



ASEAN Food Security Information System

# ASEAN Agricultural Commodity Outlook

**No. 25 December 2020**



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





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**Report on**

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The ACO report activity represents the hard work and well collaboration between the ASEAN member countries. The ACO report No.25 and the previous ACO reports would be beneficial and useful for all ASEAN members, policy makers and other relevant agencies who need agricultural information for planning and creating the policies to ensure the food security in their countries and the ASEAN region.

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*Thank you*

*Waraporn Saelee*

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## **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 2020/21***

## **Global Situation in 2020/21**

From a global perspective, as commodity price has been depressed, and the world economy is facing trade war and challenging financial conditions, in 2020-2021, food market is dealing with uncertainty for several months due to the impact of COVID-19 pandemic that affected across all food sectors at various degree. However, agricultural commodity market is more resilience than other sectors (FAO,2020). In 2021, prices of food commodities tend to rise from shortfalls of supply, higher demand and relaxation of trade restriction resulting in the increasing production and consumption of agricultural commodities.

Global rice production and consumption are expected to be higher in 2020/21 as domestic demand for rice in China is higher. Global Trade is projected to increase with higher export than 2019/20 and India is forecasted to be the biggest exporters in the world economy. While, the global import is forecasted to increase especially in Bangladesh.

World maize production in 2020/21 is expected to increase from the previous year as the maize demand arises especially from the United States, China, the European Union, Brazil, Mexico etc. Global trade is forecasted to up with higher high output of corn in the major exporters – the United State, Brazil and Ukraine.

Global sugarcane production and consumption are forecasted to go up from the year earlier according to the increase in production of the main producing countries and the higher demand.

Soybean production in the global level in 2020/21 is expected to be higher than 2019/20 and the demand for soybean is likely to rise for the use of oil extraction and world consumption.

## **ASEAN Outlook in 2020/21**

ASEAN rice supply in 2020/21 is forecasted at 152.34 million tons, up 0.07 million tons from the previous year although stock from the previous year is low and the aggregate import decrease. Meanwhile the rice export of ASEAN is expected to shrink by 7.65 percent to 16.47 million tons from the last year. The rice production is projected to increase in all countries except Vietnam as there is no extreme natural disaster.

Maize supply of ASEAN in 2020/21 is forecasted at 81.89 million tons, up 6.55 million tons from the previous year. In contrary, aggregate maize export from ASEAN countries is projected to shrink by 66.54 percent to 1.02 million tons in 2021, whereas the import grows by 9.01 percent, resulting in the rise of ending stock by 38.07 percent. Indonesia, the Philippines, Thailand, Myanmar and Lao PDR maize production in 2021 tend to increase due to favorable weather together with special assistant, good caring, support of government policy, and decreasing price of competitive crops. While Cambodia, and Vietnam show a decrease in maize production.

ASEAN sugar supply is projected to increase by 2.96 million tons to 37.45 million tons in 2021 due to high stock carried over from the previous year. While sugarcane production in ASEAN is expected to shrink by 3.81 percent from 152.39 million tons in 2020 to 146.58 million tons in 2021. Thailand, the biggest producer in ASEAN, and Vietnam are expected to show the decrease in sugarcane production because farmers respond to price decrease. While, the rest of ASEAN are expected to increase sugarcane production from the year earlier.

Cassava Supply in ASEAN is forecasted to rise by 5.99 percent to 92.09 million tons in 2021 due to the increase in stock from the previous year, production, and import. The aggregate export of cassava is likely to go up by 2.57 percent to 33.91 million tons, most of which exports to outside ASEAN countries. Cassava production is projected to increase in all ASEAN countries except Lao PDR and the Philippines due to the rise of planted area and yield.

ASEAN soybean supply is expected to 10.01 million tons in 2021, down 1.77 percent from the year earlier. Lower stock carried over from previous year and the decrease in planted area significantly affect supply and production of soybean. The production of Indonesia as the biggest producer in ASEAN is likely to shrink due to the decrease in planted area which is similar to Myanmar, Vietnam, Cambodia and Thailand. A declining in planted caused by farmer's response to price decrease and the increasing price of competitive crops.



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# Rice Outlook for 2021



## Highlights

Rice supply in ASEAN is forecasted to increase about 0.05 percent from 152.26 million tons of milled rice in 2020 to 152.34 million tons in 2021 (Table 1). The increase in supply due to the increase in production.

The rice production in 2021 is forecasted to be 126.10 million tons, increasing from 124.90 million tons in 2020, or 0.96 percent increased.

The beginning stock is forecasted to decrease 4.11 percent or 0.94 million tons from 22.80 million tons in 2020 to 21.86 million tons in 2021. The import is expected to decrease 4.09 percent or 0.19 million tons from 4.57 million tons in 2020 to 4.38 million tons in 2021.

Considering only available data, the export is expected to decrease 7.65 percent from 17.83 million tons in 2020 to 16.47 million tons in 2021.

The ratio of production to domestic utilization (self-sufficiency ratio) for the region is expected to be 111.59 percent in 2021. The beginning stock to domestic utilization ratio (food security ratio) is estimated to be 19.35 percent in 2021 (Table 1).

**Table 1 Summary of the ASEAN rice situation, 2020-2021 (milled rice)**

Unit: Million tons

| Items  | 2020   | 2021   | Change   |       |
|--|--------|--------|----------|-------|
|  |        |        | Quantity | %     |
| Supply (Million tons)                                | 152.26 | 152.34 | 0.07     | 0.05  |
| Beginning stock                                      | 22.80  | 21.86  | -0.94    | -4.11 |
| Production   | 124.90 | 126.10 | 1.20     | 0.96  |
| Import   | 4.57   | 4.38   | -0.19    | -4.09 |
| Demand (Million tons)                                | 152.26 | 152.34 | 0.07     | 0.05  |
| Domestic utilization                                 | 112.57 | 113.00 | 0.43     | 0.38  |
| Export   | 17.83  | 16.47  | -1.36    | -7.65 |
| Ending stock   | 21.86  | 22.87  | 1.01     | 4.61  |
| Ratio of production to domestic utilization (%)      | 110.95 | 111.59 | 0.64     | -     |
| Ratio of beginning stock to domestic utilization (%) | 20.25  | 19.35  | -0.90    | -     |

## ASEAN Rice Situation in 2020

### ► *Production*

*ASEAN paddy production in 2020 (crop year 2019/20) was estimated at 189.24 million tons, decreasing 3.96 million tons or 2.05 percent from 193.20 million tons in 2019 (crop year 2018/19). The decrease was due to the declining in planted area and harvested area. The decrease in production was found in Thailand, Myanmar, Vietnam, and Cambodia (Table 2-5, Figure 1-4).*

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

For **Cambodia**, the slightly decrease in production was due to the reduction in planted area and yield. The decrease in planted area and yield came from unfavorable weather as a result of drought and flood.

For **Indonesia**, the increase in production is attributed to the increase in planted area and yield of dry season crop. The increase in planted area came from unfavorable weather together with government policy. The increase in yield of dry season crop occurred because farmers used more improved varieties, used more fertilizer and took better care of their crop together with favorable weather.

For **Lao PDR**, the increase in production is attributed to the increase in planted area. The expansion of planted area caused by favorable weather together with government policy.

For **Malaysia**, the increase in production was due to the increase in planted area and yield. The expansion of planted area caused by favorable weather. The increase in yield was due to better caring of the rice crop from farmers as well as favorable weather.

For **Myanmar**, the decrease in production is attributed to the decrease in planted area and yield. The planted area decreased due to unfavorable weather and lack of water supply for dry season crop. Yield has decreased due to flood and drought.

For **the Philippines**, the increase in production attributed to the increase in yield because farmers used more improved varieties, used more fertilizer and took better care of their crop.

For **Thailand**, the decrease in production was due to the reduction in planted area, harvested area and yield caused by diseases and unfavorable weather as a result of drought and lack of water supply.

For **Vietnam**, the decrease in production was due to the decrease in planted area and harvested area which caused by government policy, saline intrusion in Mekong River Delta as a result of drought.

### ► *Utilization and Stock*

The domestic utilization of rice (milled rice) within ASEAN in 2020 (calendar year) was estimated to be 112.57 million tons, which increased from 110.51 million tons in 2019. The increase was about 2.06 million tons or 1.87 percent (Table 7-8).

The ratio of production to domestic utilization (self-sufficient ratio) of ASEAN in 2020 was estimated at 110.95 percent compared to 115.94 percent in 2019. This indicated that rice production in ASEAN in year 2020, aggregately, is sufficient for rice demand in ASEAN. The increase in the self-sufficient ratio of production to domestic utilization occurred in Brunei, Malaysia and the Philippines. While the self-sufficient ratio of Cambodia, Indonesia, Lao PDR, Myanmar, Thailand and Vietnam 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 2020 (January 2020) of ASEAN was estimated at 22.80 million tons, increasing 2.45 million tons from 20.35 million tons in 2019 or 12.06 percent. Myanmar carried 9.20 million tons or 40.36 percent of the ASEAN stock and followed by Thailand 4.54 million tons or 19.91 percent of the total stock in the ASEAN (Table 7-8).

The ratio of the beginning stock to the domestic utilization in 2020 for the whole ASEAN was estimated at 20.25 percent, which increased about 1.84 percent from the previous year. Brunei, Malaysia, Myanmar and Thailand have the ratio above 20 percent optimum level (Table 11, Figure 13).

### ► *Trade*

In 2020, ASEAN as a whole exported 17.83 million tons of milled rice, which decreased 1.91 million tons or 9.66 percent from 19.74 million tons exported in 2019. Vietnam and Thailand, the two major exporting countries, exported about 5.5 million tons and 7.34 million tons, respectively (Table 7-8, Figure 5-6).

The total import by the ASEAN in 2020 is estimated to be 4.57 million tons, which decreased 0.012 million tons or about 0.27 percent from 4.58 million tons in 2019. The Philippines was the biggest importer in the region, which imported 3.07 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 2019-2020 (January-December) are shown in Table 14-15 and Figure 14-16.

### ► *Damaged Area*

The damaged area of paddy in ASEAN in 2020 (crop year 2019/20) was estimated to be 1.49 million hectares, of which, 1.23 million hectares or 82.46 percent caused by drought. The damage caused by drought occurred mostly in Thailand, which equals to 1.13 million hectares or 92.24 percent of the whole ASEAN. The damage was also caused by many factors such as flood, diseases, and pests (Table 6).

# Prospects for Rice in 2021

## ► Production

*ASEAN paddy production in 2021 (crop year 2020/21) is estimated at 191.25 million tons, increasing about of 2.00 million tons or approximately 1.06 percent from 189.24 million tons in 2020 (crop year 2019/20) by assuring without extreme natural disaster. The production is predicted to increase in all countries, except Vietnam which caused by the decrease in either planted area or yield (Table 2-5, Figure 1-4).*

## ► Utilization and Stock

The domestic utilization of milled rice in ASEAN in 2021 is projected to be 113 million tons, increasing about 0.43 million tons or 0.38 percent compared to 112.57 million tons in 2020 (Table 8-9).

The beginning stock in 2021 is predicted to be 21.86 million tons, which decreases about 0.94 million tons or 4.12 percent from 22.80 million tons in 2020. The ending stock is also expected to increase by 1.01 million tons or 4.61 percent from 21.86 million tons in 2020 to 22.87 million tons in 2021 (Table 8-9, Figure 11).

The ratio of production to domestic utilization is forecasted to be 111.59 percent in 2021, which decreases 0.64 percent from 2020. 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 2021 is forecasted to decrease from 20.25 percent in 2020 to 19.35 percent in 2021 (Table 11, Figure 13).

## ► Trade

With missing data from some countries, rice import from ASEAN is forecasted to decrease from 4.57 million tons in 2020 to 4.38 million tons in 2021 (Table 8-9, Figure 8 and 10).

For the export, the whole ASEAN is forecasted to export 16.47 million tons in 2021, decreasing of 1.36 million tons or about 7.65 percent compared to 17.83 million tons in 2020 (Table 8-9, Figure 5 and 7).

**Table 2 Paddy production in ASEAN countries, 2019 - 2021**

Unit: 1,000 Tons

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |              | 2021<br>(2020/21) | Change<br>2021 over 2020 |             |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|-------------|
|              |                   |                   | Quantities               | (%)          |                   | Quantities               | (%)         |
| <b>ASEAN</b> | <b>193,199.69</b> | <b>189,240.70</b> | <b>-3,958.99</b>         | <b>-2.05</b> | <b>191,245.19</b> | <b>2,004.49</b>          | <b>1.06</b> |
| Brunei       | 2.31              | 3.86              | 1.55                     | 67.19        | 4.13              | 0.27                     | 7.01        |
| Cambodia     | 10,891.74         | 10,885.73         | -6.00                    | -0.06        | 10,935.62         | 49.89                    | 0.46        |
| Indonesia    | 54,604.03         | 55,160.55         | 556.51                   | 1.02         | 55,695.63         | 535.09                   | 0.97        |
| Lao PDR      | 3,365.50          | 3,537.41          | 171.91                   | 5.11         | 4,161.21          | 623.79                   | 17.63       |
| Malaysia     | 2,348.93          | 2,927.88          | 578.95                   | 24.65        | 2,983.62          | 55.74                    | 1.90        |
| Myanmar      | 27,573.41         | 26,269.65         | -1,303.77                | -4.73        | 26,911.31         | 641.66                   | 2.44        |
| Philippines  | 18,622.25         | 18,932.13         | 309.87                   | 1.66         | *19,413.82        | 481.69                   | 2.54        |
| Singapore    | N/A               |                   |                          |              |                   |                          |             |
| Thailand     | 32,348.11         | 28,605.50         | -3,742.62                | -11.57       | 29,097.86         | 492.36                   | 1.72        |
| Vietnam      | 43,443.40         | 42,918.00         | -525.40                  | -1.21        | 42,042.00         | -876.00                  | -2.04       |

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

**Table 3 Paddy planted area in ASEAN countries, 2019 – 2021**

Unit: 1,000 Hectares

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |              | 2021<br>(2020/21) | Change<br>2021 over 2020 |             |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|-------------|
|              |                   |                   | Quantities               | (%)          |                   | Quantities               | (%)         |
| <b>ASEAN</b> | <b>46,512.85</b>  | <b>45,724.96</b>  | <b>-787.89</b>           | <b>-1.69</b> | <b>45,839.61</b>  | <b>114.65</b>            | <b>0.25</b> |
| Brunei       | 1.26              | 1.41              | 0.16                     | 12.47        | 1.51              | 0.10                     | 7.19        |
| Cambodia     | 3,335.93          | 3,328.85          | -7.08                    | -0.21        | 3,394.80          | 65.95                    | 1.98        |
| Indonesia    | 10,842.38         | 10,866.69         | 24.31                    | 0.22         | 10,881.49         | 14.80                    | 0.14        |
| Lao PDR      | 866.98            | 946.93            | 79.95                    | 9.22         | 989.91            | 42.98                    | 4.54        |
| Malaysia     | 671.87            | 699.98            | 28.11                    | 4.18         | 699.98            | 0.00                     | 0.00        |
| Myanmar      | 7,228.27          | 7,003.92          | -224.35                  | -3.10        | 7,125.54          | 121.62                   | 1.74        |
| Philippines  | 4,741.26          | 4,637.26          | -104.00                  | -2.19        | 4,737.38          | 100.12                   | 2.16        |
| Singapore    | N/A               |                   |                          |              |                   |                          |             |
| Thailand     | 11,356.19         | 10,962.62         | -393.57                  | -3.47        | 10,781.00         | -181.62                  | -1.66       |
| Vietnam      | 7,468.70          | 7,277.30          | -191.40                  | -2.56        | 7,228.00          | -49.30                   | -0.68       |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 4 Paddy harvested area in ASEAN countries, 2019 – 2021**

Unit: 1,000 Hectares

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |              | 2021<br>(2020/21) | Change<br>2021 over 2020 |             |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|-------------|
|              |                   |                   | Quantities               | (%)          |                   | Quantities               | (%)         |
| <b>ASEAN</b> | <b>45,365.00</b>  | <b>44,341.76</b>  | <b>-1,023.24</b>         | <b>-2.26</b> | <b>45,031.53</b>  | <b>689.77</b>            | <b>1.56</b> |
| Brunei       | 1.14              | 1.32              | 0.18                     | 15.68        | 1.42              | 0.10                     | 7.27        |
| Cambodia     | 3,248.06          | 3,263.77          | 15.71                    | 0.48         | 3,283.74          | 19.97                    | 0.61        |
| Indonesia    | 10,677.89         | 10,786.81         | 108.93                   | 1.02         | 10,881.49         | 94.67                    | 0.88        |
| Lao PDR      | 758.94            | 946.93            | 187.99                   | 24.77        | 989.91            | 42.98                    | 4.54        |
| Malaysia     | 671.60            | 698.38            | 26.78                    | 3.99         | 698.38            | 0.00                     | 0.00        |
| Myanmar      | 7,149.46          | 6,921.02          | -228.44                  | -3.20        | 7,093.64          | 172.63                   | 2.49        |
| Philippines  | 4,741.26          | 4,637.26          | -104.00                  | -2.19        | *4,737.38         | 100.12                   | 2.16        |
| Singapore    | N/A               |                   |                          |              |                   |                          |             |
| Thailand     | 10,647.94         | 9,808.96          | -838.98                  | -7.88        | 10,117.57         | 308.61                   | 3.15        |
| Vietnam      | 7,468.70          | 7,277.30          | -191.40                  | -2.56        | 7,228.00          | -49.30                   | -0.68       |

**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, 2019 – 2021**

Unit: Ton/Hectare

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |             | 2021<br>(2020/21) | Change<br>2021 over 2020 |              |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|--------------|
|              |                   |                   | Quantities               | (%)         |                   | Quantities               | (%)          |
| <b>ASEAN</b> | <b>4.26</b>       | <b>4.27</b>       | <b>0.01</b>              | <b>0.23</b> | <b>4.25</b>       | <b>-0.02</b>             | <b>-0.47</b> |
| Brunei       | 2.02              | 2.92              | 0.90                     | 44.55       | 2.92              | 0.00                     | 0.00         |
| Cambodia     | 3.35              | 3.34              | -0.01                    | -0.30       | 3.33              | -0.01                    | -0.30        |
| Indonesia    | 5.11              | 5.11              | 0.00                     | 0.00        | 5.12              | 0.01                     | 0.20         |
| Lao PDR      | 4.43              | 3.74              | -0.69                    | -15.58      | 4.20              | 0.46                     | 12.30        |
| Malaysia     | 3.50              | 4.19              | 0.69                     | 19.71       | 4.27              | 0.08                     | 1.91         |
| Myanmar      | 3.86              | 3.80              | -0.06                    | -1.55       | 3.79              | -0.01                    | -0.26        |
| Philippines  | 3.93              | 4.08              | 0.15                     | 3.82        | *4.10             | 0.02                     | 0.49         |
| Singapore    | N/A               |                   |                          |             |                   |                          |              |
| Thailand     | 3.04              | 2.92              | -0.12                    | -3.95       | 2.88              | -0.04                    | -1.37        |
| Vietnam      | 5.82              | 5.90              | 0.08                     | 1.37        | 5.82              | -0.08                    | -1.36        |

**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, 2020**

Unit: Hectares

| Country      | Cause of Damage (Hectares) |                  |              |              |               |                |                  |
|--------------|----------------------------|------------------|--------------|--------------|---------------|----------------|------------------|
|              | Flood                      | Drought          | Pests        | Diseases     | Other         | Unspecified    | Total            |
| <b>ASEAN</b> | <b>111,029</b>             | <b>1,229,655</b> | <b>4,052</b> | <b>7,260</b> | <b>31,202</b> | <b>108,044</b> | <b>1,491,242</b> |
| Brunei       | 24                         | 25               | 20           | 23           | -             | -              | 92               |
| Cambodia     | 15,577                     | 49,495           | -            | -            | -             | -              | 65,072           |
| Indonesia    | 64,189                     | 8,450            | -            | 7,237        | -             | -              | 79,876           |
| Lao PDR      | -                          | -                | -            | -            | -             | 108,044        | 108,044          |
| Malaysia     | -                          | -                | 1,599        | -            | -             | -              | 1,599            |
| Myanmar      | 31,239                     | 37,468           | 2,433        | -            | 11,759        | -              | 82,899           |
| Philippines  | N/A                        |                  |              |              |               |                |                  |
| Singapore    | N/A                        |                  |              |              |               |                |                  |
| Thailand     | -                          | 1,134,217        | -            | -            | 19,443        | -              | 1,153,660        |
| Vietnam      | N/A                        |                  |              |              |               |                |                  |

**Remark:** N/A refers to data is not available.**Table 7 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              |
| <b>ASEAN</b> | <b>20,346,065</b> | <b>128,118,567</b> | <b>4,581,261</b> | <b>153,045,894</b> | <b>110,505,790</b>   | <b>19,740,678</b> | <b>22,799,426</b> | <b>153,045,894</b> |
| Brunei       | 9,022             | 1,500              | 36,267           | 46,789             | 31,304               | -                 | 15,486            | 46,789             |
| Cambodia     | *388,899          | 7,011,720          | -                | 7,400,619          | 3,440,735            | 3,440,735         | 519,149           | 7,400,619          |
| Indonesia    | 2,174,626         | 34,258,570         | 6,197            | 36,439,394         | 34,427,133           | 175               | 2,012,085         | 36,439,393         |
| Lao PDR      | 293,764           | 2,153,920          | 25,570           | 2,473,254          | 2,138,631            | 55,023            | 279,600           | 2,473,254          |
| Malaysia     | *527,288          | 1,513,781          | 960,310          | 3,001,379          | 2,399,500            | 24,857            | *577,023          | 3,001,380          |
| 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         | 12,305,000         | 3,118,000        | 17,974,000         | 15,299,000           | -                 | 2,675,000         | 17,974,000         |
| Singapore    | -                 | -                  | 322,494          | 322,494            | 246,901              | 75,592            | -                 | 322,494            |
| Thailand     | *3,009,000        | 25,231,529         | 32,706           | 28,273,235         | 16,149,235           | 7,584,000         | *4,540,000        | 28,273,235         |
| Vietnam      | 3,326,637         | 28,238,210         | 79,716           | 31,644,563         | 21,094,552           | 7,570,557         | 2,979,454         | 31,644,563         |

**Remark:** \* The value is estimated by AFSIS Secretariat.**Table 8 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              |
| <b>ASEAN</b> | <b>22,799,426</b> | <b>124,894,879</b> | <b>4,569,034</b> | <b>152,263,339</b> | <b>112,568,550</b>   | <b>17,833,820</b> | <b>21,860,969</b> | <b>152,263,339</b> |
| Brunei       | 15,486            | 2,508              | 29,867           | 47,860             | 33,316               | -                 | 14,544            | 47,860             |
| Cambodia     | 519,149           | 7,075,727          | -                | 7,594,876          | *3,798,243           | *3,062,106        | *734,526          | 7,594,875          |
| Indonesia    | 2,012,085         | 34,520,212         | 12,247           | 36,544,545         | 35,464,217           | 166               | 1,080,161         | 36,544,545         |
| Lao PDR      | 279,600           | 2,122,448          | 25,960           | 2,428,008          | 2,193,344            | 21,770            | 212,894           | 2,428,008          |
| Malaysia     | *577,023          | 1,873,841          | 886,445          | 3,337,310          | 2,459,488            | 24,529            | *853,292          | 3,337,309          |
| Myanmar      | 9,201,629         | 16,581,400         | -                | 25,783,029         | 14,829,880           | 1,794,102         | 9,159,047         | 25,783,029         |
| Philippines  | 2,675,000         | 12,509,754         | 3,073,274        | 18,258,028         | *15,528,485          | *251              | *2,729,293        | 18,258,029         |
| Singapore    | -                 | -                  | 405,337          | 405,337            | 310,326              | 95,011            | -                 | 405,337            |
| Thailand     | *4,540,000        | 22,312,289         | 46,100           | 26,898,389         | 16,758,389           | 5,500,000         | *4,640,000        | 26,898,389         |
| Vietnam      | 2,979,454         | 27,896,700         | 89,804           | 30,965,958         | 21,192,860           | 7,335,885         | 2,437,213         | 30,965,958         |

**Remark:** \* The value is estimated by AFSIS Secretariat.

**Table 9 Rice balance sheet of ASEAN countries, 2021 (milled rice)**

Unit: Tons

| Country      | Supply            |                    |                  |                    | Demand               |                   |                   |                    |
|--------------|-------------------|--------------------|------------------|--------------------|----------------------|-------------------|-------------------|--------------------|
|              | Beginning Stock   | Production         | Imports          | Total              | Domestic Utilization | Exports           | Ending stock      | Total              |
| <b>ASEAN</b> | <b>21,860,969</b> | <b>126,095,322</b> | <b>4,382,065</b> | <b>152,338,356</b> | <b>113,000,058</b>   | <b>16,469,698</b> | <b>22,868,601</b> | <b>152,338,356</b> |
| Brunei       | 14,544            | 2,684              | 30,763           | 47,990             | 34,417               | -                 | 13,574            | 47,990             |
| Cambodia     | 734,526           | 7,108,153          | -                | 7,842,679          | 3,842,829            | 3,116,189         | 883,661           | 7,842,679          |
| Indonesia    | 1,080,161         | 34,740,159         | *13,472          | 35,833,792         | *34,831,505          | *158              | *1,002,129        | 35,833,792         |
| Lao PDR      | 212,894           | 2,496,725          | 26,542           | 2,736,160          | 2,283,640            | 52,435            | 400,085           | 2,736,160          |
| Malaysia     | *853,292          | 1,909,514          | 873,149          | 3,635,955          | 2,520,975            | *24,235           | *1,090,745        | 3,635,955          |
| Myanmar      | 9,159,047         | 16,986,416         | -                | 26,145,463         | 14,926,162           | 241,079           | 10,978,222        | 26,145,463         |
| Philippines  | *2,729,293        | *12,828,042        | 2,975,339        | 18,532,674         | *15,875,666          | *300              | *2,656,708        | 18,532,674         |
| Singapore    | -                 | -                  | 363,915          | 363,915            | 278,614              | 85,301            | -                 | 363,915            |
| Thailand     | *4,640,000        | 22,696,330         | 32,500           | 27,368,830         | 17,178,830           | 5,750,000         | *4,440,000        | 27,368,830         |
| Vietnam      | 2,437,213         | 27,327,300         | 66,385           | 29,830,898         | 21,227,421           | 7,200,000         | 1,403,477         | 29,830,898         |

**Remark:** \* The value is estimated by AFSIS Secretariat.



**Table 10 Ratio of rice production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2019 – 2021**

Unit: Tons

| Country      | 2019               |                      |               | 2020               |                      |               | 2021               |                      |               |
|--------------|--------------------|----------------------|---------------|--------------------|----------------------|---------------|--------------------|----------------------|---------------|
|              | Production         | Domestic Utilization | Ratio (%)     | Production         | Domestic Utilization | Ratio (%)     | Production         | Domestic Utilization | Ratio (%)     |
| <b>ASEAN</b> | <b>128,118,567</b> | <b>110,505,790</b>   | <b>115.94</b> | <b>124,894,879</b> | <b>112,568,550</b>   | <b>110.95</b> | <b>126,095,322</b> | <b>113,000,058</b>   | <b>111.59</b> |
| Brunei       | 1,500              | 31,304               | 4.79          | 2,508              | 33,316               | 7.53          | 2,684              | 34,417               | 7.80          |
| Cambodia     | 7,011,720          | 3,440,735            | 203.79        | 7,075,727          | *3,798,243           | 186.29        | 7,108,153          | 3,842,829            | 184.97        |
| Indonesia    | 34,258,570         | 34,427,133           | 99.51         | 34,520,212         | 35,464,217           | 97.34         | 34,740,159         | 34,831,505           | 99.74         |
| Lao PDR      | 2,153,920          | 2,138,631            | 100.71        | 2,122,448          | 2,193,344            | 96.77         | 2,496,725          | 2,283,640            | 109.33        |
| Malaysia     | 1,513,781          | 2,399,500            | 63.09         | 1,873,841          | 2,459,488            | 76.19         | 1,909,514          | 2,520,975            | 75.75         |
| Myanmar      | 17,404,337         | 15,278,799           | 113.91        | 16,581,400         | 14,829,880           | 111.81        | 16,986,416         | 14,926,162           | 113.80        |
| Philippines  | 12,305,000         | 15,299,000           | 80.43         | 12,509,754         | *15,528,485          | 80.56         | *12,828,042        | 15,875,666           | 80.80         |
| Singapore    | -                  | 246,901              | -             | -                  | 310,326              | -             | -                  | 278,614              | -             |
| Thailand     | 25,231,529         | 16,149,235           | 156.24        | 22,312,289         | 16,758,389           | 133.14        | 22,696,330         | 17,178,830           | 132.12        |
| Vietnam      | 28,238,210         | 21,094,552           | 133.86        | 27,896,700         | 21,192,860           | 131.63        | 27,327,300         | 21,227,421           | 128.74        |

Remark: \* The value is estimated by AFSIS Secretariat.

