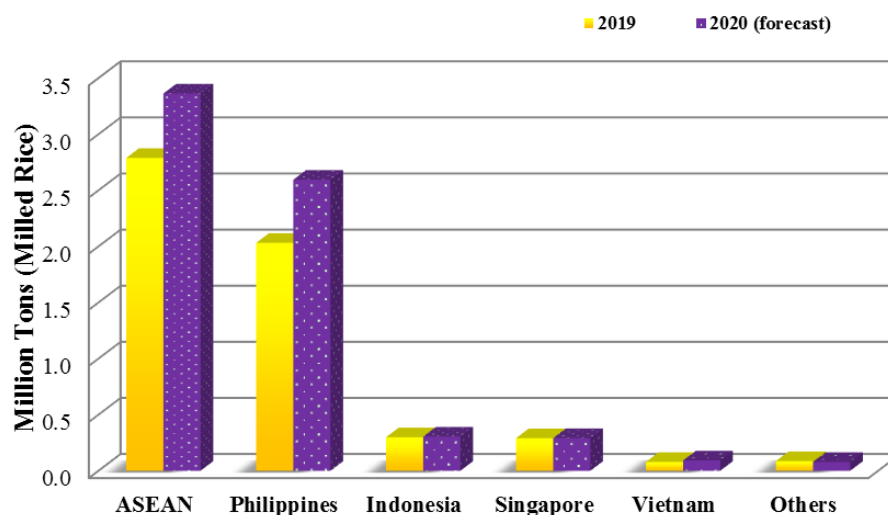
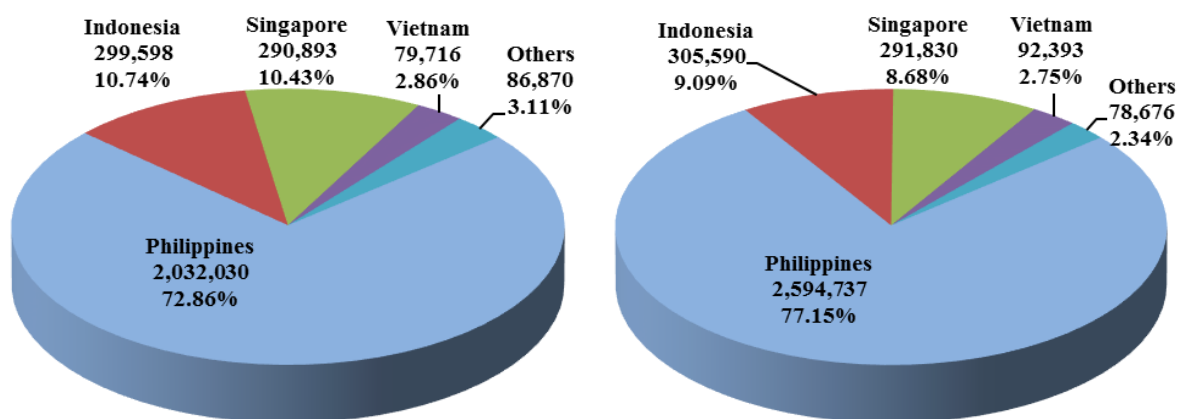


Figure 8 Amount of rice import (million tons) by selected countries in ASEAN in 2019 - 2020



Total 2.79 million tons

Total 3.36 million tons

Figure 9 Share of rice import (tons) among ASEAN countries, 2019

Figure 10 Share of rice import (tons) among ASEAN countries, 2020

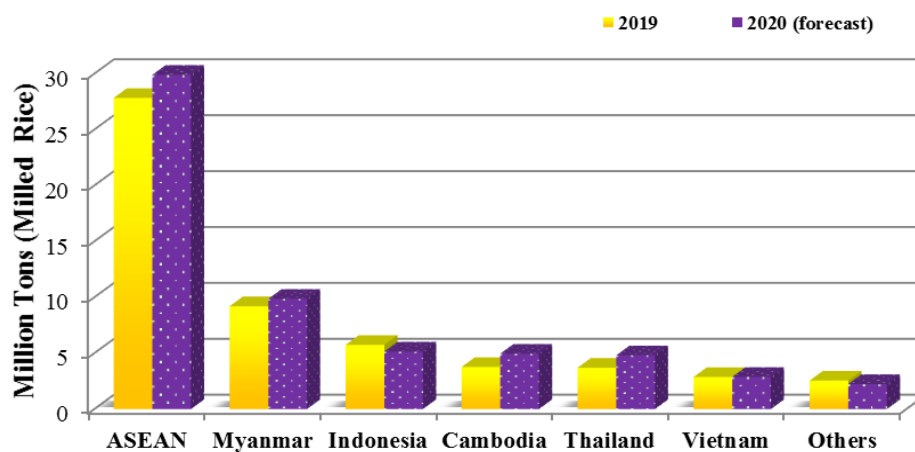


Figure 11 Amount of ending stock of rice in ASEAN countries, 2019 - 2020

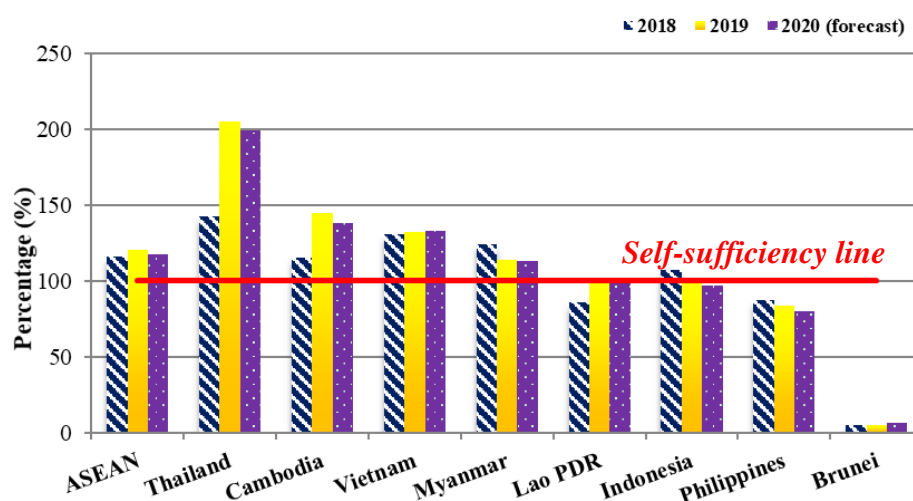


Figure 12 Ratio of rice production to domestic utilization in ASEAN countries, 2018 - 2020

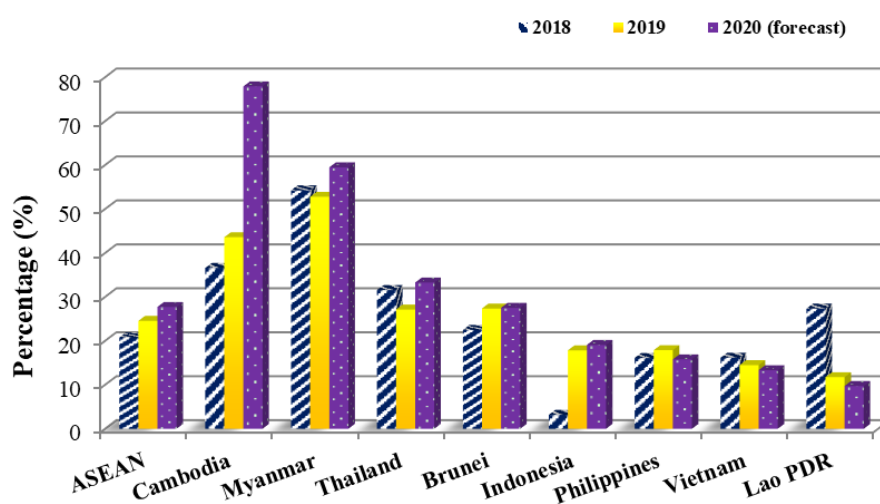


Figure 13 Ratio of rice beginning stock to domestic utilization in ASEAN countries, 2018 - 2020

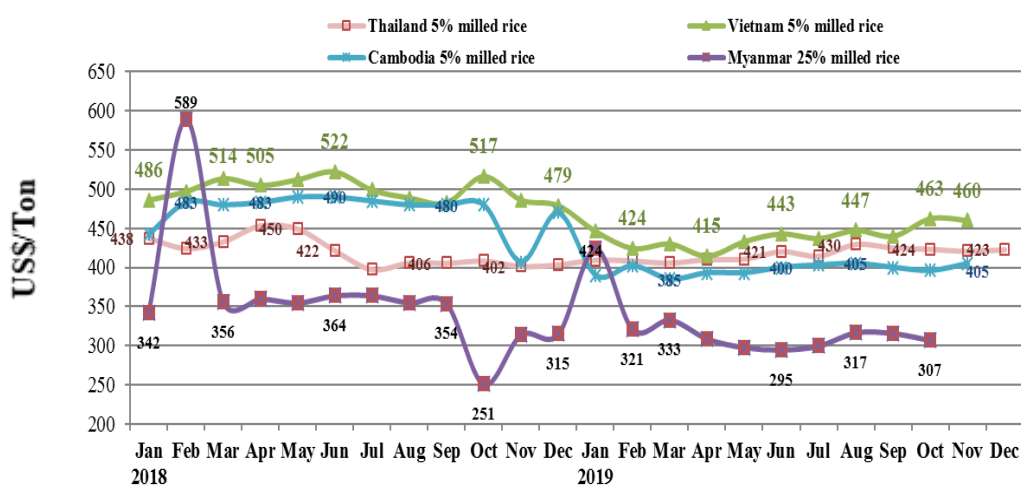


Figure 14 FOB price (US\$/Ton) of milled rice of selected countries in ASEAN in 2018 - 2019

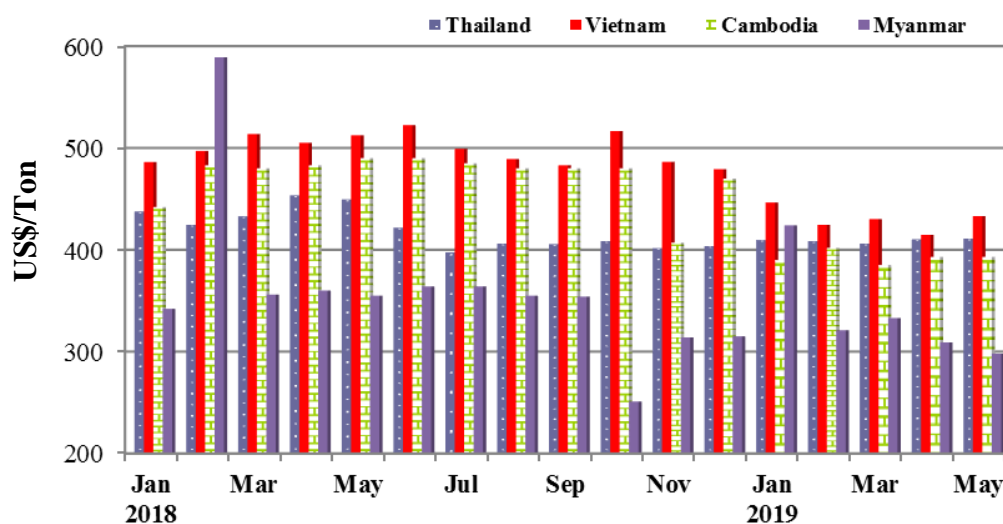


Figure 15 FOB price (US\$/Ton) of milled rice of selected countries in ASEAN in 2018 - 2019

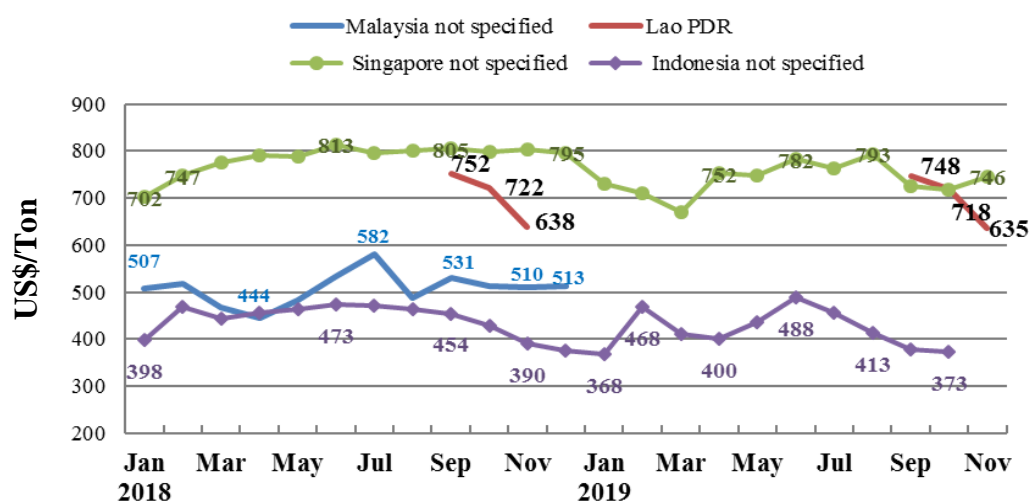


Figure 16 CIF price (US\$/Ton) of milled rice of selected countries in ASEAN in 2018 - 2019

Maize Outlook for 2020



An increase in the beginning stock is the main reason for increasing in ASEAN maize supply. The increasing supply is expected to be 7.48 percent or 5.91 million tons from 79 million tons in 2019 to 84.91 million tons in 2020 (Table 16).

Maize production is forecasted to increase around 0.28 million tons or 0.62 percent from 45.33 million tons in 2019 to 45.61 million tons in 2020. Maize's import is expected to increase around 6.84 percent or 1.17 million tons from 17.06 million tons in 2019 to 18.23 million tons in 2020.

Maize's demand in 2020 is expected to increase around 7.48 percent. Domestic utilization increases 1.52 million tons from 55.79 million tons in 2019 to 57.31 million tons in 2020. The ending stock of maize is also expected to increase around 20.89 percent from 21.08 million tons in 2019 to 25.48 million tons in 2020.

Export of maize is expected to decrease around 1.07 percent from 2.14 million tons in 2019 to 2.12 million tons in 2020.

The ratio of production to domestic utilization (self-sufficiency ratio) for the region is expected to decrease 1.66 percent from 81.25 percent in 2019 to 79.59 percent in 2020.

The beginning stock to domestic utilization ratio (food security ratio) in 2019 is forecasted to increase 7.00 percent from 29.78 percent in 2019 to 36.78 percent in 2020. This indicates that the food (feed) security situation in ASEAN region is improving.

Table 16 Summary of the ASEAN maize situation, 2019 - 2020

Items	2019	2020	Unit: Million tons	
			Change	
			Quantity	%
Supply (Million tons)	79.00	84.91	5.91	7.48
Beginning stock	16.62	21.08	4.46	26.84
Production	45.33	45.61	0.28	0.62
Import	17.06	18.23	1.17	6.84
Demand (Million tons)	79.00	84.91	5.91	7.48
Domestic utilization	55.79	57.31	1.52	2.73
Export	2.14	2.12	-0.02	-1.07
Ending stock	21.08	25.48	4.40	20.89
Ratio of production to domestic utilization (%)	81.25	79.59	-1.66	-
Ratio of beginning stock to domestic utilization (%)	29.78	36.78	7.00	-

ASEAN Maize Situation in 2019

► *Production*

ASEAN maize production in 2019 (crop year 2018/19) was estimated at 45.33 million tons, which decreased 6.31 million tons or 12.22 percent from 51.64 million tons in 2018 (crop year 2017/18). The decrease was due to fall-off in planted area in Indonesia, the Philippines, and Vietnam. The increase in production was found in Cambodia, Lao PDR and Myanmar (Table 17-20, Figure 17-20).

For **Cambodia**, the increase in production is attributed to the increase in planted area and yield. The increase in planted area came from favorable weather together with government policy. The increase in yield is because farmers used more improved varieties as well as there was favorable weather.

For **Indonesia**, the decrease in production is attributed to the decrease in planted area. The decrease mainly caused by farmers changed to grow other food crops commodity and price of competing crop increase.

For **Lao PDR**, the increase in production is attributed to the increase in planted area and yield. The main reason caused by favorable weather.

For **Myanmar**, the increase in production is attributed to the increase in planted area and yield. The main reason caused by farmers' response to maize price increase and taking better care of the crop.

For **the Philippines**, the decrease in production is attributed to the decrease in planted area and yield which affected by Habagat (or South-West Monsoon) and Typhoon Ompong (locally name of Typhoon Mangkhut).

For **Thailand**, the decrease in production is attributed to the decrease in harvested area and yield which affected by unfavorable weather, drought, pests and diseases.

For **Vietnam**, the decrease in production is attributed to the decrease in planted area, which caused by farmers' response to maize price decrease and lack of labor.

► *Utilization and Stock*

Maize utilization in ASEAN in 2019 was estimated at 55.79 million tons, which increased 2.51 million tons or 4.72 percent compared to 53.28 million tons in 2018 (Table 22-23). Most of the maize production in ASEAN is used for animal feed. The increase in domestic utilization of maize has occurred in Brunei, Indonesia, Lao PDR, Thailand, and Vietnam.

The beginning stock of maize in ASEAN in 2019 was estimated at 16.62 million tons, which increased 12.31 million tons from 4.31 million tons in year 2018 (Table 22-23). The ratio of maize production to domestic utilization for the whole ASEAN in 2019 was estimated at 81.25 percent compared to 96.64 percent in year 2018. This indicated that the ASEAN itself produced maize not enough for the regional consumption (Table 25, Figure 28). On the country basis, Cambodia, Indonesia, Lao PDR, and Myanmar have the ratio above 100 percent. While the Philippines, Thailand and Vietnam have the ratio less than 100 percent.

The ratio of beginning stock to domestic utilization for the ASEAN in 2019 was estimated to be 29.78 percent. This indicated that the region is secured enough in terms of feed requirement (Table 26, Figure 29). Indonesia, Lao PDR, and Myanmar have the ratio above 20 percent which, in general, is considered as the optimum level for food/feed security.

► *Trade*

The maize exported from ASEAN in 2019 is forecasted to be 2.14 million tons compared to 17.06 million tons of maize import (Table 23, Figure 21-22, 24-25). In 2019, Myanmar, the biggest exporter in ASEAN, is expected to export 0.90 million tons or around 42.29 percent of the total maize export from the ASEAN (Table 23, Figure 21-22).

The major importing countries in the region are Vietnam, Thailand, the Philippines and Indonesia (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 2018 and 2019 are shown in Table 29-30 and Figure 30-31. The annual average of Indonesia FOB prices in 2019 (January-December) was 545 US\$/ton, which dramatically increase from 319 US\$/ton as the yearly average in 2018. For Cambodia and Thailand average FOB price of 2019 were 143 and 301 US\$/ton, respectively. The average CIF prices in 2019 in Singapore, Indonesia, and Vietnam were 257, 209 and 204, respectively.

► *Damaged Area*

The damaged area of maize in 2019 was reported to be 42,040 hectares, of which 26,766 hectares caused by pests. The most affected area caused by pests was occurred in Thailand (Table 21).

Prospects for Maize in 2020

► *Production*

Maize production in ASEAN in 2020 (crop year 2019/20) was estimated at 45.61 million tons. The increase has occurred in Indonesia, Lao PDR, Myanmar, and Thailand. The most increase in term of quantity was found in Indonesia approximately 0.42 million tons (Table 17).

For **Cambodia**, the decrease in production is attributed to the decrease in planted area and yield (Table 17-20, Figure 17-20).

For **Indonesia**, the biggest maize producer in ASEAN, the increase in production is attributed to the increase in planted area and yield. The increase mainly caused by farmers' response to price increase, favorable weather, and government policy.

For **Lao PDR**, the increase in production is attributed to the increase in planted area which was due to the farmers' response to price increase and government policy.

For **Myanmar**, the maize production is projected to increase which come from the increase in planted area and yield.

The Philippines is forecasted to decrease its production due to decreasing in planted area.

For **Thailand**, the increase in production due to the increase in planted area and yield as a result of farmer's response to price increase. The slight increase in yield is forecasted because the price of maize is expected to increase.

The prediction is expected to increase due to favorable weather, more improved variety and taking good of care crop.

In **Vietnam**, the decrease in production is forecasted because planted area were expected to be decreased (Table 17-20, Figure 17-20).

► *Utilization and Stock*

The domestic utilization of maize in ASEAN is forecasted to be 57.31 million tons in 2020, an increase of 1.52 million tons from 55.79 million tons in 2019 (Table 23-24). The estimate of the beginning stock for the year 2020 is around 21.08 million tons, an increase of 4.46 million tons from 16.62 million tons in 2019.

In 2020 the ratio of production to domestic utilization is expected to be 79.59 percent, decreasing 1.66 percent from 81.25 percent in year 2019 (Table 25, Figure 28). The ratio of beginning stock to domestic utilization ratio in 2020 is expected to be 36.78 percent, which increases 7.00 percent from 2019 (Table 26, Figure 29).

► *Trade*

The maize export from ASEAN is projected to be 2.12 million tons in 2020, a decrease of 0.02 million tons compared to 2.14 million tons in 2019. For the import by the ASEAN, it is forecasted to be 18.22 million tons in 2020, increasing from 17.06 million tons in 2019 (Table 23-24, Figure 21, 23, 24 and 26).