**Table 11 Ratio of rice beginning stock to domestic utilization in ASEAN countries, 2019 – 2021**

Unit: Tons

| Country      | 2019              |                      |              | 2020              |                      |              | 2021              |                      |              |
|--------------|-------------------|----------------------|--------------|-------------------|----------------------|--------------|-------------------|----------------------|--------------|
|              | Beginning Stock   | Domestic Utilization | Ratio (%)    | Beginning Stock   | Domestic Utilization | Ratio (%)    | Beginning Stock   | Domestic Utilization | Ratio (%)    |
| <b>ASEAN</b> | <b>20,346,065</b> | <b>110,505,790</b>   | <b>18.41</b> | <b>22,799,426</b> | <b>112,568,550</b>   | <b>20.25</b> | <b>21,860,969</b> | <b>113,000,058</b>   | <b>19.35</b> |
| Brunei       | 9,022             | 31,304               | 28.82        | 15,486            | 33,316               | 46.48        | 14,544            | 34,417               | 42.26        |
| Cambodia     | 388,899           | 3,440,735            | 11.30        | 519,149           | *3,798,243           | 13.67        | 734,526           | 3,842,829            | 19.11        |
| Indonesia    | 2,174,626         | 34,427,133           | 6.32         | 2,012,085         | 35,464,217           | 5.67         | 1,080,161         | 34,831,505           | 3.10         |
| Lao PDR      | 293,764           | 2,138,631            | 13.74        | 279,600           | 2,193,344            | 12.75        | 212,894           | 2,283,640            | 9.32         |
| Malaysia     | *527,288          | 2,399,500            | 21.97        | *577,023          | 2,459,488            | 23.46        | *853,292          | 2,520,975            | 33.85        |
| Myanmar      | 8,065,830         | 15,278,799           | 52.79        | 9,201,629         | 14,829,880           | 62.05        | 9,159,047         | 14,926,162           | 61.36        |
| Philippines  | 2,551,000         | 15,299,000           | 16.67        | 2,675,000         | *15,528,485          | 17.23        | *2,729,293        | 15,875,666           | 17.19        |
| Singapore    | -                 | 246,901              | -            | -                 | 310,326              | -            | -                 | 278,614              | 0.00         |
| Thailand     | *3,009,000        | 16,149,235           | 18.63        | *4,540,000        | 16,758,389           | 27.09        | *4,640,000        | 17,178,830           | 27.01        |
| Vietnam      | 3,326,637         | 21,094,552           | 15.77        | 2,979,454         | 21,192,860           | 14.06        | 2,437,213         | 21,227,421           | 11.48        |

**Table 12 Quantity and Value of Rice Export by Countries of Destination in 2020**

Quantity: Tons Values: US\$

| Exporting Country | Country of Destination |            |          |           |           |            |          |           |          |             |          |         |             |             |
|-------------------|------------------------|------------|----------|-----------|-----------|------------|----------|-----------|----------|-------------|----------|---------|-------------|-------------|
|                   | Brunei                 |            | Cambodia |           | Indonesia |            | Lao PDR  |           | Malaysia |             | Myanmar  |         | Philippines |             |
|                   | Quantity               | Values     | Quantity | Values    | Quantity  | Values     | Quantity | Values    | Quantity | Values      | Quantity | Values  | Quantity    | Values      |
| Brunei            | N/A                    |            |          |           |           |            |          |           |          |             |          |         |             |             |
| Cambodia          |                        |            |          |           |           |            |          |           |          |             |          |         |             |             |
| Indonesia         |                        |            |          |           |           |            |          |           | 16       | 29,326      |          |         |             |             |
| Lao PDR           |                        |            |          |           |           |            |          |           |          |             |          |         |             |             |
| Malaysia          | 15                     | 26,072     |          |           | 24,436    | 10,049,044 |          |           |          |             |          |         |             |             |
| Myanmar           |                        |            |          |           |           |            | 125      | 48,000    | 140,365  | 47,244,000  |          |         | 158,434     | 51,373,000  |
| Philippines       |                        |            |          |           |           |            |          |           |          |             | 6        | 50,000  |             |             |
| Singapore         | N/A                    |            |          |           |           |            |          |           |          |             |          |         |             |             |
| Thailand          | 16,779                 | 17,463,985 | 3,217    | 1,395,833 | 74,651    | 63,117,047 | 15,841   | 6,742,869 | 66,424   | 31,937,570  | 339      | 190,897 | 64,057      | 29,212,824  |
| Vietnam           |                        |            |          |           | 83,812    | 45,610,879 |          |           | 526,315  | 225,553,063 |          |         | 1,860,974   | 868,660,375 |

| 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          |                        |             |          |           |          |           | 78,208             | 0             | 522,837             |               | 601,045   | 0             |
| Indonesia         | 23.5                   | 30733       |          |           |          |           | 39                 | 60,059        | 127                 | 272,861       | 166       | 332,920       |
| Lao PDR           |                        |             | 1,950    | 971,467   | 7,415    | 3,713,214 | 9,365              | 4,684,682     | 12,405              | 7,225,742     | 21,770    | 11,910,424    |
| Malaysia          | 47.7                   | 45,597      |          |           |          |           | 24,499             | 10,120,714    | 30                  | 196,840       | 24,529    | 10,317,554    |
| Myanmar           | 9,121                  | 3,080,000   | 8,522    | 2,443,000 | 20,012   | 5,993,000 | 336,579            | 110,181,000   | 1,457,523           | 456,263,000   | 1,794,102 | 566,444,000   |
| Philippines       | 20.9                   | 27143       |          |           |          |           | 26                 | 77,143        | 224                 | 260,817       | 251       | 337,960       |
| Singapore         | N/A                    |             |          |           |          |           |                    |               |                     |               |           |               |
| Thailand          | 110,669                | 110,158,519 |          |           | 4,150    | 3,217,389 | 356,126            | 263,436,933   | 4,130,858           | 2,699,218,930 | 4,486,985 | 2,962,655,863 |
| Vietnam           | 93,329                 | 51,320,703  |          |           |          |           | 2,564,430          | 1,191,145,020 | 1,912,937           | 1,021,680,628 | 4,477,367 | 2,212,825,647 |

**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 2020**

Quantity: Tons Values: US\$

| Importing Country | Country of Origin |        |          |            |           |         |          |         |          |         |          |            |             |        |
|-------------------|-------------------|--------|----------|------------|-----------|---------|----------|---------|----------|---------|----------|------------|-------------|--------|
|                   | Brunei            |        | Cambodia |            | Indonesia |         | Lao PDR  |         | Malaysia |         | Myanmar  |            | Philippines |        |
|                   | Quantity          | Values | Quantity | Values     | Quantity  | Values  | Quantity | Values  | Quantity | Values  | Quantity | Values     | Quantity    | Values |
| Brunei            | N/A               |        |          |            |           |         |          |         |          |         |          |            |             |        |
| Cambodia          | N/A               |        |          |            |           |         |          |         |          |         |          |            |             |        |
| Indonesia         |                   |        |          |            |           |         |          |         |          |         |          |            |             |        |
| Lao PDR           |                   |        |          |            |           |         |          |         |          |         |          |            |             |        |
| Malaysia          |                   |        | 24,401   | 20,530,201 | 26        | 31,784  |          |         |          |         | 100,116  | 38,390,835 |             |        |
| Myanmar           | N/A               |        |          |            |           |         |          |         |          |         |          |            |             |        |
| Philippines       |                   |        | 220      | 125,218    |           |         |          |         |          |         | 145,817  | 41,752,069 |             |        |
| Singapore         |                   |        | 11,411   | 10,240,307 | 78        | 121,240 |          |         | 102      | 108,336 | 17,086   | 6,488,630  | 23          | 36,081 |
| Thailand          |                   |        | 1,695    | 460,256    |           |         | 5,403    | 938,504 | 0.01     | 45      | 19,459   | 3,454,515  |             |        |
| Vietnam           | N/A               |        |          |            |           |         |          |         |          |         |          |            |             |        |

| Importing Country | Country of Origin |        |          |             |           |             | Total within ASEAN |             | Total outside ASEAN |             | Total     |             |
|-------------------|-------------------|--------|----------|-------------|-----------|-------------|--------------------|-------------|---------------------|-------------|-----------|-------------|
|                   | Singapore         |        | Thailand |             | Vietnam   |             |                    |             |                     |             |           |             |
|                   | Quantity          | Values | Quantity | Values      | Quantity  | Values      | Quantity           | Values      | Quantity            | Values      | Quantity  | Values      |
| Brunei            | N/A               |        |          |             |           |             |                    |             |                     |             |           |             |
| Cambodia          | N/A               |        |          |             |           |             |                    |             |                     |             |           |             |
| Indonesia         | 0.03              | 309    |          |             | 10,293    | 5,194,311   | 10,293             | 5,194,620   | 480                 | 458,610     | 10,772    | 5,653,230   |
| Lao PDR           |                   |        | 24,350   | 9,983,500   | 1,220     | 312,720     | 25,570             | 10,296,220  | 390                 | 107,198     | 25,960    | 10,403,418  |
| Malaysia          |                   |        | 69,282   | 36,259,052  | 419,123   | 203,468,606 | 612,948            | 298,680,478 | 273,497             | 147,215,480 | 886,445   | 445,895,957 |
| Myanmar           | N/A               |        |          |             |           |             |                    |             |                     |             |           |             |
| Philippines       |                   |        | 64,513   | 23,848,888  | 1,699,727 | 560,858,736 | 1,910,277          | 626,584,911 | 66,011              | 77,348,864  | 1,976,289 | 703,933,775 |
| Singapore         |                   |        | 133,193  | 141,372,741 | 93,959    | 54,384,818  | 255,853            | 212,752,153 | 149,484             | 108,665,565 | 405,337   | 321,417,718 |
| Thailand          | 0.01              | 55     |          |             | 4,349     | 2,116,551   | 30,906             | 6,969,926   | 10,459              | 9,320,256   | 41,366    | 16,290,182  |
| Vietnam           | N/A               |        |          |             |           |             |                    |             |                     |             |           |             |

**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

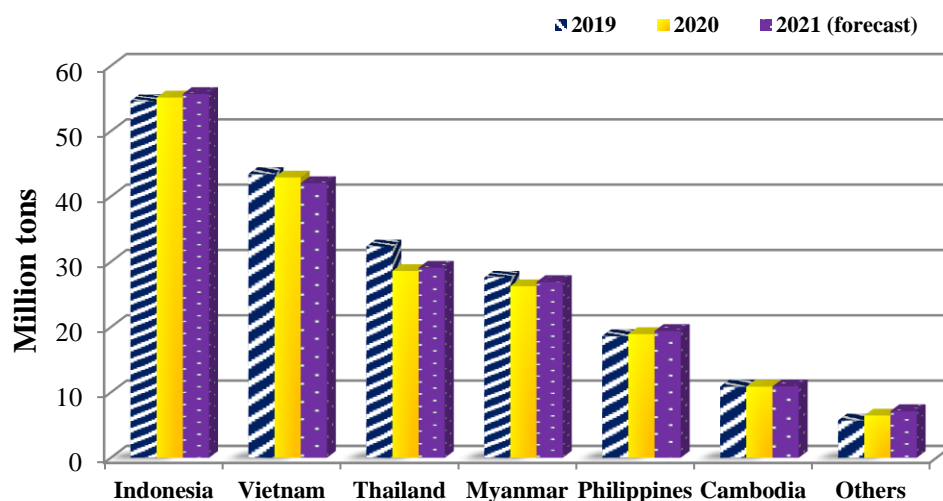
| Country          | Grade            | Year | Jan.  | Feb.  | Mar.  | Apr.  | May   | Jun.  | Jul.  | Aug.  | Sep.  | Oct.  | Nov.  | Dec.  | Average |
|------------------|------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| <b>Cambodia</b>  | Not specified    | 2020 | 1,400 | 1,400 | 1,375 | 1,347 | 1,400 | 1,400 | 1,400 | 1,400 | 1,400 | 1,400 | 1,390 | *1418 | 1,392   |
| <b>Indonesia</b> | Glutinous Rice   | 2019 | 1,833 | *2124 | 2,547 | 1,990 | 1,980 | *2095 | 2,175 | 1,197 | 1,980 | *1991 | 1,942 | 2,483 | 2,014   |
|                  |                  | 2020 | *1764 | 1,990 | 1,181 | 2,122 | 1,923 | 2,039 | 2,274 | *1899 | *1899 | 2,222 | *1931 | *1931 | 1,964   |
| <b>Lao PDR</b>   | Hommali Rice - A | 2019 | N/A   |       |       |       |       |       |       |       | 748   | 718   | 635   | 536   | 659     |
|                  |                  | 2020 | 563   | 590   | 593   | 539   | 534   | 508   | 527   | 550   | 651   | 596   | *565  | *565  | 565     |
| <b>Malaysia</b>  | Not specified    | 2019 | 459   | 445   | 448   | 437   | 427   | 977   | 1,006 | 1,098 | 920   | 1,021 | 979   | *974  | 747     |
|                  |                  | 2020 | 1,085 | 925   | 1,032 | *1014 | 416   | 400   | 414   | 418   | *411  | *412  | *412  | *413  | 670     |
| <b>Myanmar</b>   | Not specified    | 2019 | 309   | 321   | 306   | 309   | 298   | 295   | 300   | 317   | 316   | 306   | 295   | 298   | 306     |
|                  |                  | 2020 | 300   | 313   | 322   | 342   | 367   | 397   | 387   | 379   | 403   | *391  | *397  | *394  | 357     |
| <b>Thailand</b>  | Milled Rice 5%   | 2019 | 410   | 409   | 406   | 410   | 411   | 421   | 415   | 430   | 425   | 424   | 421   | 432   | 418     |
|                  |                  | 2020 | 451   | 457   | 517   | 564   | 509   | 521   | 474   | 512   | 504   | 471   | 495   | *490  | 498     |
|                  | Hommali Rice     | 2019 | 1,152 | 1,173 | 1,145 | 1,134 | 1,142 | 1,132 | 1,128 | 1,207 | 1,239 | 1,221 | 1,134 | 1,096 | 1,159   |
|                  |                  | 2020 | 1,088 | 1,056 | 1,039 | 1,126 | 1,097 | 1,084 | 1,008 | 990   | 923   | 914   | 885   | *907  | 1,019   |
| <b>Vietnam</b>   | Milled Rice 5%   | 2019 | 447   | 424   | 431   | 414   | 434   | 443   | 442   | 448   | 440   | 463   | 461   | 456   | 442     |
|                  |                  | 2020 | 486   | 447   | 459   | 499   | 516   | 505   | 484   | 998   | 508   | 529   | *549  | *561  | 543     |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 15 CIF Price of rice in selected ASEAN countries**

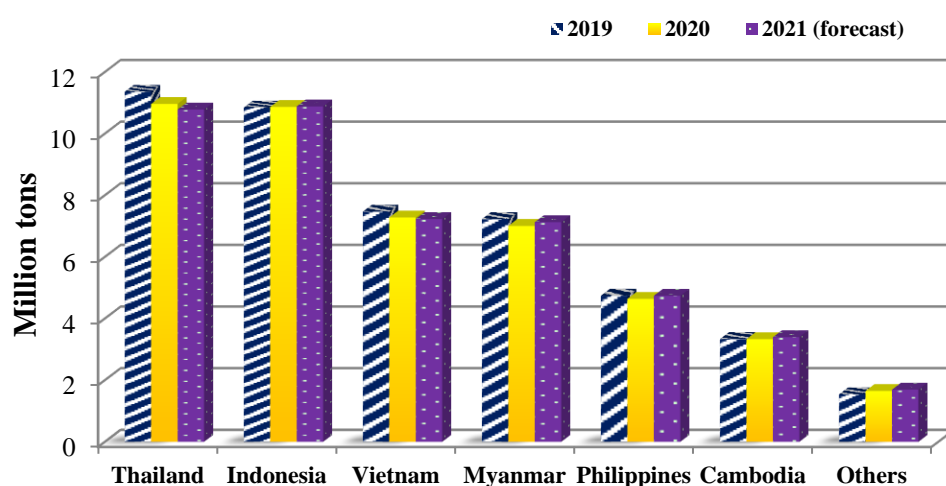
Unit: US\$/Ton

| Country          | Grade            | Year | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. | Average |
|------------------|------------------|------|------|------|------|------|-----|------|------|------|------|------|------|------|---------|
| <b>Indonesia</b> | Not specified    | 2019 | N/A  |      |      |      |     |      |      |      |      | 497  | 647  | 758  | 634     |
|                  |                  | 2020 | 512  | *527 | *520 | *520 | 533 | 537  | 458  | 652  | 507  | 592  | *536 | *536 | 541     |
| <b>Lao PDR</b>   | Hommali Rice - A | 2019 | N/A  |      |      |      |     |      |      |      |      | 748  | 718  | 635  | 659     |
|                  |                  | 2020 | 646  | 682  | 675  | 677  | 560 | 520  | 634  | 723  | 740  | 734  | *659 | *659 | 659     |
| <b>Malaysia</b>  | Not specified    | 2019 | 482  | 503  | 444  | 456  | 442 | 440  | 470  | 464  | 559  | 555  | 502  | 526  | 487     |
|                  |                  | 2020 | 510  | 486  | 462  | 479  | 548 | 524  | 507  | 483  | *505 | *513 | *508 | *503 | 500     |
| <b>Singapore</b> | Not specified    | 2019 | 730  | 710  | 670  | 752  | 747 | 782  | 764  | 793  | 726  | 717  | 746  | 738  | 740     |
|                  |                  | 2020 | 724  | 731  | 811  | 863  | 858 | 867  | 757  | 738  | 704  | 662  | 772  | 772  | 772     |

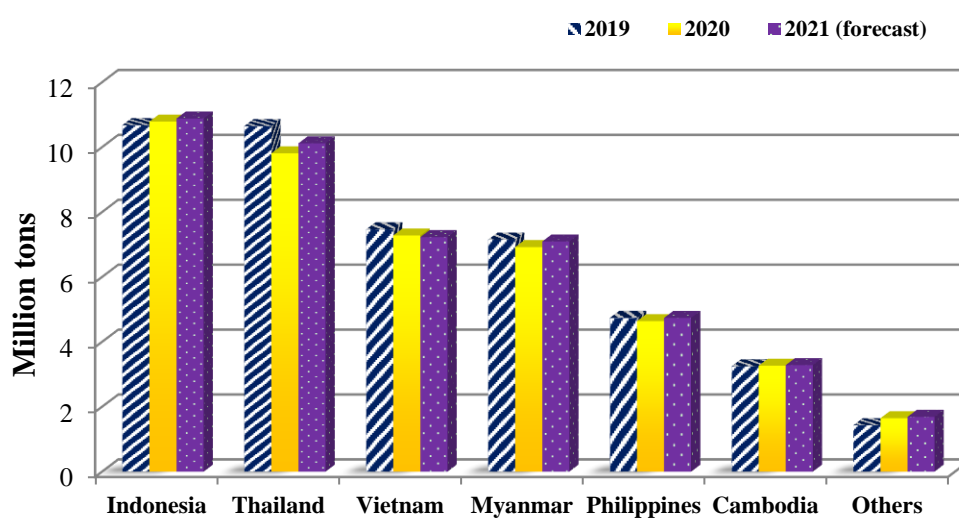
**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.



**Figure 1 Paddy production of selected countries in ASEAN, 2019 – 2021**



**Figure 2 Paddy planted area of selected countries in ASEAN, 2019 – 2021**



**Figure 3 Paddy harvested area of selected countries in ASEAN, 2019 – 2021**



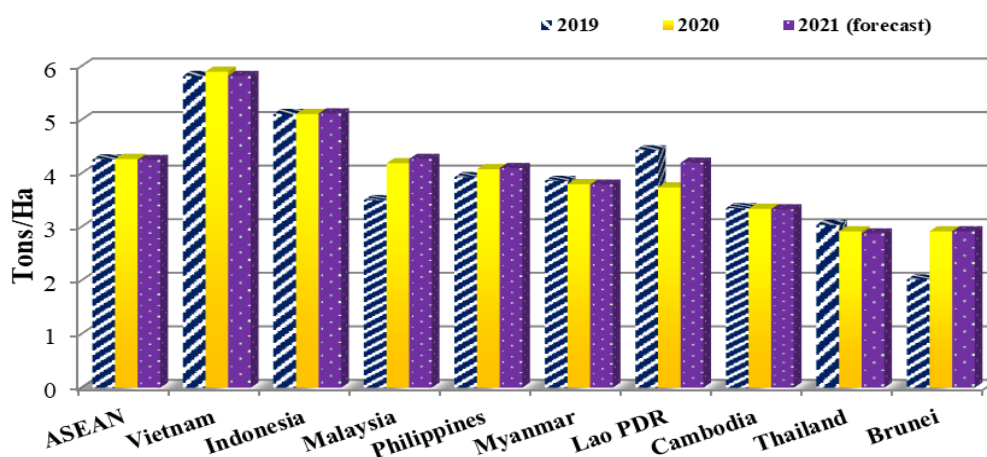


Figure 4 Paddy yield of countries in ASEAN, 2019 – 2021

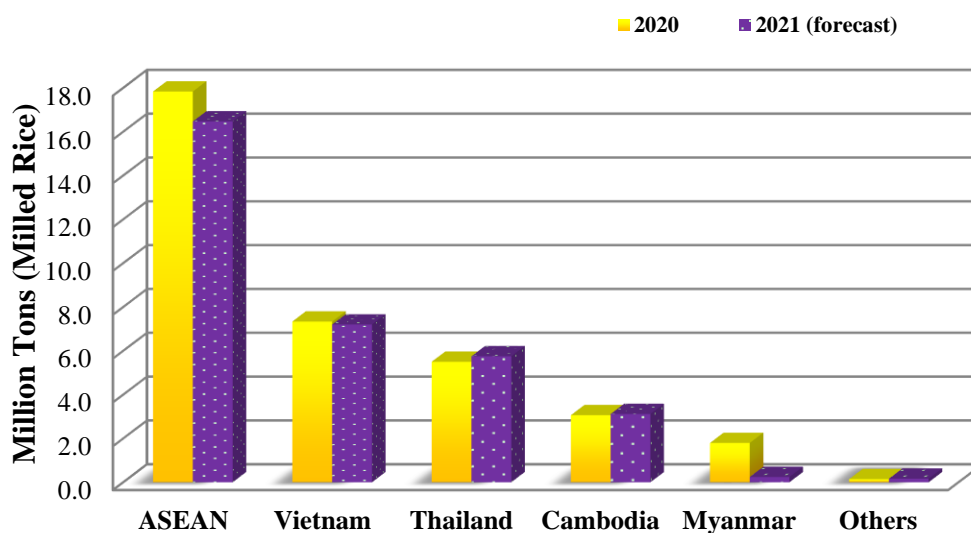
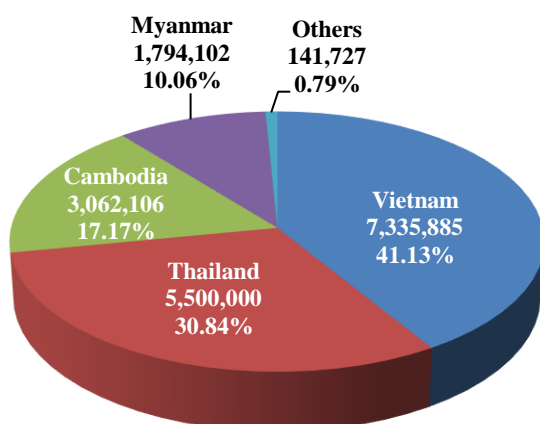
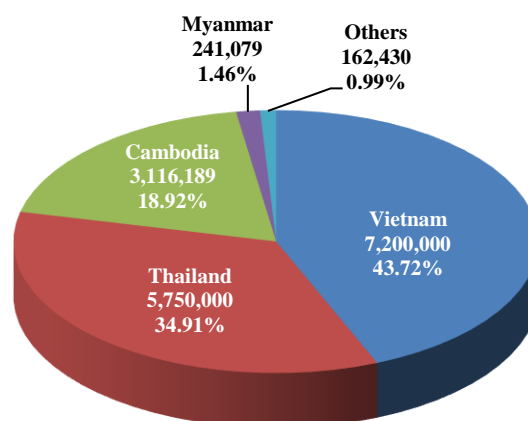


Figure 5 Amount of rice export (million tons) of selected countries in ASEAN in 2020 – 2021



**Total 17.83 million tons**

Figure 6 Share of rice export (tons) among ASEAN countries, 2020



**Total 16.47 million tons**

Figure 7 Share of rice export (tons) among ASEAN countries, 2021

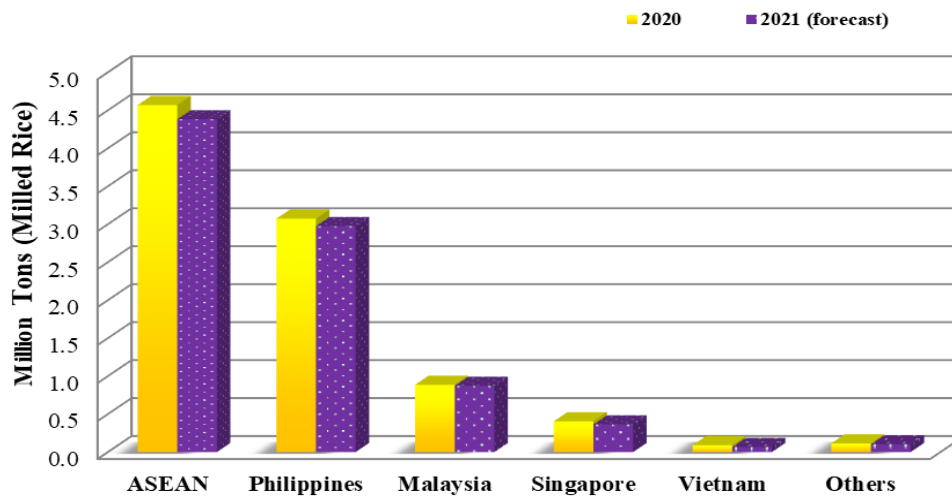
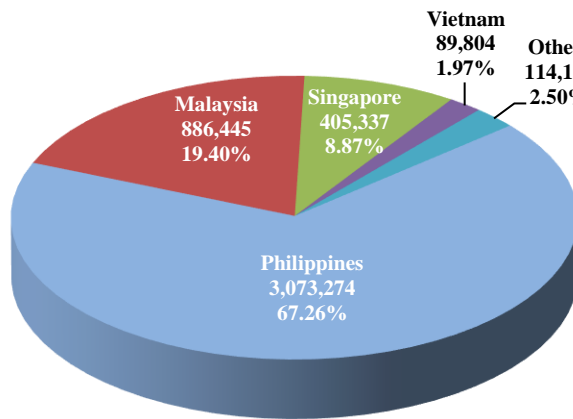
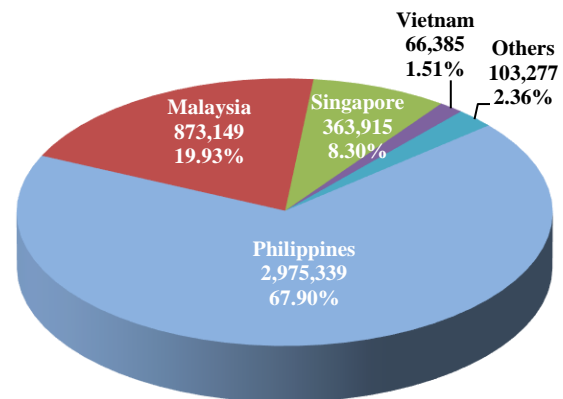


Figure 8 Amount of rice import (million tons) by selected countries in ASEAN in 2020 – 2021



*Total 4.57 million tons*

Figure 9 Share of rice import (tons) among ASEAN countries, 2020



*Total 4.38 million tons*

Figure 10 Share of rice import (tons) among ASEAN countries, 2021

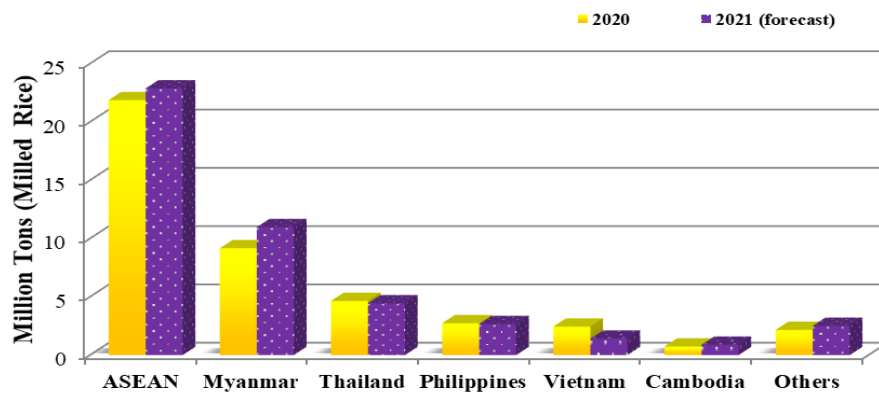


Figure 11 Amount of ending stock of rice in ASEAN countries, 2020 – 2021

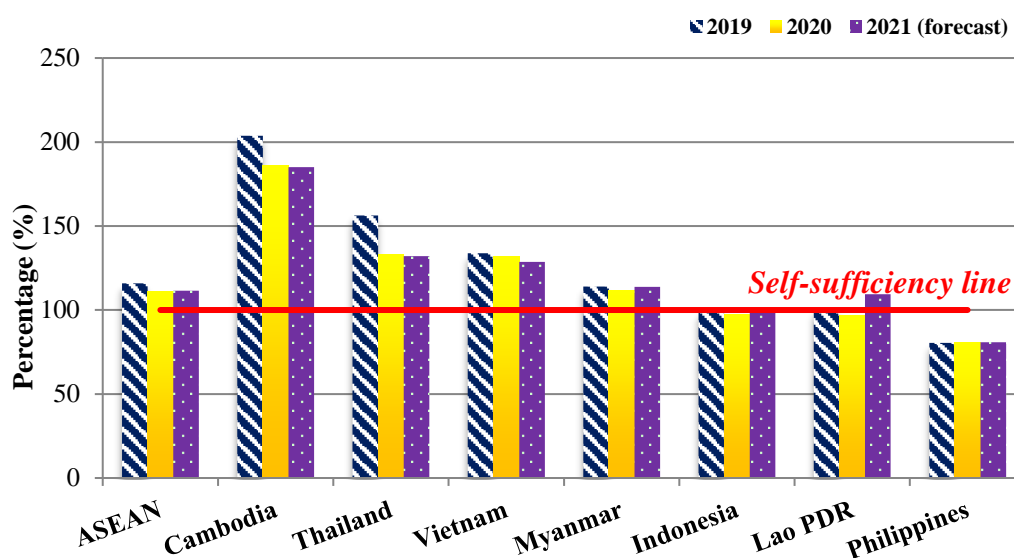


Figure 12 Ratio of rice production to domestic utilization in ASEAN countries, 2019 – 2021

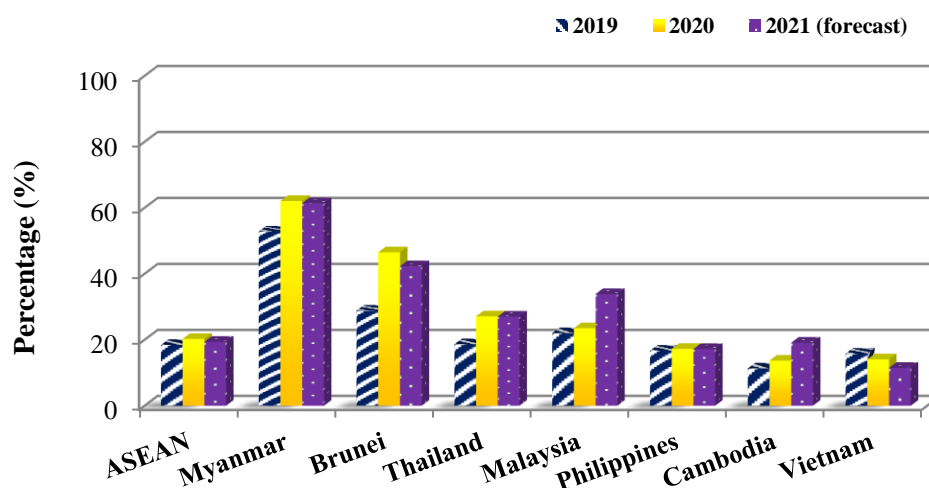


Figure 13 Ratio of rice beginning stock to domestic utilization in ASEAN countries, 2019 – 2021

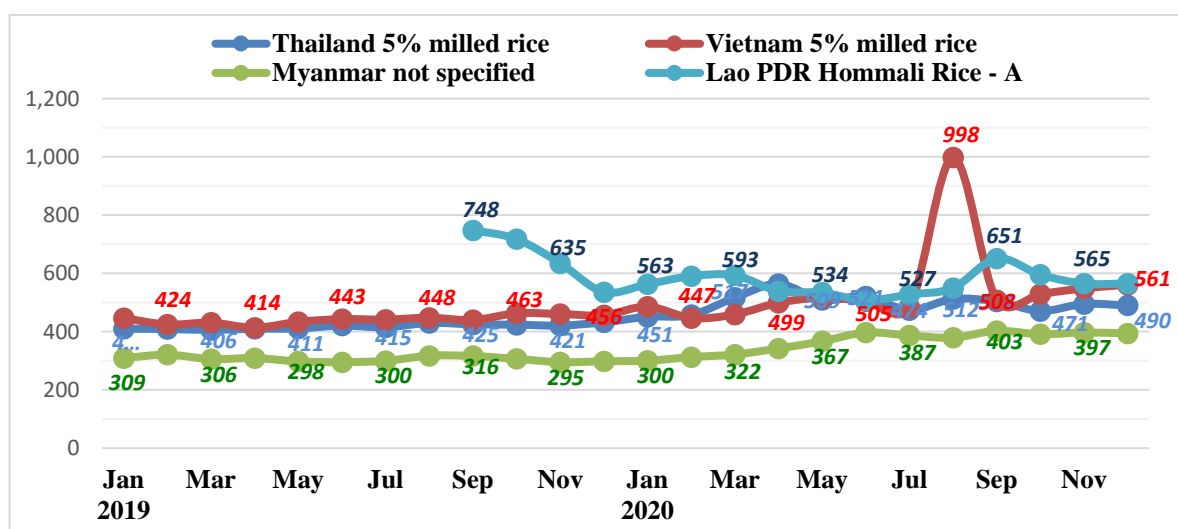


Figure 14 FOB price (US\$/Ton) of milled rice of selected countries in ASEAN in 2019 – 2020

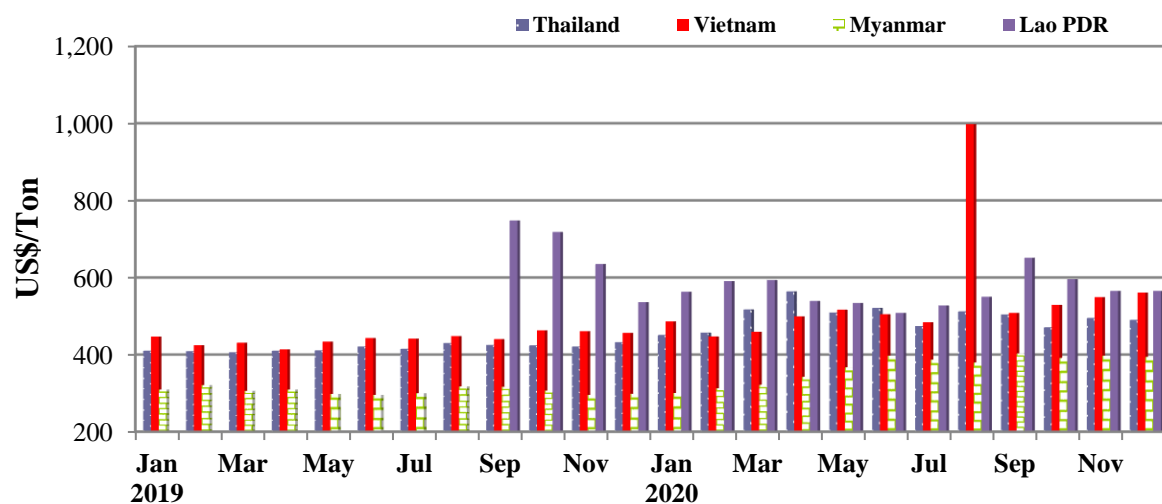


Figure 15 FOB price (US\$/Ton) of milled rice of selected countries in ASEAN in 2019 – 2020

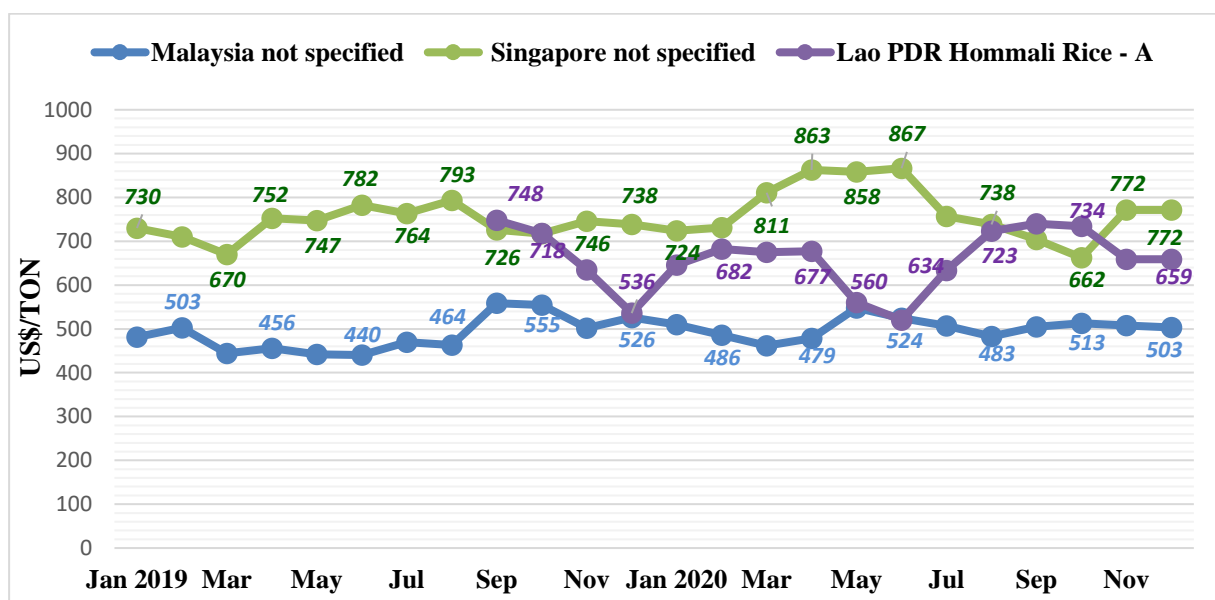


Figure 16 CIF price (US\$/Ton) of milled rice of selected countries in ASEAN in 2019 – 2020

# Maize Outlook for 2021



An increase in the import and beginning stock is the main reason for increasing in ASEAN maize supply. The increasing supply is expected to be 8.69 percent or 6.55 million tons from 75.34 million tons in 2020 to 81.89 million tons in 2021 (Table 16).

Maize production is forecasted to increase around 0.30 million tons or 0.67 percent from 44.86 million tons in 2020 to 45.16 million tons in 2021. The beginning stock is expected to increase around 40.55 percent or 4.50 million tons from 11.10 million tons in 2020 to 15.60 million tons in 2021.

Maize's demand in 2021 is expected to increase around 8.69 percent. Domestic utilization increases 2.65 million tons from 56.68 million tons in 2020 to 59.33 million tons in 2021. The ending stock of maize is also expected to increase around 38.07 percent from 15.60 million tons in 2020 to 21.54 million tons in 2021.

Export of maize is expected to decrease around 66.54 percent from 3.06 million tons in 2020 to 1.02 million tons in 2021.

The ratio of production to domestic utilization (self-sufficiency ratio) for the region is expected to decrease 3.02 percent from 79.14 percent in 2020 to 76.12 percent in 2021.

The beginning stock to domestic utilization ratio (food security ratio) in 2020 is forecasted to increase 6.71 percent from 19.58 percent in 2020 to 26.29 percent in 2021. This indicates that the food (feed) security situation in ASEAN region is improving.

**Table 16 Summary of the ASEAN maize situation, 2020 – 2021**

Unit: Million tons

| Items  | 2020  | 2021  | Change   |        |
|--|-------|-------|----------|--------|
|  |       |       | Quantity | %      |
| Supply (Million tons)                                | 75.34 | 81.89 | 6.55     | 8.69   |
| Beginning stock                                      | 11.10 | 15.60 | 4.50     | 40.55  |
| Production   | 44.86 | 45.16 | 0.30     | 0.67   |
| Import   | 19.39 | 21.13 | 1.75     | 9.01   |
| Demand (Million tons)                                | 75.34 | 81.89 | 6.55     | 8.69   |
| Domestic utilization                                 | 56.68 | 59.33 | 2.65     | 4.67   |
| Export   | 3.06  | 1.02  | -2.04    | -66.54 |
| Ending stock   | 15.60 | 21.54 | 5.94     | 38.07  |
| Ratio of production to domestic utilization (%)      | 79.14 | 76.12 | -3.02    | -      |
| Ratio of beginning stock to domestic utilization (%) | 19.58 | 26.29 | 6.71     | -      |



## ASEAN Maize Situation in 2020

### ► Production

*ASEAN maize production in 2020 (crop year 2019/20) was estimated at 44.86 million tons, which increased 1.19 million tons or about 2.73 percent from 43.67 million tons in 2019 (crop year 2018/19). An increase of maize production in 2020 was found in Indonesia, the Philippines, and Myanmar. The production of other countries, namely Thailand, Vietnam, Cambodia and Lao PDR decreased due to the declining of planted area or yield (Table 17-20, Figure 17-20).*

For **Cambodia**, the decrease in production is attributed to the decrease in planted area and yield. The decrease mainly caused by unfavorable weather affected by flood.

For **Indonesia**, the increase in production is attributed to the increase in planted area, harvested area, and yield. The increase in planted area came from favorable weather together with special assistant. The increase in yield was because farmers used more improved varieties, used more fertilizer and took better care of their crop.

For **Lao PDR**, the decrease in production is attributed to the decrease in yield as farmers used less fertilizer.

For **Myanmar**, a slightly increase in production is attributed to the increase in yield because farmers took better care of the crop.

For **the Philippines**, the increase in production is attributed to the increase in yield because farmers used more improved varieties and used more fertilizer.

For **Thailand**, the decrease in production is attributed to the decrease in yield, which affected by drought and labor shortage.

For **Vietnam**, the decrease in production is attributed to the decrease in planted area. This is because farmers changed to grow other crops as the maize price was decreased.

### ► Utilization and Stock

Maize utilization in ASEAN in 2020 was estimated at 56.68 million tons, which increased 0.53 million tons or 0.95 percent compared to 56.15 million tons in 2019 (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 Indonesia, Lao PDR, the Philippines, Thailand, and Vietnam.

The beginning stock of maize in ASEAN in 2020 was estimated at 11.10 million tons, which increased 4.82 million tons from 6.28 million tons in 2019 (Table 22-23). The ratio of maize production to domestic utilization for the whole ASEAN in 2020 was estimated at 79.14 percent compared to 78.43 percent in year 2019. This indicated that the ASEAN itself produced inadequate maize 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 2020 was estimated to be 19.58 percent. This indicated that the region is not secured enough in terms of feed requirement (Table 26, Figure 29). Cambodia, Indonesia, 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 2020 is forecasted to be 3.06 million tons compared to 19.39 million tons of maize import (Table 23, Figure 21-22, 24-25). In 2020, Myanmar, the biggest exporter in ASEAN, is expected to export 2.46 million tons or around 80.41 percent of the total maize export from the ASEAN (Table 23, Figure 21-22).

The major importing countries in the region are Vietnam, Thailand, Malaysia, Indonesia, and the Philippines (Table 23, Figure 24-25). The quantity and value of maize exported by countries of destination and the quantity and value of import 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 2019 and 2020 are shown in Table 29-30 and Figure 30-31. The annual average of Indonesia FOB prices in 2020 (January-December) was 399 US\$/ton, which decreased from 527 US\$/ton as the yearly average in 2019. For Cambodia, Lao PDR, Malaysia, Myanmar and Thailand, average FOB prices of 2020 were 274, 245, 316, 167 and 288 US\$/ton, respectively. The average CIF prices in 2020 (January-December) in Singapore, Malaysia, Indonesia, and Vietnam were 280, 217, 200 and 201, respectively.

### ► *Damaged Area*

The damaged area of maize in 2020 was reported to be 96,148 hectares, of which 83,646 hectares caused by drought. The most affected area caused by drought was occurred in Thailand (Table 21).

## Prospects for Maize in 2021

### ► *Production*

Maize production in ASEAN in 2021 (crop year 2020/21) was estimated at 45.16 million tons. The increase has occurred in Indonesia, Lao PDR, Myanmar, the Philippines, and Thailand. The most increase in term of quantity was found in Lao PDR approximately 0.14 million tons (Table 17).

For **Cambodia**, the decrease in production is attributed to the decrease in planted area, harvested 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, which comes from favorable weather together with special assistant.

For **Lao PDR**, the increase in production is attributed to the increase in planted area and yield. The main reason caused by good caring and government policy.

For **Myanmar**, the maize production is projected to increase due to the increase in planted area and harvested area. The main reason caused by farmers' response to price increase.

**The Philippines** is forecasted to increase its production due to increasing in planted area and harvested area.

For **Thailand**, the increase in production is due to the increase in harvested area. The prediction is expected to increase because price of competing crop decreases and farmers take good of care crop.

In **Vietnam**, the production is forecasted to decrease because planted area and yield were expected to be decrease due to government policy (Table 17-20, Figure 17-20).

### ► *Utilization and Stock*

The domestic utilization of maize in ASEAN is forecasted to be 59.33 million tons in 2021, an increase of 2.64 million tons from 56.68 million tons in 2020 (Table 23-24). The estimate of the beginning stock for the year 2021 is around 15.60 million tons, an increase of 4.50 million tons from 11.10 million tons in 2020.

In 2021 the ratio of production to domestic utilization is expected to be 76.12 percent, decreasing 3.02 percent from 79.14 percent in 2020 (Table 25, Figure 28). The ratio of beginning stock to domestic utilization ratio in 2021 is expected to be 26.29 percent, which increases 6.71 percent from 2020 (Table 26, Figure 29).

### ► *Trade*

The maize export from ASEAN is projected to be 1.02 million tons in 2021, a decrease of 2.03 million tons compared to 3.06 million tons in 2020. For the import by the ASEAN, it is forecasted to be 21.13 million tons in 2021, increasing from 19.39 million tons in 2020 (Table 23-24, Figure 21, 23, 24 and 26).