Table 17 Maize production in ASEAN countries, 2018 - 2020

Unit: 1,000 Tons

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	51,637.12	45,329.06	-6,308.07	-12.22	45,611.57	282.52	0.62
Brunei	N/A						
Cambodia	1,171.54	1,303.75	132.21	11.28	1,185.53	-118.23	-9.07
Indonesia	30,055.02	23,853.66	-6,201.36	-20.63	24,272.80	419.14	1.76
Lao PDR	723.63	1,006.94	283.31	39.15	1,010.40	3.47	0.34
Malaysia	N/A						
Myanmar	1,909.64	1,984.50	74.86	3.92	2,020.93	36.43	1.84
Philippines	7,979.67	7,608.46	-371.21	-4.65	7,380.55*	-227.91	-3.00
Singapore	N/A						
Thailand	4,891.72	4,730.15	-161.57	-3.30	4,901.44	171.29	3.62
Vietnam	4,905.90	4,841.61	-64.29	-1.31	4,839.93	-1.68	-0.03

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

Table 18 Maize planted area in ASEAN countries, 2018 - 2020

Unit: 1,000 Hectares

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	11,264.95	10,025.72	-1,239.23	-11.00	9,976.48	-49.24	-0.49
Brunei	N/A						
Cambodia	206.08	234.98	28.89	14.02	218.72	-16.25	-6.92
Indonesia	5,734.33	4,494.75	-1,239.57	-21.62	4,544.33	49.57	1.10
Lao PDR	134.16	185.56	51.41	38.32	192.00	6.44	3.47
Malaysia	N/A						
Myanmar	504.47	520.85	16.38	3.25	522.73	1.88	0.36
Philippines	2,570.04	2,480.03	-90.01	-3.50	2,397.04	-82.99	-3.35
Singapore	N/A						
Thailand	1,076.88	1,101.72	24.84	2.31	1,103.91	2.19	0.20
Vietnam	1,039.00	1,007.83	-31.17	-3.00	997.75	-10.08	-1.00

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

Table 19 Maize harvested area in ASEAN countries, 2018 - 2020

Unit: 1,000 Hectares

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	11,259.44	9,984.08	-1,275.36	-11.33	9,957.03	-27.05	-0.27
Brunei	N/A						
Cambodia	205.66	227.98	22.32	10.85	218.59	-9.38	-4.12
Indonesia	5,734.33	4,494.75	-1,239.57	-21.62	4,544.33	49.57	1.10
Lao PDR	134.16	185.56	51.41	38.32	192.00	6.44	3.47
Malaysia	N/A						
Myanmar	500.62	519.24	18.61	3.72	518.81	-0.43	-0.08
Philippines	2,570.04	2,480.03	-90.01	-3.50	2,397.04	-82.99	-3.35
Singapore	N/A						
Thailand	1,075.64	1,068.69	-6.95	-0.65	1,088.51	19.82	1.85
Vietnam	1,039.00	1,007.83	-31.17	-3.00	997.75	-10.08	-1.00

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

Table 20 Maize yield in ASEAN countries, 2018 - 20020

Unit: Ton/Hectare

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	4.59	4.54	-0.05	-1.09	4.58	0.04	0.88
Brunei	N/A						
Cambodia	5.70	5.72	0.02	0.35	5.42	-0.30	-5.24
Indonesia	5.24	5.31	0.07	1.34	5.34	0.03	0.56
Lao PDR	5.39	5.43	0.04	0.74	5.26	-0.17	-3.13
Malaysia	N/A						
Myanmar	3.81	3.82	0.01	0.26	3.90	0.08	2.09
Philippines	3.10	3.07	-0.03	-0.97	3.08	0.01	0.33
Singapore	N/A						
Thailand	4.55	4.43	-0.12	-2.64	4.50	0.07	1.58
Vietnam	4.72	4.80	0.08	1.69	4.85	0.05	1.04

Remark: N/A refers to data is not available

Table 21 Maize damaged area in ASEAN by cause of damage, 2019

Unit: Hectares

Country	Cause of Damage						
	Flood	Drought	Pests	Diseases	Unspecified	Others	Total
ASEAN	7,846	3,633	26,766	2,973		822	42,040
Brunei	N/A						
Cambodia	6,999						6,999
Indonesia	N/A						
Lao PDR	N/A						
Malaysia	N/A						
Myanmar	847		339			423	1,609
Philippines	N/A						
Singapore						399	399
Thailand		3,633	26,427	2,973			33,033
Vietnam	N/A						

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

Table 22 Maize balance sheet of ASEAN countries, 2018

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	4,306,933	51,646,124	16,516,934	72,469,990	53,278,220	2,575,127	16,616,643	72,469,990
Brunei			206	206	206			206
Cambodia	205,907 *	1,171,543*		1,377,450	995,657 *	205,886	175,907	1,377,450
Indonesia	28,049	30,055,023*	737,228	30,820,300	17,431,755	272,364	13,116,181*	30,820,300
Lao PDR	170,501	732,630	1,145	904,277	506,356	261,116	136,805	904,277
Malaysia								
Myanmar	1,777,925	1,909,641	1,535,523	5,223,089	2,004,362	1,437,483	1,781,244	5,223,089
Philippines	952,000	7,979,667	1,017,000	9,948,667	9,271,667*	1,000	676,000	9,948,667
Singapore			52,435	52,435	52,123*	312		52,435
Thailand	635,182*	4,891,719*	2,991,815	8,518,716	8,242,790	100,000*	175,926*	8,518,716
Vietnam	537,368	4,905,900	10,181,581	15,624,849	14,773,304	296,965	554,580	15,624,849

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

Table 23 Maize balance sheet of ASEAN countries, 2019

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	16,616,643	45,329,055	17,057,625	79,003,324	55,791,139	2,135,126	21,077,058	79,003,323
Brunei			217	217	217			217
Cambodia	175,907*	1,303,751		1,479,658	959,221*	267,652	252,785	1,479,658
Indonesia	13,116,181*	23,853,658 *	885,394	37,855,233	19,516,940	266,917*	18,071,376*	37,855,233
Lao PDR	136,805	1,006,935	1,110	1,144,850	640,967	281,775	222,108	1,144,850
Malaysia								
Myanmar	1,781,244	1,984,497	8,146*	3,773,887	1,413,894	902,897	1,457,096	3,773,887
Philippines	676,000*	7,608,461*	1,032,255*	9,316,716	8,808,084*	1,000*	507,632*	9,316,716
Singapore			38,238	38,238	38,042*	196*		38,238
Thailand	175,926*	4,730,145*	3,763,055	8,669,126	8,443,404	70,000*	155,723*	8,669,127
Vietnam	554,580	4,841,608	11,329,211	16,725,399	15,970,371	344,690	410,338	16,725,399

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

Table 24 Maize balance sheet of ASEAN countries, 2020

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	21,077,058	45,611,571	18,224,697	84,913,326	57,311,579	2,117,346	25,484,401	84,913,326
Brunei			228	228	228			228
Cambodia	252,785*	1,185,526		1,438,311	941,955*	250,477	245,879	1,438,311
Indonesia	18,071,376 *	24,272,801*	796,854*	43,141,032	20,492,787*	261,578 *	22,386,666*	43,141,031
Lao PDR	222,108	1,010,400	1,300	1,233,808	658,154	302,196	273,458	1,233,808
Malaysia								
Myanmar	1,457,096	2,020,928	7,983*	3,486,007	1,334,590	920,955*	1,230,462	3,486,007
Philippines	507,632*	7,380,553*	1,114,835*	9,003,020	8,455,760*	1,000*	546,260*	9,003,020
Singapore			44,459*	44,459	44,147*	312*		44,459
Thailand	155,723*	4,901,437*	3,652,840	8,710,000	8,500,000	60,000*	150,000*	8,710,000
Vietnam	410,338	4,839,926	12,606,197	17,856,461	16,883,957	320,828	651,676	17,856,461

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

Table 25 Ratio of maize production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2018 - 2020

Unit: Tons

Country	2018			2019			2020		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	51,646,124	53,278,220	96.94	45,329,055	55,791,139	81.25	45,611,571	57,311,579	79.59
Brunei		206			217			228	
Cambodia	1,171,543	995,657	117.67	1,303,751	959,221	135.92	1,185,526	941,955	125.86
Indonesia	30,055,023	17,431,755	172.42	23,853,658	19,516,940	122.22	24,272,801	20,492,787	118.45
Lao PDR	732,630	506,356	144.69	1,006,935	640,967	157.10	1,010,400	658,154	153.52
Malaysia	N/A								
Myanmar	1,909,641	2,004,362	95.27	1,984,497	1,413,894	140.36	2,020,928	1,334,590	151.43
Philippines	7,979,667	9,271,667	86.07	7,608,461	8,808,084	86.38	7,380,553	8,455,760	87.28
Singapore		52,123			38,042			44,147	
Thailand	4,891,719	8,242,790	59.35	4,730,145	8,443,404	56.02	4,901,437	8,500,000	57.66
Vietnam	4,905,900	14,773,304	33.21	4,841,608	15,970,371	30.32	4,839,926	16,883,957	28.67

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

Table 26 Ratio of maize beginning stock to domestic utilization in ASEAN countries (Food security ratio), 2018 - 2020

Unit: Tons

Country	2018			2019			2020		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	4,306,933	53,278,220	8.08	16,616,643	55,791,139	29.78	21,077,058	57,311,579	36.78
Brunei		206			217			228	
Cambodia	205,907	995,657	20.68	175,907	959,221*	18.34	252,785	941,955	26.84
Indonesia	28,049	17,431,755	0.16	13,116,181	19,516,940	67.20	18,071,376	20,492,787	88.18
Lao PDR	170,501	506,356	33.67	136,805	640,967	21.34	222,108	658,154	33.75
Malaysia	N/A								
Myanmar	1,777,925	2,004,362	88.70	1,781,244	1,413,894	125.98	1,457,096	1,334,590	109.18
Philippines	952,000	9,271,667	10.27	676,000	8,808,084	7.67	507,632	8,455,760	6.00
Singapore		52,123			38,042			44,147	
Thailand	635,182	8,242,790	7.71	175,926	8,443,404	2.08	155,723	8,500,000	1.83
Vietnam	537,368	14,773,304	3.64	554,580	15,970,371	3.47	410,338	16,883,957	2.43

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

Table 27 Quantity and Value of Maize Export by Countries of Destination in 2019

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														
Cambodia														
Indonesia									1,866	686,441			22,903	7,857,139
Lao PDR														
Malaysia		528,574				227,846								
Myanmar							400	81,000	262	64,100			143,790	30,544,000
Philippines											4,000	65,541		
Singapore														
Thailand											97	15,621	1	1,546
Vietnam			81,809	13,663,043			5,710	953,569	4	662			212,629	35,511,558

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												
Cambodia							118,993				118,993	
Indonesia	545	387,528	1,294	496,933	2,513	905,841	29,120	10,333,882	16,650	3,033,853	45,770	13,367,735
Lao PDR			103,031	19,812,365	72,360	18,433,317	175,391	38,245,682	106,384	29,831,611	281,775	68,077,292
Malaysia		221,542				9,967		987,930		28,644		1,016,574
Myanmar	569	88,000	610,333	93,409,000	3,548	8,278,000	758,902	132,464,100	143,995	24,088,500	902,897	156,552,600
Philippines					276,602	782,325	280,602	847,866	15,383	57,253	295,985	905,119
Singapore												
Thailand							98	17,168	1,592	525,374	1,690	542,542
Vietnam	87	14,560	583	97,356			300,822	50,240,750	15,144	2,529,214	315,966	52,769,964

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

Table 28 Quantity and Value of Maize Import by Countries of Origin in 2019

Quantity: Tons Values: US\$

Importing Country	Country of Origin													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei														
Cambodia														
Indonesia									1,008	1,612,117			0.26	1,994
Lao PDR														
Malaysia						110,588						65,132		4,852
Myanmar														
Philippines					1,236,675	367,886					139,585,603	39,153,280		
Singapore					590	415,239			36,793	8,630,247	251	63,823		7
Thailand			46,276	9,453,766			46,668	7,383,467			588,515	136,870,712		
Vietnam							660	110,400						

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												
Cambodia												
Indonesia	549	942,725	93	505,161			1,650	3,061,997	1,233,272	310,306,921	1,234,922	313,368,918
Lao PDR			940	270,898	8	1,600	948	272,498	162	48,804	1,110	321,302
Malaysia		263		235,567				416,402		612,326,682		612,743,084
Myanmar												
Philippines	1,080.69	1,029.00	4,535,875	1,804,300	80,853,238	26,753,270	226,212,472	68,079,765	107,941,939	51,998,559	334,154,412	120,078,324
Singapore			51	75,273			37,685	9,184,589	553	662,041	38,238	9,846,630
Thailand							681,459	153,707,946			681,459	153,707,946
Vietnam			6,352	16,934,509			7,012	17,044,909	10,232,444	2,050,105,290	10,239,456	2,067,150,199

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

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

Unit: US\$/Ton

Country		Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Cambodia		2018	130	135	138	141	146	132	133	139	128	137	136	143	137
		2019	131	138	136	133	135	169	158	153	137	141	138		143
Indonesia		2018	472	272	264	261	261	275	277	280	314	458	426	271	319
		2019	437	670	530	664	502	543	564	409	557	574			545
Lao PDR		2018									271	267	221		253
		2019									296	292	242		277
Malaysia	Corn (Maize)	2018	217	212	222	236	257	247	245	251	280	269	272	323	253
	Groats And Meal Of Corn (Maize)	2018	230	605	233	468	277	281	505	606	288	257	577	276	384
Myanmar		2018	209	222	227	226	226	223	219	212	210	210	212	201	216
		2019	200	190	172	170	218	166	164	159	166	159			176
Thailand		2018	312	320	341	351	340	335	293	272	278	307	317	318	315
		2019	323	316	298	293	288	301	298	304	299	296	302	294*	301

Remark: * The value is estimated by AFSIS Secretariat.

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		2018	195	205	203	489	213	224	227	235	227	228	213	211	239
		2019	205	207	220	212	212	207	209	207	205	209			209
Malaysia	Corn (Maize)	2018	190	192	194	208	217	222	244	226	220	221	227	226	215
	Groats And Meal Of Corn (Maize)	2018		733	789	802	305	252	741	742	592	756	226	744	607
Singapore		2018	239	250	225	244	267	261	264	265	288	282	264	273	260
		2019	263	272	247	262	247	234	265	271	270	243	258		257
Vietnam		2018	187	194	199	202	205	219	218	220	215	215	213	209	208
		2019	210	213	214	210	206	203	201	197	193	196	199		204

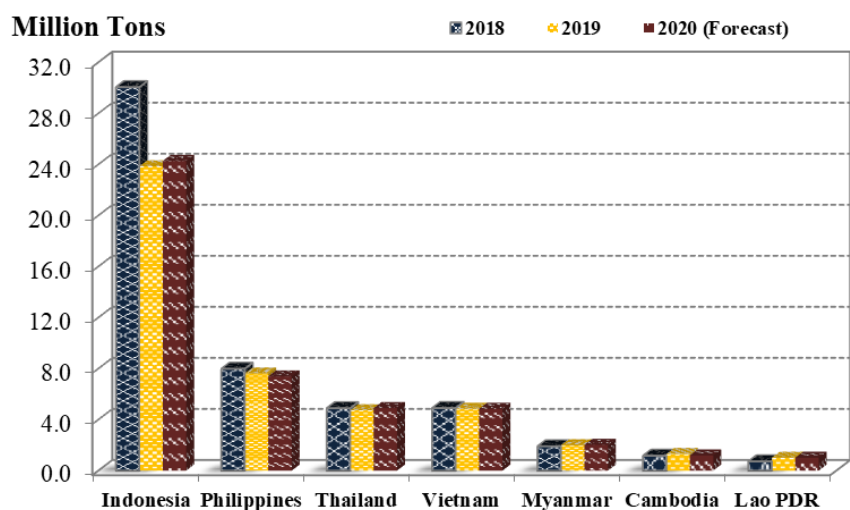


Figure 17 Maize production of selected countries in ASEAN, 2018 – 2020

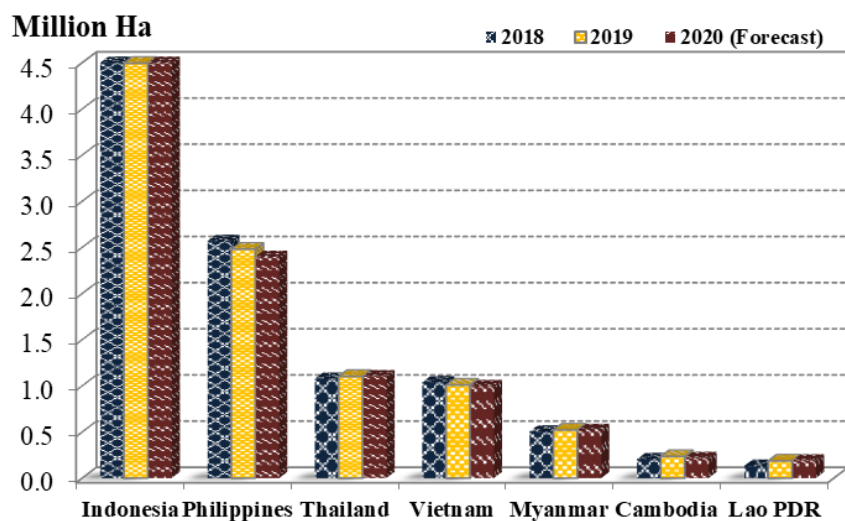


Figure 18 Maize planted area of selected countries in ASEAN, 2018 - 2020

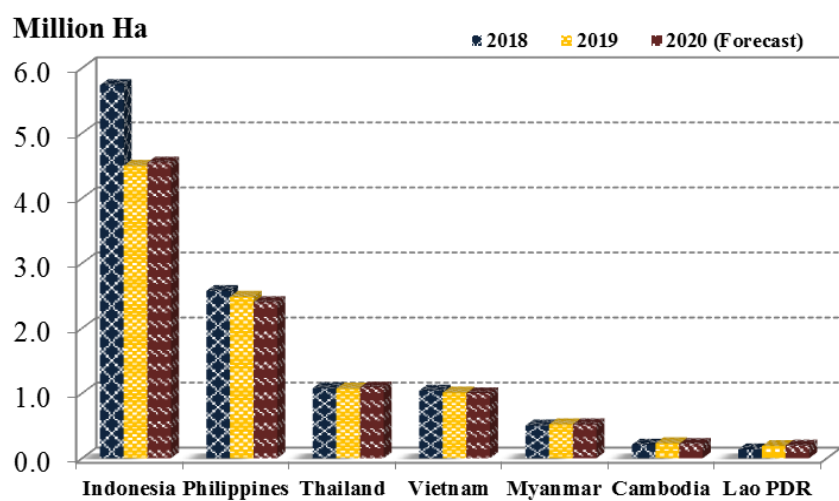


Figure 19 Maize harvested area of selected countries in ASEAN, 2018 - 2020

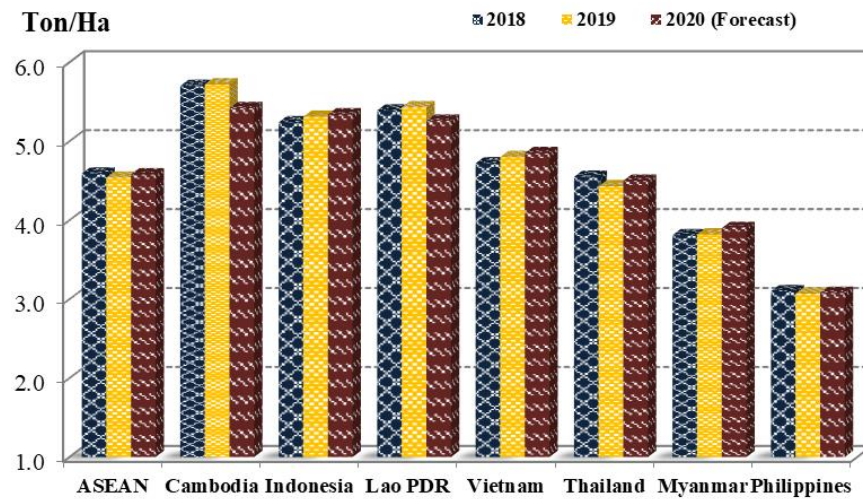


Figure 20 Maize yield of countries in ASEAN, 2018 – 2020

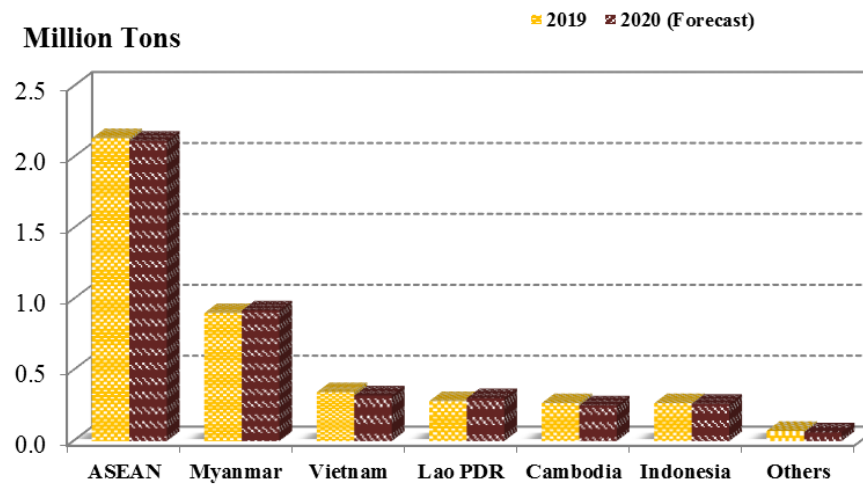
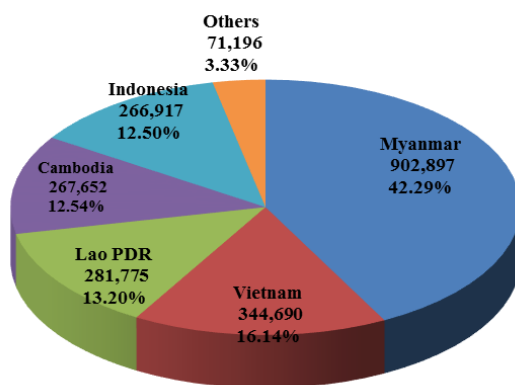
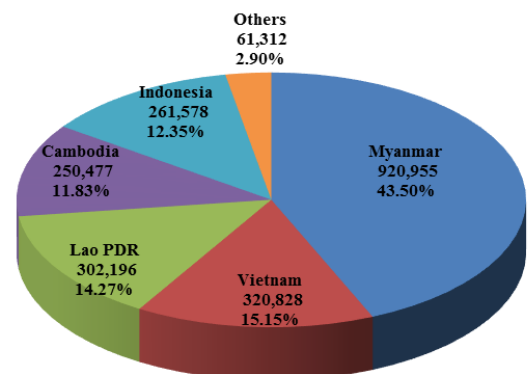


Figure 21 Amount of maize export (million tons) of selected countries in ASEAN in 2019 - 2020



Total 2.14 million tons

Figure 22 Share of maize export (tons) among ASEAN countries, 2019



Total 2.12 million tons

Figure 23 Share of maize export (tons) among ASEAN countries, 2020

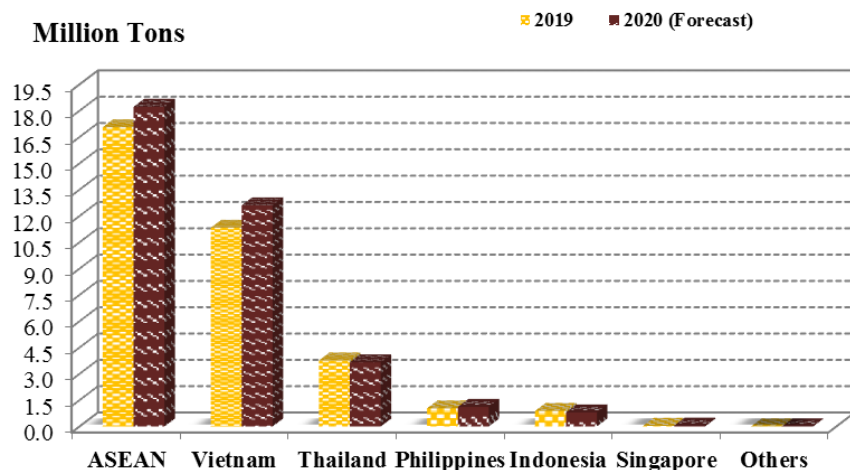
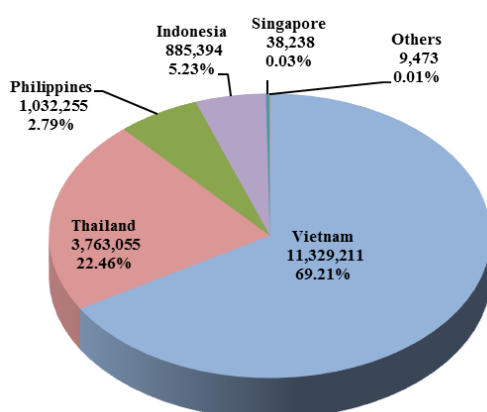
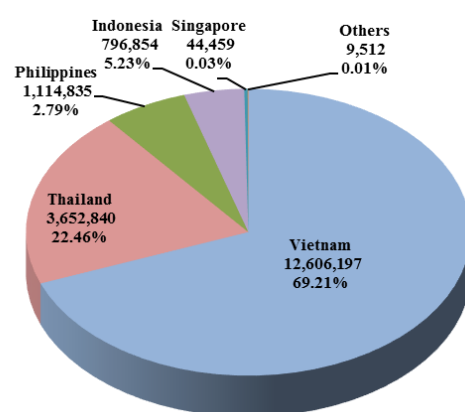


Figure 24 Amount of maize import (million tons) by selected countries in ASEAN in 2019 - 2020