**Table 17 Maize production in ASEAN countries, 2019 – 2021**

Unit: 1,000 Tons

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |             | 2021<br>(2020/21) | Change<br>2021 over 2020 |             |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
|              |                   |                   | Quantities               | (%)         |                   | Quantities               | (%)         |
| <b>ASEAN</b> | <b>43,666.94</b>  | <b>44,856.92</b>  | <b>1,189.98</b>          | <b>2.73</b> | <b>45,157.68</b>  | <b>300.76</b>            | <b>0.67</b> |
| Brunei       | N/A               |                   |                          |             |                   |                          |             |
| Cambodia     | 1,303.75          | 985.11            | -318.64                  | -24.44      | 822.15            | -162.97                  | -16.54      |
| Indonesia    | 22,586.21         | 23,950.96         | 1,364.75                 | 6.04        | 24,044.98         | 94.02                    | 0.39        |
| Lao PDR      | 615.38            | 610.60            | -4.77                    | -0.78       | 753.51            | 142.91                   | 23.41       |
| Malaysia     | N/A               |                   |                          |             |                   |                          |             |
| Myanmar      | 1,984.50          | 1,986.13          | 1.63                     | 0.08        | 2,066.23          | 80.11                    | 4.03        |
| Philippines  | 7,608.46          | 8,030.04          | 421.58                   | 5.54        | *8,111.25         | 81.21                    | 1.01        |
| Singapore    | N/A               |                   |                          |             |                   |                          |             |
| Thailand     | 4,812.42          | 4,702.99          | -109.43                  | -2.27       | 4,787.56          | 84.58                    | 1.80        |
| Vietnam      | 4,756.23          | 4,591.10          | -165.13                  | -3.47       | 4,572.00          | -19.10                   | -0.42       |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 18 Maize planted area in ASEAN countries, 2019 – 2021**

Unit: 1,000 Hectares

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |             | 2021<br>(2020/21) | Change<br>2021 over 2020 |             |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
|              |                   |                   | Quantities               | (%)         |                   | Quantities               | (%)         |
| <b>ASEAN</b> | <b>9,564.33</b>   | <b>9,830.60</b>   | <b>266.27</b>            | <b>2.78</b> | <b>9,861.78</b>   | <b>31.18</b>             | <b>0.32</b> |
| Brunei       | N/A               |                   |                          |             |                   |                          |             |
| Cambodia     | 234.98            | 225.98            | -8.99                    | -3.83       | 179.15            | -46.84                   | -20.73      |
| Indonesia    | 4,101.66          | 4,336.39          | 234.73                   | 5.72        | 4,369.24          | 32.85                    | 0.76        |
| Lao PDR      | 123.51            | 124.70            | 1.19                     | 0.96        | 135.07            | 10.37                    | 8.31        |
| Malaysia     | N/A               |                   |                          |             |                   |                          |             |
| Myanmar      | 520.85            | 519.65            | -1.20                    | -0.23       | 556.78            | 37.13                    | 7.15        |
| Philippines  | 2,537.23          | 2,508.11          | -29.12                   | -1.15       | *2,545.24         | 37.13                    | 1.48        |
| Singapore    | N/A               |                   |                          |             |                   |                          |             |
| Thailand     | 1,055.01          | 1,158.47          | 103.45                   | 9.81        | 1,122.81          | -35.66                   | -3.08       |
| Vietnam      | 991.09            | 957.30            | -33.79                   | -3.41       | 953.50            | -3.80                    | -0.40       |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 19 Maize harvested area in ASEAN countries, 2019 – 2021**

Unit: 1,000 Hectares

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |             | 2021<br>(2020/21) | Change<br>2021 over 2020 |             |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
|              |                   |                   | Quantities               | (%)         |                   | Quantities               | (%)         |
| <b>ASEAN</b> | <b>9,539.96</b>   | <b>9,721.33</b>   | <b>181.36</b>            | <b>1.90</b> | <b>9,821.18</b>   | <b>99.85</b>             | <b>1.03</b> |
| Brunei       | N/A               |                   |                          |             |                   |                          |             |
| Cambodia     | 227.98            | 211.41            | -16.57                   | -7.27       | 179.15            | -32.26                   | -15.26      |
| Indonesia    | 4,089.48          | 4,327.28          | 237.79                   | 5.81        | 4,369.24          | 41.96                    | 0.97        |
| Lao PDR      | 123.51            | 124.70            | 1.19                     | 0.96        | 135.07            | 10.37                    | 8.31        |
| Malaysia     | N/A               |                   |                          |             |                   |                          |             |
| Myanmar      | 519.24            | 515.73            | -3.51                    | -0.68       | 538.95            | 23.22                    | 4.50        |
| Philippines  | 2,537.23          | 2,508.11          | -29.12                   | -1.15       | *2,545.24         | 37.13                    | 1.48        |
| Singapore    | N/A               |                   |                          |             |                   |                          |             |
| Thailand     | 1,051.43          | 1,076.81          | 25.37                    | 2.41        | 1,100.04          | 23.24                    | 2.16        |
| Vietnam      | 991.09            | 957.30            | -33.79                   | -3.41       | 953.50            | -3.80                    | -0.40       |

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

**Table 20 Maize yield in ASEAN countries, 2019 – 2021**

Unit: Tons/Hectares

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |             | 2021<br>(2020/21) | Change<br>2021 over 2020 |              |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|--------------|
|              |                   |                   | Quantities               | (%)         |                   | Quantities               | (%)          |
| <b>ASEAN</b> | <b>4.58</b>       | <b>4.61</b>       | <b>0.03</b>              | <b>0.66</b> | <b>4.60</b>       | <b>-0.01</b>             | <b>-0.22</b> |
| Brunei       | N/A               |                   |                          |             |                   |                          |              |
| Cambodia     | 5.72              | 4.66              | -1.06                    | -18.53      | 4.59              | -0.07                    | -1.50        |
| Indonesia    | 5.52              | 5.53              | 0.01                     | 0.18        | 5.50              | -0.03                    | -0.54        |
| Lao PDR      | 4.98              | 4.90              | -0.08                    | -1.61       | 5.58              | 0.68                     | 13.88        |
| Malaysia     | N/A               |                   |                          |             |                   |                          |              |
| Myanmar      | 3.82              | 3.85              | 0.03                     | 0.79        | 3.83              | -0.02                    | -0.52        |
| Philippines  | 3.00              | 3.20              | 0.20                     | 6.67        | *3.19             | -0.01                    | -0.31        |
| Singapore    | N/A               |                   |                          |             |                   |                          |              |
| Thailand     | 4.58              | 4.37              | -0.21                    | -4.59       | 4.35              | -0.02                    | -0.46        |
| Vietnam      | 4.80              | 4.80              | 0.00                     | 0.00        | 4.79              | -0.01                    | -0.21        |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 21 Maize damaged area in ASEAN by cause of damage, 2020**

Unit: Hectares

| Country      | Cause of Damage (Hectares) |               |          |              |             |           |               |
|--------------|----------------------------|---------------|----------|--------------|-------------|-----------|---------------|
|              | Flood                      | Drought       | Pests    | Diseases     | Unspecified | Others    | Total         |
| <b>ASEAN</b> | <b>8,574</b>               | <b>83,646</b> | <b>2</b> | <b>1,057</b> | <b>-</b>    | <b>79</b> | <b>96,148</b> |
| Brunei       | N/A                        |               |          |              |             |           |               |
| Cambodia     | 1,459                      | -             | -        | -            | -           | -         | 1,459         |
| Indonesia    | 3,277                      | 4,777         | -        | 1,057        | -           | -         | 9,111         |
| Lao PDR      | N/A                        |               |          |              |             |           |               |
| Malaysia     | N/A                        |               |          |              |             |           |               |
| Myanmar      | 3,838                      | -             | 2        | -            | -           | 79        | 3,919         |
| Philippines  | N/A                        |               |          |              |             |           |               |
| Singapore    | N/A                        |               |          |              |             |           |               |
| Thailand     | -                          | 78,869        | -        | -            | 2,790       | -         | 81,659        |
| Vietnam      | N/A                        |               |          |              |             |           |               |

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

**Table 22 Maize balance sheet of ASEAN countries, 2019**

Unit: Tons

| Country      | Supply           |                   |                   |                   | Demand               |                  |                   |                   |
|--------------|------------------|-------------------|-------------------|-------------------|----------------------|------------------|-------------------|-------------------|
|              | Beginning Stock  | Production        | Imports           | Total             | Domestic Utilization | Exports          | Ending stock      | Total             |
| <b>ASEAN</b> | <b>6,281,689</b> | <b>44,037,477</b> | <b>18,570,293</b> | <b>68,889,459</b> | <b>56,148,914</b>    | <b>1,642,026</b> | <b>11,098,519</b> | <b>68,889,459</b> |
| Brunei       | N/A              |                   |                   |                   |                      |                  |                   |                   |
| Cambodia     | *175,907         | 1,303,751         | -                 | 1,479,658         | 959,221              | 205,886          | *314,551          | 1,479,658         |
| Indonesia    | *2,762,620       | 22,586,207        | 1,016,692         | 26,365,519        | 18,181,100           | 1,702            | *8,182,717        | 26,365,519        |
| Lao PDR      | 136,805          | 615,375           | 1,110             | 753,290           | 499,818              | 156,900          | 96,571            | 753,290           |
| Malaysia     | -                | -                 | 1,721,919         | 1,721,919         | 1,720,139            | 1,779            | -                 | 1,721,919         |
| Myanmar      | 1,781,244        | 1,984,497         | 8,146             | 3,773,887         | 1,450,778            | 902,897          | 1,420,212         | 3,773,887         |
| Philippines  | 676,000          | 7,979,000         | 458,000           | 9,113,000         | 8,300,000            |                  | 813,000           | 9,113,000         |
| Singapore    | -                | -                 | 41,618            | 41,618            | 40,202               | 1,416            | -                 | 41,618            |
| Thailand     | *175,926         | 4,812,415         | *3,827,146        | 8,815,487         | 8,574,091            | 1,788            | *239,608          | 8,815,487         |
| Vietnam      | 573,187          | 4,756,232         | 11,495,663        | 16,825,082        | 16,423,565           | 369,657          | 31,860            | 16,825,082        |

**Remark:** \* The value is estimated by AFSIS Secretariat, N/A refers to data is not available.**Table 23 Maize balance sheet of ASEAN countries, 2020**

Unit: Tons

| Country      | Supply            |                   |                   |                   | Demand               |                  |                   |                   |
|--------------|-------------------|-------------------|-------------------|-------------------|----------------------|------------------|-------------------|-------------------|
|              | Beginning Stock   | Production        | Imports           | Total             | Domestic Utilization | Exports          | Ending stock      | Total             |
| <b>ASEAN</b> | <b>11,098,519</b> | <b>44,856,920</b> | <b>19,386,108</b> | <b>75,341,547</b> | <b>56,683,892</b>    | <b>3,057,994</b> | <b>15,599,660</b> | <b>75,341,547</b> |
| Brunei       | N/A               |                   |                   |                   |                      |                  |                   |                   |
| Cambodia     | *314,551          | 985,113           | -                 | 1,299,664         | 803,844              | 202,798          | *293,023          | 1,299,664         |
| Indonesia    | *8,182,717        | 23,950,959        | 675,212           | 32,808,888        | 18,820,234           | 64,014           | *13,924,640       | 32,808,888        |
| Lao PDR      | 96,571            | 610,600           | 1,300             | 708,471           | 517,005              | 71,875           | 119,591           | 708,471           |
| Malaysia     | -                 | -                 | 1,234,737         | 1,234,737         | 1,232,507            | 2,231            | -                 | 1,234,737         |
| Myanmar      | 1,420,212         | 1,986,126         | 6,135             | 3,412,473         | 933,895              | 2,458,898        | 19,680            | 3,412,473         |
| Philippines  | 813,000           | 8,030,037         | 637,304           | 9,480,341         | *8,581,950           | 1,620            | 896,771           | 9,480,341         |
| Singapore    | -                 | -                 | 21,174            | 21,174            | 20,454               | 720              | -                 | 21,174            |
| Thailand     | *239,608          | 4,702,985         | *3,830,898        | 8,773,491         | 8,577,295            | 595              | *195,601          | 8,773,491         |
| Vietnam      | 31,860            | 4,591,100         | 12,979,347        | 17,602,306        | 17,196,708           | 255,244          | 150,354           | 17,602,306        |

**Remark:** \* The value is estimated by AFSIS Secretariat, N/A refers to data is not available.**Table 24 Maize balance sheet of ASEAN countries, 2021**

Unit: Tons

| Country      | Supply            |                   |                   |                   | Demand               |                  |                   |                   |
|--------------|-------------------|-------------------|-------------------|-------------------|----------------------|------------------|-------------------|-------------------|
|              | Beginning Stock   | Production        | Imports           | Total             | Domestic Utilization | Exports          | Ending stock      | Total             |
| <b>ASEAN</b> | <b>15,599,660</b> | <b>45,157,684</b> | <b>21,131,670</b> | <b>81,889,015</b> | <b>59,326,890</b>    | <b>1,023,594</b> | <b>21,538,531</b> | <b>81,889,014</b> |
| Brunei       | N/A               |                   |                   |                   |                      |                  |                   |                   |
| Cambodia     | *293,023          | 822,147           | -                 | 1,115,170         | *852,997             | 203,312          | *58,861           | 1,115,170         |
| Indonesia    | *13,924,640       | 24,044,983        | *698,845          | 38,668,468        | *19,702,395          | *73,616          | *18,892,457       | 38,668,468        |
| Lao PDR      | 119,591           | 753,512           | 1,108             | 874,210           | 525,927              | 261,156          | 87,128            | 874,210           |
| Malaysia     | -                 |                   | *1,265,606        | 1,265,606         | 1,263,319            | *2,286           |                   | 1,265,606         |
| Myanmar      | 19,680            | 2,066,233         | 898               | 2,086,811         | 801,748              | 173,281          | 1,111,782         | 2,086,811         |
| Philippines  | *896,771          | 8,111,249         | 659,610           | 9,667,630         | *8,795,364           | 1,000            | *871,265          | 9,667,629         |
| Singapore    | -                 | -                 | 31,396            | 31,396            | 30,328               | 1,068            | -                 | 31,396            |
| Thailand     | *195,601          | 4,787,561         | *3,819,687        | 8,802,849         | *8,584,961           | *586             | *217,302          | 8,802,849         |
| Vietnam      | 150,354           | 4,572,000         | 14,654,521        | 19,376,876        | 18,769,852           | 307,289          | 299,735           | 19,376,876        |

**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), 2019 – 2021**

Unit: Tons

| Country      | 2019              |                      |              | 2020              |                      |              | 2021              |                      |              |
|--------------|-------------------|----------------------|--------------|-------------------|----------------------|--------------|-------------------|----------------------|--------------|
|              | Production        | Domestic Utilization | Ratio (%)    | Production        | Domestic Utilization | Ratio (%)    | Production        | Domestic Utilization | Ratio (%)    |
| <b>ASEAN</b> | <b>44,037,477</b> | <b>56,148,914</b>    | <b>78.43</b> | <b>44,856,920</b> | <b>56,683,892</b>    | <b>79.14</b> | <b>45,157,684</b> | <b>59,326,890</b>    | <b>76.12</b> |
| Brunei       | N/A               |                      |              |                   |                      |              |                   |                      |              |
| Cambodia     | 1,303,751         | 959,221              | 135.92       | 985,113           | 803,844              | 122.55       | 822,147           | 852,997              | 96.38        |
| Indonesia    | 22,586,207        | 18,181,100           | 124.23       | 23,950,959        | 18,820,234           | 127.26       | 24,044,983        | 19,702,395           | 122.04       |
| Lao PDR      | 615,375           | 499,818              | 123.12       | 610,600           | 517,005              | 118.10       | 753,512           | 525,927              | 143.27       |
| Malaysia     | -                 | 1,720,139            | 0.00         | -                 | 1,232,507            | -            | -                 | 1,263,319            | 0.00         |
| Myanmar      | 1,984,497         | 1,450,778            | 136.79       | 1,986,126         | 933,895              | 212.67       | 2,066,233         | 801,748              | 257.72       |
| Philippines  | 7,979,000         | 8,300,000            | 96.13        | 8,030,037         | 8,581,950            | 93.57        | 8,111,249         | 8,795,364            | 92.22        |
| Singapore    | -                 | 40,202               | 0.00         | -                 | 20,454               | 0.00         | -                 | 30,328               | 0.00         |
| Thailand     | 4,812,415         | 8,574,091            | 56.13        | 4,702,985         | 8,577,295            | 54.83        | 4,787,561         | 8,584,961            | 55.77        |
| Vietnam      | 4,756,232         | 16,423,565           | 28.96        | 4,591,100         | 17,196,708           | 26.70        | 4,572,000         | 18,769,852           | 24.36        |

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

[24]

**Table 26 Ratio of maize beginning stock to domestic utilization in ASEAN countries (Food security ratio), 2019 – 2021**

Unit: Tons

| Country      | 2019             |                      |              | 2020              |                      |              | 2021              |                      |              |
|--------------|------------------|----------------------|--------------|-------------------|----------------------|--------------|-------------------|----------------------|--------------|
|              | Beginning Stock  | Domestic Utilization | Ratio (%)    | Beginning Stock   | Domestic Utilization | Ratio (%)    | Beginning Stock   | Domestic Utilization | Ratio (%)    |
| <b>ASEAN</b> | <b>6,281,689</b> | <b>56,148,914</b>    | <b>11.19</b> | <b>11,098,519</b> | <b>56,683,892</b>    | <b>19.58</b> | <b>15,599,660</b> | <b>59,326,890</b>    | <b>26.29</b> |
| Brunei       | N/A              |                      |              |                   |                      |              |                   |                      |              |
| Cambodia     | 175,907          | 959,221              | 18.34        | 314,551           | 803,844              | 39.13        | 293,023           | 852,997              | 34.35        |
| Indonesia    | 2,762,620        | 18,181,100           | 15.20        | 8,182,717         | 18,820,234           | 43.48        | 13,924,640        | 19,702,395           | 70.67        |
| Lao PDR      | 136,805          | 499,818              | 27.37        | 96,571            | 517,005              | 18.68        | 119,591           | 525,927              | 22.74        |
| Malaysia     | -                | 1,720,139            | -            | -                 | 1,232,507            | -            | -                 | 1,263,319            | -            |
| Myanmar      | 1,781,244        | 1,450,778            | 122.78       | 1,420,212         | 933,895              | 152.07       | 19,680            | 801,748              | 2.45         |
| Philippines  | 676,000          | 8,300,000            | 8.14         | 813,000           | 8,581,950            | 9.47         | 896,771           | 8,795,364            | 10.20        |
| Singapore    | -                | 40,202               | -            | -                 | 20,454               | -            | -                 | 30,328               | -            |
| Thailand     | 175,926          | 8,574,091            | 2.05         | 239,608           | 8,577,295            | 2.79         | 195,601           | 8,584,961            | 2.28         |
| Vietnam      | 573,187          | 16,423,565           | 3.49         | 31,860            | 17,196,708           | 0.19         | 150,354           | 18,769,852           | 0.80         |

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

**Table 27 Quantity and Value of Maize Export by Countries of Destination in 2020**

Quantity: Tons Values: US\$

| Exporting Country | Country of Destination |        |          |            |           |         |          |           |          |        |           |             |             |            |
|-------------------|------------------------|--------|----------|------------|-----------|---------|----------|-----------|----------|--------|-----------|-------------|-------------|------------|
|                   | Brunei                 |        | Cambodia |            | Indonesia |         | Lao PDR  |           | Malaysia |        | Myanmar   |             | Philippines |            |
|                   | Quantity               | Values | Quantity | Values     | Quantity  | Values  | Quantity | Values    | Quantity | Values | Quantity  | Values      | Quantity    | Values     |
| Brunei            | N/A                    |        |          |            |           |         |          |           |          |        |           |             |             |            |
| Cambodia          |                        |        |          |            |           |         |          |           |          |        |           |             |             |            |
| Indonesia         |                        |        |          |            |           |         |          |           | 130      | 80,666 |           |             | 62,500.000  | 14,936,950 |
| Lao PDR           |                        |        |          |            |           |         |          |           |          |        |           |             |             |            |
| Malaysia          | 1.46                   | 1,786  |          |            | 468       | 126,784 |          |           |          |        |           |             |             |            |
| Myanmar           |                        |        |          |            |           |         | 400      | 81,000    | 280      | 66,000 |           |             | 240,969     | 52,923,000 |
| Philippines       |                        |        |          |            |           |         |          |           |          |        | 51        | 90,708      |             |            |
| Singapore         | N/A                    |        |          |            |           |         |          |           |          |        |           |             |             |            |
| Thailand          |                        |        | 145,943  | 31,237,255 |           |         | 33,152   | 5,507,100 |          |        | 1,408,299 | 239,837,540 |             |            |
| Vietnam           |                        |        |          |            |           |         |          |           |          |        |           |             |             |            |

[25]

| Exporting Country | Country of Destination |         |           |             |          |           | Total within ASEAN |             | Total outside ASEAN |               | Total     |               |
|-------------------|------------------------|---------|-----------|-------------|----------|-----------|--------------------|-------------|---------------------|---------------|-----------|---------------|
|                   | Singapore              |         | Thailand  |             | Vietnam  |           |                    |             |                     |               |           |               |
|                   | Quantity               | Values  | Quantity  | Values      | Quantity | Values    | Quantity           | Values      | Quantity            | Values        | Quantity  | Values        |
| Brunei            | N/A                    |         |           |             |          |           |                    |             |                     |               |           |               |
| Cambodia          |                        |         | 193,017   | -           |          |           | 193,017            | -           | 1159                |               | 194,176   | -             |
| Indonesia         | 427                    | 292,865 |           |             |          |           | 63,058             | 15,310,481  | 719                 | 322,915       | 63,777    | 15,633,396    |
| Lao PDR           |                        |         | 22,031    | 4,212,365   | 9,460    | 2,133,317 | 31,491             | 6,345,682   | 40,384              | 9,931,611     | 71,875    | 16,277,292    |
| Malaysia          | 80                     | 59,945  | 799       | 186,402     | 9        | 5,211     | 1,358              | 380,128     | 873                 | 239,581       | 2,231     | 619,708       |
| Myanmar           | 1,383                  | 266,000 | 1,741,023 | 265,233,000 | 7,102    | 1,585,000 | 1,991,157          | 320,154,000 | 467,741             | 88,049,000    | 2,458,898 | 408,203,000   |
| Philippines       |                        |         |           |             | 1,568    | 3,850,138 | 1,620              | 3,940,846   |                     |               | 1,620     | 3,940,846     |
| Singapore         | N/A                    |         |           |             |          |           |                    |             |                     |               |           |               |
| Thailand          |                        |         |           |             | 109      | 15,398    | 1,587,503          | 276,597,293 |                     |               | 1,587,503 | 276,597,293   |
| Vietnam           |                        |         | 3,010     | 10,799,354  |          |           | 3,010              | 10,799,354  | 8,960,701           | 1,763,701,223 | 8,963,711 | 1,774,500,577 |

**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 28 Quantity and Value of Maize Import by Countries of Origin in 2020**

Quantity: Tons Values: US\$

| Importing Country | Country of Origin |        |          |        |           |             |          |        |          |           |          |            |             |        |
|-------------------|-------------------|--------|----------|--------|-----------|-------------|----------|--------|----------|-----------|----------|------------|-------------|--------|
|                   | Brunei            |        | Cambodia |        | Indonesia |             | Lao PDR  |        | Malaysia |           | Myanmar  |            | Philippines |        |
|                   | Quantity          | Values | Quantity | Values | Quantity  | Values      | Quantity | Values | Quantity | Values    | Quantity | Values     | Quantity    | Values |
| Brunei            | N/A               |        |          |        |           |             |          |        |          |           |          |            |             |        |
| Cambodia          | N/A               |        |          |        |           |             |          |        |          |           |          |            |             |        |
| Indonesia         |                   |        |          |        |           |             |          |        |          |           |          |            |             |        |
| Lao PDR           |                   |        |          |        |           |             |          |        |          |           |          |            |             |        |
| Malaysia          |                   |        |          |        | 8         | 2,537       |          |        |          |           |          |            |             |        |
| Myanmar           |                   |        |          |        |           |             |          |        |          |           |          |            |             |        |
| Philippines       |                   |        |          |        | 68,895    | 152,599,683 |          |        |          |           | 154,896  | 34,233,163 |             |        |
| Singapore         |                   |        |          |        | 494       | 355,971     |          |        | 19,325   | 4,504,936 | 222      | 58,429     | 0.17        | 112    |
| Thailand          | N/A               |        |          |        |           |             |          |        |          |           |          |            |             |        |
| Vietnam           | N/A               |        |          |        |           |             |          |        |          |           |          |            |             |        |

[26]

| Importing Country | Country of Origin |        |          |           |          |            | Total within ASEAN |             | Total outside ASEAN |             | Total     |             |
|-------------------|-------------------|--------|----------|-----------|----------|------------|--------------------|-------------|---------------------|-------------|-----------|-------------|
|                   | Singapore         |        | Thailand |           | Vietnam  |            |                    |             |                     |             |           |             |
|                   | Quantity          | Values | Quantity | Values    | Quantity | Values     | Quantity           | Values      | Quantity            | Values      | Quantity  | Values      |
| Brunei            | N/A               |        |          |           |          |            |                    |             |                     |             |           |             |
| Cambodia          | N/A               |        |          |           |          |            |                    |             |                     |             |           |             |
| Indonesia         |                   |        |          |           |          |            |                    |             | 667,992             | 132,934,079 | 667,992   | 132,934,079 |
| Lao PDR           |                   |        | 940      | 260,497   | 8        | 1,600      | 948                | 262,097     | 160                 | 48,104      | 1,108     | 310,201     |
| Malaysia          |                   |        | 3,003    | 1,026,723 |          |            | 3,011              | 1,029,260   | 1,231,726           | 265,068,715 | 1,234,737 | 266,097,976 |
| Myanmar           |                   |        | 1,708    | 5,541,000 |          |            | 1,708              | 5,541,000   | 4,427               | 13,256,000  | 6,135     | 18,797,000  |
| Philippines       |                   |        |          |           | 314,333  | 71,879,917 | 538,124            | 258,712,763 | 99,180              | 29,602,731  | 637,304   | 288,315,494 |
| Singapore         |                   |        | 46       | 73,006    | 0.005    | 1.25       | 20,088             | 4,992,455   | 1,086               | 927,261     | 21,174    | 5,919,717   |
| Thailand          | N/A               |        |          |           |          |            |                    |             |                     |             |           |             |
| Vietnam           | N/A               |        |          |           |          |            |                    |             |                     |             |           |             |

**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 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  |                                 | 2019 | 283  | 394  | 262  | 251  | 250 | 733  | 283  | 267  | 291  | 299  | 286  | 276  | 323     |
|           |                                 | 2020 | 271  | 248  | 256  | 267  | 293 | 290  | 276  | 279  | 289  | *290 | *295 | *298 | 274     |
| Lao PDR   |                                 | 2019 | N/A  |      |      |      |     |      |      |      | 296  | 292  | 242  | 254  | 271     |
|           |                                 | 2020 | 280  | 241  | 226  | 218  | 234 | 245  | 266  | 275  | 244  | 217  | *245 | *245 | 245     |
| Indonesia |                                 | 2019 | 437  | 629  | 516  | 635  | 488 | 472  | 527  | 387  | 523  | 575  | 522  | 616  | 527     |
|           |                                 | 2020 | 565  | 555  | 605  | 527  | 241 | 240  | 243  | 245  | 243  | 530  | *339 | *320 | 399     |
| Malaysia  | Corn (Maize)                    | 2019 | 291  | 268  | 307  | 293  | 356 | 462  | 767  | 375  | 365  | 252  | 276  | 457  | 373     |
|           | Groats and Meal of Corn (Maize) | 2020 | 286  | 290  | 455  | 420  | 258 | 260  | 298  | 261  | *316 | *320 | *324 | *307 | 316     |
| Myanmar   |                                 | 2019 | 200  | 193  | 172  | 170  | 170 | 166  | 164  | 159  | 166  | 159  | 157  | 185  | 172     |
|           |                                 | 2020 | 193  | 164  | 161  | 157  | 159 | 174  | 156  | 143  | 203  | 168  | 165  | 165  | 167     |
| Thailand  |                                 | 2019 | 323  | 316  | 298  | 293  | 288 | 301  | 298  | 304  | 299  | 296  | 300  | 294  | 301     |
|           |                                 | 2020 | 289  | 275  | 268  | 271  | 275 | 298  | 291  | 299  | 305  | 298  | 304  | *288 | 288     |

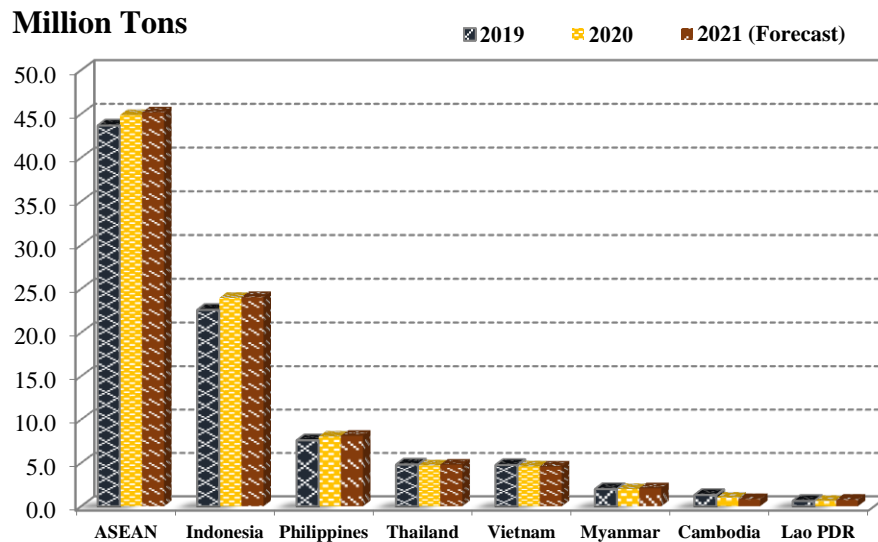
**Remark:** \* The value is estimated by AFSIS Secretariat, N/A refers to data is not available.