Total 17.06 million tons

Figure 25 Share of maize import (tons) among ASEAN countries, 2019



Total 18.22 million tons

Figure 26 Share of maize import (tons) among ASEAN countries, 2020

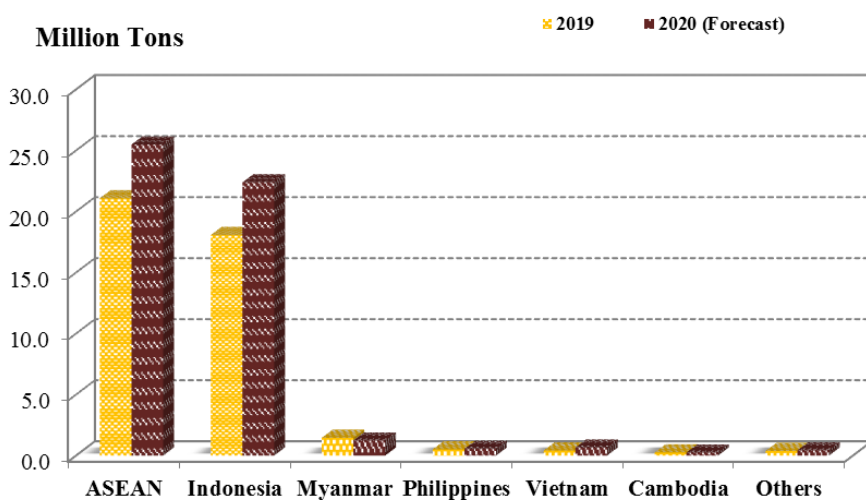


Figure 27 Amount of ending stock of maize in ASEAN countries in 2019 - 2020

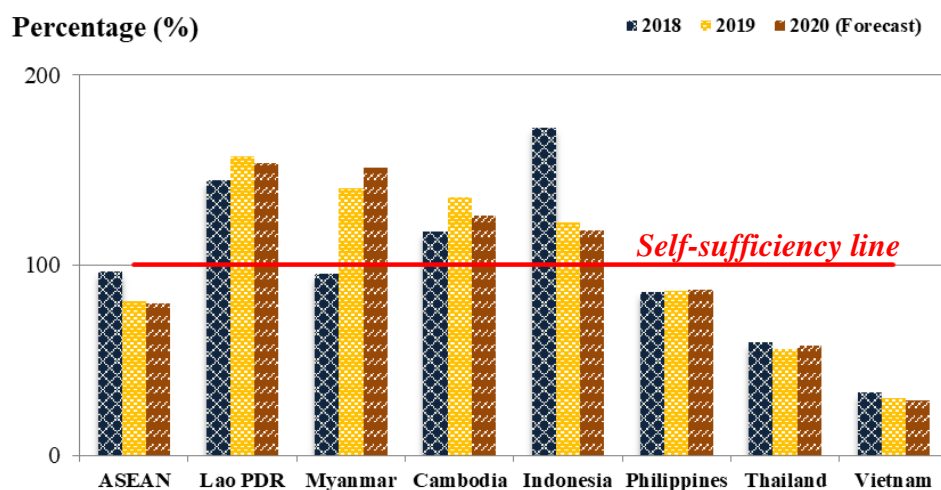


Figure 28 Ratio of maize production to domestic utilization in ASEAN countries, 2018 - 2020

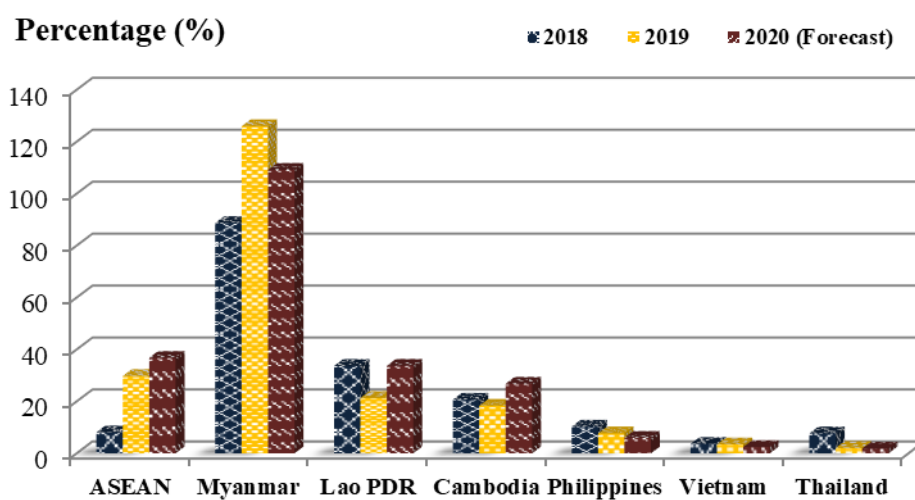


Figure 29 Ratio of maize beginning stock to domestic utilization in ASEAN countries, 2018 - 2020

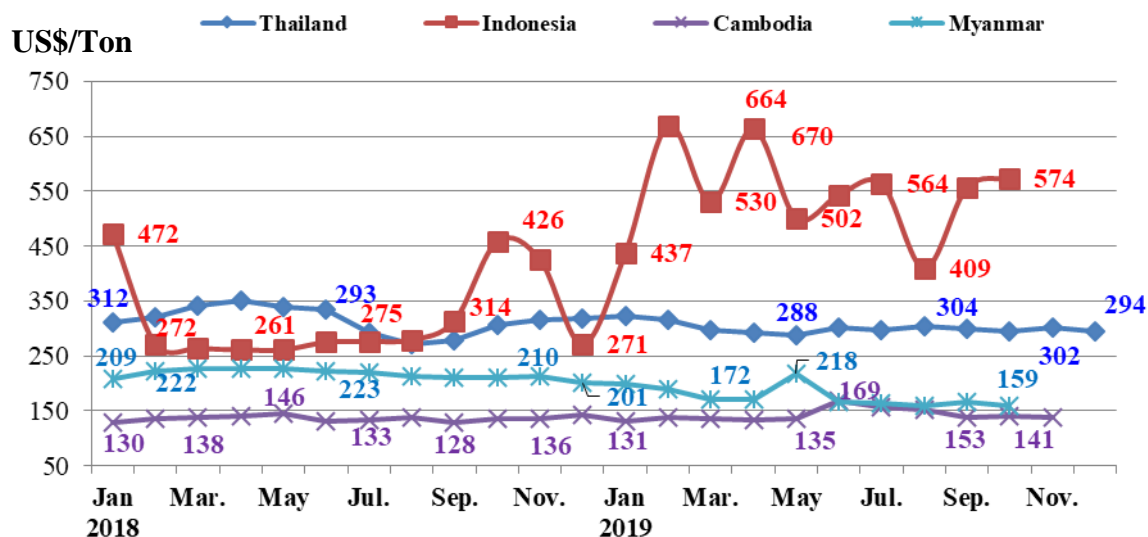


Figure 30 FOB price (US\$/Ton) of maize of selected countries in ASEAN in 2018 – 2019

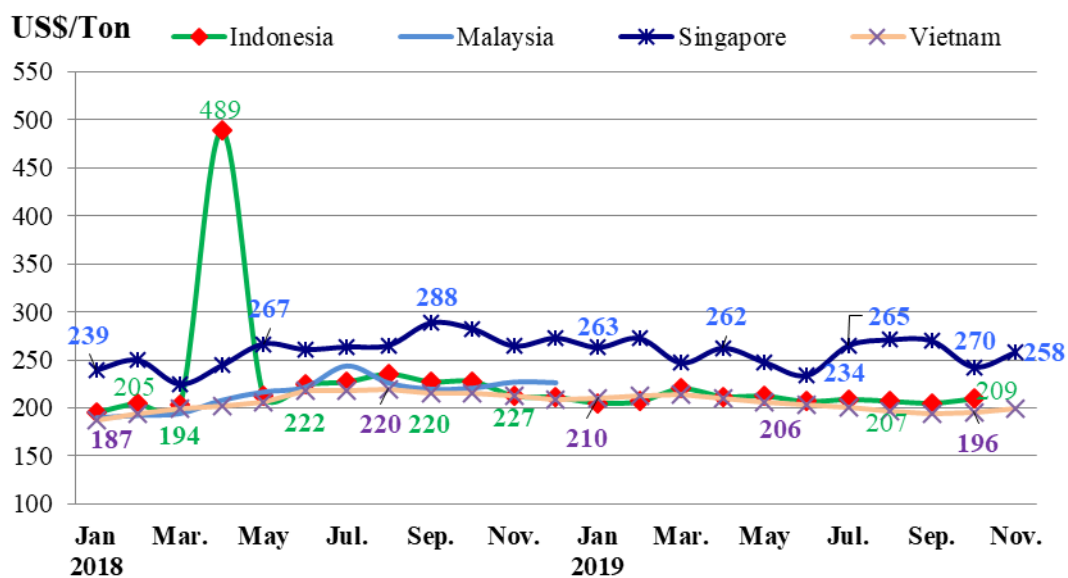


Figure 31 CIF price (US\$/Ton) of maize of selected countries in ASEAN in 2018 - 2019

Sugar Outlook for 2020



ASEAN sugar supply is forecasted to decrease approximately 0.54 percent or 0.25 million tons from 46.26 million tons in 2019 to 46.00 million tons in 2020 due to the decrease in production and import (Table 31).

The beginning stock of sugar in 2020 is estimated at 22.12 million tons, which increases from 20.09 million tons in 2019.

The sugar's import of 2020 is forecasted to be 3.74 million tons, which decreases around 11.75 percent from 4.24 million tons in 2019.

The export of sugar from ASEAN in 2020 is expected to increase from 10.41 million tons in 2019 to 11.28 million tons in 2020.

The production to domestic utilization ratio for sugar in 2020 is forecasted to be about 151.57 percent, which decreases from 159.77 percent in 2019.

The beginning stock to domestic utilization ratio in 2020 is forecasted to be about 166.36 percent, which increases from 146.36 percent in 2019.

Table 31 Summary of the ASEAN sugar situation, 2019 - 2020

Unit: Million Tons

Items	2019	2020	Change	
			Quantity	%
Supply (Million tons)	46.26	46.00	-0.25	-0.54
Beginning stock	20.09	22.12	2.03	10.09
Production	21.93	20.15	-1.78	-8.12
Import	4.24	3.74	-0.50	-11.75
Demand (Million tons)	46.26	46.00	-0.25	-0.54
Domestic utilization	13.73	13.29	-0.43	-3.15
Export	10.41	11.28	0.87	8.35
Ending stock	22.12	21.43	-0.69	-3.12
Ratio of production to domestic utilization (%)	159.77	151.57	-8.20	-
Ratio of beginning stock to domestic utilization (%)	146.36	166.36	20.00	-

ASEAN Sugar Situation in 2019

► Production

Sugarcane production in ASEAN in 2019 (2018/19 crop year) was estimated at 218.33 million tons, down 2.50 million tons from 220.83 million tons in 2018 or about 1.13 percent (Table 32, Figure 32). The decrease in production was due to the decrease in production of Thailand, the Philippines, Vietnam and Cambodia. The yield of sugarcane in ASEAN in 2019 was estimated at 69.48 tons per hectare, slightly decreasing from 71.24 tons per hectare in 2018 (Table 35, Figure 35).

Thailand, the largest sugar producing country in the region, the production was estimated to decrease mainly due to the declining in yield caused by drought, while the planted area was estimated to increase by government policy (Table 32-35, Figure 32-35).

Production in **Indonesia** was estimated to increase due to the increase in planted area and yield. The increase in planted area was due to the government policy. The increase in yield was due to better taking care of the sugarcane crop from farmers.

For production in **the Philippines**, it was estimated to decrease due to the decrease in both planted area and yield.

Vietnam was estimated to decrease its production due to the decrease in planted area due to farmers' response to price decrease.

For production in **Myanmar**, it was estimated to increase due to the increase in planted area by farmers' response to price increase.

For **Cambodia**, the decrease in sugarcane production came from the decrease of harvested area and yield caused by flood.

For **Lao PDR**, the estimated production increased due to the increase in planted area and yield which caused by favorable weather and government policy.

► Utilization and Stock

Regarding domestic utilization of sugar in the ASEAN, it has slightly decreased to 13.73 million tons in 2019 from 14.62 million tons in 2018 (Table 37-38). The beginning stock of sugar in ASEAN in 2019 was estimated at 20.09 million tons, which increased about 19.15 percent from 2018. The ending stock of sugar in ASEAN in 2019 was estimated to be about 22.12 million tons, an increase of about 10.08 percent from 2018.

The ratio of sugar production to domestic utilization in 2019 was estimated to be about 159.77 percent. This indicated that the production of sugar in ASEAN was sufficient for the consumption within the region (Table 40, Figure 43).

The ratio of beginning stock to domestic utilization was estimated to be about 146.36 percent in 2019, compared to about 115.33 percent in 2018. This indicated that the sugar availability in the region was up from the previous year (Table 41, Figure 44).

► *Trade*

The sugar's export from ASEAN in 2019 is 10.41 million tons, which increased about 0.05 million tons or 0.48 percent from 2018 (Table 37-38, Figure 36-37). Thailand is the major sugar exporting country in the region constituted about 92.65 percent of the total ASEAN export or about 9.65 million tons.

For the import, ASEAN in 2019 as a whole imported sugar around 4.24 million tons, decreasing about 30.84 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 Table 42 and 43, respectively.

► *Prices*

The FOB and CIF prices of sugar in exporting and importing countries in ASEAN during 2018-2019 are shown in Table 44-45. The annual average of Thailand FOB prices of raw sugar and white sugar in 2019 (January-December) were 290 US\$/ton and 340 US\$/ton, respectively. The prices of both raw sugar and white sugar of 2019 were lower than those of 2018. The average CIF prices (January-November) in Singapore in 2019 was 411 US\$/ton, which was lower than that in 2018.

► *Damaged Area*

The sugarcane damaged area in ASEAN in 2019 was reported to be 5,675 hectares, of which 4,835 hectares caused by drought. The most affected area caused by drought was occurred in Indonesia (Table 36).

Prospects for Sugar in 2020

► *Production*

Sugarcane production in ASEAN is forecasted to decrease from 218.33 million tons in 2019 to 205.85 million tons in 2020 (Table 32-35, Figure 32-35). Thailand, the largest sugar producing country in the region, forecasted to decrease its production from 131 million tons in 2019 to 111.52 million tons in 2020. The decrease in production mainly caused by declining in yield which effected by drought. On the contrary, the rest of ASEAN are forecasted to increase their production. The greatest increase in terms of quantity is found in the Philippines which expected to increase its production from 21.36 million tons in 2019 to 24.39 million tons in 2020. The increase in the Philippines' production is due to the increase in planted area and yield. Indonesia expected to increase in production from 35.90 million tons in 2019 to 38.15 million tons in 2020. The increase comes from the expansion of planted area and yield which led by government policy. Vietnam expected to increase in production from 16.05 million tons in 2019 to 16.86 million tons in 2020 which comes from the expansion of planted area. For Lao PDR and Cambodia, the increase in their production is mainly caused by the expansion of planted area. In addition, production in Myanmar is expected to increase due to the increase in planted area and yield by farmers' response to price increase.

► *Utilization and Stock*

The domestic utilization of sugar in ASEAN is forecasted to decrease from 13.73 million tons of sugar in 2019 to 13.29 million tons in 2020, which decreases about 0.43 million tons (Table 38-39). The beginning stock in ASEAN is estimated at 22.12 million tons of sugar in 2020, an increase of 2.03 million tons from 20.09 million tons in the previous year. The ending stock of sugar in ASEAN in 2020 is forecasted to be 21.43 million tons which decreases about 0.69 million tons from the previous year.

The ratio of production to domestic utilization in 2020 is forecasted to be 151.57 percent, which decreases from the previous year (Table 40, Figure 43).

The ratio of the beginning stock to domestic utilization in 2020 is forecasted to be about 166.36 percent which increases from 2019 (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 decrease from 10.41 million tons in 2019 to 11.28 million tons in 2020 (Table 38-39, Figure 36-38). For the import, it is forecasted to be 3.74 million tons in 2020 which decreases from 4.24 million tons in the previous year (Table 38-39, Figure 39-41)

Table 32 Sugarcane production in ASEAN countries, 2018 - 2020

Unit: 1,000 Tons

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	220,827.17	218,328.29	-2,498.88	-1.13	205,851.15	-12,477.14	-5.71
Brunei	N/A						
Cambodia	691.91	673.83	-18.08	-2.61	687.30	13.48	2.00
Indonesia	31,864.01	35,902.70	4,038.69	12.67	38,146.61*	2,243.92	6.25
Lao PDR	1,109.36	1,939.68	830.32	74.85	2,430.00	490.32	25.28
Malaysia	N/A						
Myanmar	10,370.04	11,397.18	1,027.14	9.90	11,821.81	424.62	3.73
Philippines	23,881.56	21,359.88	-2,521.67	-10.56	24,387.54	3,027.66	14.17
Singapore	N/A						
Thailand	135,073.80	131,002.17	-4,071.63	-3.01	111,522.40*	-19,479.77	-14.87
Vietnam	17,836.50	16,052.85	-1,783.65	-10.00	16,855.49	802.64	5.00

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

Table 33 Sugarcane planted area in ASEAN countries, 2018 - 2020

Unit: 1,000 Hectares

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	3,104.26	3,147.95	43.69	1.41	3,250.25	102.30	3.25
Brunei	N/A						
Cambodia	20.10	20.31	0.20	1.02	20.71	0.41	2.00
Indonesia	417.58	453.24	35.66	8.54	466.25*	13.01	2.87
Lao PDR	22.20	32.16	9.97	44.90	40.00	7.84	24.38
Malaysia	N/A						
Myanmar	163.36	180.07	16.71	10.23	182.32	2.26	1.25
Philippines	421.82*	384.99*	-36.83	-8.73	430.76	45.77	11.89
Singapore	N/A						
Thailand	1,790.21*	1,835.09*	44.88	2.51	1,856.00*	20.91	1.14
Vietnam	269.00	242.10	-26.90	-10.00	254.21	12.11	5.00

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

Table 34 Sugarcane harvested area in ASEAN countries, 2018 - 2020

Unit: 1,000 Hectares

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	3,099.92	3,142.27	42.35	1.37	3,244.36	102.08	3.25
Brunei	N/A						
Cambodia	20.02	19.57	-0.44	-2.20	20.37	0.79	4.04
Indonesia	413.43	448.40	34.97	8.46	460.96*	12.56	2.80
Lao PDR	22.20	32.16	9.97	44.90	40.00	7.84	24.38
Malaysia	N/A						
Myanmar	163.25	179.96	16.71	10.23	182.07	2.11	1.17
Philippines	421.82	384.99	-36.83	-8.73	430.76*	45.77	11.89
Singapore	N/A						
Thailand	1,790.21	1,835.09	44.88	2.51	1,856.00	20.91	1.14
Vietnam	269.00	242.10	-26.90	-10.00	254.21	12.11	5.00

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

Table 35 Sugarcane yield in ASEAN countries, 2018 - 2020

Unit: Ton/Hectare

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	71.24	69.48	-1.76	-2.47	63.45	-6.03	-8.68
Brunei	N/A						
Cambodia	34.57	34.42	-0.15	-0.43	33.75	-0.67	-1.95
Indonesia	77.07	80.07	3.00	3.89	82.76*	2.69	3.36
Lao PDR	49.98	60.31	10.33	20.67	60.75	0.44	0.73
Malaysia	N/A						
Myanmar	63.52	63.33	-0.19	-0.30	64.93	1.60	2.53
Philippines	56.62	55.48	-1.14	-2.01	56.62*	1.14	2.05
Singapore	N/A						
Thailand	75.45	71.39	-4.06	-5.38	60.09	-11.30	-15.83
Vietnam	66.31	66.31	0.00	0.00	66.31	0.00	0.00

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

Table 36 Sugarcane damaged area in ASEAN by cause of damage, 2019

Unit: Hectares

Country	Cause of Damage						
	Flood	Drought	Pests	Diseases	Others	Unspecified	Total
ASEAN	789	4,835			51		5,675
Brunei	N/A						
Cambodia	734						734
Indonesia		4,835					4,835
Lao PDR.	N/A						
Malaysia	N/A						
Myanmar	55				51		106
Philippines	N/A						
Singapore	N/A						
Thailand	N/A						
Vietnam	N/A						

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

Table 37 Sugar balance sheet of ASEAN countries, 2018

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	16,860,066	22,086,637	6,125,550	45,072,253	14,618,716	10,364,257	20,089,281	45,072,253
Brunei	1,052		7,434	8,486	5,419		3,067	8,486
Cambodia		69,191		69,191	41,191	28,000		69,191
Indonesia	1,248,197	2,174,400	5,129,077	8,551,674	6,577,725	514,982	1,458,967	8,551,674
Lao PDR	740,255	366,905	17	1,107,177		66,062	1,041,114	1,107,177
Malaysia	N/A							
Myanmar	2,050,387	829,603		2,879,990	734,592	249,532	1,895,866	2,879,990
Philippines	434,577	2,151,452	493,485	3,079,514	2,531,931	160,832	386,751	3,079,514
Singapore			276,285	276,285	253,780	22,505		276,285
Thailand	12,173,026	14,711,436	241	26,884,703	2,511,971	9,253,023	15,119,709	26,884,703
Vietnam	212,572	1,783,650	219,011	2,215,233	1,962,107	69,320	183,806	2,215,233

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

Table 38 Sugar balance sheet of ASEAN countries, 2019

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	20,089,281	21,929,905	4,236,648	46,255,833	13,726,256	10,414,414	22,115,163	46,255,834
Brunei	3,067		5,334	8,401	5,455		2,947	8,401
Cambodia		67,383		67,383	42,704	24,678		67,382
Indonesia	1,458,967	2,450,000	3,497,247	7,406,214	5,799,592	489,757	1,116,865	7,406,215
Lao PDR	1,041,114	387,936	19	1,429,069		77,240	1,351,829	1,429,069
Malaysia	N/A							
Myanmar	1,895,866	911,775		2,807,641	924,349	37,956	1,845,336	2,807,641
Philippines	386,751	1,926,855	250,000	2,563,606	2,186,338	70,009	307,259	2,563,606
Singapore	-		253,831	253,831	232,474	21,358		253,832
Thailand	15,119,709	14,580,671	255	29,700,635	2,600,000	9,649,277	17,451,358	29,700,635
Vietnam	183,806	1,605,285	229,961	2,019,052	1,935,344	44,138	39,570	2,019,052

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

Table 39 Sugar balance sheet of ASEAN countries, 2020

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	22,115,163	20,149,148	3,739,398	46,003,710	13,293,288	11,284,071	21,426,351	46,003,710
Brunei	2,947		5,494	8,441	5,618		2,822	8,441
Cambodia		68,730		68,730	45,430	23,300		68,730
Indonesia	1,116,865	2,603,125	3,260,478	6,980,468	5,619,127	465,768	895,572	6,980,468
Lao PDR	1,351,829	486,000	22	1,837,851		139,206	1,698,645	1,837,851
Malaysia	N/A							
Myanmar	1,845,336	945,744		2,791,080	817,256	72,116	1,901,708	2,791,080
Philippines	307,259	2,200,000		2,507,259	2,090,000	136,201	281,058	2,507,259
Singapore			247,743	247,743	225,237	22,505		247,743
Thailand	17,451,358	12,160,000	300	29,611,658	2,600,000	10,378,630	16,633,028	29,611,658
Vietnam	39,570	1,685,549	225,362	1,950,481	1,890,618	46,345	13,518	1,950,481

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

Table 40 Ratio of sugar production to domestic utilization in ASEAN countries, 2018 - 2020

Unit: Tons

Country	2018			2019			2020		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	22,086,637	14,618,716	151.08	21,929,905	13,726,256	159.77	20,149,148	13,293,288	151.57
Brunei		5,419			5,455			5,618	
Cambodia	69,191	41,191	167.98	67,383	42,704	157.79	68,730	45,430	151.29
Indonesia	2,174,400	6,577,725	33.06	2,450,000	5,799,592	42.24	2,603,125	5,619,127	46.33
Lao PDR	366,905			387,936			486,000		
Malaysia	N/A								
Myanmar	829,603	734,592	112.93	911,775	924,349	98.64	945,744	817,256	115.72
Philippines	2,151,452	2,531,931	84.97	1,926,855	2,186,338	88.13	2,200,000	2,090,000	105.26
Singapore		253,780			232,474			225,237	
Thailand	14,711,436	2,511,971	585.65	14,580,671	2,600,000	560.80	12,160,000	2,600,000	467.69
Vietnam	1,783,650	1,962,107	90.90	1,605,285	1,935,344	82.95	1,685,549	1,890,618	89.15

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

Table 41 Ratio of sugar beginning stock to domestic utilization in ASEAN countries, 2018 - 2020

Unit: Tons

Country	2018			2019			2020		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	16,860,066	14,618,716	115.33	20,089,281	13,726,256	146.36	22,115,163	13,293,288	166.36
Brunei	1,052	5,419	19.41	3,067	5,455	56.23	2,947	5,618	52.44
Cambodia		41,191			42,704			45,430	
Indonesia	1,248,197	6,577,725	18.98	1,458,967	5,799,592	25.16	1,116,865	5,619,127	19.88
Lao PDR	740,255			1,041,114			1,351,829		
Malaysia	N/A								
Myanmar	2,050,387	734,592	279.12	1,895,866	924,349	205.10	1,845,336	817,256	225.80
Philippines	434,577	2,531,931	17.16	386,751	2,186,338	17.69	307,259	2,090,000	14.70
Singapore		253,780			232,474			225,237	
Thailand	12,173,026	2,511,971	484.60	15,119,709	2,600,000	581.53	17,451,358	2,600,000	671.21
Vietnam	212,572	1,962,107	10.83	183,806	1,935,344	9.50	39,570	1,890,618	2.09

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

Table 42 Quantity and Value of Sugar Export by Countries of Destination in 2019

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														
Cambodia														
Indonesia	19	22,040							899	469,649			280,337	34,539,577
Lao PDR														
Malaysia						180,749								
Myanmar														
Philippines														
Singapore														
Thailand	5,963	2,749,321	598,523	207,983,272	3,043,467	897,895,882	246,420	91,114,274	764,234	245,843,819	223,209	94,102,692	573,311	135,821,567
Vietnam				8,620		18,915		60,000		66,393				3,239,850

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												
Cambodia									91,710		91,710	
Indonesia	336	367,280	1.41	2,613	37,031	4,898,298	318,623	40,299,457	171,134	24,775,526	489,757	65,074,983
Lao PDR			210,231	17,621,416	10,587	5,066,317	220,818	22,687,732	165,384	13,862,371	386,202	36,550,104
Malaysia		658,824		42,620		17310.23		899,503		1,113,197		2,012,699
Myanmar									37,956	3,009,000	37,956	3,009,000
Philippines									70,009	34,003,064	70,009	34,003,064
Singapore												
Thailand	148,242	59,461,535			283,791	91,458,224	5,887,161	1,826,430,587	3,762,116	1,263,905,222	9,649,277	3,090,335,810
Vietnam		33,370						3,427,148		11,935,740		15,362,887

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

Table 43 Quantity and Value of Sugar Import by Countries of Origin in 2019

Quantity: Tons Values: US\$

Importing Country	Country of origin													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei														
Cambodia														
Indonesia									813	435,786				
Lao PDR														
Malaysia														
Myanmar														
Philippines														
Singapore					251	323,235			12,443	5,612,486	7	3,699	1	5,681
Thailand					5,890	19,963,413	35,716	3,840,252	2,962	5,008,569	122	164,504	1,287	4,654,393
Vietnam								10,353,639		29,181				679

Importing Country	Country of origin						Total within ASEAN		Total outside ASEAN		Total	
	Singapore		Thailand		Vietnam							
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei			5,334				5,334				5,334	
Cambodia												
Indonesia	0.56	4,507	2,956,772	983,751,312	33	18,915	2,957,619	984,210,520	539,629	179,681,639	3,497,247	1,163,892,159
Lao PDR			95	2,470			95	2,470			95	2,470
Malaysia				40,909		4,872		45,781		295,795,627		295,841,408
Myanmar												
Philippines												
Singapore			133,803	52,255,327	38	27,942	146,544	58,228,368	107,287	45,420,285	253,831	103,648,653
Thailand					2,810.423	14,150,159	48,789	47,781,289	189,937	191,018,304	238,725	238,799,593
Vietnam		5,113		83,464,283				93,852,896		468,898		94,321,794

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

Table 44 FOB Price of sugar in selected ASEAN countries

Unit: US\$/Ton

Country	Grade	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Indonesia	White Sugar	2018	131	141	155	133	105	106	110	131	102	107	112	101	120
		2019	118	122	131	115	157	128	144	135	141	135			133
Malaysia	Not specified	2018	378	345	379	354	362	402	346	344	331	347	341	314	354
Myanmar	Not specified	2018	47	49	67	70								64	59
		2019	79	79	69	79	79								77
Cambodia	Not specified	2018	353	361	357	329	330	342	322	303	330	377	347	334	340
		2019	348	346	340	338	338	324	315	311	331	339	328		333
Thailand	Raw Sugar	2018	344	360	359	320	315	295	289	302	283	278	260	277	307
		2019	293	295	290	287	291	302	304	296	299	271*	272*	278*	290
	White Sugar	2018	410	397	383	367	346	345	341	349	351	342	353	354	362
		2019	357	353	338	349	353	352	349	347	343	315*	305*	320*	340

Remark: * The value is estimated by AFSIS Secretariat.

Table 45 CIF Price of sugar in selected ASEAN countries

Unit: US\$/Ton

Country	Grade	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Indonesia	White Sugar	2018	347	413	398	377	366	343	356	335	349	330	340	334	357
		2019	319	335	347	350	330	321	340	326	306	326			330
Malaysia	Not specified	2018	1,521	594	884	1,630	1,553	1,839	1,802	1,260	448	1,797	1,930	1,451	1392
Singapore	Raw Sugar	2018	475	427	449	422	433	404	444	410	448	398	443	397	429
		2019	436	406	428	408	420	412	405	410	411	387	399		411

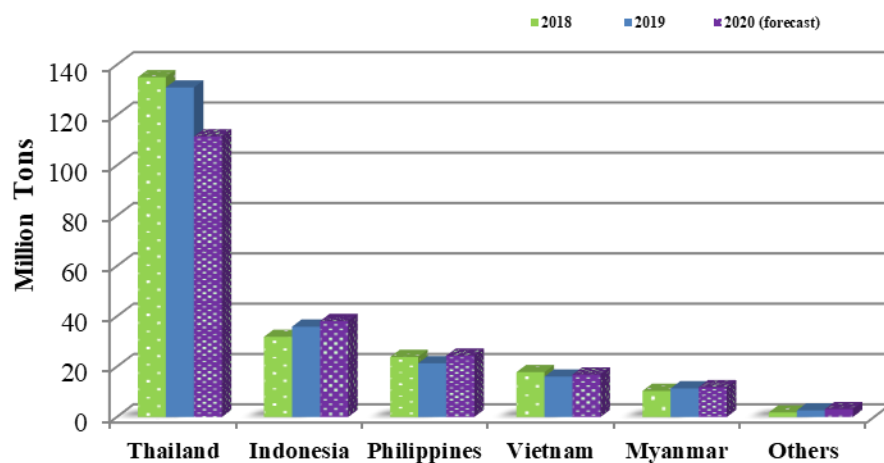


Figure 32 Sugarcane production of selected countries in ASEAN, 2018 - 2020

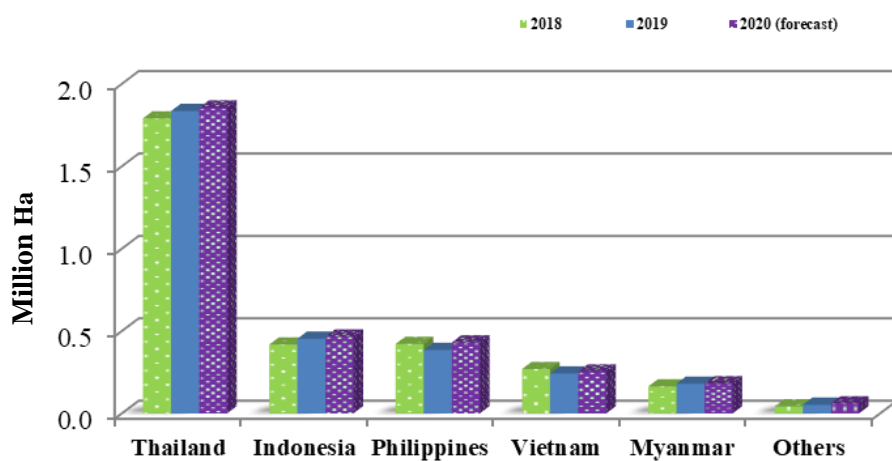


Figure 33 Sugarcane planted area of selected countries in ASEAN, 2018 - 2020

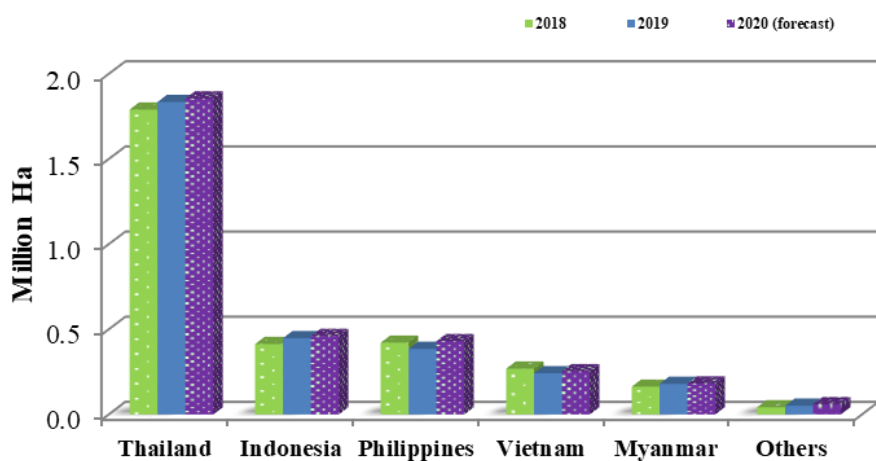


Figure 34 Sugarcane harvested area of selected countries in ASEAN, 2018 - 2020

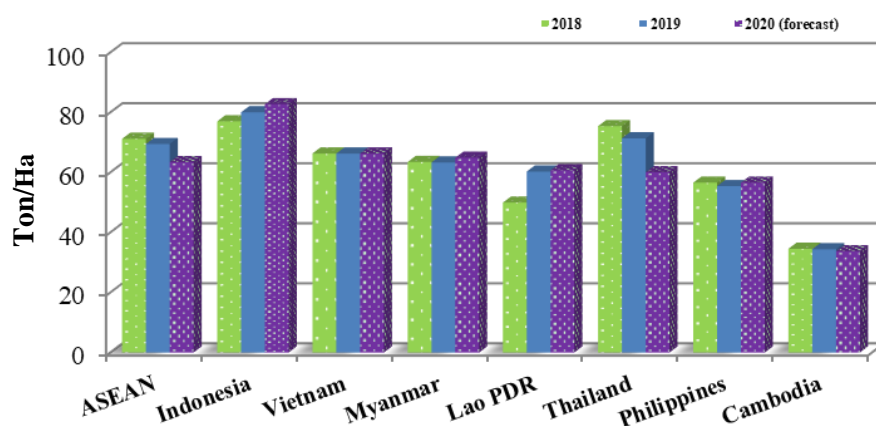


Figure 35 Sugarcane yield of selected countries in ASEAN, 2018 - 2020

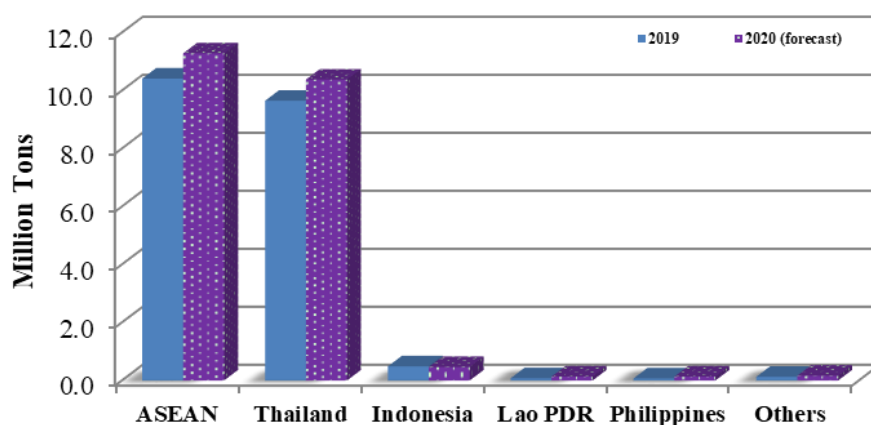
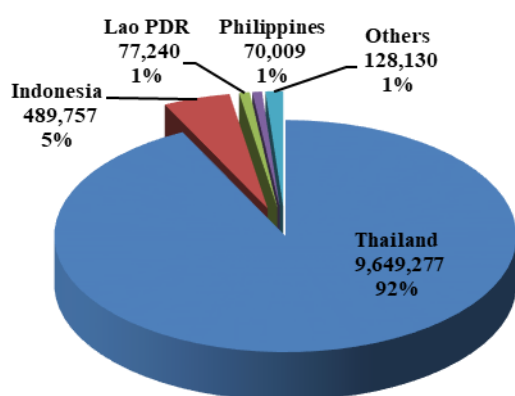
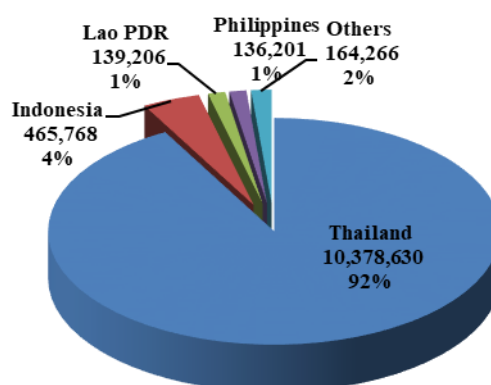


Figure 36 Amount of Sugar export (million tons) of selected countries in ASEAN in 2019 - 2020



Total 10.41 Million Tons

Figure 37 Share of sugar export (tons) among ASEAN countries, 2019



Total 11.28 Million Tons

Figure 38 Share of sugar export (tons) among ASEAN countries, 2020

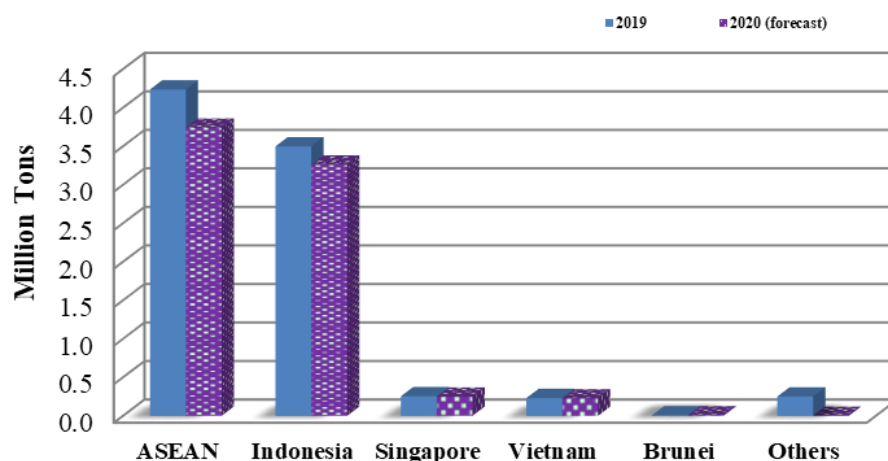


Figure 39 Amount of sugar import (million tons) by selected countries in ASEAN in 2019 - 2020

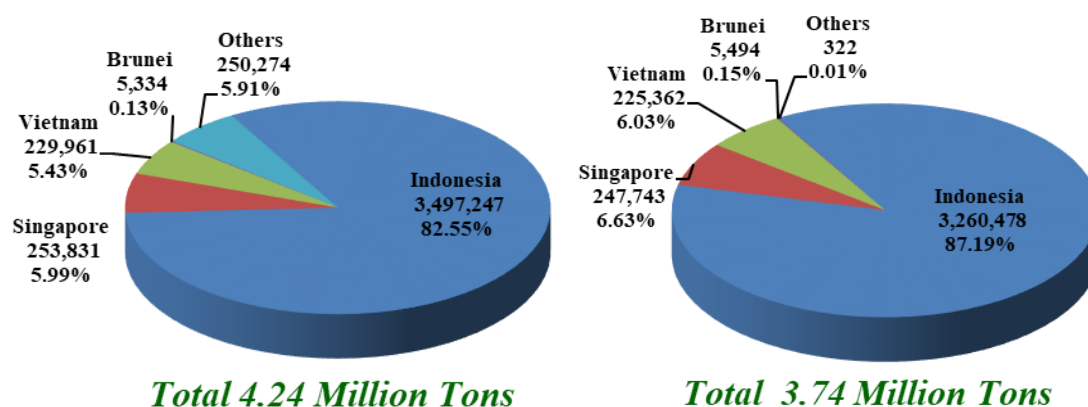


Figure 40 Share of sugar import (tons) among ASEAN countries, 2019

Figure 41 Share of sugar import (tons) among ASEAN countries, 2020

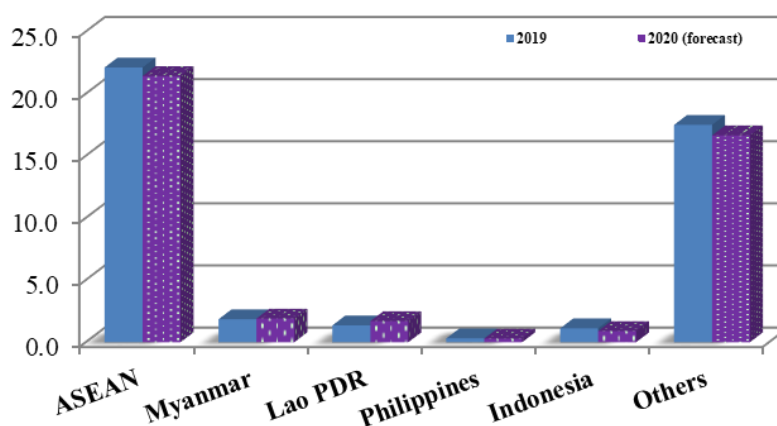


Figure 42 Amount of ending stock of Sugar in ASEAN countries in 2019 - 2020

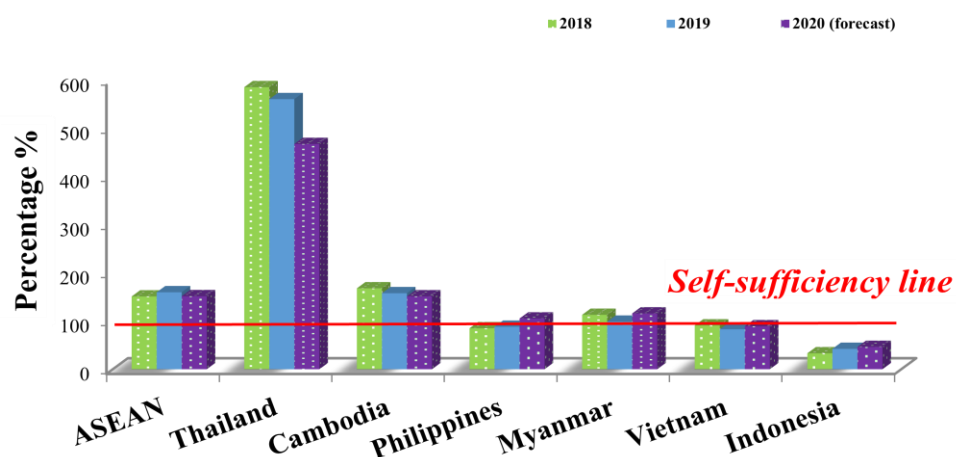


Figure 43 Ratio of sugar production to domestic utilization in ASEAN countries, 2018 - 2020

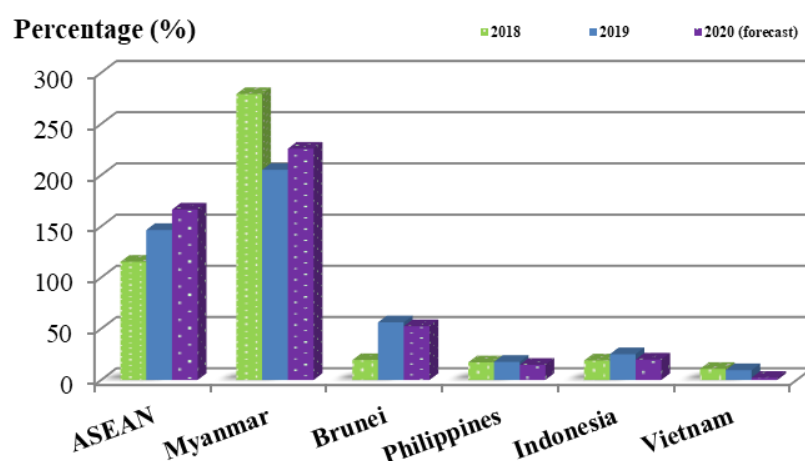


Figure 44 Ratio of sugar beginning stock to domestic utilization in ASEAN countries, 2018 - 2020

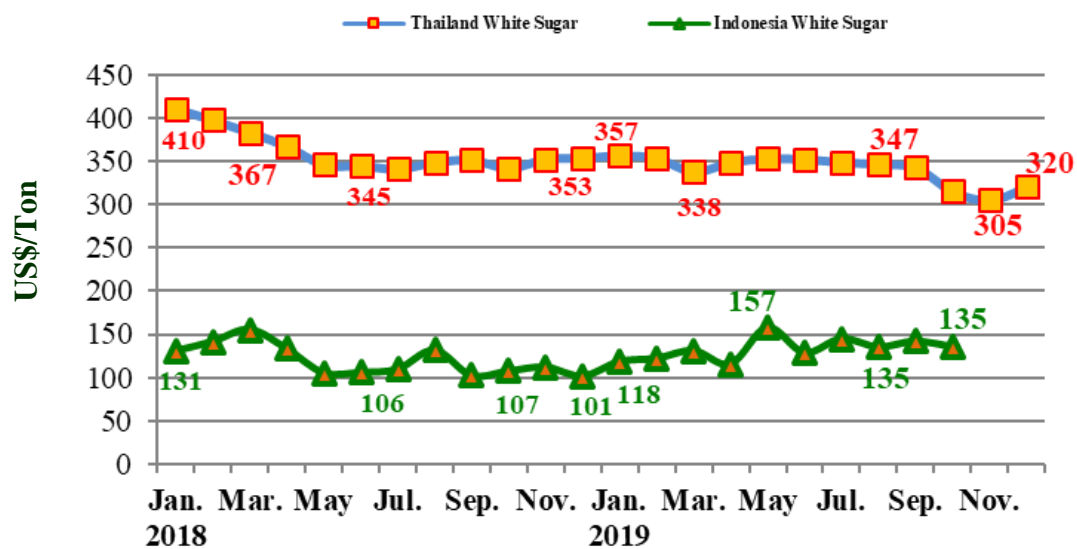


Figure 45 FOB price (US\$/Ton) of white sugar of selected countries in ASEAN in 2018 - 2019

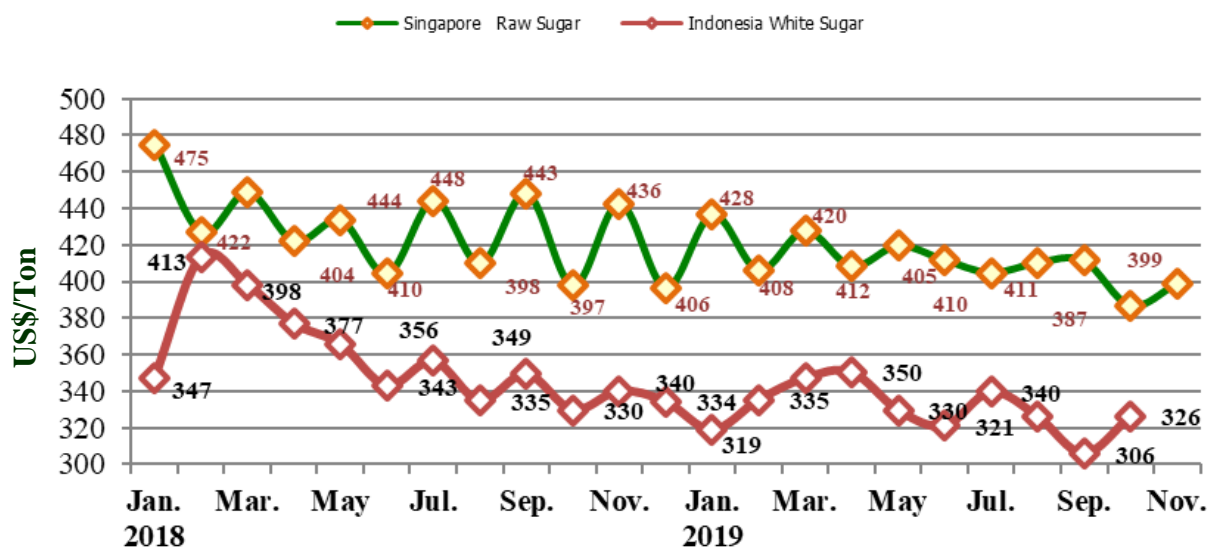


Figure 46 CIF price (US\$/Ton) of raw sugar of selected countries in ASEAN in 2018 - 2019

Soybean Outlook for 2020

Highlights

The supply of ASEAN soybean is forecasted to increase from 12.52 million tons in 2019 to 13.4 million tons or approximately 7.03 percent (Table 46). The increase in supply mainly comes from the increase in beginning stock and import, which increases approximately 13.52 percent and 5.01 percent, respectively. The soybean production is predicted to be 1.39 million tons, which decreases from the previous year 0.02 million tons.