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

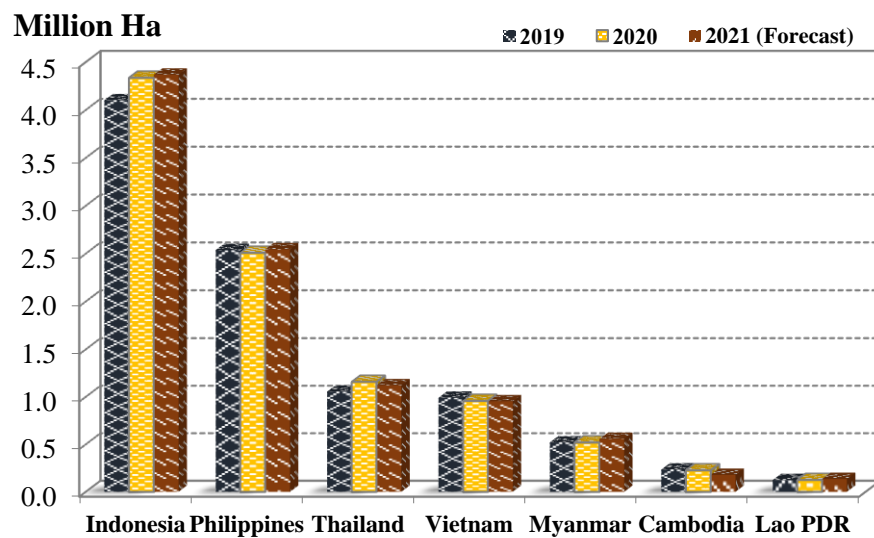
Unit: US\$/Ton

| Country   |                                 | Year | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. | Average |
|-----------|---------------------------------|------|------|------|------|------|-----|------|------|------|------|------|------|------|---------|
| Indonesia |                                 | 2019 | 203  | 203  | 218  | 207  | 207 | 205  | 201  | 200  | 203  | 197  | 196  | 200  | 203     |
|           |                                 | 2020 | *203 | 203  | 209  | 217  | 215 | 204  | 194  | 198  | 181  | 179  | *188 | *186 | 200     |
| Malaysia  | Corn (Maize)                    | 2019 | 224  | 254  | 226  | 224  | 220 | 217  | 222  | 218  | 217  | 201  | 215  | 215  | 221     |
|           | Groats and Meal of Corn (Maize) | 2020 | 217  | 216  | 220  | 223  | 236 | 217  | 212  | 194  | *217 | *217 | *217 | *217 | 217     |
| Singapore |                                 | 2019 | 263  | 272  | 247  | 262  | 247 | 234  | 265  | 271  | 270  | 243  | 257  | 288  | 260     |
|           |                                 | 2020 | 257  | 276  | 304  | 319  | 295 | 261  | 274  | 285  | 251  | 281  | *280 | *280 | 280     |
| Vietnam   |                                 | 2019 | 210  | 213  | 214  | 210  | 206 | 203  | 201  | 197  | 194  | 197  | 200  | 200  | 204     |
|           |                                 | 2020 | 196  | 207  | 218  | 217  | 212 | 211  | 203  | 190  | 186  | 186  | 188  | 201  | 201     |

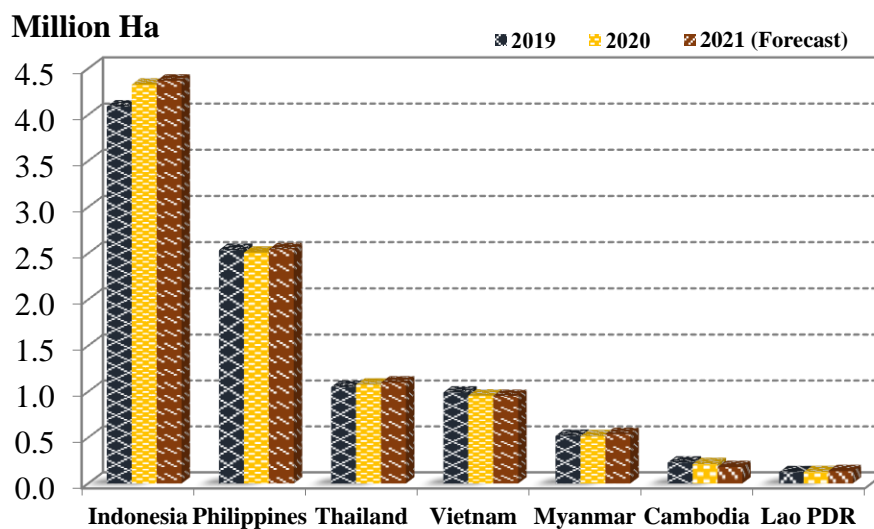
**Remark:** \* The value is estimated by AFSIS Secretariat.



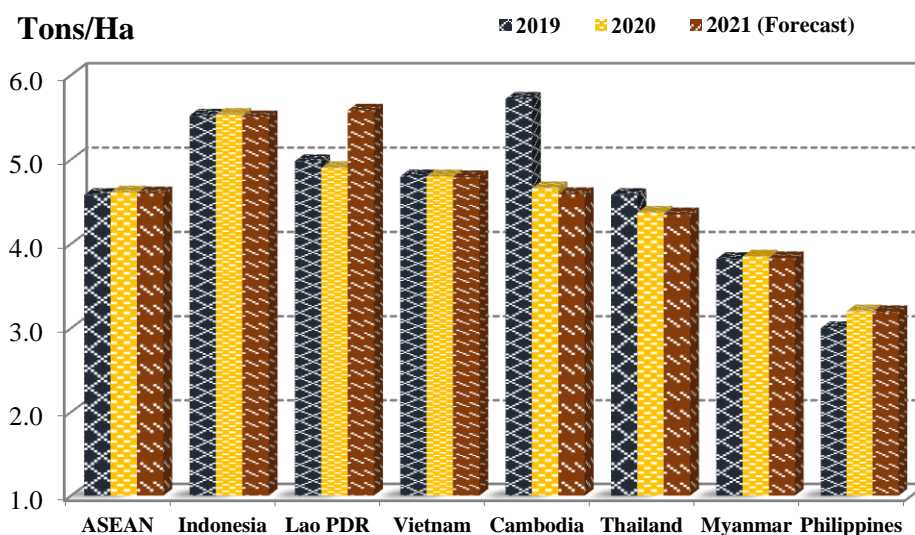
**Figure 17 Maize production of selected countries in ASEAN, 2019 – 2021**



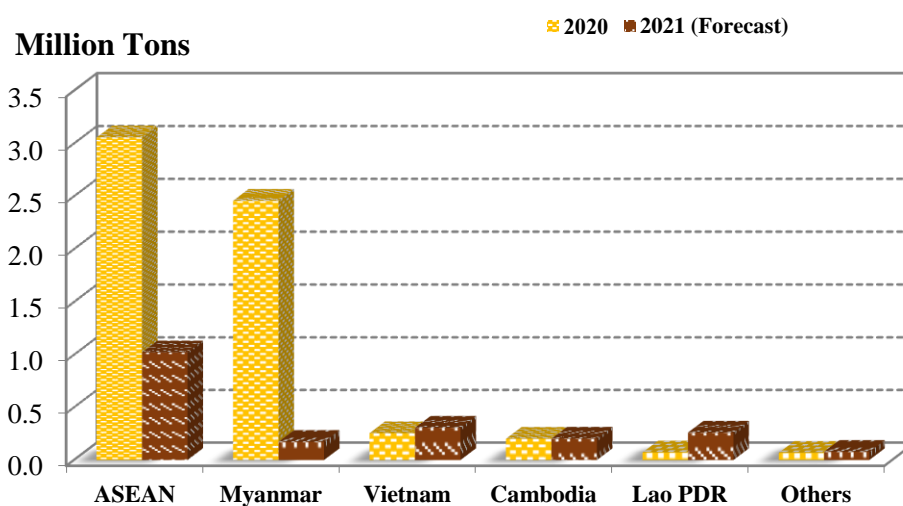
**Figure 18 Maize planted area of selected countries in ASEAN, 2019 – 2021**



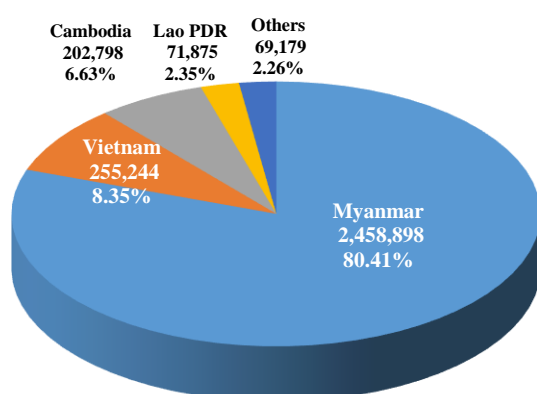
**Figure 19 Maize harvested area of selected countries in ASEAN, 2019 – 2021**



**Figure 20 Maize yield of countries in ASEAN, 2019 – 2021**

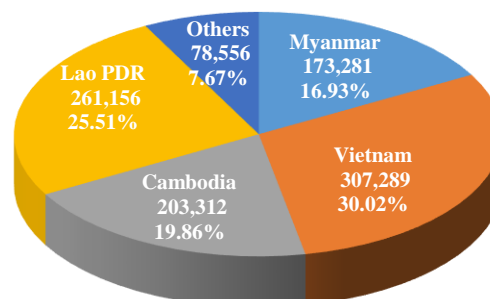


**Figure 21 Amount of maize export (million tons) of selected countries in ASEAN in 2020 – 2021**



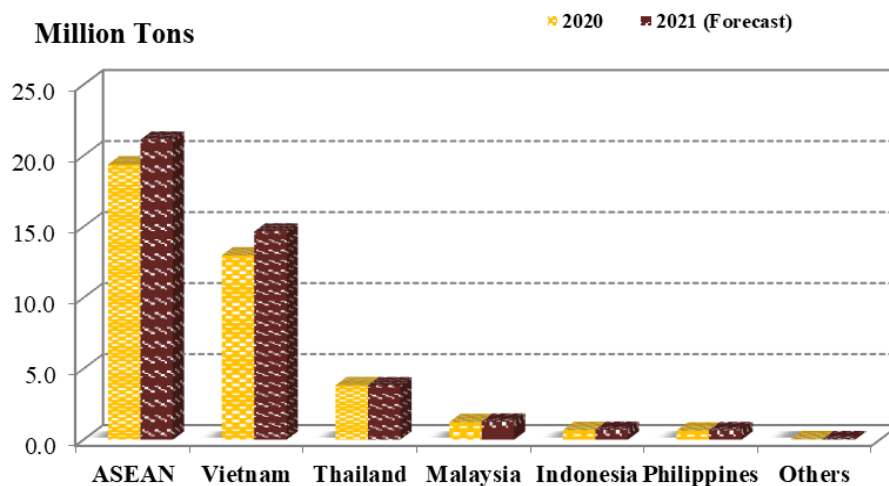
*Total 3.06 million tons*

**Figure 22 Share of maize export (tons) among ASEAN countries, 2020**

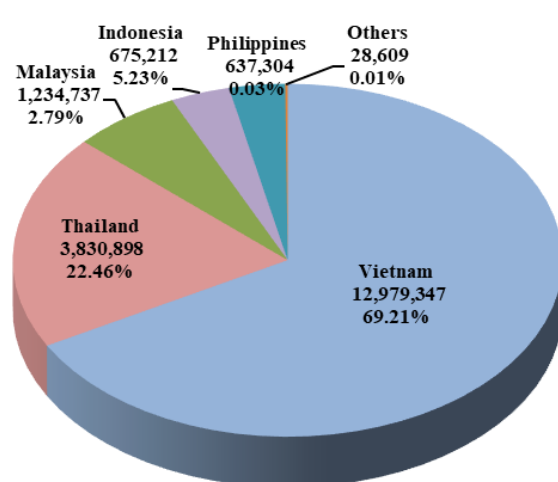


*Total 1.02 million tons*

**Figure 23 Share of maize export (tons) among ASEAN countries, 2021**

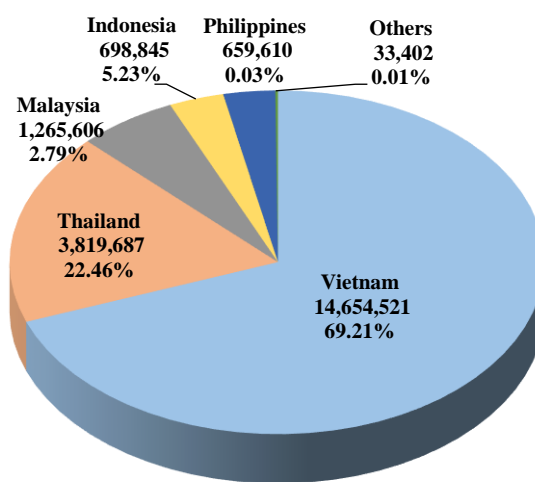


**Figure 24 Amount of maize import (million tons) by selected countries in ASEAN in 2020 – 2021**



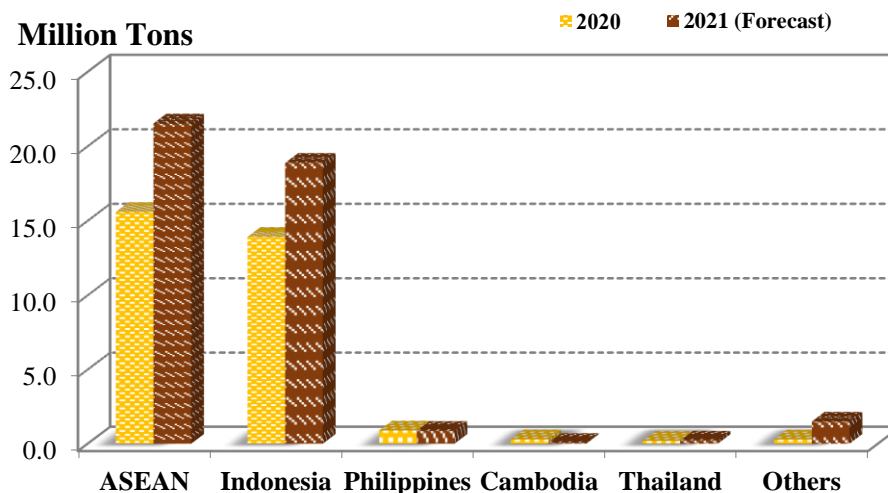
*Total 19.39 million tons*

**Figure 25 Share of maize import (tons) among ASEAN countries, 2020**



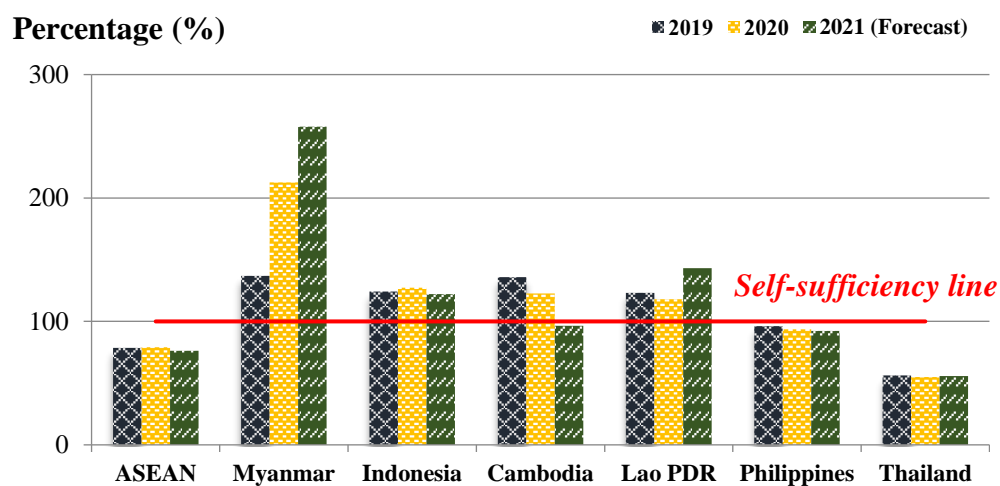
*Total 21.13 million tons*

**Figure 26 Share of maize import (tons) among ASEAN countries, 2021**

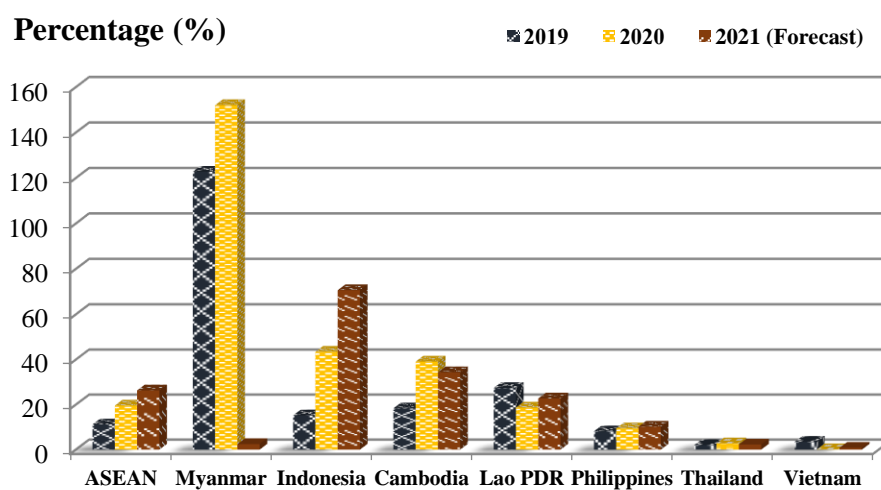


**Figure 27 Amount of ending stock of maize in ASEAN countries in 2020 – 2021**

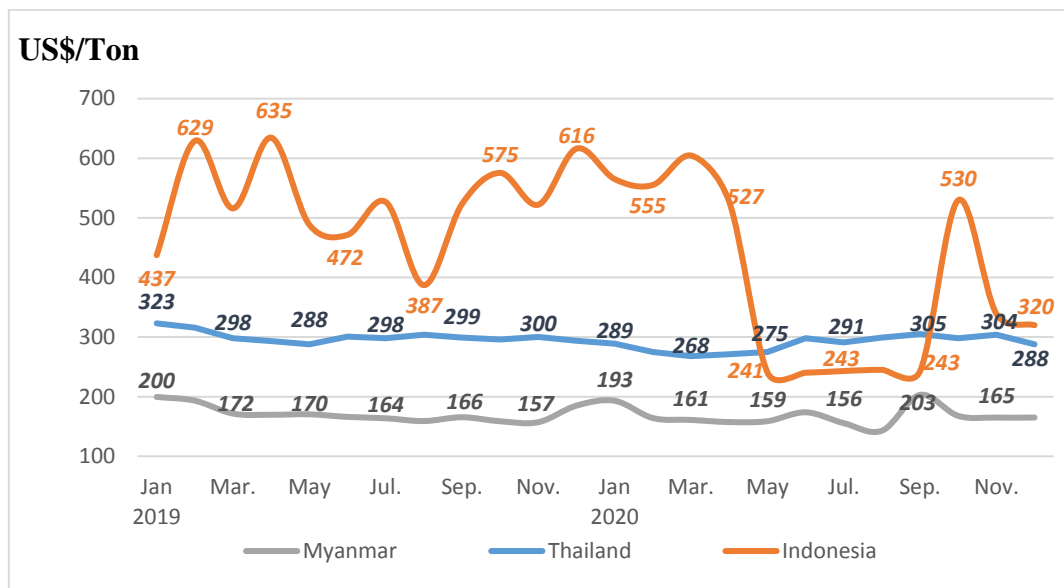




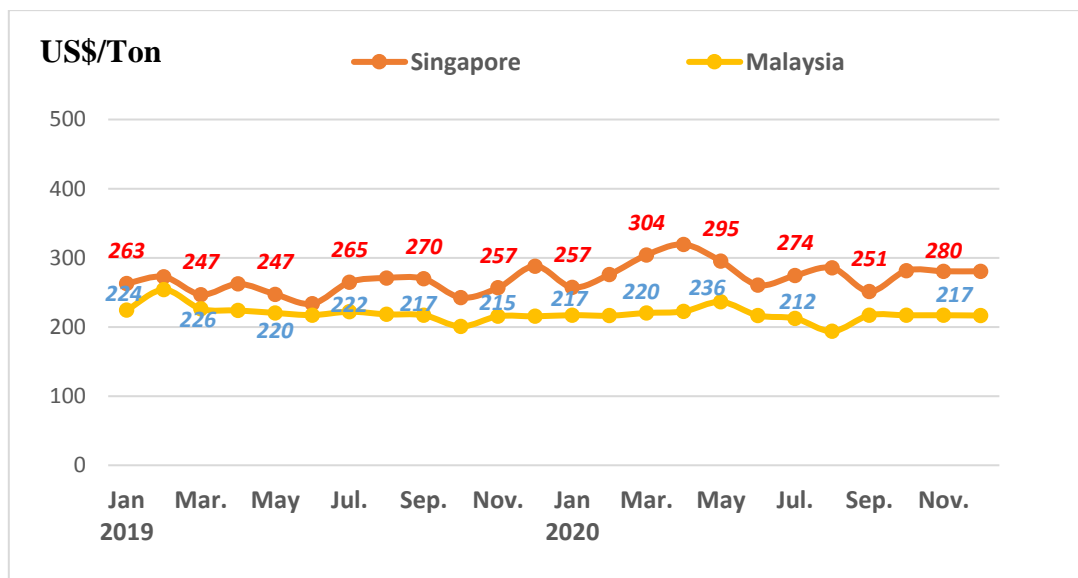
**Figure 28 Ratio of maize production to domestic utilization in ASEAN countries, 2019 – 2021**



**Figure 29 Ratio of maize beginning stock to domestic utilization in ASEAN countries, 2019 – 2021**



**Figure 30 FOB price (US\$/Ton) of maize of selected countries in ASEAN in 2019 – 2020**



**Figure 31 CIF price (US\$/Ton) of maize of selected countries in ASEAN in 2019 – 2020**

# Sugar Outlook for 2021



ASEAN sugar supply is forecasted to increase approximately 8.57 percent or 2.96 million tons from 34.49 million tons in 2020 to 37.45 million tons in 2021, especially increase in beginning stock (Table 31).

The beginning stock of sugar in 2021 is estimated at 15.06 million tons, which increases from 11.11 million tons in 2020.

The sugar's import of 2021 is forecasted to be 7.90 million tons, which decreases around 4.44 percent from 8.27 million tons in 2020.

The export of sugar from ASEAN in 2021 is expected to decrease from 7.50 million tons in 2020 to 6.66 million tons in 2021.

The production to domestic utilization ratio for sugar in 2021 is forecasted to be about 119.94 percent, which decreases from 126.67 percent in 2020.

The beginning stock to domestic utilization ratio in 2021 is forecasted to be about 124.73 percent, which increases from 93.13 percent in 2020.

**Table 31 Summary of the ASEAN sugar situation, 2020 – 2021**

Unit: Million Tons

| Items  | 2020   | 2021   | Change   |        |
|--|--------|--------|----------|--------|
|  |        |        | Quantity | %      |
| Supply (Million tons)                                | 34.49  | 37.45  | 2.96     | 8.57   |
| Beginning stock                                      | 11.11  | 15.06  | 3.95     | 35.57  |
| Production   | 15.11  | 14.49  | -0.63    | -4.16  |
| Import   | 8.27   | 7.90   | -0.37    | -4.44  |
| Demand (Million tons)                                | 34.49  | 37.45  | 2.96     | 8.57   |
| Domestic utilization                                 | 11.93  | 12.08  | 0.15     | 1.22   |
| Export   | 7.50   | 6.66   | -0.84    | -11.18 |
| Ending stock   | 15.06  | 18.71  | 3.65     | 24.22  |
| Ratio of production to domestic utilization (%)      | 126.67 | 119.94 | -6.73    | -      |
| Ratio of beginning stock to domestic utilization (%) | 93.13  | 124.73 | 31.60    | -      |

## ASEAN Sugar Situation in 2020

### ► Production

*Sugarcane production in ASEAN in 2020 (2019/20 crop year) was estimated at 152.39 million tons, down 56.48 million tons from 208.87 million tons in 2019 or about 27.04 percent (Table 32, Figure 32). The decrease in production was due to the decrease in production of Thailand, Vietnam, Lao PDR and Brunei. The yield of sugarcane in ASEAN in 2020 was estimated at 49.88 tons per hectare, significantly decreasing from 67.54 tons per hectare in 2019 (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 and the decreasing in planted area resulted from farmers' response to price decrease (Table 32-35, Figure 32-35).

**Vietnam** was estimated to decrease its production due to the decrease in planted area and yield. The decreasing in planed area was due to farmers' response to price decrease and unfavorable weather. The decreasing of yield was because farmers used less fertilizer and the weather was unfavorable as a result of drought.

For **Lao PDR**, the production was estimated to decrease due to the decrease in yield as farmers used less fertilizer, while the planted area was estimated to increase by government policy.

**Brunei**, the smallest sugar producing country in the region, the production was estimated to decrease because of government policy. Noted that the amount of production produced by each year is depending on government policy as sugar is not the main commodity of Brunei.

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

**Indonesia** was estimated to increase its production due to the increase in planted area and yield due to the favorable weather.

The production in **Myanmar** was estimated to increase due to the increase in planted area and yield. The expansion of planted area was because farmers respond to price increase. The rising of yield was because farmers took better care of the crop.

For production in **the Philippines** was estimated to increase due to the increase in planted area and yield. The increasing in yield was because famers used good quality planting materials, used more fertilizer and took better care of their crop.

### ► Utilization and Stock

Regarding domestic utilization of sugar in the ASEAN, it has slightly decreased to 11.93 million tons in 2020 from 12.10 million tons in 2019 (Table 37-38). The beginning stock of sugar in ASEAN in 2020 was estimated at 11.11 million tons, which significantly increased about 107.84 percent from 2019. The ending stock of sugar in ASEAN in 2020 was estimated to be about 15.06 million tons, an increase of about 35.56 percent from 2019.