The beginning stock of soybean in ASEAN in 2020 is forecasted to increase to 4.45 million tons, which increases 0.53 million tons from 3.92 million tons in 2019. The ending stock is expected to be 5.05 million tons in 2020, an increase of 0.60 million tons or approximately 13.48 percent from 4.45 million tons in 2019.

In terms of soybean's demand in ASEAN in 2020, the domestic utilization is estimated at 8.32 million tons, which increases 0.29 million tons from 8.03 million tons in 2019.

The import of soybean is forecasted to increase from 7.19 million tons in 2019 to 7.55 million tons in 2020. The export of soybean from the ASEAN in 2020 is forecasted to be 0.04 million tons. ASEAN exports very few amount of soybeans.

The production to domestic utilization ratio (self-sufficiency ratio) in 2020 is forecasted to be 16.75 percent, which decreases 0.78 percent from the previous year.

The beginning stock to domestic utilization ratio (food security ratio) is predicted to be 53.56 percent in 2020, which increased approximately 4.69 percent from 2019.

Table 46 Summary of the ASEAN soybean situation, 2019 - 2020

Unit: Million tons

Items	2019	2020	Change	
			Quantity	%
Supply (Million tons)	12.52	13.40	0.88	7.03
Beginning stock	3.92	4.45	0.53	13.52
Production	1.41	1.39	-0.02	-1.42
Import	7.19	7.55	0.36	5.01
Demand (Million tons)	12.52	13.40	0.88	7.03
Domestic utilization	8.03	8.32	0.29	3.61
Export	0.04	0.04	0.00	0.00
Ending stock	4.45	5.05	0.60	13.48
Ratio of production to domestic utilization (%)	17.53	16.75	-0.78	-
Ratio of beginning stock to domestic utilization (%)	48.87	53.56	4.69	-

ASEAN Soybean Situation 2019

► Production

The estimate of soybean production in ASEAN in 2019 (crop year 2018/19) was 1.41 million tons, an increase of 0.02 million tons from 1.39 million tons in 2018 (crop year 2017/18). The increase in production was due to the increase in yield. Indonesia is ranked first in soybean production in the region, followed by Myanmar, Cambodia, Vietnam, Thailand, Lao PDR and the Philippines. The production of soybean decreased in Cambodia, Myanmar and Thailand (Table 47-50, Figure 47-50).

For **Cambodia**, the decrease in production was due to the decrease in planted area and yield. The decline in planted area affected by the decrease of soybean's price. The yield has decreased due to unfavorable weather.

For **Indonesia**, the estimated soybean production in 2019 has increased to as high as 0.98 million tons, increasing approximately 2.69 percent from 0.95 million tons in 2018. The increase in production is attributed to the increase in yield because farmers used more fertilizer, used more improved varieties, and took care of soybean crop better as well as there was favorable weather. On the contrary, the planted area has decreased due to farmers' response to the price decrease, unfavorable weather together with government policy.

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

For **Myanmar**, the second largest soybean producing country in ASEAN, the production has decreased due to the reduction of the planted area and yield. The decline in planted area come from the decrease of soybean's price and unfavorable weather

affected of storm depression. The yield has decreased because farmers used less fertilizer.

For the **Philippines**, the increase in production was due to the increase in yield which caused by farmers used more fertilizer and better taking care of soybean crop.

For **Thailand**, the decrease in production was due to the decrease in planted area yield which caused by farmers' response to price decrease, labour shortage and high production costs.

For **Vietnam**, the production is estimated to be increased which caused by the favorable weather.

► Utilization and Stock

The domestic utilization of soybean in ASEAN in 2019 was estimated at 8.03 million tons, a decrease of 0.13 million tons or about 1.56 percent from 8.15 million tons in 2018. In 2019, the beginning stock was estimated at 3.92 million tons, an increase of about 0.56 million tons or 16.48 percent from 3.37 million tons in 2018. Indonesia had the most of soybean stock in the region (Table 52-53).

The ratio of production to domestic utilization (self-sufficiency ratio) of ASEAN in 2019 was 17.53 percent, which increased approximately 0.51 percent from the previous year. This indicated that the soybean production in ASEAN is improved. However, none of the member countries has the ratio above 100 percent except Cambodia, and Lao PDR (Table 55, Figure 58). The ratio of the beginning stock to the domestic utilization of ASEAN in 2019 was estimated to be 48.87 percent (Table 56, Figure 59).

► *Trade*

In 2019, ASEAN altogether exported soybean 37,933 tons, which increased 1,681 tons compared to 36,252 tons in 2018 (Table 52-53, Figure 51-52).

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

► *Prices*

The monthly FOB prices of soybean for exporting countries during 2018-2019 are shown in Table 59 and the monthly CIF prices for importing countries are shown in Table 60. The annual average FOB price in 2019 in Myanmar was 450 US\$/ton, the average FOB price in Cambodia was 335 US\$/ton

and the average FOB price in Indonesia was 265 US\$/ton (Table 59, Figure 60).

For CIF prices of 2019, the annual average in Singapore was 648 US\$/ton, in Thailand was 395 US\$/ton, in Vietnam was 401 US\$/ton, and in Indonesia was 397 US\$/ton (Table 60, Figure 61).

► *Damaged Area*

The total damaged area of soybean in the ASEAN in 2019 was estimated to be 458 hectares. The major cause of damage was the flood which constituted about 69.48 percent of overall damaged area. The majority of flood area was in Myanmar (Table 51).

Prospects for Soybean in 2020

► *Production*

Soybean production of ASEAN in 2020 is forecasted to be 1.39 million tons, which decrease from 2019 approximately 1.19 percent (Table 47, Figure 47). The decrease in production is expected in Indonesia, and Lao PDR, Thailand, and Vietnam. Indonesia, the biggest soybean producing country in ASEAN, is forecasted to decrease in its production from 0.98 million tons in 2019 to 0.96 million tons in 2020, about 1.54 percent decrease. The decrease is derived from the decrease in planted area (Table 47-50, Figure 47-50).

► *Utilization and Stock*

The domestic utilization of soybeans in ASEAN is forecasted to increase 3.61 percent from 8.03 million tons in 2019 to 8.32 million tons in 2020 (Table 53-54).

The beginning stock in ASEAN in 2020 is forecasted to increase 0.53 million tons or about 13.56 percent from 3.92 million tons in 2019 to 4.45 million tons in 2020 (Table 53-54). The ending stock in ASEAN in 2020 is forecasted to increase to 5.05 million tons in

2020, or about 13.31 percent increases (Table 53-54, Figure 57).

The ratio of production to domestic utilization (self-sufficiency ratio) is forecasted to be 16.75 percent, which decreases from 17.53 percent in the previous year (Table 55, Figure 58). The ratio of beginning stock to the domestic utilization (food security ratio) is forecasted to be 53.56 percent, which increase 4.69 percent from the previous year (Table 56, Figure 58).

► *Trade*

In 2020, the export of soybeans from the ASEAN is forecasted to be about 37,357 tons, decreasing 576 tons or 1.52 percent compare to the previous year. The total import by the ASEAN in 2020 is forecasted to be 7.55 million tons, increasing 0.36 million tons from 7.19 million tons in 2019 (Table 53-54, Figure 51, 53, 54 and 56). 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.

Table 47 Soybean production in ASEAN countries, 2018 - 2020

Unit: 1,000 Tons

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	1,389.31	1,407.19	17.88	1.29	1,390.38	-16.81	-1.19
Brunei	N/A						
Cambodia	91.77	84.18	-7.59	-8.27	85.86	1.68	2.00
Indonesia	953.57	979.23	25.66	2.69	964.13	-15.10	-1.54
Lao PDR	8.38	11.59	3.21	38.31	10.05	-1.54	-13.29
Malaysia	N/A						
Myanmar	209.48	206.96	-2.52	-1.20	213.64	6.68	3.23
Philippines	0.64	0.66	0.01	2.06	0.66*	0.00	-0.10
Singapore	N/A						
Thailand	43.68	41.92	-1.76	-4.04	41.65	-0.27	-0.63
Vietnam	81.80	82.66	0.86	1.06	74.39	-8.27	-10.00

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

Table 48 Soybean planted area in ASEAN countries, 2018 - 2020

Unit: 1,000 Hectares

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	995.72	919.57	-76.15	-7.65	895.97	-23.60	-2.57
Brunei	N/A						
Cambodia	46.05	44.88	-1.17	-2.54	45.78	0.90	2.00
Indonesia	723.80	650.74	-73.07	-10.10	631.25	-19.49	-2.99
Lao PDR	4.73	5.63	0.90	18.92	6.00	0.38	6.67
Malaysia	N/A						
Myanmar	139.80	139.15	-0.65	-0.46	139.66	0.51	0.36
Philippines	0.54	0.46	-0.08	-14.83	0.48*	0.01	2.99
Singapore	N/A						
Thailand	24.71	24.29	-0.41	-1.67	23.83	-0.46	-1.90
Vietnam	56.09	54.42	-1.66	-2.97	48.98	-5.44	-10.00

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

Table 49 Soybean harvested area in ASEAN countries, 2018 - 2020

Unit: 1,000 Hectares

Country	2018 (2017/18)	2019 (2018/19)	Change 2018 over 2019		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	992.87	919.11	-73.76	-7.43	895.71	-23.40	-2.55
Brunei	N/A						
Cambodia	45.75	44.72	-1.03	-2.25	45.61	0.89	1.98
Indonesia	723.80	650.74	-73.07	-10.10	631.25	-19.49	-2.99
Lao PDR	4.73	5.63	0.90	18.92	6.00	0.38	6.67
Malaysia	N/A						
Myanmar	139.74	138.99	-0.75	-0.54	139.65	0.66	0.48
Philippines	0.54	0.46	-0.08	-14.83	0.48*	0.01	2.99
Singapore	N/A						
Thailand	24.54	24.15	-0.39	-1.58	23.74	-0.41	-1.70
Vietnam	53.76	54.42	0.66	1.23	48.98	-5.44	-10.00

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

Table 50 Soybean yield in ASEAN countries, 2018 - 2020

Unit: Ton/Hectare

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	1.40	1.53	0.13	9.42	1.55	0.02	1.39
Brunei	N/A						
Cambodia	2.01	1.88	-0.12	-6.16	1.88	0.00	0.02
Indonesia	1.32	1.50	0.19	14.22	1.53	0.02	1.50
Lao PDR	1.77	2.06	0.29	16.30	1.68	-0.39	-18.71
Malaysia	N/A						
Myanmar	1.50	1.49	-0.01	-0.67	1.53	0.04	2.74
Philippines	1.18	1.42	0.23	19.83	1.37	-0.04	-3.00
Singapore	N/A						
Thailand	1.78	1.74	-0.04	-2.50	1.75	0.02	1.08
Vietnam	1.52	1.52	0.00	-0.17	1.52	0.00	0.00

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

Table 51 Soybean damaged area in ASEAN by cause of damage, 2019

Unit: Hectares

Country	Cause of Damage						
	Flood	Drought	Pests	Diseases	Others	Unspecify	Total
ASEAN	318					140	458
Brunei	N/A						
Cambodia	157						157
Indonesia							
Lao PDR	N/A						
Malaysia	N/A						
Myanmar	161						161
Philippines							
Singapore	N/A						
Thailand						140	140
Vietnam	N/A						

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

Table 52 Soybean balance sheet of ASEAN countries, 2018

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	3,366,737	1,387,866	7,356,433	12,111,036	8,153,044	36,252	3,921,739	12,111,035
Brunei			766	766	766			766
Cambodia		91,766		91,766	64,016	27,750		91,766
Indonesia	2,716,304*	953,571	2,585,809	6,255,684	2,497,611	2,055	3,756,018*	6,255,684
Lao PDR	2,015	8,380	245	10,640	9,988	569	83	10,640
Malaysia	N/A							
Myanmar	555,978	209,447	7,093	772,518	714,579	2,020	55,919	772,518
Philippines		643	194,218	194,861	194,860	1		194,861
Singapore			20,900	20,900	20,729	171		20,900
Thailand		42,262	2,722,969	2,765,231	2,762,048	3,183		2,765,231
Vietnam	92,440	81,796	1,824,433	1,998,670	1,888,448	503	109,719*	1,998,670

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

Table 53 Soybean balance sheet of ASEAN countries, 2019

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	3,921,739	1,407,081	7,188,229	12,517,049	8,025,560	37,933	4,453,556	12,517,049
Brunei			819	819	819			819
Cambodia		84,178		84,178	57,566	26,612		84,178
Indonesia	3,756,018*	979,230	2,250,675	6,985,923	2,569,898	3,467	4,412,558*	6,985,923
Lao PDR	83	11,590	232	11,904	8,989	597*	2,318*	11,904
Malaysia	N/A							
Myanmar	55,919	206,961	1,024	263,904	244,108	3,634	16,162	263,904
Philippines		657	197,131*	197,788	197,786*	2*		197,788
Singapore			19,388	19,388	19,230	158		19,388
Thailand		41,805	2,900,000	2,941,805	2,938,805	3,000		2,941,805
Vietnam	109,719*	82,660	1,818,960*	2,011,339	1,988,359	462	22,518**	2,011,339

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

Table 54 Soybean balance sheet of ASEAN countries, 2020

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	4,453,556	1,392,673	7,552,343	13,398,572	8,315,060	37,357	5,046,155	13,398,572
Brunei			877	877	877			877
Cambodia		85,861		85,861	60,317	25,544		85,861
Indonesia	4,412,558*	964,128	2,318,195*	7,694,881	2,724,092*	3,675*	4,967,114*	7,694,881
Lao PDR	2,318*	10,050	244*	12,612	9,532*	586*	2,494*	12,612
Malaysia	N/A							
Myanmar	16,162	213,641	1,057*	230,860	212,568	3,997*	14,295	230,860
Philippines		656*	198,117*	198,773	198,772*	1*		198,773
Singapore			20,277	20,277	20,106	171		20,277
Thailand		41,630	2,950,000	2,991,630	2,988,730	2,900		2,991,630
Vietnam	22,518*	76,707	2,063,576*	2,162,801	2,100,067	482	62,252*	2,162,801

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

Table 55 Ratio of soybean production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2018 - 2020

Unit: Tons

Country	2018			2019			2020		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	1,387,866	8,153,044	17.02	1,407,081	8,025,560	17.53	1,392,673	8,315,060	16.75
Brunei		766	0.00		819	0.00		877	0.00
Cambodia	91,766	64,016	143.35	84,178	57,566	146.23	85,861	60,317	142.35
Indonesia	953,571	2,497,611	38.18	979,230	2,569,898	38.10	964,128	2,724,092	35.39
Lao PDR	8,380	9,988	83.90	11,590	8,989	128.93	10,050	9,532	105.43
Malaysia	N/A								
Myanmar	209,447	714,579	29.31	206,961	244,108	84.78	213,641	212,568	100.50
Philippines	643	194,860	0.33	657	197,786	0.33	656	198,772	0.33
Singapore		20,729	0.00		19,230	0.00		20,106	0.00
Thailand	42,262	2,762,048	1.53	41,805	2,938,805	1.42	41,630	2,988,730	1.39
Vietnam	81,796	1,888,448	4.33	82,660	1,988,359	4.16	76,707	2,100,067	3.65

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

Table 56 Ratio of soybean beginning stock to domestic utilization in ASEAN countries (Food security ratio), 2018 - 2020

Unit: Tons

Country	2018			2019			2020		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	3,366,737	8,153,044	41.29	3,921,739	8,025,560	48.87	4,453,556	8,315,060	53.56
Brunei		766	0.00		819	0.00		877	0.00
Cambodia		64,016	0.00		57,566	0.00		60,317	0.00
Indonesia	2,716,304*	2,497,611	108.76	3,756,018*	2,569,898	146.15	4,412,558*	2,724,092	161.98
Lao PDR	2,015	9,988	20.17	83	8,989	0.92	2,318*	9,532	24.32
Malaysia	N/A								
Myanmar	555,978	714,579	77.80	55,919	244,108	22.91	16,162	212,568	7.60
Philippines		194,860	0.00		197,786	0.00		198,772	0.00
Singapore		20,729	0.00		19,230	0.00		20,106	0.00
Thailand		2,762,048	0.00		2,938,805	0.00		2,988,730	0.00
Vietnam	92,440	1,888,448	4.90	109,719	1,988,359	5.52	22,518	2,100,067	1.07

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

Table 57 Quantity and Value of Soybean Export by Countries of Destination in 2019

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														
Cambodia														
Indonesia	388	628,437							4,600	4,057,400	626	1,066,659	184	263,830
Lao PDR														
Malaysia						3,489,035								
Myanmar									0.72	400				
Philippines									138.77	93,950				
Singapore														
Thailand			746	478,168			2,132	1,093,738	6	9,959	0.05	335		
Vietnam							99	37,260						

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												
Cambodia							26,612	0			26,612	0
Indonesia	269	362,854	4.15	2,101	0.60	1,166	6,071	6,382,448	10,206	12,588,949	16,277	18,971,396
Lao PDR												
Malaysia		1,085,055		17,345		1,309	0	4,592,745		44,419	0	4,637,164
Myanmar							1	400	3,633	1,667,000	3,634	1,667,400
Philippines			10	5,000			149	98,950			149	98,950
Singapore												
Thailand	16	32,419			43	38,016	2,943	1,652,635	55	151,310	2,998	1,803,945
Vietnam	17,049	6,400					116	43,660	3,555	1,334,366	3,671	1,378,026

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 2019

Quantity: Tons Values: US\$

Importing Country	Country of Origin													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei														
Cambodia														
Indonesia									38,292	26,094,241	46	18,400		
Lao PDR														
Malaysia		38,602				566,592								
Myanmar														
Philippines														
Singapore									1,941	1,322,260		18		
Thailand			18,438	8,921,343					29	18,813				
Vietnam			12,448	6,827,630										

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												
Cambodia												
Indonesia	2,760	4,099,389	11,909	10,546,963	2.33	2,939	53,009	40,761,932	5,836,156	2,268,243,093	5,889,166	2,309,005,025
Lao PDR					232	84,762	232	84,762			232	84,762
Malaysia		9,022					0	614,215		241,566,459	0	242,180,674
Myanmar	3	2,000					3	2,000	1,020	661,000	1,023	663,000
Philippines	0.06	165					0.06	165	139,065	61,906,817	139,065	61,906,982
Singapore			0.63	444		155	1,942	1,322,877	17,446	11,243,970	19,388	12,566,846
Thailand	0.01	52					18,466	8,940,208	2,913,671	1,155,208,202	2,932,137	1,164,148,410
Vietnam							12,448	6,827,630	1,510,789	599,287,150	1,523,237	606,114,780

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\$/Ton

Country	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Cambodia	2018	360	380	378	382	368	338	315	328	305	315	326	318	343
	2019	354	336	337	331	330	343	334	321	329	337	338		335
Indonesia	2018	167	119	163	122	123	146	142	153	82	151	500	376	187
	2019	309	175	342	273	511	189	103	421	188	141			265
Malaysia	2018	536	554	545	558	540	571	512	474	468	449	587	515	526
Myanmar	2018	505	568	541	519	493	521	523	487	448	421	419	395	487
	2019	490	370	403	483	444	486	495	281	571	472			450

Table 60 CIF Price of soybean in selected ASEAN countries

Unit: US\$/Ton

Country	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Indonesia	2018	424	420	419	437	446	457	448	431	422	407	409	389	426
	2019	391	399	401	407	402	390	392	396	395	399			397
Malaysia	2018	431	415	435	426	445	450	436	512	432	419	417	438	438
Singapore	2018	643	644	637	632	650	660	669	666	689	683	704	676	663
	2019	642	629	654	639	646	658	644	655	664	652	643		648
Thailand	2018	445	437	424	421	431	453	486	467	463	448	431	414	443
	2019	413	400	409	409	402	398	378	381	379	394	385*	388*	395
Vietnam	2018	453	416	436	441	447	450	444	433	411	411	398	388	427
	2019	411	397	404	389	402	384	407	408	401	405	405		401

Remark: * The value is estimated by AFSIS Secretariat.