The ratio of sugar production to domestic utilization in 2020 was estimated to be about 126.67 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 93.13 percent in 2020, compared to 44.17 percent in 2019. This indicated that the sugar availability in the region was significantly up from the previous year (Table 41, Figure 44).

### ► *Trade*

The sugar's export from ASEAN in 2020 was 7.50 million tons, which decreased about 2.86 million tons or 27.59 percent from 2019 (Table 37-38, Figure 36-37). Thailand is the major sugar exporting country in the region constituted about 79.85 percent of the total ASEAN export or about 5.99 million tons.

For the import, ASEAN in 2020 as a whole imported sugar around 8.27 million tons, increasing about 23.55 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 2019-2020 are shown in Table 44-45. The annual average of Thailand FOB prices of raw sugar and white sugar in 2020 (January-December) were 286 US\$/ton and 365 US\$/ton, respectively. The prices of raw sugar of 2020 were lower than those of 2019, while white sugar of 2020 higher than those of 2019. The average CIF prices (January-December) in Singapore in 2020 was 442 US\$/ton, which was higher than that in 2019.

### ► *Damaged Area*

The sugarcane damaged area in ASEAN in 2020 was reported to be 629 hectares. The most affected area caused by flood (21,001 hectares) was occurred in Myanmar (Table 36).

## Prospects for Sugar in 2021

### ► **Production**

*Sugarcane production in ASEAN is forecasted to decrease from 152.39 million tons in 2020 to 146.58 million tons in 2021 (Table 32-35, Figure 32-35). **Thailand**, the largest sugar producing country in the region, forecasted to decrease its production from 74.97 million tons in 2020 to 67.37 million tons in 2021. The decrease in Thai production mainly caused by declining in planted area which affected by farmers' response to price decrease and drought.*

Besides, **Vietnam** also forecasted to decrease its production from 11.23 million tons in 2020 to 10.11 million tons in 2021 which led by farmers' response to price decrease. On the contrary, the rest of ASEAN are forecasted to increase their production.

The greatest increase in terms of quantity is found in **Indonesia** which expected to increase its production from 29.11 million tons in 2020 to 30.55 million tons in 2021. The increase in Indonesia production is due to the increase in planted area and yield.

For **Lao PDR**, the production is expected to increase from 1.25 million tons in 2020 to 2.04 million tons in 2021, the increase comes from government policy and farmers using more improved varieties.

**Myanmar** expected to increase its production from 11.85 million tons in 2020 to 12.46 million tons in 2021 due to better caring of the crop from farmers.

For **Cambodia**, the production is expected to increase from 0.69 million tons in 2020 to 0.72 million tons in 2021, the increase comes from expansion of planted area and yield which led by government policy.

The increase in **the Philippines'** production from 23.30 million tons in 2020 to 23.33 million tons in 2021 is due to the increase in planted area.

For **Brunei**, the smallest sugar producing country in the region, expected to increase in production from 114 tons in 2020 to 155 tons in 2021.

### ► **Utilization and Stock**

The domestic utilization of sugar in ASEAN is forecasted to increase from 11.93 million tons of sugar in 2020 to 12.08 million tons in 2021, which increases about 0.15 million tons (Table 38-39). The beginning stock in ASEAN is estimated at 15.06 million tons of sugar in 2021, an increase of 3.95 million tons from 11.11 million tons in the previous year. The ending stock of sugar in ASEAN in 2021 is forecasted to be 18.71 million tons which increases about 3.65 million tons from the previous year.

The ratio of production to domestic utilization in 2021 is forecasted to be 119.94 percent, which moderately decreases from the previous year (Table 40, Figure 43).

The ratio of the beginning stock to domestic utilization in 2021 is forecasted to be about 124.73 percent which significantly increases from 2020 (Table 41, Figure 44). This indicates that the domestic availability of sugar in the region is expected to increase dramatically compared to the previous year.

### ► **Trade**

The export is predicted to decrease from 7.50 million tons in 2020 to 6.66 million tons in 2021 (Table 38-39, Figure 36-38). For the import, it is forecasted to be 7.90 million tons in 2021 which decreases from 8.27 million tons in the previous year (Table 38-39, Figure 39-41).

**Table 32 Sugarcane production in ASEAN countries, 2019 – 2021**

Unit: 1,000 Tons

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |               | 2021<br>(2020/21) | Change<br>2021 over 2020 |              |
|--------------|-------------------|-------------------|--------------------------|---------------|-------------------|--------------------------|--------------|
|              |                   |                   | Quantities               | (%)           |                   | Quantities               | (%)          |
| <b>ASEAN</b> | <b>208,866.34</b> | <b>152,388.26</b> | <b>-56,478.08</b>        | <b>-27.04</b> | <b>146,582.70</b> | <b>-5,805.57</b>         | <b>-3.81</b> |
| Brunei       | 0.15              | 0.11              | -0.03                    | -23.05        | 0.16              | 0.04                     | 36.46        |
| Cambodia     | 618.31            | 687.30            | 68.99                    | 11.16         | 720.69            | 33.38                    | 4.86         |
| Indonesia    | 27,728.27         | 29,106.37         | 1,378.10                 | 4.97          | 30,552.96         | 1,446.59                 | 4.97         |
| Lao PDR      | 1,490.47          | 1,252.42          | -238.05                  | -15.97        | 2,042.75          | 790.33                   | 63.10        |
| Malaysia     | N/A               |                   |                          |               |                   |                          |              |
| Myanmar      | 11,397.18         | 11,846.18         | 448.99                   | 3.94          | 12,463.63         | 617.46                   | 5.21         |
| Philippines  | 21,359.88         | 23,297.81         | 1,937.93                 | 9.07          | 23,328.32         | 30.51                    | 0.13         |
| Singapore    | N/A               |                   |                          |               |                   |                          |              |
| Thailand     | 131,002.17        | 74,968.07         | -56,034.10               | -42.77        | 67,367.20         | -7,600.87                | -10.14       |
| Vietnam      | 15,269.90         | 11,230.00         | -4,039.90                | -26.46        | 10,107.00         | -1,123.00                | -10.00       |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 33 Sugarcane planted area in ASEAN countries, 2019 – 2021**

Unit: 1,000 Hectares

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |              | 2021(2020/21)   | Change<br>2021 over 2020 |               |
|--------------|-------------------|-------------------|--------------------------|--------------|-----------------|--------------------------|---------------|
|              |                   |                   | Quantities               | (%)          |                 | Quantities               | (%)           |
| <b>ASEAN</b> | <b>3,092.45</b>   | <b>3,055.89</b>   | <b>-36.56</b>            | <b>-1.18</b> | <b>2,558.82</b> | <b>-497.07</b>           | <b>-16.27</b> |
| Brunei       | N/A               |                   |                          |              |                 |                          |               |
| Cambodia     | 17.02             | 20.71             | 3.70                     | 21.73        | 21.13           | 0.41                     | 2.00          |
| Indonesia    | 411.44            | 416.98            | 5.55                     | 1.35         | 422.61          | 5.63                     | 1.35          |
| Lao PDR      | 30.16             | 33.06             | 2.90                     | 9.62         | 35.60           | 2.54                     | 7.69          |
| Malaysia     | N/A               |                   |                          |              |                 |                          |               |
| Myanmar      | 180.07            | 182.44            | 2.38                     | 1.32         | 177.39          | -5.05                    | -2.77         |
| Philippines  | 384.99            | 385.70            | 0.71                     | 0.18         | 386.40          | 0.71                     | 0.18          |
| Singapore    | N/A               |                   |                          |              |                 |                          |               |
| Thailand     | 1,835.09          | 1,834.40          | -0.69                    | -0.04        | 1,369.60        | -464.80                  | -25.34        |
| Vietnam      | 233.70            | 182.60            | -51.10                   | -21.87       | 146.08          | -36.52                   | -20.00        |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 34 Sugarcane harvested area in ASEAN countries, 2019 – 2021**

Unit: 1,000 Hectares

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |              | 2021<br>(2020/21) | Change<br>2021 over 2020 |               |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|---------------|
|              |                   |                   | Quantities               | (%)          |                   | Quantities               | (%)           |
| <b>ASEAN</b> | <b>3,092.35</b>   | <b>3,055.26</b>   | <b>-37.09</b>            | <b>-1.20</b> | <b>2,558.72</b>   | <b>-496.55</b>           | <b>-16.25</b> |
| Brunei       | N/A               |                   |                          |              |                   |                          |               |
| Cambodia     | 17.02             | 20.37             | 3.35                     | 19.68        | 21.13             | 0.76                     | 3.75          |
| Indonesia    | 411.44            | 416.98            | 5.55                     | 1.35         | 422.61            | 5.63                     | 1.35          |
| Lao PDR      | 30.16             | 33.06             | 2.90                     | 9.62         | 35.60             | 2.54                     | 7.69          |
| Malaysia     | N/A               |                   |                          |              |                   |                          |               |
| Myanmar      | 179.96            | 182.16            | 2.20                     | 1.22         | 177.29            | -4.87                    | -2.67         |
| Philippines  | 384.99            | 385.70            | 0.71                     | 0.18         | 386.40            | 0.71                     | 0.18          |
| Singapore    | N/A               |                   |                          |              |                   |                          |               |
| Thailand     | 1,835.09          | 1,834.40          | -0.69                    | -0.04        | 1,369.60          | -464.80                  | -25.34        |
| Vietnam      | 233.70            | 182.60            | -51.10                   | -21.87       | 146.08            | -36.52                   | -20.00        |

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



**Table 35 Sugarcane yield in ASEAN countries, 2019 – 2021**

Unit: Ton/Hectare

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |               | 2021<br>(2020/21) | Change<br>2021 over 2020 |              |
|--------------|-------------------|-------------------|--------------------------|---------------|-------------------|--------------------------|--------------|
|              |                   |                   | Quantities               | (%)           |                   | Quantities               | (%)          |
| <b>ASEAN</b> | <b>67.54</b>      | <b>49.88</b>      | <b>-17.66</b>            | <b>-26.15</b> | <b>57.29</b>      | <b>7.41</b>              | <b>14.86</b> |
| Brunei       | N/A               |                   |                          |               |                   |                          |              |
| Cambodia     | 36.34             | 33.75             | -2.59                    | -7.13         | 34.11             | 0.36                     | 1.07         |
| Indonesia    | 67.39             | 69.80             | 2.41                     | 3.58          | 72.30             | 2.50                     | 3.58         |
| Lao PDR      | 49.42             | 37.88             | -11.54                   | -23.35        | 57.38             | 19.50                    | 51.48        |
| Malaysia     | N/A               |                   |                          |               |                   |                          |              |
| Myanmar      | 63.33             | 65.03             | 1.70                     | 2.68          | 70.30             | 5.27                     | 8.10         |
| Philippines  | 55.48             | 60.40             | 4.92                     | 8.87          | 60.37             | -0.03                    | -0.05        |
| Singapore    | N/A               |                   |                          |               |                   |                          |              |
| Thailand     | 71.39             | 40.87             | -30.52                   | -42.75        | 49.19             | 8.32                     | 20.36        |
| Vietnam      | 65.34             | 61.50             | -3.84                    | -5.88         | 69.19             | 7.69                     | 12.50        |

**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, 2020**

Unit: Hectares

| Country      | Cause of Damage (Hectares) |          |          |          |           |             |            |
|--------------|----------------------------|----------|----------|----------|-----------|-------------|------------|
|              | Flood                      | Drought  | Pests    | Diseases | Others    | Unspecified | Total      |
| <b>ASEAN</b> | <b>252</b>                 | <b>-</b> | <b>-</b> | <b>-</b> | <b>28</b> | <b>349</b>  | <b>629</b> |
| Brunei       | N/A                        |          |          |          |           |             |            |
| Cambodia     | -                          | -        | -        | -        | -         | 349         | 349        |
| Indonesia    | N/A                        |          |          |          |           |             |            |
| Lao PDR      | N/A                        |          |          |          |           |             |            |
| Malaysia     | N/A                        |          |          |          |           |             |            |
| Myanmar      | 252                        | -        | -        | -        | 28        | -           | 280        |
| 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, 2019**

Unit: Tons

| Country      | Supply           |                   |                  |                   | Demand               |                   |                   |                   |
|--------------|------------------|-------------------|------------------|-------------------|----------------------|-------------------|-------------------|-------------------|
|              | Beginning Stock  | Production        | Imports          | Total             | Domestic Utilization | Exports           | Ending stock      | Total             |
| <b>ASEAN</b> | <b>5,346,062</b> | <b>21,532,602</b> | <b>6,690,632</b> | <b>33,569,296</b> | <b>12,104,567</b>    | <b>10,353,311</b> | <b>11,111,418</b> | <b>33,569,296</b> |
| Brunei       | 3,067            | 12                | 5,922            | 9,001             | 5,470                | -                 | 3,531             | 9,001             |
| Cambodia     | -                | 61,831            | -                | 61,831            | 18,516               | 43,315            | -                 | 61,831            |
| Indonesia    | 1,458,967        | 2,227,046         | 4,090,053        | 7,776,066         | 3,125,684            | 3,505             | 4,646,877         | 7,776,066         |
| Lao PDR      | 1,041,114        | 298,094           | 19               | 1,339,227         |                      | 77,240            | 1,261,987         | 1,339,227         |
| Malaysia     | -                | -                 | 2,062,511        | 2,062,511         | 1,796,201            | 266,310           | -                 | 2,062,511         |
| Myanmar      | 1,895,866        | 911,775           | -                | 2,807,641         | 756,413              | 37,956            | 2,013,272         | 2,807,641         |
| Philippines  | 386,751          | 1,926,855         | 63,856           | 2,377,462         | 1,967,379            | 103,685           | 306,398           | 2,377,462         |
| Singapore    | -                | -                 | 296,532          | 296,532           | 262,565              | 33,967            | -                 | 296,532           |
| Thailand     | 376,491          | 14,580,000        | 310              | 14,956,801        | 2,482,340            | 9,722,150         | 2,752,311         | 14,956,801        |
| Vietnam      | 183,806          | 1,526,990         | 171,429          | 1,882,225         | 1,690,000            | 65,182            | 127,043           | 1,882,225         |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 38 Sugar balance sheet of ASEAN countries, 2020**

Unit: Tons

| Country      | Supply            |                   |                  |                   | Demand               |                  |                   |                   |
|--------------|-------------------|-------------------|------------------|-------------------|----------------------|------------------|-------------------|-------------------|
|              | Beginning Stock   | Production        | Imports          | Total             | Domestic Utilization | Exports          | Ending stock      | Total             |
| <b>ASEAN</b> | <b>11,111,418</b> | <b>15,113,105</b> | <b>8,266,179</b> | <b>34,490,702</b> | <b>11,930,896</b>    | <b>7,496,889</b> | <b>15,062,918</b> | <b>34,490,702</b> |
| Brunei       | 3,531             | 9                 | 5,683            | 9,222             | 5,455                | -                | 3,767             | 9,222             |
| Cambodia     | -                 | 68,730            | -                | 68,730            | 20,370               | 48,360           | --                | 68,730            |
| Indonesia    | 4,646,877         | 2,236,065         | 5,243,490        | 12,126,433        | 3,315,534            | 35,569           | 8,775,330         | 12,126,433        |
| Lao PDR      | 1,261,987         | 250,484           | 22               | 1,512,493         | -                    | 71,740           | 1,440,753         | 1,512,493         |
| Malaysia     | -                 |                   | 1,491,328        | 1,491,328         | 1,203,879            | 287,450          |                   | 1,491,328         |
| Myanmar      | 2,013,272         | 947,694           | -                | 2,960,966         | 793,403              | 627,035          | 1,540,528         | 2,960,966         |
| Philippines  | 306,398           | 2,197,123         |                  | 2,503,521         | 2,032,211            | 138,153          | 333,157           | 2,503,521         |
| Singapore    | -                 | --                | 266,807          | 266,807           | 236,244              | 30,562           | -                 | 266,807           |
| Thailand     | 2,752,311         | 8,290,000         | 58,849           | 11,101,160        | 2,600,000            | 5,986,527        | 2,514,633         | 11,101,160        |
| Vietnam      | 127,043           | 1,123,000         | 1,200,000        | 2,450,043         | 1,723,800            | 271,493          | 454,749           | 2,450,043         |

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

**Table 39 Sugar balance sheet of ASEAN countries, 2021**

Unit: Tons

| Country      | Supply            |                   |                  |                   | Demand               |                  |                   |                   |
|--------------|-------------------|-------------------|------------------|-------------------|----------------------|------------------|-------------------|-------------------|
|              | Beginning Stock   | Production        | Imports          | Total             | Domestic Utilization | Exports          | Ending stock      | Total             |
| <b>ASEAN</b> | <b>15,062,918</b> | <b>14,485,111</b> | <b>7,899,382</b> | <b>37,447,411</b> | <b>12,076,891</b>    | <b>6,659,043</b> | <b>18,711,479</b> | <b>37,447,413</b> |
| Brunei       | 3,767             | 12                | 5,853            | 9,633             | 5,621                | -                | 4,011             | 9,633             |
| Cambodia     | -                 | 72,068            | -                | 72,068            | 21,358               | 50,710           | -                 | 72,069            |
| Indonesia    | 8,775,330         | 2,347,198         | 5,303,791        | 16,426,319        | 3,469,043            | 36,814           | 12,920,462        | 16,426,319        |
| Lao PDR      | 1,440,753         | 408,550           | 20               | 1,849,323         | -                    | 76,772           | 1,772,551         | 1,849,323         |
| Malaysia     | -                 | -                 | 1,528,611        | 1,528,611         | 1,233,976            | 294,636          | -                 | 1,528,611         |
| Myanmar      | 1,540,528         | 997,091           | -                | 2,537,619         | 717,212              | -                | 1,820,407         | 2,537,619         |
| Philippines  | 333,157           | 2,200,000         | -                | 2,533,157         | 1,970,000            | 138,154          | 425,003           | 2,533,157         |
| Singapore    | -                 | -                 | 281,670          | 281,670           | 249,405              | 32,265           | -                 | 281,670           |
| Thailand     | 2,514,633         | 7,449,493         | 59,437           | 10,023,564        | 2,652,000            | 5,866,796        | 1,504,768         | 10,023,564        |
| Vietnam      | 454,749           | 1,010,700         | 720,000          | 2,185,449         | 1,758,276            | 162,896          | 264,277           | 2,185,449         |

**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, 2019 – 2021**

Unit: Tons

| Country      | 2019              |                      |               | 2020              |                      |               | 2021              |                      |               |
|--------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|              | Production        | Domestic Utilization | Ratio (%)     | Production        | Domestic Utilization | Ratio (%)     | Production        | Domestic Utilization | Ratio (%)     |
| <b>ASEAN</b> | <b>21,532,602</b> | <b>12,104,567</b>    | <b>177.89</b> | <b>15,113,105</b> | <b>11,930,896</b>    | <b>126.66</b> | <b>14,485,111</b> | <b>12,076,891</b>    | <b>119.94</b> |
| Brunei       | 12                | 5,470                | 0.21          | 9                 | 5,455                | 0.16          | 12                | 5,621                | 0.22          |
| Cambodia     | 61,831            | 18,516               | 333.93        | 68,730            | 20,370               | 337.41        | 72,068            | 21,358               | 337.42        |
| Indonesia    | 2,227,046         | 3,125,684            | 71.25         | 2,236,065         | 3,315,534            | 67.44         | 2,347,198         | 3,469,043            | 67.66         |
| Lao PDR      | 298,094           | -                    | -             | 250,484           | -                    | -             | 408,550           | -                    | -             |
| Malaysia     | -                 | 1,796,201            | -             | -                 | 1,203,879            | -             | -                 | 1,233,976            | -             |
| Myanmar      | 911,775           | 756,413              | 120.54        | 947,694           | 793,403              | 119.45        | 997,091           | 717,212              | 139.02        |
| Philippines  | 1,926,855         | 1,967,379            | 97.94         | 2,197,123         | 2,032,211            | 108.07        | 2,200,000         | 1,970,000            | 111.68        |
| Singapore    | -                 | 262,565              | -             | -                 | 236,244              | -             | -                 | 249,405              | -             |
| Thailand     | 14,580,000        | 2,482,340            | 587.35        | 8,290,000         | 2,600,000            | 318.85        | 7,449,493         | 2,652,000            | 280.90        |
| Vietnam      | 1,526,990         | 1,690,000            | 90.35         | 1,123,000         | 1,723,800            | 65.15         | 1,010,700         | 1,758,276            | 57.48         |

**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, 2019 – 2021**

Unit: Tons

| Country      | 2019             |                      |              | 2020              |                      |              | 2021              |                      |               |
|--------------|------------------|----------------------|--------------|-------------------|----------------------|--------------|-------------------|----------------------|---------------|
|              | Beginning Stock  | Domestic Utilization | Ratio (%)    | Beginning Stock   | Domestic Utilization | Ratio (%)    | Beginning Stock   | Domestic Utilization | Ratio (%)     |
| <b>ASEAN</b> | <b>5,346,062</b> | <b>12,104,567</b>    | <b>44.17</b> | <b>11,111,418</b> | <b>11,930,896</b>    | <b>93.12</b> | <b>15,062,918</b> | <b>12,076,891</b>    | <b>124.73</b> |
| Brunei       | 3,067            | 5,470                | 56.07        | 3,531             | 5,455                | 64.73        | 3,767             | 5,621                | 67.02         |
| Cambodia     | -                | 18,516               | -            | -                 | 20,370               | -            | -                 | 21,358               | -             |
| Indonesia    | 1,458,967        | 3,125,684            | 46.68        | 4,646,877         | 3,315,534            | 140.15       | 8,775,330         | 3,469,043            | 252.96        |
| Lao PDR      | 1,041,114        | -                    | -            | 1,261,987         | -                    | -            | 1,440,753         | -                    | -             |
| Malaysia     | -                | 1,796,201            | -            | -                 | 1,203,879            | -            | -                 | 1,233,976            | -             |
| Myanmar      | 1,895,866        | 756,413              | 250.64       | 2,013,272         | 793,403              | 253.75       | 1,540,528         | 717,212              | 214.79        |
| Philippines  | 386,751          | 1,967,379            | 19.66        | 306,398           | 2,032,211            | 15.07        | 333,157           | 1,970,000            | 16.91         |
| Singapore    | -                | 262,565              | -            | -                 | 236,244              | -            | -                 | 249,405              | -             |
| Thailand     | 376,491          | 2,482,340            | 15.17        | 2,752,311         | 2,600,000            | 105.86       | 2,514,633         | 2,652,000            | 94.82         |
| Vietnam      | 183,806          | 1,690,000            | 10.88        | 127,043           | 1,723,800            | 7.37         | 454,749           | 1,758,276            | 25.86         |

**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 2020**

Quantity: Tons Values: US\$

| Exporting Country | Country of Destination |           |          |             |           |             |          |            |          |            |          |            |             |            |
|-------------------|------------------------|-----------|----------|-------------|-----------|-------------|----------|------------|----------|------------|----------|------------|-------------|------------|
|                   | Brunei                 |           | Cambodia |             | Indonesia |             | Lao PDR  |            | Malaysia |            | Myanmar  |            | Philippines |            |
|                   | Quantity               | Values    | Quantity | Values      | Quantity  | Values      | Quantity | Values     | Quantity | Values     | Quantity | Values     | Quantity    | Values     |
| Brunei            | N/A                    |           |          |             |           |             |          |            |          |            |          |            |             |            |
| Cambodia          | N/A                    |           |          |             |           |             |          |            |          |            |          |            |             |            |
| Indonesia         | 37                     | 39,768    | 29       | 13,678      |           |             |          |            | 40       | 21,004     | 5,483    | 2,053,102  | 9,600       | 3,849,649  |
| Lao PDR           |                        |           |          |             |           |             |          |            |          |            |          |            |             |            |
| Malaysia          |                        |           |          |             | 25,558    | 21,151,225  |          |            |          |            |          |            | 13,915      | 9,605,375  |
| Myanmar           |                        |           |          |             |           |             |          |            |          |            |          |            |             |            |
| Philippines       |                        |           |          |             |           |             |          |            |          |            |          |            |             |            |
| Singapore         | N/A                    |           |          |             |           |             |          |            |          |            |          |            |             |            |
| Thailand          | 5,491                  | 2,522,091 | 344,027  | 131,368,488 | 2,040,354 | 589,839,901 | 89,011   | 40,514,468 | 146,706  | 57,845,693 | 99,159   | 47,464,815 | 287,513     | 75,048,433 |
| Vietnam           |                        |           |          | 1,886,031   |           | 1,468,570   |          | 2,245,258  |          | 5,255,262  |          | 1,930,701  |             | 11,909,726 |

| Exporting Country | Country of Destination |            |          |            |           |             | Total within ASEAN |               | Total outside ASEAN |             | Total     |               |
|-------------------|------------------------|------------|----------|------------|-----------|-------------|--------------------|---------------|---------------------|-------------|-----------|---------------|
|                   | Singapore              |            | Thailand |            | Vietnam   |             |                    |               |                     |             |           |               |
|                   | Quantity               | Values     | Quantity | Values     | Quantity  | Values      | Quantity           | Values        | Quantity            | Values      | Quantity  | Values        |
| Brunei            | N/A                    |            |          |            |           |             |                    |               |                     |             |           |               |
| Cambodia          | N/A                    |            |          |            |           |             |                    |               |                     |             |           |               |
| Indonesia         | 778                    | 538,042    |          |            | 9,125     | 3,668,779   | 25,092             | 10,184,022    | 10,477              | 8,218,766   | 35,569    | 18,402,788    |
| Lao PDR           |                        |            | 40,780   | 37,621,416 | 10,580    | 10,066,317  | 51,360             | 47,687,732    | 20,380              | 19,862,371  | 71,740    | 67,550,104    |
| Malaysia          | 26,557                 | 21,397,049 | 2,995    | 4,163,430  | 69,452    | 31262206.39 | 138,477            | 87,579,286    | 148,973             | 98,186,012  | 287,450   | 185,765,297   |
| Myanmar           |                        |            |          |            |           |             |                    |               | 627,035             | 28,624,000  | 627,035   | 28,624,000    |
| Philippines       |                        |            |          |            |           |             |                    |               | 109,408             | 50,487,365  | 109,408   | 50,487,365    |
| Singapore         | N/A                    |            |          |            |           |             |                    |               |                     |             |           |               |
| Thailand          | 105,620                | 43,138,279 |          |            | 1,152,938 | 385,400,841 | 4,270,818          | 1,373,143,009 | 1,715,708           | 632,671,718 | 5,986,527 | 2,005,814,727 |
| Vietnam           |                        |            |          | 5,854,485  |           |             |                    | 30,550,032    |                     | 143,294,210 |           | 173,844,243   |

**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 2020**

Quantity: Tons Values: US\$

| Importing Country | Country of origin |        |          |            |           |            |          |           |          |            |          |            |             |           |
|-------------------|-------------------|--------|----------|------------|-----------|------------|----------|-----------|----------|------------|----------|------------|-------------|-----------|
|                   | Brunei            |        | Cambodia |            | Indonesia |            | Lao PDR  |           | Malaysia |            | Myanmar  |            | Philippines |           |
|                   | Quantity          | Values | Quantity | Values     | Quantity  | Values     | Quantity | Values    | Quantity | Values     | Quantity | Values     | Quantity    | Values    |
| Brunei            |                   |        |          |            |           |            |          |           |          |            |          |            |             |           |
| Cambodia          | N/A               |        |          |            |           |            |          |           |          |            |          |            |             |           |
| Indonesia         |                   |        |          |            |           |            |          |           | 400      | 180,454    |          |            |             |           |
| Lao PDR           |                   |        |          |            |           |            |          |           |          |            |          |            |             |           |
| Malaysia          |                   |        |          |            | 3,669     | 8,529,514  |          |           |          |            |          |            | 505         | 2,129,222 |
| Myanmar           | N/A               |        |          |            |           |            |          |           |          |            |          |            |             |           |
| Philippines       | N/A               |        |          |            |           |            |          |           |          |            |          |            |             |           |
| Singapore         |                   |        |          |            | 790       | 718,119    |          |           | 17,211   | 8,401,124  | 11       | 5,757      | 2           | 11,487    |
| Thailand          |                   |        |          |            | 54,770    | 27,614,432 | 34,550   | 5,564,128 | 2,096    | 3,672,763  | 101      | 105,659    | 947         | 3,668,729 |
| Vietnam           |                   |        | -        | 17,155,820 | -         | 20,890,216 | -        | 3,941,853 | -        | 42,197,020 | -        | 15,457,982 | -           | 7,500,382 |

| 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            |                   |            | 5,683     | -           |           |            | 5,683              | -           |                     |               | 5,683     | -             |
| Cambodia          | N/A               |            |           |             |           |            |                    |             |                     |               |           |               |
| Indonesia         |                   |            | 2,003,435 | 700,723,740 | 21        | 17,787     | 2,003,856          | 700,921,981 | 3,239,634           | 1,131,148,497 | 5,243,490 | 1,832,070,478 |
| Lao PDR           |                   |            | 22        | 16,000      |           |            | 22                 | 16,000      |                     |               | 22        | 16,000        |
| Malaysia          | 554               | 1,311,028  | 119,681   | 53,377,282  | 1,645     | 7,066,080  | 126,053            | 72,413,126  | 1,365,275           | 537,955,242   | 1,491,328 | 610,368,368   |
| Myanmar           | N/A               |            |           |             |           |            |                    |             |                     |               |           |               |
| Philippines       | N/A               |            |           |             |           |            |                    |             |                     |               |           |               |
| Singapore         |                   |            | 113,956   | 50,141,049  | 540       | 334,648    | 132,511            | 59,612,184  | 134,296             | 57,627,672    | 266,807   | 117,239,856   |
| Thailand          | 392.21            | 1,033,858  |           |             | 2,095.917 | 10,362,393 | 94,953             | 52,021,961  | 273,533             | 164,764,348   | 368,486   | 216,786,309   |
| Vietnam           | -                 | 23,982,294 | -         | 464,000,000 |           |            | -                  | 595,125,567 | -                   | 174,275,588   | -         | 769,401,155   |

**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 |
|----------|---------------|------|-------|-------|------|------|-----|------|------|------|------|------|------|------|---------|
| Malaysia | Not specified | 2019 | 1,030 | 1,049 | 938  | 728  | 756 | 927  | 885  | 997  | 908  | 926  | 826  | 915  | 907     |
|          |               | 2020 | 812   | 791   | 708  | 589  | 653 | 613  | 587  | 582  | 584  | 583  | 584  | 644  | 644     |
| Myanmar  | Not specified | 2019 | 79    | 79    | 69   | 79   | 79  | N/A  |      |      |      |      |      | 51   | 73      |
|          |               | 2020 | 46    | 53    | 47   | 41   | 37  | N/A  |      |      |      |      |      | 45   | 45      |
| Thailand | Raw Sugar     | 2019 | 293   | 294   | 290  | 287  | 291 | 302  | 304  | 296  | 299  | 293  | 298  | 292  | 295     |
|          |               | 2020 | 287   | 294   | 288  | 292  | 302 | 261  | 276  | 286  | 286  | 290  | 287  | 285  | 286     |
|          | White Sugar   | 2019 | 357   | 353   | 337  | 349  | 355 | 352  | 349  | 347  | 343  | 341  | 334  | 336  | 346     |
|          |               | 2020 | 343   | 353   | 350  | 377  | 362 | 355  | 360  | 371  | 374  | 385  | 377  | 373  | 365     |

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

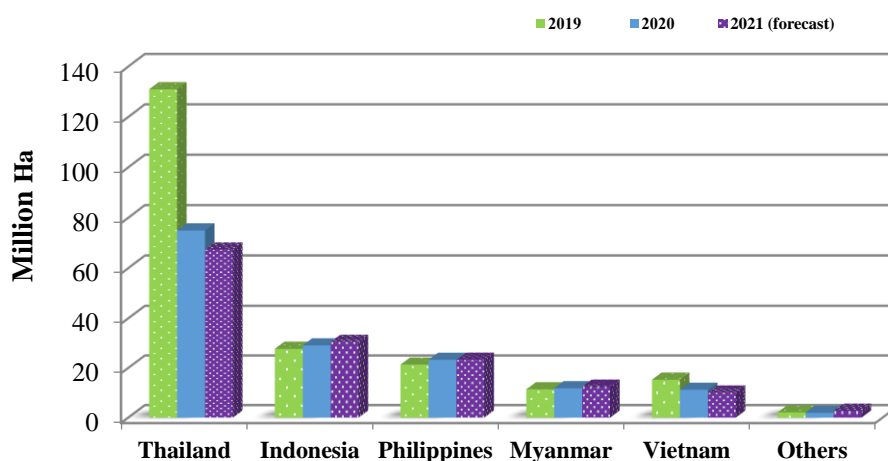
**Table 45 CIF Price of sugar in selected ASEAN countries**

Unit: US\$/Ton

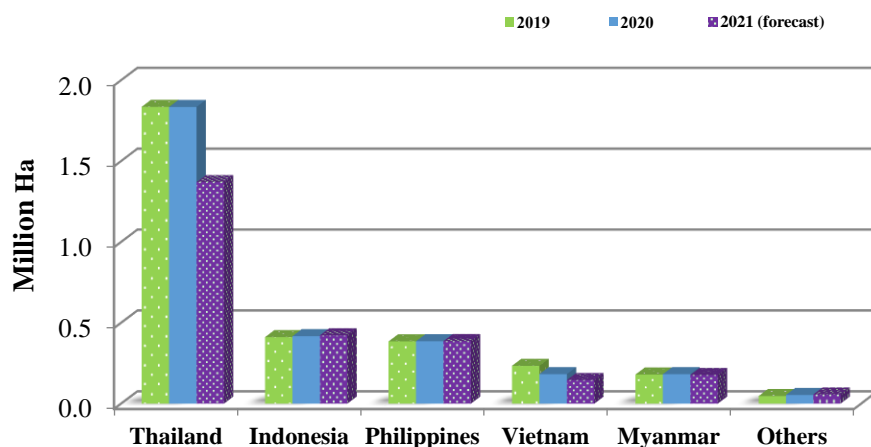
| Country   | Grade         | Year | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. | Average |
|-----------|---------------|------|------|------|------|------|-----|------|------|------|------|------|------|------|---------|
| Indonesia | White Sugar   | 2019 | 446  | *430 | 381  | 390  | 540 | 397  | 493  | 486  | 357  | 548  | 350  | 424  | 437     |
|           |               | 2020 | 385  | 441  | 472  | 460  | 581 | 468  | 549  | 391  | 462  | 408  | *452 | *428 | 462     |
| Malaysia  | Not specified | 2019 | 405  | 424  | 399  | 397  | 416 | 417  | 385  | 397  | 431  | 374  | 414  | 3    | 372     |
|           |               | 2020 | 374  | 406  | 424  | 494  | 425 | 399  | 425  | 393  | *409 | *401 | *405 | *414 | 418     |
| Singapore | Not specified | 2019 | 436  | 406  | 428  | 408  | 420 | 412  | 405  | 410  | 411  | 387  | 397  | 392  | 409     |
|           |               | 2020 | 418  | 443  | 441  | 459  | 428 | 465  | 434  | 465  | 448  | 420  | 442  | 442  | 442     |
| Cambodia  | Not specified | 2019 | 348  | 346  | 340  | 338  | 338 | 324  | 315  | 311  | 331  | 339  | 328  | *333 | 333     |
|           |               | 2020 | N/A  |      |      |      |     |      |      |      |      |      |      |      |         |

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

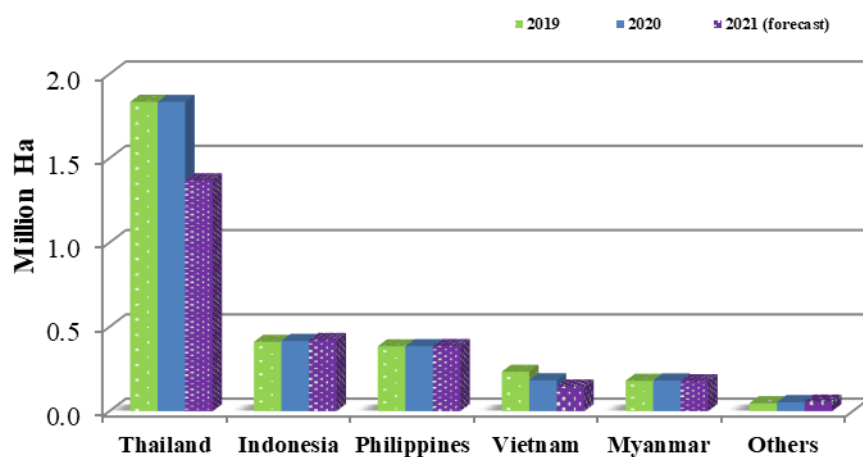




**Figure 32 Sugarcane production of selected countries in ASEAN, 2019 – 2021**



**Figure 33 Sugarcane planted area of selected countries in ASEAN, 2019 – 2021**



**Figure 34 Sugarcane harvested area of selected countries in ASEAN, 2019 – 2021**

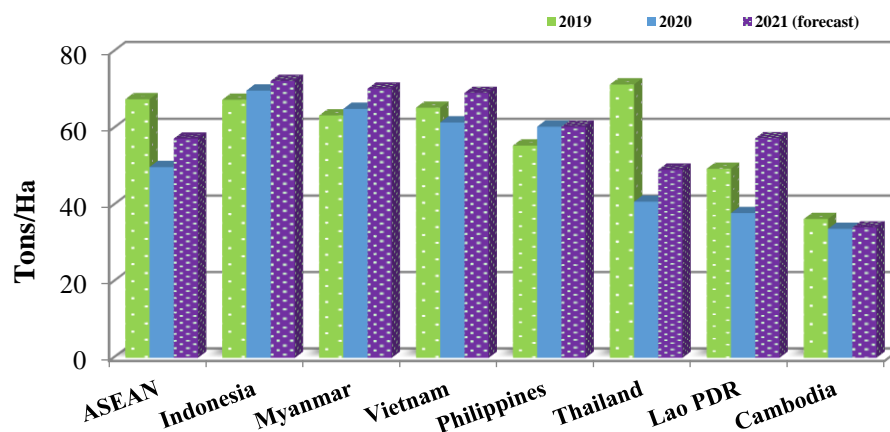


Figure 35 Sugarcane yield of selected countries in ASEAN, 2019 – 2021

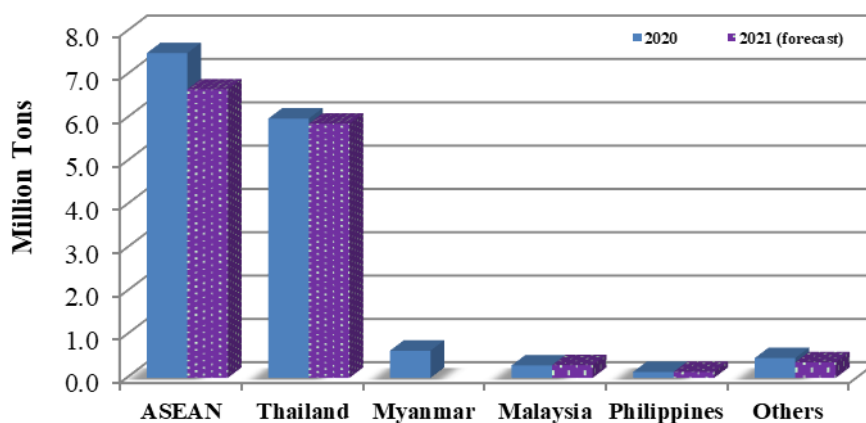
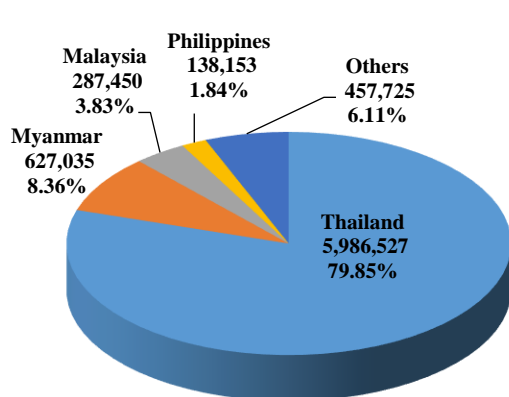
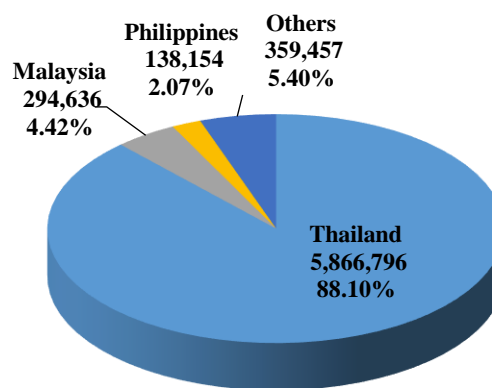


Figure 36 Amount of Sugar export (million tons) of selected countries in ASEAN in 2020 – 2021



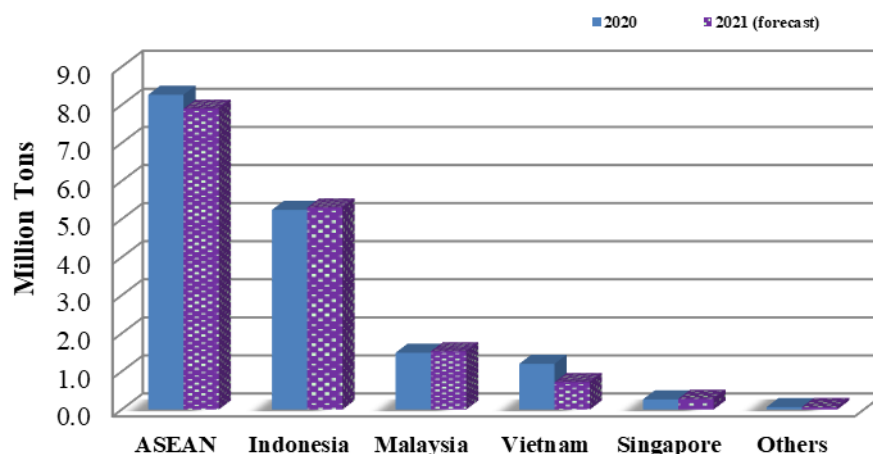
*Total 7.50 million tons*

Figure 37 Share of sugar export (tons) among ASEAN countries, 2020

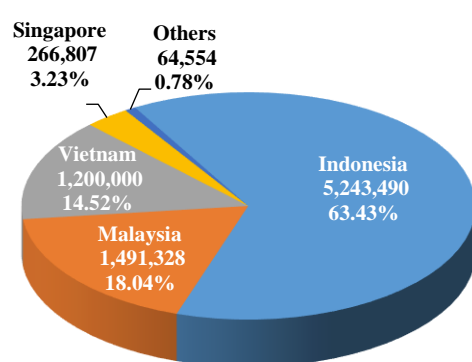


*Total 6.69 million tons*

Figure 38 Share of sugar export (tons) among ASEAN countries, 2021

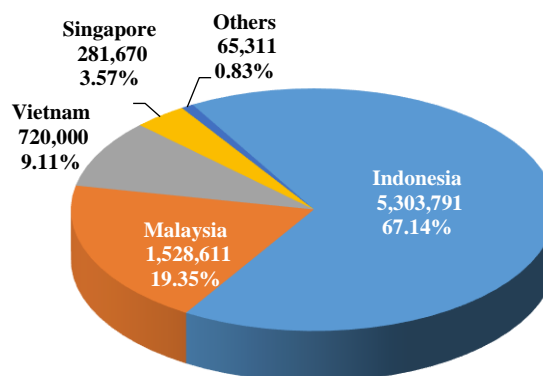


**Figure 39 Amount of sugar import (million tons) by selected countries in ASEAN in 2020 – 2021**



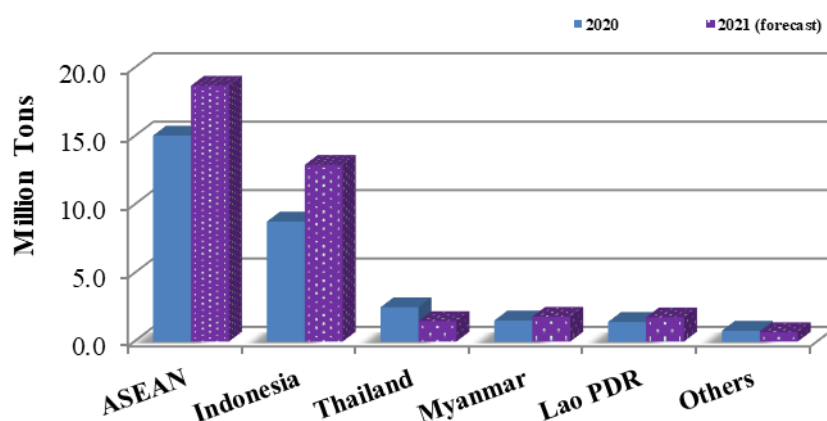
*Total 8.27 million tons*

**Figure 40 Share of sugar import (tons) among ASEAN countries, 2020**

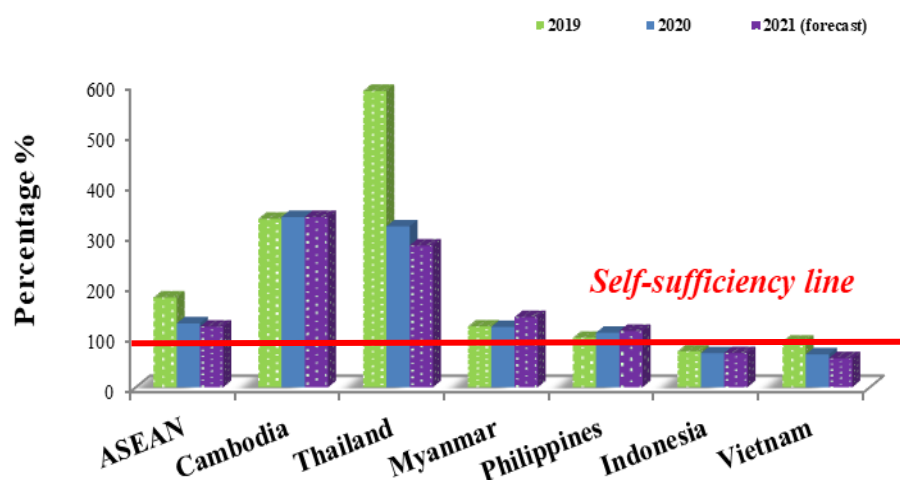


*Total 7.90 million tons*

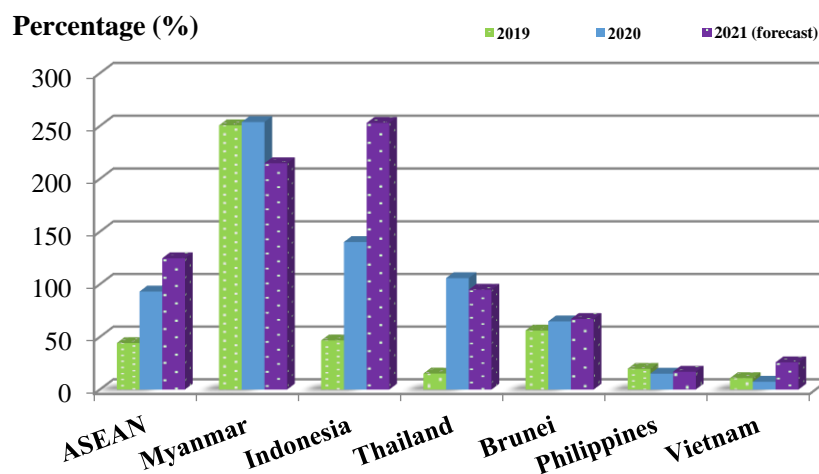
**Figure 41 Share of sugar import (tons) among ASEAN countries, 2021**



**Figure 42 Amount of ending stock of Sugar in ASEAN countries in 2020 – 2021**



**Figure 43 Ratio of sugar production to domestic utilization in ASEAN countries, 2019 – 2021**



**Figure 44 Ratio of sugar beginning stock to domestic utilization in ASEAN countries, 2019 – 2021**

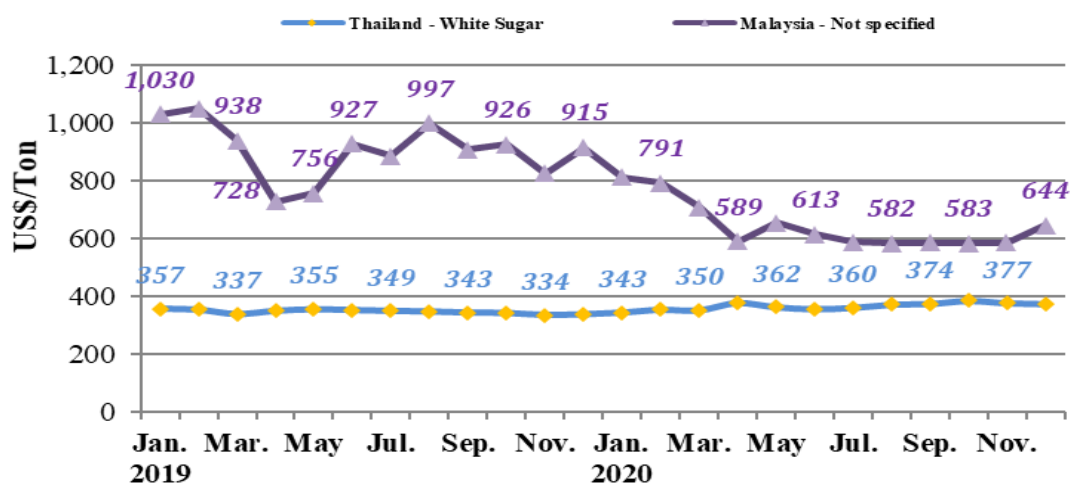


Figure 45 FOB price (US\$/Ton) of white sugar of selected countries in ASEAN in 2019 – 2020

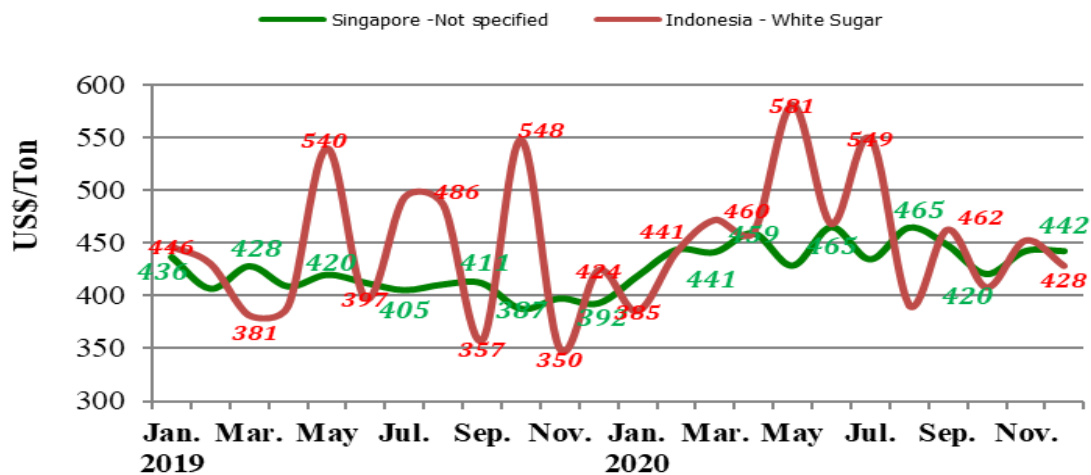


Figure 46 CIF price (US\$/Ton) of raw sugar of selected countries in ASEAN in 2019 – 2020

## Soybean Outlook for 2021

### Highlights

The supply of ASEAN soybean in 2021 is forecasted to decrease from 10.19 million tons in 2020 to 10.01 million tons or approximately 1.77 percent (Table 46). The decrease in supply mainly comes from the decrease in beginning stock and production, which decreases approximately 25.00 percent and 3.06 percent, respectively. The soybean production is predicted to be 0.95 million tons, which decreases from the previous year 0.03 million tons.

The beginning stock of soybean in ASEAN in 2021 is forecasted to decrease to 0.48 million tons, which decreases 0.16 million tons from 0.64 million tons in 2020. The ending stock is expected to be 0.38 million tons in 2021, a decrease of 0.10 million tons or approximately 20.83 percent from 0.48 million tons in 2020.

In terms of soybean's demand in ASEAN in 2021, the domestic utilization is estimated at 9.60 million tons, which decreases 0.07 million tons from 9.67 million tons in 2020.