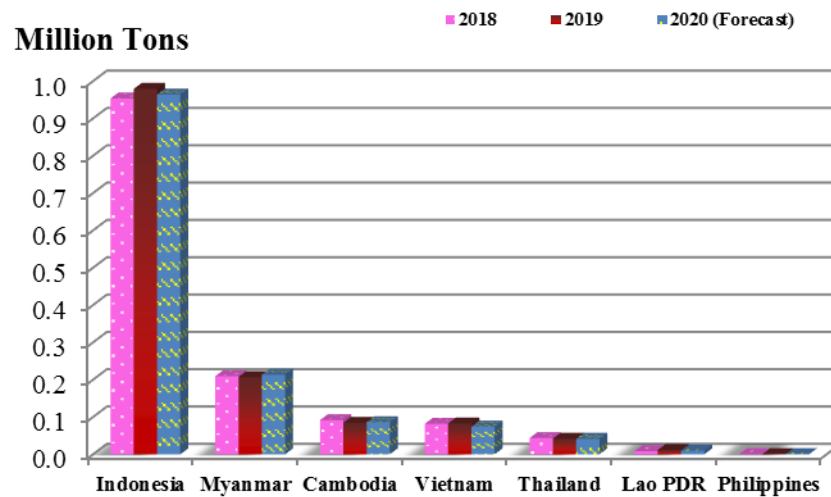


Figure 47 Soybean production of selected countries in ASEAN, 2018 - 2020

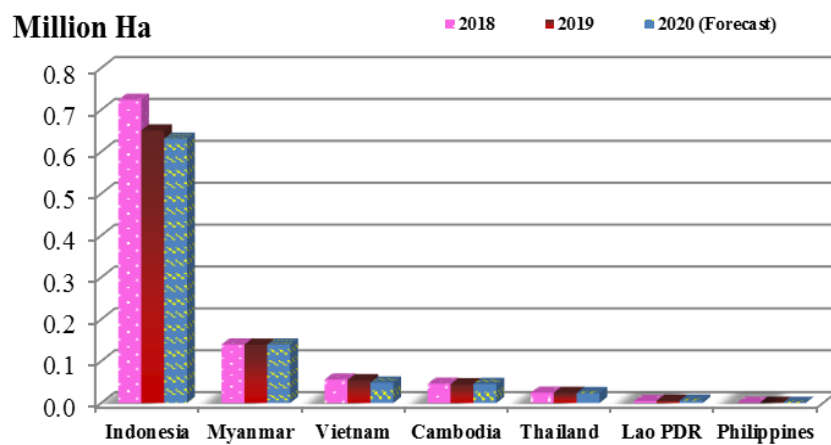


Figure 48 Soybean planted area of selected countries in ASEAN, 2018 - 2020

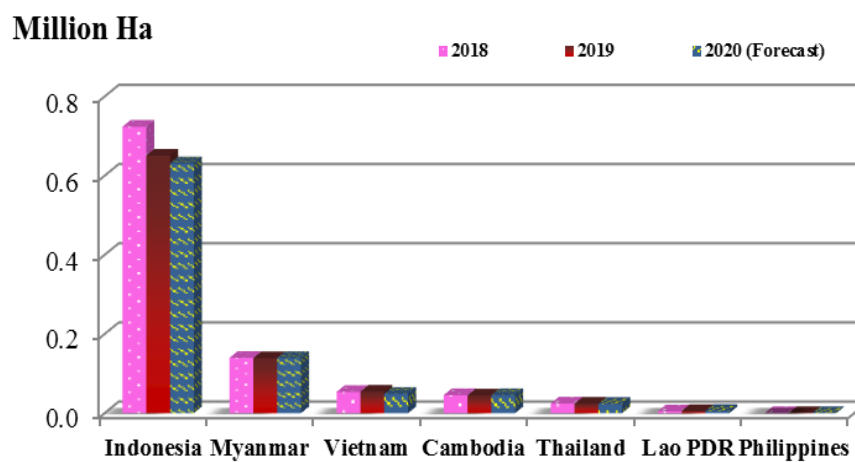


Figure 49 Soybean harvested area of selected countries in ASEAN, 2018 - 2020

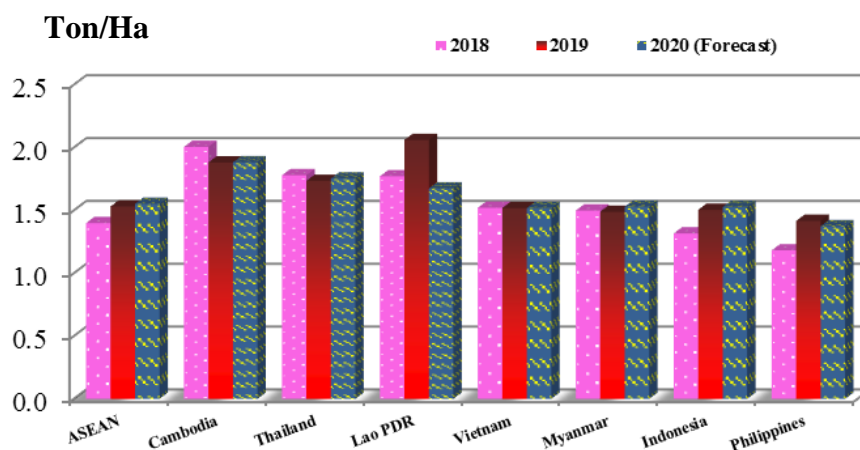


Figure 50 Soybean yield of countries in ASEAN, 2018 - 2020

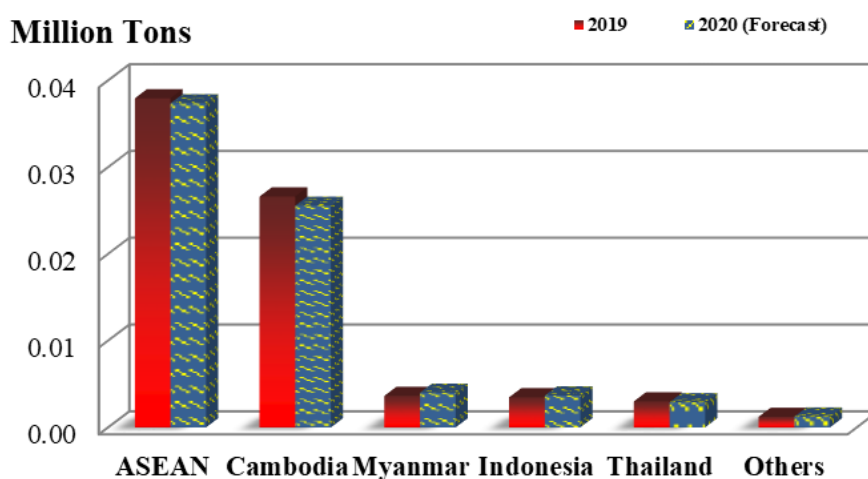
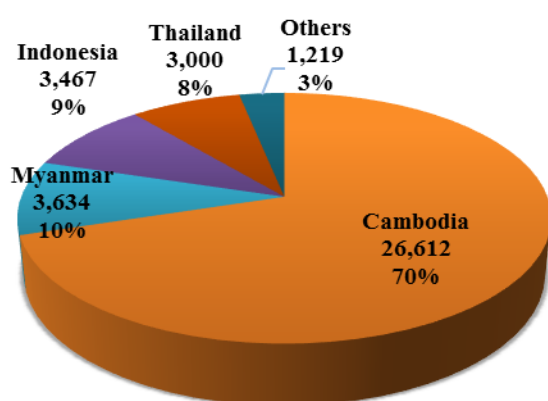
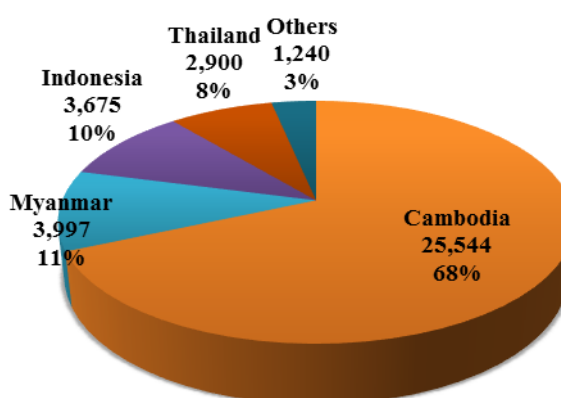


Figure 51 Amount of Soybean export (million tons) of selected countries in ASEAN in 2019 - 2020



Total 0.038 million tons

Figure 52 Share of Soybean export (tons) among ASEAN countries, 2019



Total 0.037 million tons

Figure 53 Share of Soybean export (tons) among ASEAN countries, 2020

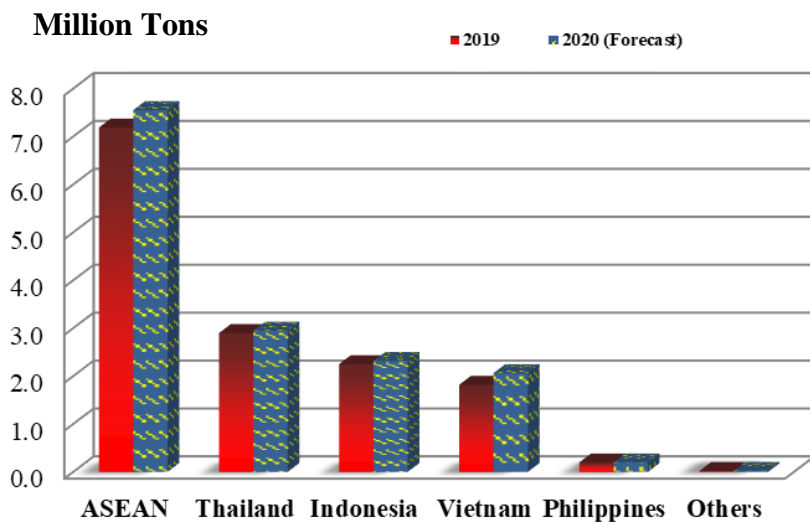
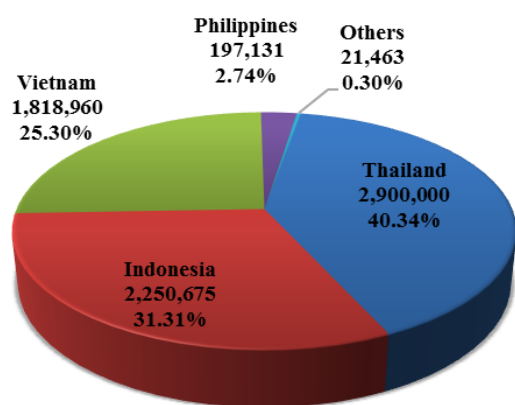
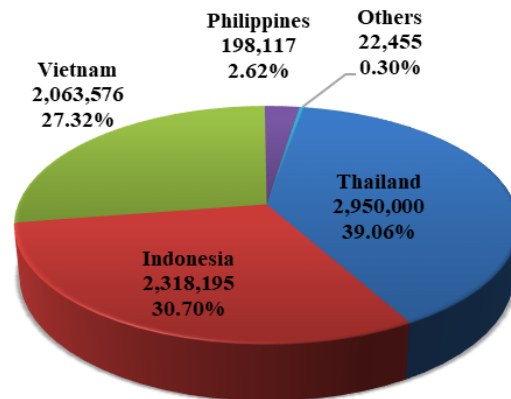


Figure 54 Amount of soybean import (million tons) by selected countries in ASEAN in 2019 - 2020



Total 7.19 million tons

Figure 55 Share of Soybean import (tons) among ASEAN countries, 2019



Total 7.55 million tons

Figure 56 Share of Soybean import (tons) among ASEAN countries, 2020

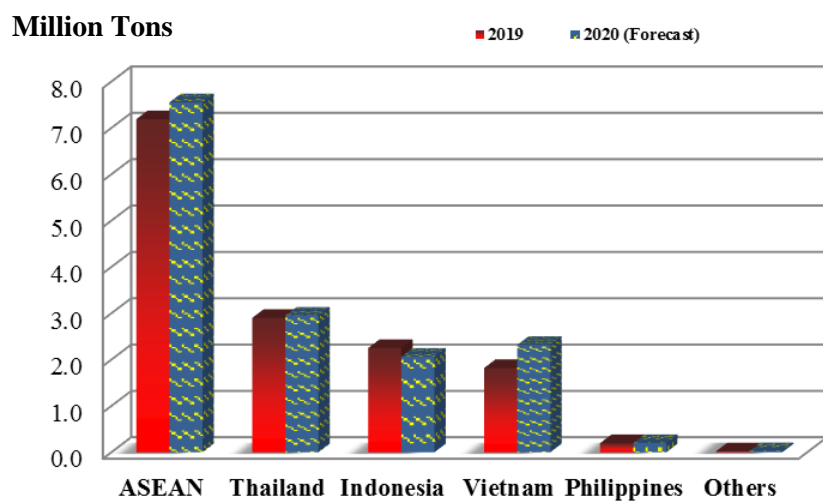


Figure 57 Amount of ending stock of soybean in ASEAN countries in 2019 - 2020

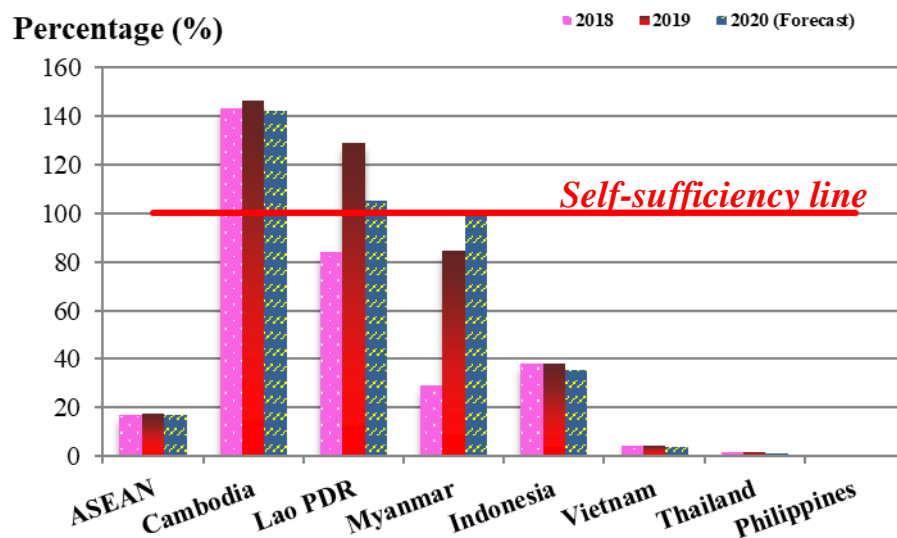


Figure 58 Ratio of soybean production to domestic utilization in ASEAN countries, 2018 - 2020

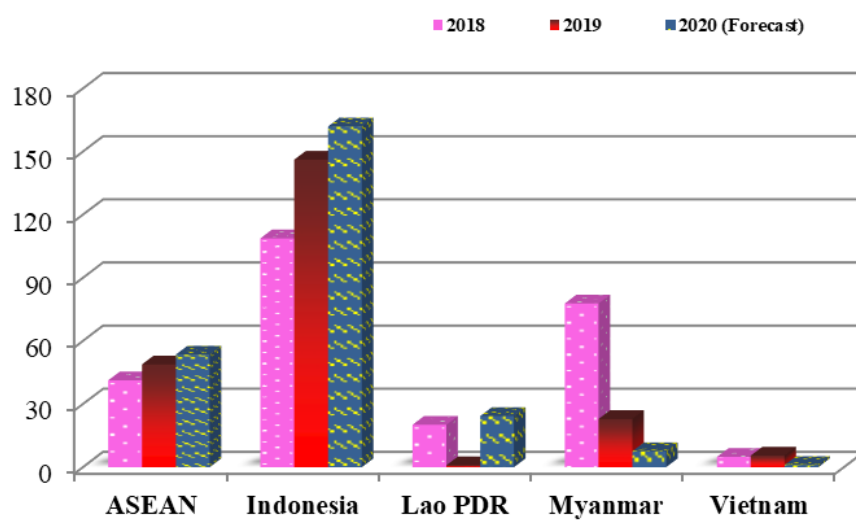


Figure 59 Ratio of soybean beginning stock to domestic utilization in ASEAN countries, 2018 - 2020

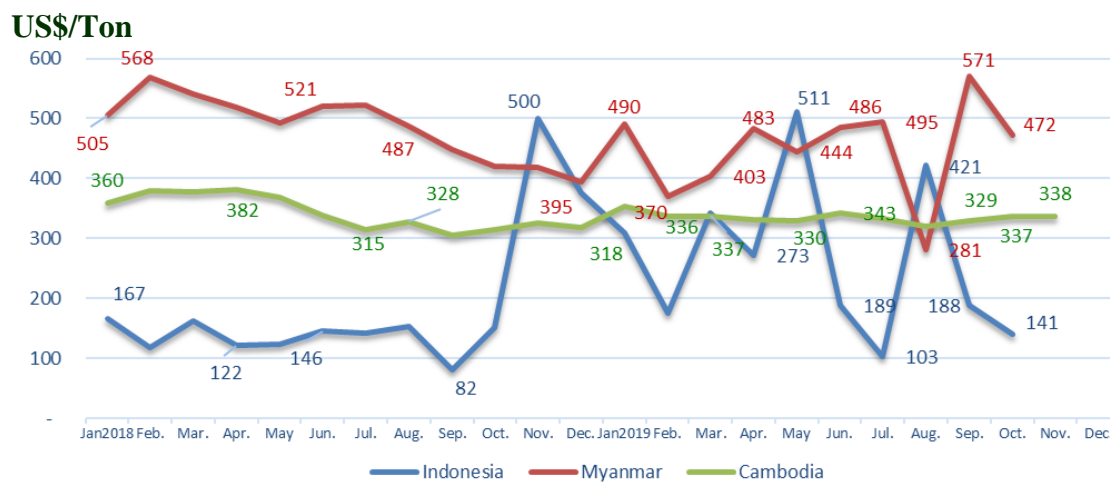


Figure 60 FOB price (US\$/Ton) of soybean of selected countries in ASEAN in 2018 - 2019

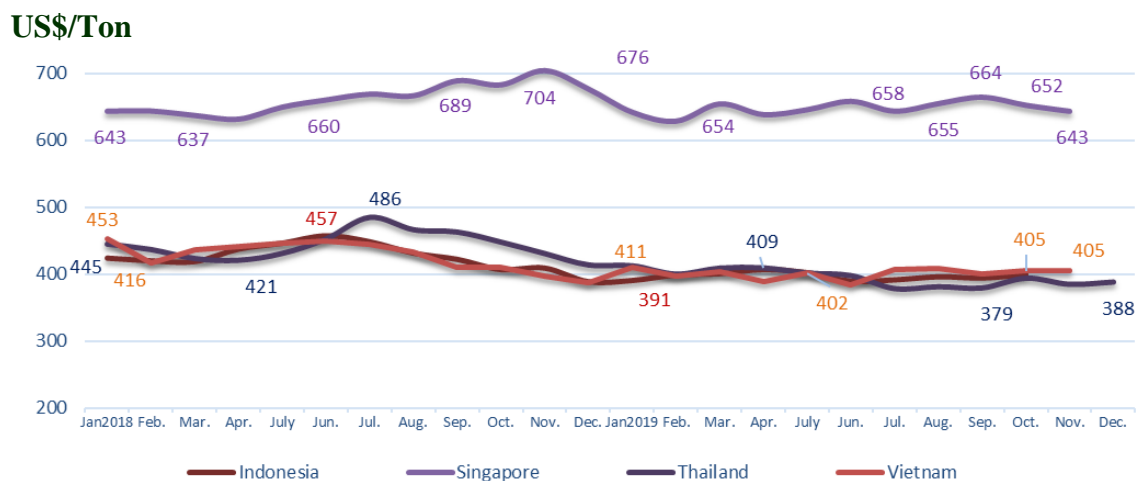


Figure 61 CIF price (US\$/Ton) of soybean of selected countries in ASEAN in 2018 - 2019

Cassava Outlook for 2020



The supply of cassava in ASEAN is forecasted to be 90.41 million tons in 2020, an increase of 3.87 million tons or about 4.47 percent from 86.54 million tons in 2019 (Table 61). The increase is due to the increase in beginning stock, production and the expected increase in the import.

The beginning stock of cassava in 2020 is projected to be at 2.95 million tons, which increased from 1.62 million tons in 2019 due to the increase in stock in Lao PDR, Thailand and Vietnam. While the ending stock in 2020 is expected to be 2.87 million tons, which decreased from 2.95 million tons in 2019.

The export of cassava is expected to increase 2.04 million tons or around 5.99 percent from 34.09 million tons in 2019 to 36.14 million tons in 2020. While the import of cassava is forecasted to be 4.94 million tons in 2020, increased about 3.58 percent from 4.77 million tons in 2019.

The ratio of production to domestic utilization in 2020 is forecasted to be 160.52 percent, which decreased about 1.42 percent from 161.94 percent in 2019. The ratio of beginning stock to domestic utilization in 2020 is forecasted to be about 5.74 percent, which increased about 2.47 percent from 3.27 percent in 2019.

Table 61 Summary of the ASEAN cassava situation, 2019-2020

Unit: Million tons

Items	2019	2020	Change	
			Quantity	%
Supply (Million tons)	86.54	90.41	3.87	4.47
Beginning stock	1.62	2.95	1.34	82.61
Production	80.15	82.51	2.36	2.95
Import	4.77	4.94	0.17	3.58
Demand (Million tons)	86.54	90.41	3.87	4.47
Domestic utilization	49.49	51.40	1.91	3.86
Export	34.09	36.14	2.04	5.99
Ending stock	2.95	2.87	-0.08	-2.74
Ratio of production to domestic utilization (%)	161.94	160.52	-1.42	-
Ratio of beginning stock to domestic utilization (%)	3.27	5.74	2.47	-

ASEAN Cassava Situation in 2019

► Production

The estimated cassava production (root fresh) in ASEAN in 2019 (crop year 2018/19) was 80.19 million tons which increased from 78.93 million tons in 2018 about 1.59 percent. The increase has occurred in Brunei, Cambodia, Indonesia, Malaysia and Thailand (Table 62-65, Figure 62-65).

The estimated cassava production in 2019 in **Thailand** increased due to the expansion of planted area and yield by farmers' response to price increase and favorable weather.

For **Indonesia**, the increase in production was due to the increase in planted area by favorable weather and government policy.

For **Cambodia**, the increase in production was due to the increase in the yield caused by better caring of crops from farmers

For **Vietnam**, the decrease in production was due to the decrease in planted area caused by unfavorable weather.

For **the Philippines**, the decrease in production was due to the decrease in planted area and yield. The yield decreased due to smaller tubers harvested in some areas and insufficient soil moisture affected by drought.

For **Lao PDR**, the decrease in production was due to the decrease in planted area and yield caused by the farmers' response to price reduction.

For **Myanmar**, the decrease in production was due to the decrease in planted area caused by farmers' response to price reduction.

For **Malaysia**, the increase in production was due to the increase in both planted area and yield. The expansion of planted area came from farmers' response to price increase. The yield increased as a result of favorable weather and better caring of crops from farmers.

For **Brunei**, the lowest cassava production in the ASEAN, the production in 2019 was 2,500 tons which increased about 18.68 percent from 2018. The production increased due to the rising demand in domestic utilization.

► Utilization and Stock

Cassava root in ASEAN, in general, can be used for human food, animal feed and making ethanol. The domestic utilization of cassava for all purposes in ASEAN in 2019 was estimated at 49.49 million tons, which increased about 1.98 million tons or about 4.17 percent from 47.51 million tons in 2018 (Table 67-68).

The beginning stock in 2019 was estimated at 1.62 million tons, which decreased 0.12 million tons compared to 1.73 million tons in 2018. The ending stock of cassava in 2019 was estimated to be 2.95 million tons, which increased dramatically 1.34 million tons compared to 1.62 million tons in 2018. This came from the increase in ending stock of Lao PDR, Thailand and Vietnam.

The ratio of production to domestic utilization in 2019 was estimated to be about 161.94 percent which decreased from about 163.86 percent in 2018. This indicated that, aggregately, the cassava production in ASEAN is sufficient for the demand within ASEAN (Table 70, Figure 73).

The ratio of the beginning stock to domestic utilization for ASEAN in 2019 is estimated to be 3.27 percent which decreased from 3.65 percent in 2018 (Table 71, Figure 74).

► *Trade*

The cassava exported from ASEAN in 2019 is expected to be 34.09 million tons, which decreased 3.36 million tons from 37.45 million tons in 2018. The cassava imported by ASEAN in 2019 was estimated to be 4.77 million tons, which decreased 2.22 million tons from 6.99 million tons in 2018 (Table 67-68, Figure 66-67, and 69-70).

The quantity and value of cassava exported by countries of destination and the quantity and value of cassava imported by countries of origin are given in table 72 and 73.

► *Prices*

The FOB prices of cassava in the form of starch, shredded and pellets of Cambodia, Indonesia, Lao PDR, Myanmar, Thailand, and Vietnam between 2018 and 2019, and the CIF prices of Indonesia, Malaysia, and Singapore are presented in Table 74-75. The average FOB prices of starch, shredded and pellets in Thailand in 2019 decreased from to 2018. In 2019 average CIF prices of flour in Indonesia decreased from 2018.

► *Damaged Area*

The cassava damaged area in 2019 in ASEAN was reported to be 30,635 hectares of which 18,122 hectares or about 69.05 percent caused by pests and has occurred in Thailand as show in table 66.

Prospects for Cassava in 2020

► *Production*

The cassava production in ASEAN in 2020 is forecasted to be 82.56 million tons which is 2.37 million tons or about 2.95 percent increase from 80.19 million tons in 2019. The increase in production is expected in all countries except the Philippines (Table 62). The greatest increase in term of quantity and percentage is expected in Indonesia, which is forecasted to be 21.93 million tons or an increase of about 6.58 percent from 20.57 million tons in 2019. The increase was due to the increase in planted area and yield which came from favorable weather, farmers' response to price increase and farmers did a special assistant (Table 62-65, Figure 62-65). The increase in production in Thailand was due to the increase in yield and planted area caused by the farmers' response to price increase and government policy.

► *Utilization and Stock*

The domestic utilization of cassava is predicted to increase to 51.40 million tons in 2020 compared to 49.49 million tons in 2019, an increase of 1.91 million tons. The beginning stock in 2020 is forecasted to be 2.95 million tons, an increase of about 1.34 million tons, compared to 1.62 million tons in 2019. The ending stock in 2020 is predicted to be 2.87 million tons, a decrease of about 0.08 million tons from 2.95 million tons in 2019 (Table 68-69).

The ratio of production to domestic utilization for 2020 is forecasted to be about 160.52 percent which decreased from 161.94 percent in 2019. This indicates that the self-sufficiency in cassava in ASEAN is almost unchanging (Table 70, Figure 73). The ratio of beginning stock to the domestic utilization in 2020 is predicted to be about 5.74 percent, compared to about 3.27 percent in 2019. This indicates that the cassava supply situation in ASEAN is increasing (Table 71, Figure 74).

► *Trade*

The cassava export from ASEAN is expected to increase to 36.14 million tons in 2020, an increase of 2.04 million tons compared to 34.09 million tons in 2019. For the import, it is expected to 4.94 million tons in 2020, an increase about 0.17 million tons from 4.77 million tons in 2019 (Table 68-69, Figure 66, 68, 69 and 71).

Table 62 Cassava production in ASEAN countries, 2018 - 2020

Unit: 1,000 Tons

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	78,931.59	80,189.30	1,257.72	1.59	82,556.48	2,367.18	2.95
Brunei	0.21	0.25	0.04	18.68	0.26	0.01	5.00
Cambodia	13,750.08	13,804.34	54.27	0.39	14,080.43	276.09	2.00
Indonesia	19,341.23	20,574.58	1,233.35	6.38	21,928.60	1,354.02	6.58
Lao PDR	3,324.29	2,285.72	-1,038.58	-31.24	2,300.00	14.28	0.62
Malaysia	35.00	38.50	3.50	10.00	42.35	3.85	10.00
Myanmar	398.75	394.61	-4.13	-1.04	399.00	4.39	1.11
Philippines	2,753.55	2,634.09	-119.46	-4.34	2,585.22*	-48.87	-1.86
Singapore	N/A						
Thailand	29,368.19	30,994.94	1,626.75	5.54	31,474.48	479.54	1.55
Vietnam	9,960.30	9,462.29	-498.01	-5.00	9,746.15	283.87	3.00

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

Table 63 Cassava planted area in ASEAN countries, 2018 - 2020

Unit: 1,000 Hectares

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	3,710.19	3,753.76	43.57	1.17	3,796.57	42.81	1.14
Brunei	N/A						
Cambodia	652.24	637.99	-14.24	-2.18	658.65	20.66	3.24
Indonesia	792.95	870.95	78.00	9.84	914.24	43.29	4.97
Lao PDR	101.10	71.20	-29.90	-29.57	49.00	-22.20	-31.18
Malaysia	2.39	2.48	0.10	4.01	2.58	0.10	3.99
Myanmar	34.71	33.37	-1.34	-3.86	33.07	-0.31	-0.91
Philippines	231.62	223.15	-8.46	-3.65	219.18*	-3.97	-1.78
Singapore	N/A						
Thailand	1,379.89	1,425.07	45.19	3.27	1,425.51	0.44	0.03
Vietnam	515.30	489.54	-25.76	-5.00	494.33	4.80	0.98

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

Table 64 Cassava harvested area in ASEAN countries, 2018 - 2020

Unit: 1,000 Hectares

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	3,660.53	3,723.12	62.59	1.71	3,796.02	72.89	1.96
Brunei	N/A						
Cambodia	650.51	637.99	-12.52	-1.92	658.65	20.66	3.24
Indonesia	792.95	870.95	78.00	9.84	914.24	43.29	4.97
Lao PDR	101.10	71.20	-29.90	-29.57	49.00	-22.20	-31.18
Malaysia	1.97	2.05	0.08	4.01	2.03	-0.02	-1.15
Myanmar	34.70	33.37	-1.33	-3.84	33.07	-0.31	-0.91
Philippines	231.62	223.15	-8.46	-3.65	219.18*	-3.97	-1.78
Singapore	N/A						
Thailand	1,332.38	1,394.87	62.49	4.69	1,425.51	30.64	2.20
Vietnam	515.30	489.54	-25.76	-5.00	494.33	4.80	0.98

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

Table 65 Cassava yield in ASEAN countries, 2018 - 2020

Unit: Ton/Hectare

Country	2018 (2017/18)	2019 (2018/19)	Change 2019 over 2018		2020 (2019/20)	Change 2020 over 2019	
			Quantities	(%)		Quantities	(%)
ASEAN	21.56	21.54	-0.02	-0.09	21.75	0.21	0.97
Brunei	N/A						
Cambodia	21.14	21.64	0.50	2.37	21.38	-0.26	-1.20
Indonesia	24.39	23.62	-0.77	-3.16	23.99	0.37	1.57
Lao PDR	32.88	32.10	-0.78	-2.37	46.94	14.84	46.23
Malaysia	17.75	18.78	1.03	5.80	20.89	2.11	11.24
Myanmar	11.49	11.82	0.33	2.87	12.07	0.25	2.12
Philippines	11.89	11.80	-0.09	-0.76	11.79*	-0.01	-0.08
Singapore	N/A						
Thailand	22.04	22.22	0.18	0.82	22.08	-0.14	-0.63
Vietnam	19.33	19.33	0.00	0.00	19.72	0.39	2.02

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

Table 66 Cassava damaged area in ASEAN by cause of damage, 2019

Unit: Hectares

Country	Cause of Damage						Total
	Flood	Drought	Pests	Diseases	Others	Unspecitfy	
ASEAN		1,510	18,122	10,572	431		30,635
Brunei	N/A						
Cambodia	N/A						
Indonesia	N/A						
Lao PDR	N/A						
Malaysia					431		431
Myanmar	N/A						
Philippines	N/A						
Singapore	N/A						
Thailand		1,510	18,122	10,572			30,204
Vietnam	N/A						

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

Table 67 Cassava balance sheet of ASEAN countries, 2018 (Cassava roots fresh)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	1,731,788	77,851,329	6,996,555	86,579,672	47,510,650	37,452,783	1,616,240	86,579,673
Brunei		210		210	210			210
Cambodia		13,750,076		13,750,076	4,400,024	9,350,052*		13,750,076
Indonesia		19,341,233	375,898	19,717,131	19,706,427	10,704		19,717,131
Lao PDR	557,890	2,279,030		2,836,920	2,216,650	63,287	556,983	2,836,920
Malaysia	N/A							
Myanmar	29,598	398,745	75,341.00	503,684	488,171	887	14,626	503,684
Philippines		2,753,551*		2,753,551	2,752,645*	906*		2,753,551
Singapore			1,196	1,196	1,193.89	2.13		1,196
Thailand	693,034*	29,368,185	5,920,000*	35,981,219	9,700,000	25,600,000*	681,219*	35,981,219
Vietnam	451,266	9,960,300	624,120	11,035,685	8,245,328	2,426,946	363,411	11,035,685

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

Table 68 Cassava balance sheet of ASEAN countries, 2019 (Cassava roots fresh)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	1,616,240	80,150,807	4,771,653	86,538,700	49,493,513	34,093,714	2,951,473	86,538,700
Brunei		249		249	249			249
Cambodia		13,804,342		13,804,342	4,417,389	9,386,953*		13,804,342
Indonesia		20,574,579*	310,041	20,884,620	20,874,762	9,858		20,884,620
Lao PDR	556,983	2,285,715		2,842,698	2,137,089	75,691	629,918	2,842,698
Malaysia	N/A							
Myanmar	14,626	394,614	284	409,524	396,902	99	12,523	409,524
Philippines		2,634,088*		2,634,088	2,633,187*	901*		2,634,088
Singapore			1,328	1,328	1,325*	2.34*		1,328
Thailand	681,219*	30,994,935	3,600,000	35,276,154	10,800,000	22,800,000*	1,676,154*	35,276,154
Vietnam	363,411*	9,462,285	860,000	10,685,696	8,232,609	1,820,210	632,877*	10,685,696

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

Table 69 Cassava balance sheet of ASEAN countries, 2020 (Cassava roots fresh)

Unit: Tons

Country	Supply				Demand			
	Beginning Stock	Production	Imports	Total	Domestic Utilization	Exports	Ending stock	Total
ASEAN	2,951,473	82,514,138	4,942,917	90,408,527	51,403,668	36,135,197	2,869,662	90,408,527
Brunei		261		261	261			261
Cambodia		14,080,429		14,080,429	4,439,476	9,640,953		14,080,429
Indonesia		21,928,601*	253,452*	22,182,053	22,172,292*	9,761*		22,182,053
Lao PDR	629,918	2,300,000		2,929,918	2,220,468	90,238	619,212	2,929,918
Malaysia	N/A							
Myanmar	12,523	399,000	275*	411,798	399,048	96*	12,654	411,798
Philippines		2,585,217*		2,585,217	2,584,311*	906*		2,585,217
Singapore			1,189*	1,189	1,187*	2.13*		1,189
Thailand	1,676,154*	31,474,476	4,000,000	37,150,630	11,200,000	24,300,000*	1,650,630*	37,150,630
Vietnam	632,877*	9,746,154	688,000	11,067,031	8,386,625	2,093,241	587,166*	11,067,031

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

Table 70 Ratio of cassava production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2018 - 2020

Unit: Tons

Country	2018			2019			2020		
	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)	Production	Domestic Utilization	Ratio (%)
ASEAN	77,851,329	47,510,650	163.86	80,150,807	49,493,513	161.94	82,514,138	51,403,668	160.52
Brunei	210	210	100.00	249	249	100.00	261	261	100.00
Cambodia	13,750,076	4,400,024	312.50	13,804,342	4,417,389	312.50	14,080,429	4,439,476	317.16
Indonesia	19,341,233	19,706,427	98.15	20,574,579	20,874,762	98.56	21,928,601	22,172,292	98.90
Lao PDR	2,279,030	2,216,650	102.81	2,285,715	2,137,089	106.95	2,300,000	2,220,468	103.58
Malaysia	N/A								
Myanmar	398,745	488,171	81.68	394,614	396,902	99.42	399,000	399,048	99.99
Philippines	2,753,551	2,752,645	100.03	2,634,088	2,633,187	100.03	2,585,217	2,584,311	100.04
Singapore		1,194	0.00		1,325	0.00		1,187	0.00
Thailand	29,368,185	9,700,000	302.76	30,994,935	10,800,000	286.99	31,474,476	11,200,000	281.02
Vietnam	9,960,300	8,245,328	120.80	9,462,285	8,232,609	114.94	9,746,154	8,386,625	116.21

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

Table 71 Ratio of cassava beginning stock to domestic utilization in ASEAN countries (Food security ratio), 2018 - 2020

Unit: Tons

Country	2018			2019			2020		
	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)	Beginning Stock	Domestic Utilization	Ratio (%)
ASEAN	1,731,788	47,510,650	3.65	1,616,240	49,493,513	3.27	2,951,473	51,403,668	5.74
Brunei		210	0.00		249	0.00		261	
Cambodia		4,400,024	0.00		4,417,389	0.00		4,439,476	
Indonesia		19,706,427	0.00		20,874,762	0.00		22,172,292	
Lao PDR	557,890	2,216,650	25.17	556,983	2,137,089	26.06	629,918	2,220,468	28.37
Malaysia	N/A								
Myanmar	29,598	488,171	6.06	14,626	396,902	3.69	12,523	399,048	3.14
Philippines		2,752,645	0.00		2,633,187	0.00		2,584,311	
Singapore		1,194	0.00		1,325	0.00		1,187	
Thailand	693,034	9,700,000	7.14	681,219	10,800,000	6.31	1,676,154	11,200,000	14.97
Vietnam	451,266	8,245,328	5.47	363,411	8,232,609	4.41	632,877	8,386,625	7.55

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

Table 72 Quantity and Value of Cassava Export by Countries of Destination in 2018

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														
Cambodia														
Indonesia	33	15,537							230	142,870			876	318,255
Lao PDR														
Malaysia														
Myanmar									24	9,000				
Philippines														
Singapore														
Thailand	441	276,195	560	389,447	391,062	189,036,805	3,614	2,454,925	159,453	77,476,746	16,092	7,878,859	105,354	53,657,999
Vietnam									24,344	10,624,671			24,883	10,427,210

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												
Cambodia												
Indonesia	31	46,096	568	274,574	386	414,435	2,123	1,211,766	7,735	6,483,123	9,858	7,694,889
Lao PDR					75,691	17,070,798	75,691	17,070,798			75,691	17,070,798
Malaysia		10,056					0	10,056			0	10,056
Myanmar			75	24,000			99	33,000			99	33,000
Philippines							0	0	791	887,090	791	887,090
Singapore												
Thailand	63,672	30,750,678			46,352	29,866,781	786,600	391,788,434	5,114,110	2,018,523,723	5,900,710	2,410,312,156
Vietnam							49,227	21,051,881	2,101,576	806,443,923	2,150,803	827,495,804

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

Table 73 Quantity and Value of Cassava Import by Countries of Origin in 2018

Quantity: Tons Values: US\$

Importing Country	Country of Origin													
	Brunei		Cambodia		Indonesia		Lao PDR		Malaysia		Myanmar		Philippines	
	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values	Quantity	Values
Brunei														
Cambodia														
Indonesia									3.91	5,270				
Lao PDR														
Malaysia						32,710								
Myanmar														
Philippines														
Singapore					0.72	220			1,325	373,462				
Thailand			1,391,241	174,991,952	930	960,058	506,792	60,902,863	139	411,290	88	40,962	0.052	634
Vietnam														

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												
Cambodia												
Indonesia			292,089	127,972,989	16,343	6,670,187	308,435	134,648,446	1,606	893,020	310,041	135,541,466
Lao PDR												
Malaysia				4,015,024			0	4,047,734		58,866	0	4,106,600
Myanmar			284	142,000			284	142,000			284	142,000
Philippines												
Singapore						1,114	1,326	374,796	2	12,717	1,328	387,513
Thailand	59.60	2,150,617			235	137,460	1,899,485	239,595,837	18,528	42,719,830	1,918,013	282,315,667
Vietnam												

Remark: The data in this table is obtained from national focal points of member. N/A refers to data 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
Cambodia	Shredded	2018	151	168	172	193	196	191	179	161	179	176	154	163	174
		2019	167	171	0	168	174	175	187	180	179	195	210	210	168
Indonesia	Flour	2018	564	628	612	1,094	899	726	844	649	701	682	621	638	721
		2019	604	1,268	688	666	792	1,041	604	651	808	790			791
Lao PDR	Shredded	2018											204		204
		2019											225		225
Malaysia	Not specified	2019	271	304	260	285	281	274	279	270	298	281	445	328	298
Myanmar	Not specified	2018		354		266			333	290	328		347	400	331
		2019							321	321					321
Thailand	Starch	2018	415	434	468	494	524	526	494	478	472	482	482	463	478
		2019	445	438	432	446	455	463	438	430	443	441	434	453*	443
	Pellets	2018	236	263	258	221	265	291	259	262	253	269	259	289	261
		2019	296	246	232	260	320	293	286	299	318	322	248	258*	281
	Shredded	2018	212	216	221	230	238	236	234	227	236	230	222	219	227
		2019	224	210	208	214	214	225	231	229	238	230	220	233*	233
Vietnam	Not specified	2018	184	206	227	231	255	240	260	298	237	248	235	127	229
		2019	157	192	217	246	237	272	275	284	266	263	179		235

Remark: * The value is estimated by AFSIS Secretariat.

Table 75 CIF Price of Cassava in selected ASEAN countries

Unit: US\$/Ton

Country	Product	Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Average
Indonesia	Flour	2018	419	432	465	495	536	564	555	501	481	487	501	472	492
		2019	443	442	435	442	446	432	424	424	426	436			435
Malaysia	Not specified	2019	1,228	1,276	731	1,095	847	807	1,411	1,069	1,345	139	1,316	1,069	1,028
Singapore	Not specified	2018	251	247	246	253	253	250	450	259	256	297	256	401	285
		2019	258	278	267	252	261	293	302	289	318	333	317		288

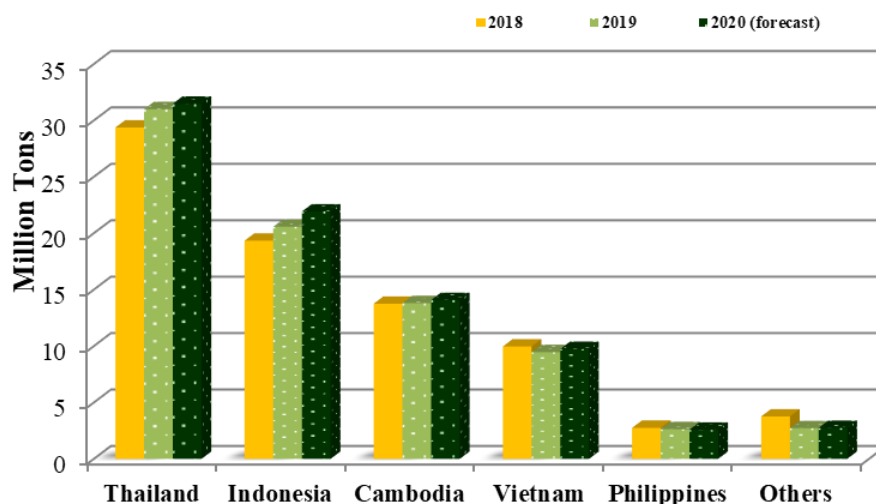


Figure 62 Cassava production of selected countries in ASEAN, 2018 - 2020

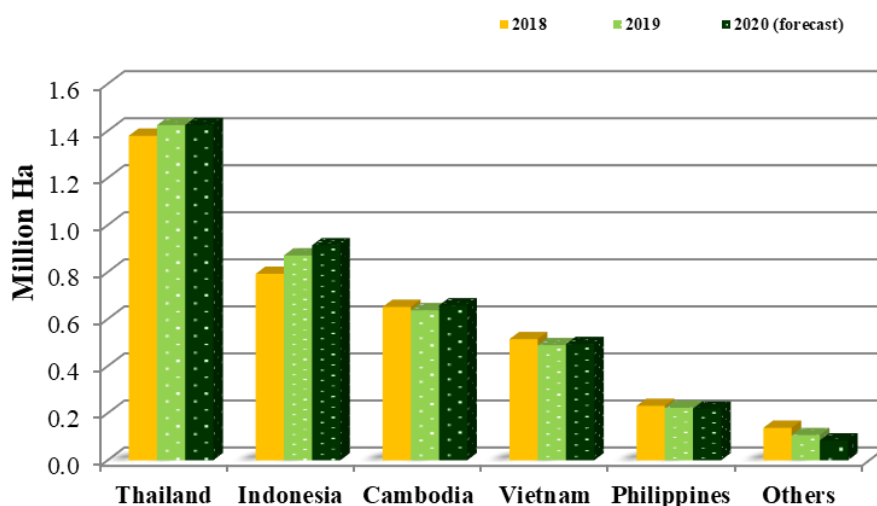


Figure 63 Cassava planted area of selected countries in ASEAN, 2018 - 2020

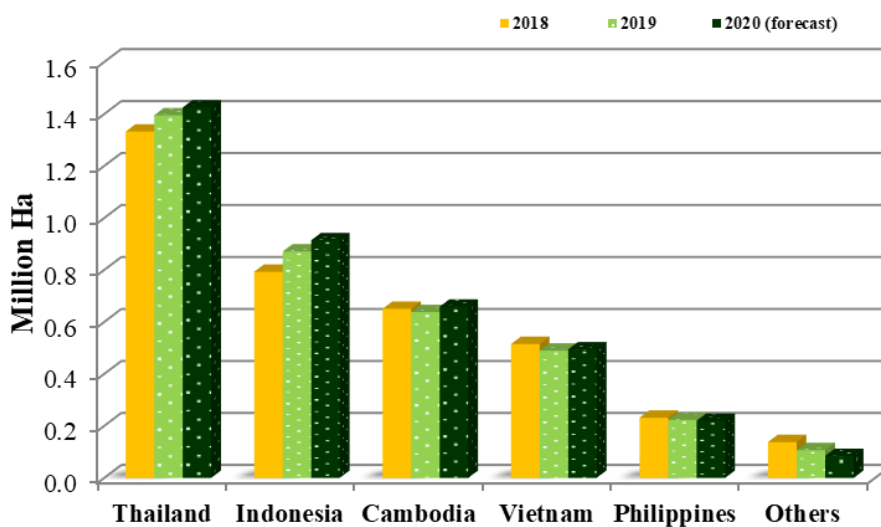


Figure 64 Cassava harvested area of selected countries in ASEAN, 2018 - 2020

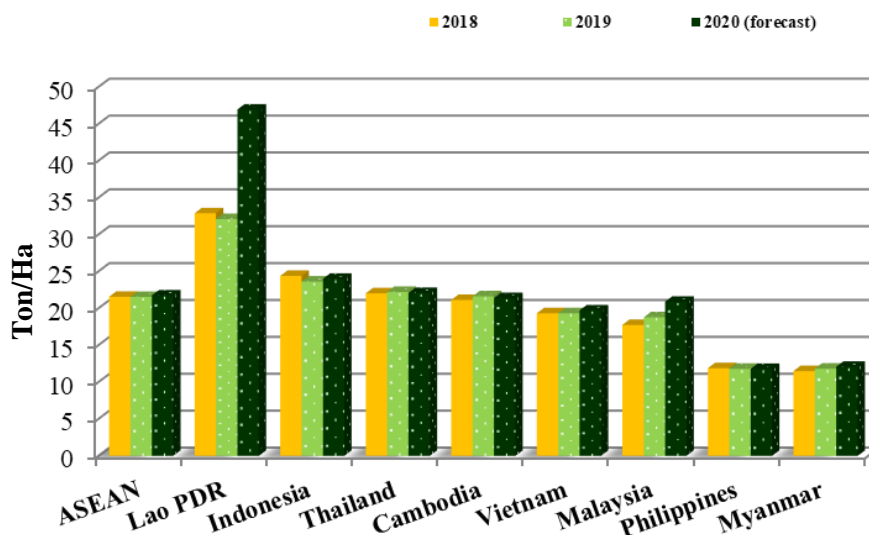


Figure 65 Cassava yield of countries in ASEAN, 2018 - 2020

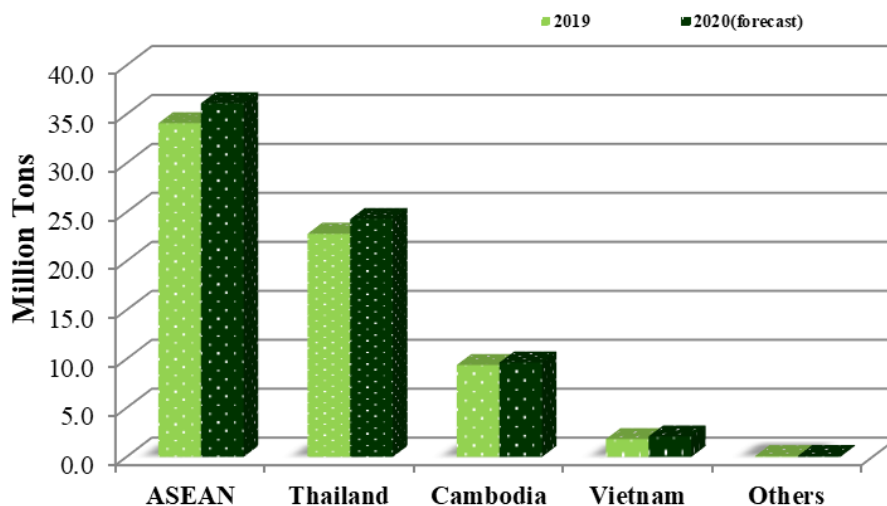


Figure 66 Amount of cassava export (million tons) of selected countries in ASEAN in 2019 - 2020

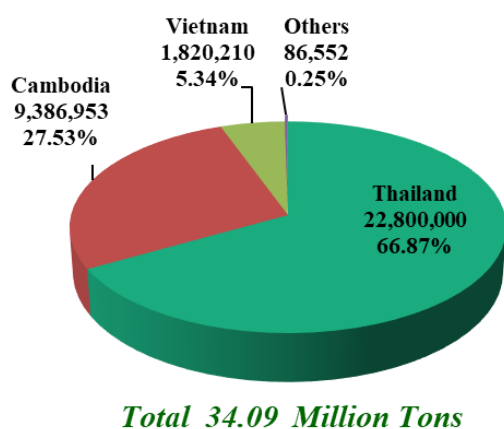


Figure 67 Share of cassava export (tons) among ASEAN countries, 2019

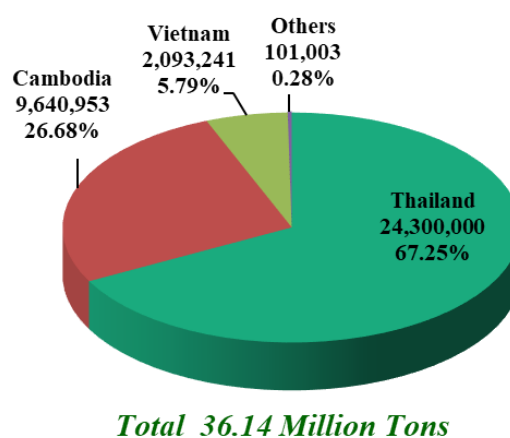


Figure 68 Share of cassava export (tons) among ASEAN countries, 2020

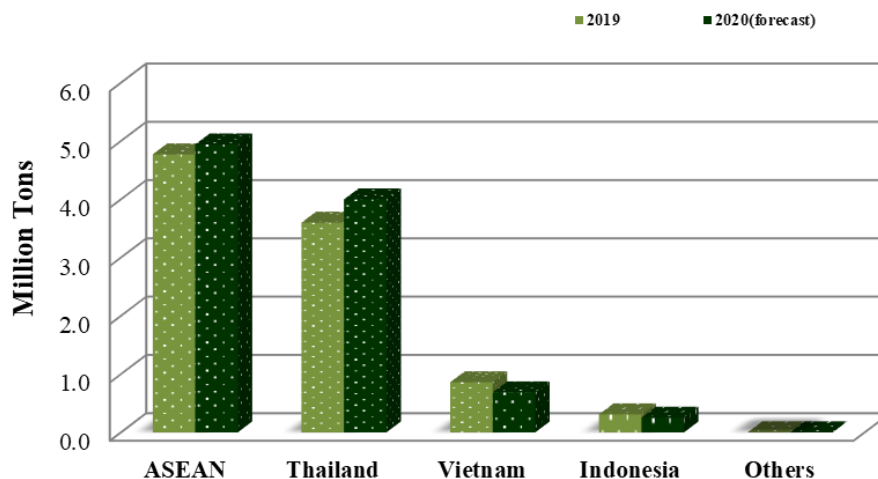


Figure 69 Amount of cassava import (million tons) by selected countries in ASEAN in 2019 - 2020

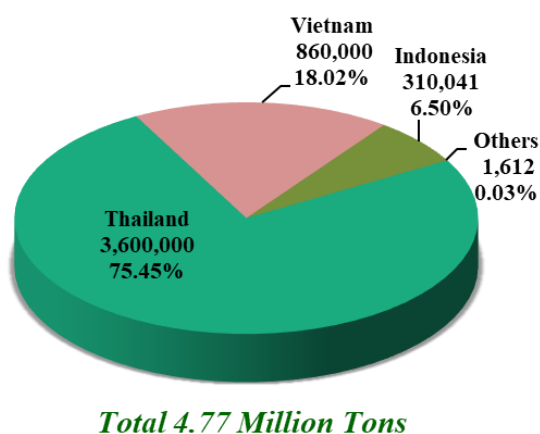


Figure 70 Share of cassava import (tons) among ASEAN countries, 2019

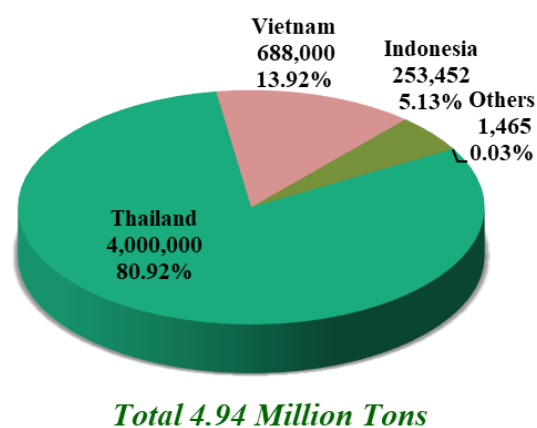


Figure 71 Share of cassava import (tons) among ASEAN countries, 2020

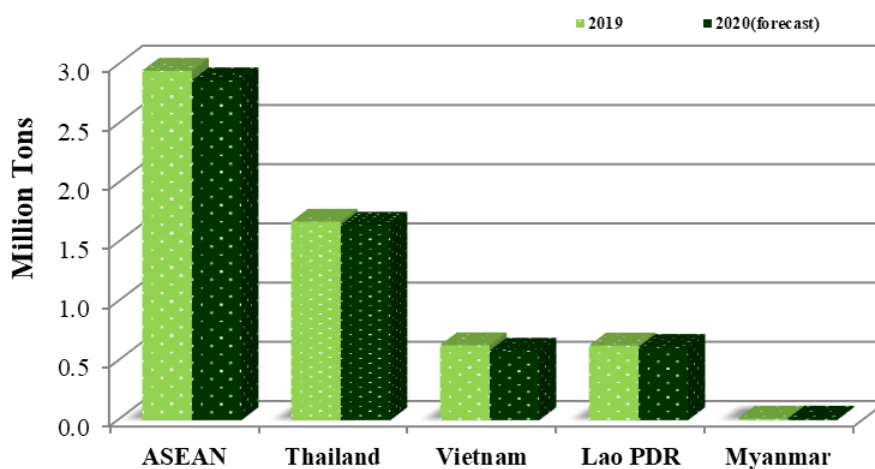


Figure 72 Amount of ending stock of cassava in ASEAN countries in 2019 - 2020

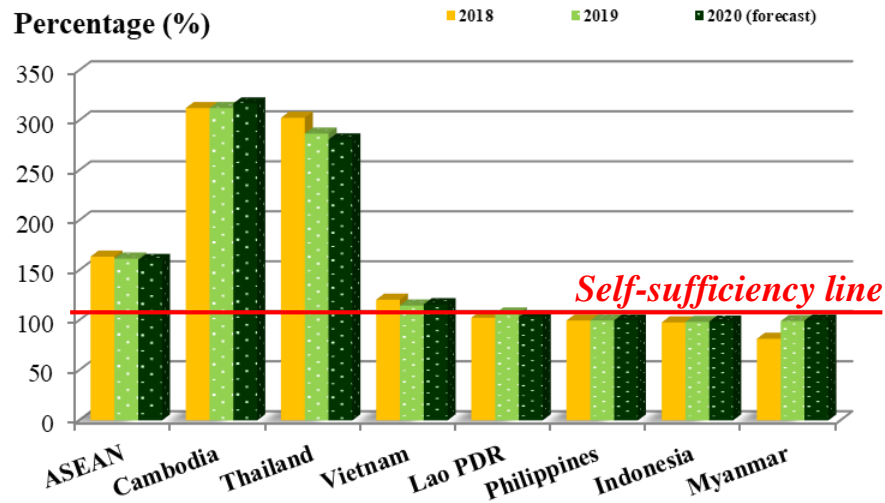


Figure 73 Ratio of cassava production to domestic utilization in ASEAN countries, 2018 - 2020

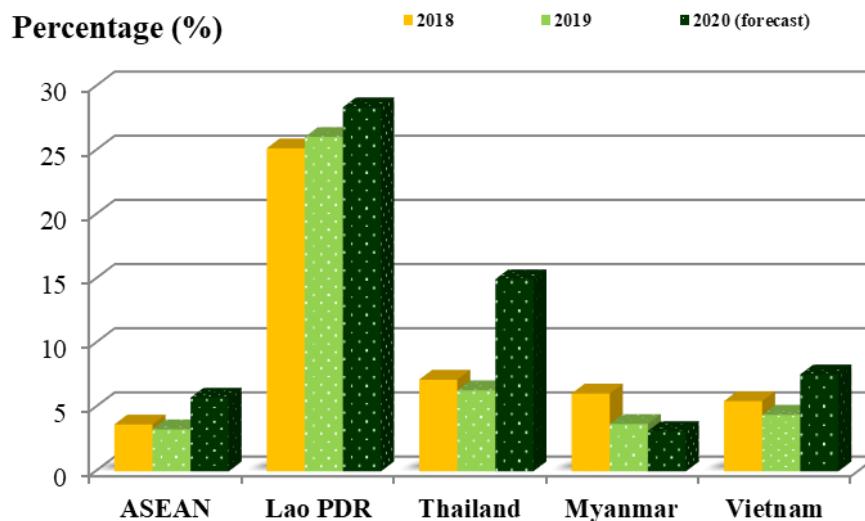


Figure 74 Ratio of cassava beginning stock to domestic utilization in ASEAN countries, 2018 - 2020

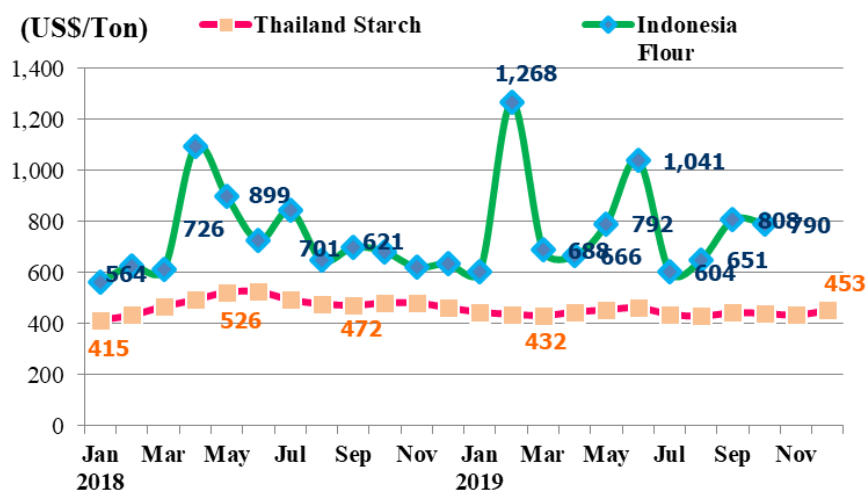


Figure 75 FOB price (US\$/Ton) of cassava flour of selected countries in ASEAN in 2018 - 2019

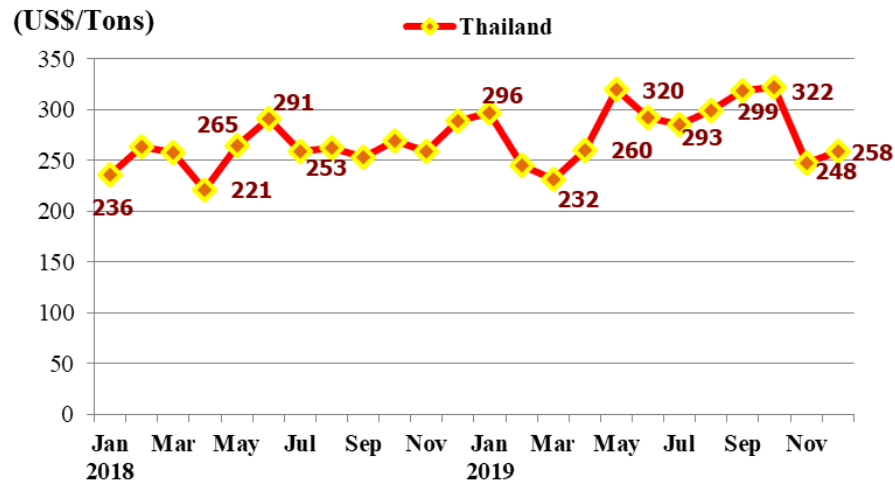


Figure 76 FOB price (US\$/Ton) of cassava pellets of selected countries in ASEAN in 2018 - 2019

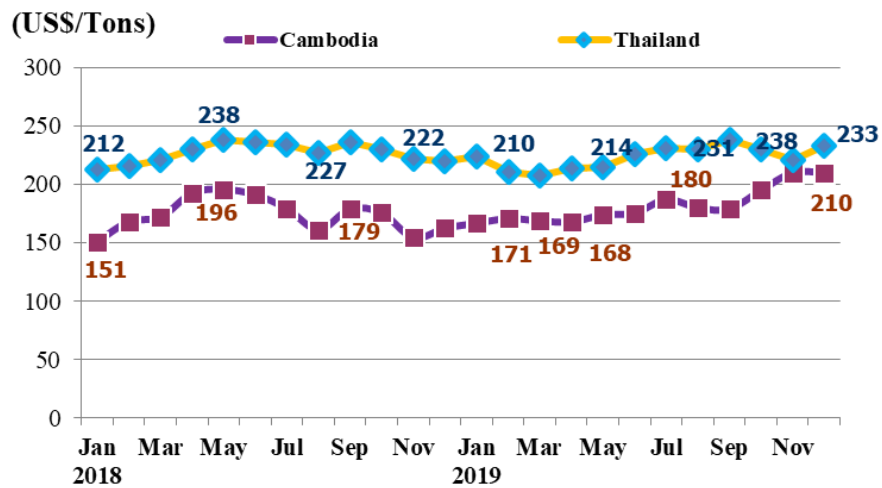


Figure 77 FOB price (US\$/Ton) of cassava shredded of selected countries in ASEAN in 2018 - 2019

Explanatory Notes

Production of Paddy for 2019

Brunei:

- Wet season refers to the crop harvested during January to June 2019.
- Dry season refers to the crop harvested during July to December 2019.

Cambodia:

- Wet season refers to the crop harvested during August to December 2018.
- Dry season refers to the crop harvested during January to March 2019.

Indonesia:

- Wet season refers to the crop harvested during January to April and September to December 2019.
- Dry season refers to the crop harvested during May to August 2019.

Lao PDR:

- Wet season refers to the crop harvested during September 2018 to January 2019.
- Dry season refers to the crop harvested during February to May 2019.

Malaysia:

- Wet season refers to the crop harvested during December 2018 to June 2019.
- Dry season refers to the crop harvested during July to November 2019.

Myanmar:

- Wet season refers to the crop harvested during September 2018 to January 2019.
- Dry season refers to the crop harvested during January to August 2019.

Philippines:

- Wet season refers to the crop harvested during August to December 2018.
- Dry season refers to the crop harvested during January to June 2019.

Thailand:

- Wet season refers to the crop harvested during August 2018 to April 2019.
- Dry season refers to the crop harvested during February to May 2019.

Vietnam:

❖ Spring-season

- North refers to the crop harvested during June to July 2019.
- South refers to the crop harvested during March to May 2019.

❖ Autumn-season

- North refers to the crop harvested during August to September 2019.
- South refers to the crop harvested during July to September 2019.

❖ Winter-season

- North refers to the crop harvested during October to November 2019.
- South refers to the crop harvested during October 2018 to January 2020.

Production of Maize for 2019

▶ **Cambodia:**

- Wet season refers to the crop harvested during August to October 2019.
- Dry season refers to the crop harvested during February to March 2019.

▶ **Indonesia:**

- 1st crop harvested during January to April 2019.
- 2nd crop harvested during May to August 2019.
- 3rd crop harvested during September to December 2019.

▶ **Lao PDR:**

- Wet season refers to the crop harvested during June to July 2019.
- Dry season refers to the crop harvested during September to December 2019.

▶ **Myanmar:**

- Wet season refers to the crop harvested during August to November 2018.
- Dry season refers to the crop harvested during January to March 2019.

▶ **Philippines:**

- Wet season refers to the crop harvested during July to December 2019.
- Dry season refers to the crop harvested during January to June 2019.

▶ **Thailand:**

- Wet season refers to the crop harvested during June 2019 to February 2020.
- Dry season refers to the crop harvested during February to May 2019.

▶ **Vietnam:**

- 1st crop harvested during January to March 2019.
- 2nd crop harvested during April to September 2019.
- 3rd crop harvested during July 2019 to January 2020.

Production of Sugarcane for 2019

Cambodia:

- The crop harvested during October to December 2019.

Indonesia:

- The crop harvested during January to December 2019.

Lao PDR:

- The crop harvested during December 2018 to June 2019.

Myanmar:

- The crop harvested during October 2018 to March 2019.

Philippines:

- The crop harvested during October 2018 to June 2019.

Thailand:

- The crop harvested during November 2018 to May 2019.

Vietnam:

- The crop harvested during November 2018 to May 2019.

Production of Soybean for 2019

▶ **Cambodia:**

- The crop harvested during November to December 2019.

▶ **Indonesia:**

- 1st crop harvested during January to April 2019.
- 2nd crop harvested during May to August 2019.
- 3rd crop harvested during September to December 2019.

▶ **Lao PDR:**

- Wet season refers to the crop harvested during September to October 2019.
- Dry season refers to the crop harvested during January to March 2019.

▶ **Myanmar:**

- Wet season refers to the crop harvested during August to December 2018.
- Dry season refers to the crop harvested during January to March 2019.

▶ **Philippines:**

- Wet season refers to the crop harvested during July to December 2019.
- Dry season refers to the crop harvested during January to June 2019.

▶ **Thailand:**

- Wet season refers to the crop harvested during August to December 2019.
- Dry season refers to the crop harvested during January to May 2019.

▶ **Vietnam:**

- Wet season refers to the crop harvested during February to May 2019.
- Dry season refers to the crop harvested during August to November 2019.

Production of Cassava for 2019

Cambodia:

- The crop harvested during half November to December 2019.

Indonesia:

- 1st crop harvested during January to April 2019.
- 2nd crop harvested during May to August 2019.
- 3rd crop harvested during September to December 2019.

Lao PDR:

- The crop harvested during December 2018 to February 2019.

Malaysia:

- The crop harvested during October 2018 to December 2019.

Myanmar:

- The crop harvested during November 2018 to February 2019.

Philippines:

- 1st crop harvested during January to June 2019.
- 2nd crop harvested during July to December 2019.

Thailand:

- The crop harvested during October 2018 to September 2019.

Vietnam:

- North refers to the crop harvested during February to March 2019.
- South refers to the crop harvested during September to October 2019.

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 (2019)

Unit: Tons

Country	Paddy	Rice
ASEAN	1	0.62
Brunei	1	0.65
Cambodia	1	0.64
Indonesia	1	0.57
Lao PDR	1	0.60
Malaysia	1	0.63
Myanmar	1	0.63
Philippines	1	0.64
Thailand	1	0.70
Vietnam	1	0.65

Extraction rate of Sugar (2019)

Unit: Tons

Country	Sugarcane	Sugar
ASEAN	1,000	100.44
Cambodia	1,000	100.00
Indonesia	1,000	68.24
Lao PDR	1,000	200.00
Myanmar	1,000	80.00
Philippines	1,000	90.21
Thailand	1,000	111.30
Vietnam	1,000	100.00

ANNEX 1

Rice crop calendar (harvested months) for crop year 2018/19 (2019) in ACO No.23 report

Country		2018					2019												2020	
		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												↔							
Mynmar	Wet season		↔																	
	Dry season						↔													
Philippines	Wet season	↔																		
	Dry season						↔													
Thailand	Wet season	↔																		
	Dry season						↔													
Vietnam	Spring							↔ South				↔ North								
	Autumn												↔ North							
	Winter													↔ South				↔ North		

ANNEX 2

Maize crop calendar (harvested months) for crop year 2018/19 (2019) in ACO No.23 report

Country	Crop	2018					2019												2020	
		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
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																			
	3rd																			



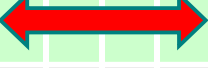





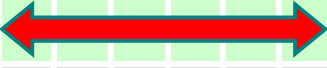

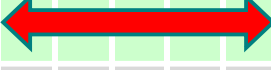
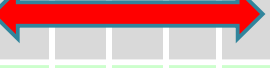
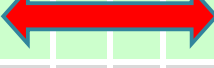

ANNEX 3

Sugarcane crop calendar (harvested months) for crop year 2018/19 (2019) in ACO No.23 report

Country	Crop	2018				2019											
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cambodia																	
Indonesia																	
Lao PDR																	
Myanmar																	
Philippines																	
Thailand																	
Vietnam																	

ANNEX 4

Soybean crop calendar (harvested months) for crop year 2018/19 (2019) in ACO No.23 report

Country	Crop	2018					2019											
		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cambodia																		
Indonesia	1st																	
	2nd																	
	3rd																	
Lao PDR	Wet season																	
	Dry season																	
Myanmar	Wet season																	
	Dry season																	
Philippines	Wet season																	
	Dry season																	
Thailand	Wet season																	
	Dry season																	
Vietnam	Wet season																	
	Dry season																	

ANNEX 5

Cassava crop calendar (harvested months) for crop year 2018/19 (2019) in ACO No.23 report

Country	Crop	2018				2019											
		Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Cambodia																	
Indonesia	1st																
	2nd																
	3rd																
Lao PDR																	
Malaysia																	
Myanmar																	
Philippines	1st																
	2nd																
Thailand																	
Vietnam	North																
	South																



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