The import of soybean is forecasted to increase from 8.57 million tons in 2020 to 8.58 million tons in 2021. The export of soybean from the ASEAN in 2021 is forecasted to be 0.03 million tons. This indicates that ASEAN exports very few amount of soybeans.

The production to domestic utilization ratio (self-sufficiency ratio) in 2021 is forecasted to be 9.91 percent, which decreases 0.25 percent from the previous year.

The beginning stock to domestic utilization ratio (food security ratio) is predicted to be 5.00 percent in 2021, which decreases approximately 1.59 percent from 2020.

**Table 46 Summary of the ASEAN soybean situation, 2020 – 2021**

Unit: Million tons

| Items  | 2020  | 2021  | Change   |        |
|--|-------|-------|----------|--------|
|  |       |       | Quantity | %      |
| Supply (Million tons)                                | 10.19 | 10.01 | -0.18    | -1.77  |
| Beginning stock                                      | 0.64  | 0.48  | -0.16    | -25.00 |
| Production   | 0.98  | 0.95  | -0.03    | -3.06  |
| Import   | 8.57  | 8.58  | 0.01     | 0.12   |
| Demand (Million tons)                                | 10.19 | 10.01 | -0.18    | -1.77  |
| Domestic utilization                                 | 9.67  | 9.60  | -0.07    | -0.72  |
| Export   | 0.04  | 0.03  | -0.01    | -25.00 |
| Ending stock   | 0.48  | 0.38  | -0.10    | -20.83 |
| Ratio of production to domestic utilization (%)      | 10.16 | 9.91  | -0.25    | -      |
| Ratio of beginning stock to domestic utilization (%) | 6.59  | 5.00  | -1.59    | -      |

## ASEAN Soybean Situation 2020

### ► *Production*

*The estimate of soybean production in ASEAN in 2020 (crop year 2019/20) was 0.98 million tons, an increase of 0.18 million tons from 0.80 million tons in 2019 (crop year 2019/20). The increase in production was due to the increase in planted area and yield. Indonesia is ranked first in soybean production in the region, followed by Myanmar, Vietnam, Thailand, Cambodia, Lao PDR and the Philippines. The production of soybean decreased in Cambodia, Myanmar, the Philippines, Thailand, and Vietnam (Table 47-50, Figure 47-50).*

For **Cambodia**, the decrease in production was due to the decrease in planted area and yield due to unfavorable weather.

For **Indonesia**, the estimated soybean production in 2020 has increased to 0.63 million tons, increasing approximately 49.07 percent from 0.42 million tons in 2019. The increase in production is attributed to the increase in planted area and yield. The increasing in planted area is caused by farmers' response to price increase and government policy. The yield has increased because farmers used more fertilizer, used more improved varieties, and took care of soybean crop better as well as there was favorable weather.

For **Lao PDR**, the increase in production was due to the increase in planted area which caused by 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 came from the decrease of soybean's price and flood affected by storm depression. The yield has decreased because farmers used less fertilizer and it was also affected by flood.

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

For **Thailand**, the decrease in production was due to the decrease in planted area and yield which caused by farmers' response to price decrease, labor shortage, high production costs and lack of the development of mechanical soybeans harvesting technology.

For **Vietnam**, the decrease in production was due to the decrease in planted area because farmers changed to grow other crops as the soybean price was decreased.

### ► *Utilization and Stock*

The domestic utilization of soybean in ASEAN in 2020 was estimated at 9.67 million tons, an increase of 0.51 million tons or about 5.53 percent from 9.17 million tons in 2019. In 2020, the beginning stock was estimated at 0.64 million tons, an increase of about 0.14 million tons or 27.32 percent from 0.50 million tons in 2019. Indonesia had the greatest soybean stock in the region (Table 52-53).

The ratio of production to domestic utilization (self-sufficiency ratio) of ASEAN in 2020 was 10.16 percent, which increased approximately 1.45 percent from the previous year. However, none of the member countries has the ratio above 100 percent except Cambodia, Lao PDR and Myanmar (Table 55, Figure 58). The ratio of the beginning stock to the domestic utilization of ASEAN in 2020 was estimated to be 6.59 percent (Table 56, Figure 59).



### ► *Trade*

In 2020, ASEAN altogether exported soybean 40,233 tons, which increased 3,031 tons compared to 37,203 tons in 2019 (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 2019-2020 are shown in Table 59 and the monthly CIF prices for importing countries are shown in Table 60. The annual average FOB prices in 2020 in Myanmar was 478 US\$/ton, in Malaysia was 572 US\$/ton, in Cambodia was 949 US\$/ton, and in Indonesia was 162 US\$/ton (Table 59, Figure 60).

For CIF prices of 2020, the annual average in Thailand was 392 US\$/ton, in Vietnam was 409 US\$/ton, in Indonesia was 398 US\$/ton, in Malaysia was 431 US\$/ton, and in Singapore was 700 US\$/ton (Table 60, Figure 61).

### ► *Damaged Area*

The total damaged area of soybean in the ASEAN in 2020 was estimated to be 484 hectares. The major cause of damage was flood which constituted about 61.78 percent of overall damaged area. The majority of flood area was occurred in Indonesia (Table 51).

## Prospects for Soybean in 2021

### ► **Production**

*Soybean production of ASEAN in 2021 is forecasted to be 0.95 million tons, which decrease from 2020 approximately 3.16 percent (Table 47, Figure 47). The decrease in production is expected in Cambodia, Indonesia, Myanmar, Thailand and Vietnam. Indonesia, the biggest soybean producing country in ASEAN, is forecasted to decrease in its production from 0.63 million tons in 2020 to 0.61 million tons in 2021, which accounted for about 3.01 percent decrease. The decrease in Indonesian production is derived from the decline in planted area (Table 47-50, Figure 47-50). The decrease in production is also expected in Myanmar, Vietnam, Cambodia and Thailand which mainly caused by the reduction in planted area. The decrease in planted area is because farmers respond to soybean's price decrease and the price of competing crops increases.*

### ► **Utilization and Stock**

The domestic utilization of soybeans in ASEAN is forecasted to decrease 0.72 percent from 9.67 million tons in 2020 to 9.60 million tons in 2021 (Table 53-54).

The beginning stock in ASEAN in 2021 is forecasted to decrease 0.16 million tons or about 24.67 percent from 0.64 million tons in 2020 to 0.48 million tons in 2021 (Table 53-54). The ending stock in ASEAN in 2021 is forecasted to decrease from 0.48 million tons in 2020 to 0.38 million tons, which decreases about 20.60 percent (Table 53-54, Figure 57).

The ratio of production to domestic utilization (self-sufficiency ratio) is forecasted to be 9.91 percent, which decreases from 10.16 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 5.00 percent, which decreases 1.59 percent from the previous year (Table 56, Figure 59).

### ► **Trade**

In 2021, the export of soybeans from the ASEAN is forecasted to be about 25,479 tons, decreasing 14,754 tons or 36.67 percent compared to the previous year. While the total import by the ASEAN in 2021 is forecasted to be 8.58 million tons, increasing 5,358 tons from 8.57 million tons in 2020 (Table 53-54, Figure 51, 53, 54 and 56).

**Table 47 Soybean production in ASEAN countries, 2019 – 2021**

Unit: 1,000 Tons

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |              | 2021<br>(2020/21) | Change<br>2021 over 2020 |              |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|--------------|
|              |                   |                   | Quantities               | (%)          |                   | Quantities               | (%)          |
| <b>ASEAN</b> | <b>798.53</b>     | <b>982.85</b>     | <b>184.32</b>            | <b>23.08</b> | <b>951.82</b>     | <b>-31.03</b>            | <b>-3.16</b> |
| Brunei       |                   |                   | N/A                      |              |                   |                          |              |
| Cambodia     | 42.07             | 28.84             | -13.24                   | -31.46       | 28.12             | -0.72                    | -2.50        |
| Indonesia    | 424.19            | 632.33            | 208.14                   | 49.07        | 613.32            | -19.01                   | -3.01        |
| Lao PDR      | 5.10              | 6.22              | 1.12                     | 21.96        | 6.51              | 0.29                     | 4.68         |
| Malaysia     |                   |                   | N/A                      |              |                   |                          |              |
| Myanmar      | 206.96            | 204.40            | -2.56                    | -1.24        | 202.44            | -1.96                    | -0.96        |
| Philippines  | 0.66              | 0.55              | -0.11                    | -16.59       | 0.55              | 0.01                     | 1.24         |
| Singapore    |                   |                   | N/A                      |              |                   |                          |              |
| Thailand     | 43.55             | 35.53             | -8.01                    | -18.40       | 26.55             | -8.99                    | -25.29       |
| Vietnam      | 76.00             | 74.98             | -1.02                    | -1.34        | 74.33             | -0.65                    | -0.87        |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 48 Soybean planted area in ASEAN countries, 2019 – 2021**

Unit: 1,000 Hectares

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |              | 2021<br>(2020/21) | Change<br>2021 over 2020 |              |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|--------------|
|              |                   |                   | Quantities               | (%)          |                   | Quantities               | (%)          |
| <b>ASEAN</b> | <b>527.51</b>     | <b>611.79</b>     | <b>84.29</b>             | <b>15.98</b> | <b>586.21</b>     | <b>-25.58</b>            | <b>-4.18</b> |
| Brunei       |                   |                   | N/A                      |              |                   |                          |              |
| Cambodia     | 26.08             | 18.65             | -7.42                    | -28.47       | 18.19             | -0.47                    | -2.50        |
| Indonesia    | 285.42            | 381.66            | 96.23                    | 33.72        | 362.61            | -19.05                   | -4.99        |
| Lao PDR      | 2.03              | 2.60              | 0.57                     | 28.08        | 3.43              | 0.83                     | 31.81        |
| Malaysia     |                   |                   | N/A                      |              |                   |                          |              |
| Myanmar      | 139.15            | 137.49            | -1.67                    | -1.20        | 136.54            | -0.95                    | -0.69        |
| Philippines  | 0.46              | 0.40              | -0.07                    | -14.25       | 0.40              | 0.01                     | 1.31         |
| Singapore    |                   |                   | N/A                      |              |                   |                          |              |
| Thailand     | 24.70             | 22.10             | -2.60                    | -10.53       | 16.63             | -5.47                    | -24.74       |
| Vietnam      | 49.66             | 48.90             | -0.76                    | -1.53        | 48.41             | -0.49                    | -1.00        |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 49 Soybean harvested area in ASEAN countries, 2019 – 2021**

Unit: 1,000 Hectares

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |              | 2021<br>(2020/21) | Change<br>2021 over 2020 |              |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|--------------|
|              |                   |                   | Quantities               | (%)          |                   | Quantities               | (%)          |
| <b>ASEAN</b> | <b>526.60</b>     | <b>611.31</b>     | <b>84.71</b>             | <b>16.09</b> | <b>585.26</b>     | <b>-26.05</b>            | <b>-4.26</b> |
| Brunei       |                   |                   | N/A                      |              |                   |                          |              |
| Cambodia     | 25.72             | 18.65             | -7.07                    | -27.49       | 18.19             | -0.47                    | -2.50        |
| Indonesia    | 285.26            | 381.31            | 96.05                    | 33.67        | 362.61            | -18.70                   | -4.90        |
| Lao PDR      | 2.03              | 2.60              | 0.57                     | 28.08        | 3.43              | 0.83                     | 31.81        |
| Malaysia     |                   |                   | N/A                      |              |                   |                          |              |
| Myanmar      | 138.99            | 137.48            | -1.51                    | -1.09        | 136.48            | -1.00                    | -0.73        |
| Philippines  | 0.46              | 0.40              | -0.07                    | -14.25       | 0.40              | 0.01                     | 1.31         |
| Singapore    |                   |                   | N/A                      |              |                   |                          |              |
| Thailand     | 24.47             | 21.97             | -2.50                    | -10.20       | 15.74             | -6.23                    | -28.35       |
| Vietnam      | 49.66             | 48.90             | -0.76                    | -1.53        | 48.41             | -0.49                    | -1.00        |

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

**Table 50 Soybean yield in ASEAN countries, 2019 – 2021**

Unit: Tons/Hectares

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |             | 2021<br>(2020/21) | Change<br>2021 over 2020 |             |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
|              |                   |                   | Quantities               | (%)         |                   | Quantities               | (%)         |
| <b>ASEAN</b> | <b>1.52</b>       | <b>1.61</b>       | <b>0.09</b>              | <b>6.03</b> | <b>1.63</b>       | <b>0.02</b>              | <b>1.15</b> |
| Brunei       | N/A               |                   |                          |             |                   |                          |             |
| Cambodia     | 1.64              | 1.55              | -0.09                    | -5.48       | 1.55              | 0.00                     | 0.00        |
| Indonesia    | 1.49              | 1.66              | 0.17                     | 11.52       | 1.69              | 0.03                     | 2.00        |
| Lao PDR      | 2.51              | 2.39              | -0.12                    | -4.78       | 1.90              | -0.49                    | -20.58      |
| Malaysia     | N/A               |                   |                          |             |                   |                          |             |
| Myanmar      | 1.49              | 1.49              | 0.00                     | -0.15       | 1.48              | 0.00                     | -0.24       |
| Philippines  | 1.42              | 1.38              | -0.04                    | -2.73       | 1.38              | 0.00                     | -0.07       |
| Singapore    | N/A               |                   |                          |             |                   |                          |             |
| Thailand     | 1.78              | 1.62              | -0.16                    | -9.13       | 1.69              | 0.07                     | 4.28        |
| Vietnam      | 1.53              | 1.53              | 0.00                     | 0.20        | 1.54              | 0.00                     | 0.13        |

**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, 2020**

Unit: Hectares

| Country      | Cause of Damage (Hectares) |           |       |          |          |            |            |
|--------------|----------------------------|-----------|-------|----------|----------|------------|------------|
|              | Flood                      | Drought   | Pests | Diseases | Others   | Unspecify  | Total      |
| <b>ASEAN</b> | <b>299</b>                 | <b>55</b> |       |          | <b>2</b> | <b>128</b> | <b>484</b> |
| Brunei       | N/A                        |           |       |          |          |            |            |
| Cambodia     | N/A                        |           |       |          |          |            |            |
| Indonesia    | 292                        | 55        | -     |          | -        | -          | 347        |
| Lao PDR      | N/A                        |           |       |          |          |            |            |
| Malaysia     | N/A                        |           |       |          |          |            |            |
| Myanmar      | 7                          | -         | -     | -        | 2        | -          | 9          |
| Philippines  |                            |           |       |          |          |            |            |
| Singapore    | N/A                        |           |       |          |          |            |            |
| Thailand     | -                          | -         | -     | -        | -        | 128        | 128        |
| Vietnam      | N/A                        |           |       |          |          |            |            |

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

**Table 52 Soybean balance sheet of ASEAN countries, 2019**

Unit: Tons

| Country      | Supply          |                |                  |                  | Demand               |               |                |                  |
|--------------|-----------------|----------------|------------------|------------------|----------------------|---------------|----------------|------------------|
|              | Beginning Stock | Production     | Imports          | Total            | Domestic Utilization | Exports       | Ending stock   | Total            |
| <b>ASEAN</b> | <b>500,594</b>  | <b>798,527</b> | <b>8,540,569</b> | <b>9,839,690</b> | <b>9,165,133</b>     | <b>37,203</b> | <b>637,354</b> | <b>9,839,690</b> |
| Brunei       | -               | -              | 873              | 873              | 873                  | -             | -              | 873              |
| Cambodia     | -               | 42,073         | -                | 42,073           | 42,073               | -             | -              | 42,073           |
| Indonesia    | 359,203         | 424,189        | 2,670,086        | 3,453,478        | 2,899,940            | 3,682         | 549,856        | 3,453,478        |
| Lao PDR      | 83              | 5,100          | 232              | 5,415            | 4,989                | -             | 426            | 5,415            |
| Malaysia     | -               | -              | 772,245          | 772,245          | 749,691              | 22,554        | -              | 772,245          |
| Myanmar      | 55,919          | 206,961        | 1,024            | 263,904          | 244,108              | 3,634         | 16,162         | 263,904          |
| Philippines  | -               | 657            | 178,113          | 178,770          | 178,604              | 166           | -              | 178,770          |
| Singapore    | -               | -              | 20,927           | 20,927           | 20,743               | 183           | -              | 20,927           |
| Thailand     | -               | 43,546         | 3,209,277        | 3,252,823        | 3,249,624            | 3,199         | -              | 3,252,823        |
| Vietnam      | 85,389          | 76,001         | 1,687,792        | 1,849,183        | 1,774,488            | 3,784         | 70,910         | 1,849,183        |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 53 Soybean balance sheet of ASEAN countries, 2020**

Unit: Tons

| Country      | Supply          |                |                  |                   | Demand               |               |                |                   |
|--------------|-----------------|----------------|------------------|-------------------|----------------------|---------------|----------------|-------------------|
|              | Beginning Stock | Production     | Imports          | Total             | Domestic Utilization | Exports       | Ending stock   | Total             |
| <b>ASEAN</b> | <b>637,354</b>  | <b>982,847</b> | <b>8,571,704</b> | <b>10,191,906</b> | <b>9,671,544</b>     | <b>40,233</b> | <b>480,128</b> | <b>10,191,905</b> |
| Brunei       | -               | -              | 658              | 658               | 658                  | -             | -              | 658               |
| Cambodia     | -               | 28,837         | -                | 28,837            | 19,122               | 9,715         | -              | 28,837            |
| Indonesia    | 549,856         | 632,326        | 2,118,122        | 3,300,304         | 2,916,660            | 1,802         | 381,842        | 3,300,303         |
| Lao PDR      | 426             | 6,220          | -                | 6,646             | 5,532                | -             | 1,114          | 6,646             |
| Malaysia     | -               | -              | 623,006          | 623,006           | 611,940              | 11,066        | -              | 623,006           |
| Myanmar      | 16,162          | 204,401        | 371              | 220,934           | 203,800              | 14,892        | 2,242          | 220,934           |
| Philippines  | -               | 548            | 127,775          | 128,323           | 128,230              | 93            | -              | 128,323           |
| Singapore    | -               | -              | 20,061           | 20,061            | 19,886               | 176           | -              | 20,061            |
| Thailand     | -               | 35,532         | 3,738,000        | 3,773,532         | 3,771,532            | 2,000         | -              | 3,773,532         |
| Vietnam      | 70,910          | 74,983         | 1,943,711        | 2,089,605         | 1,994,185            | 490           | 94,930         | 2,089,605         |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 54 Soybean balance sheet of ASEAN countries, 2021**

Unit: Tons

| Country      | Supply          |                |                  |                   | Demand               |               |                |                   |
|--------------|-----------------|----------------|------------------|-------------------|----------------------|---------------|----------------|-------------------|
|              | Beginning Stock | Production     | Imports          | Total             | Domestic Utilization | Exports       | Ending stock   | Total             |
| <b>ASEAN</b> | <b>480,128</b>  | <b>951,813</b> | <b>8,577,062</b> | <b>10,009,003</b> | <b>9,602,299</b>     | <b>25,479</b> | <b>381,224</b> | <b>10,009,003</b> |
| Brunei       | -               | -              | 724              | 724               | 724                  | -             | -              | 724               |
| Cambodia     | -               | 28,116         | -                | 28,116            | 19,502               | 8,614         | -              | 28,116            |
| Indonesia    | 381,842         | 613,318        | 2,234,618        | 3,229,778         | 2,946,934            | 1,778         | 281,066        | 3,229,778         |
| Lao PDR      | 1,114           | 6,511          | -                | 7,625             | 6,724                | -             | 901            | 7,625             |
| Malaysia     | -               | -              | 619,891          | 619,891           | 608,881              | 11,011        | -              | 619,891           |
| Myanmar      | 2,242           | 202,438        | 286              | 204,966           | 194,841              | 1,321         | 8,804          | 204,966           |
| Philippines  | -               | 552            | 127,136          | 127,688           | 127,596              | 92            | -              | 127,689           |
| Singapore    | -               | -              | 20,494           | 20,494            | 20,315               | 180           | -              | 20,494            |
| Thailand     | -               | 26,547         | 3,800,000        | 3,826,547         | 3,824,547            | 2,000         | -              | 3,826,547         |
| Vietnam      | 94,930          | 74,330         | 1,773,912        | 1,943,173         | 1,852,236            | 483           | 90,454         | 1,943,173         |

**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), 2019 – 2021**

Unit: Tons

| Country      | 2019             |                      |              | 2020           |                      |              | 2021           |                      |             |
|--------------|------------------|----------------------|--------------|----------------|----------------------|--------------|----------------|----------------------|-------------|
|              | Production       | Domestic Utilization | Ratio (%)    | Production     | Domestic Utilization | Ratio (%)    | Production     | Domestic Utilization | Ratio (%)   |
| <b>ASEAN</b> | <b>1,570,772</b> | <b>9,165,133</b>     | <b>17.14</b> | <b>982,847</b> | <b>9,671,544</b>     | <b>10.16</b> | <b>951,813</b> | <b>9,602,299</b>     | <b>9.91</b> |
| Brunei       | -                | 873                  | -            | -              | 658                  | -            | -              | 724                  | -           |
| Cambodia     | 42,073           | 42,073               | 100.00       | 28,837         | 19,122               | 150.81       | 28,116         | 19,502               | 144.17      |
| Indonesia    | 424,189          | 2,899,940            | 14.63        | 632,326        | 2,916,660            | 21.68        | 613,318        | 2,946,934            | 20.81       |
| Lao PDR      | 5,100            | 4,989                | 102.22       | 6,220          | 5,532                | 112.44       | 6,511          | 6,724                | 96.83       |
| Malaysia     | 772,245          | 749,691              | 103.01       | -              | 611,940              | 0.00         | -              | 608,881              | -           |
| Myanmar      | 206,961          | 244,108              | 84.78        | 204,401        | 203,800              | 100.29       | 202,438        | 194,841              | 103.90      |
| Philippines  | 657              | 178,604              | 0.37         | 548            | 128,230              | 0.43         | 552            | 127,596              | 0.43        |
| Singapore    | -                | 20,743               | -            | -              | 19,886               | 0.00         | -              | 20,315               | -           |
| Thailand     | 43,546           | 3,249,624            | 1.34         | 35,532         | 3,771,532            | 0.94         | 26,547         | 3,824,547            | 0.69        |
| Vietnam      | 76,001           | 1,774,488            | 4.28         | 74,983         | 1,994,185            | 3.76         | 74,330         | 1,852,236            | 4.01        |

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), 2019 – 2021**

Unit: Tons

| Country      | 2019            |                      |             | 2020            |                      |             | 2021            |                      |             |
|--------------|-----------------|----------------------|-------------|-----------------|----------------------|-------------|-----------------|----------------------|-------------|
|              | Beginning Stock | Domestic Utilization | Ratio (%)   | Beginning Stock | Domestic Utilization | Ratio (%)   | Beginning Stock | Domestic Utilization | Ratio (%)   |
| <b>ASEAN</b> | <b>500,594</b>  | <b>9,165,133</b>     | <b>5.46</b> | <b>637,354</b>  | <b>9,671,544</b>     | <b>6.59</b> | <b>480,128</b>  | <b>9,602,299</b>     | <b>5.00</b> |
| Brunei       | -               | 873                  | -           | -               | 658                  | -           | -               | 724                  | -           |
| Cambodia     | -               | 42,073               | -           | -               | 19,122               | -           | -               | 19,502               | -           |
| Indonesia    | 359,203         | 2,899,940            | 12.39       | 549,856         | 2,916,660            | 18.85       | 381,842         | 2,946,934            | 12.96       |
| Lao PDR      | 83              | 4,989                | 1.66        | 426             | 5,532                | 7.70        | 1,114           | 6,724                | 16.56       |
| Malaysia     | -               | 749,691              | -           | -               | 611,940              | -           | -               | 608,881              | -           |
| Myanmar      | 55,919          | 244,108              | 22.91       | 16,162          | 203,800              | 7.93        | 2,242           | 194,841              | 1.15        |
| Philippines  | -               | 178,604              | -           | -               | 128,230              | -           | -               | 127,596              | -           |
| Singapore    | -               | 20,743               | -           | -               | 19,886               | -           | -               | 20,315               | -           |
| Thailand     | -               | 3,249,624            | -           | -               | 3,771,532            | -           | -               | 3,824,547            | -           |
| Vietnam      | 85,389          | 1,774,488            | 4.81        | 70,910          | 1,994,185            | 3.56        | 94,930          | 1,852,236            | 5.13        |

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 2020**

Quantity: Tons Values: US\$

| Exporting Country | Country of Destination |           |          |         |           |              |          |         |          |        |          |        |             |        |
|-------------------|------------------------|-----------|----------|---------|-----------|--------------|----------|---------|----------|--------|----------|--------|-------------|--------|
|                   | Brunei                 |           | Cambodia |         | Indonesia |              | Lao PDR  |         | Malaysia |        | Myanmar  |        | Philippines |        |
|                   | Quantity               | Values    | Quantity | Values  | Quantity  | Values       | Quantity | Values  | Quantity | Values | Quantity | Values | Quantity    | Values |
| Brunei            | N/A                    |           |          |         |           |              |          |         |          |        |          |        |             |        |
| Cambodia          |                        |           |          |         |           |              |          |         |          |        |          |        |             |        |
| Indonesia         |                        |           |          |         |           |              |          |         |          |        |          |        |             |        |
| Lao PDR           |                        |           |          |         |           |              |          |         |          |        |          |        |             |        |
| Malaysia          | 33.24                  | 16,711.79 |          |         | 9,681.52  | 4,707,643.49 |          |         |          |        |          |        |             |        |
| Myanmar           |                        |           |          |         |           |              |          |         |          |        |          |        |             |        |
| Philippines       |                        |           |          |         |           |              |          |         |          |        |          |        |             |        |
| Singapore         | N/A                    |           |          |         |           |              |          |         |          |        |          |        |             |        |
| Thailand          |                        |           | 93       | 114,145 |           |              | 1,438    | 683,015 | 10       | 14,908 | 25.18    | 21,432 |             |        |
| Vietnam           |                        |           |          |         |           |              |          |         |          |        |          |        |             |        |

| 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          |                        |            | 6,250    | -       | 3,465    | -       | 9,715              | -         |                     |            | 9,715    | -         |
| Indonesia         | 0.11                   | 25         | 0.001    | 1       |          |         | 0.11               | 26        | 1,802               | 307,327    | 1,802    | 307,353   |
| Lao PDR           |                        |            |          |         |          |         |                    |           |                     |            |          |           |
| Malaysia          | 695.05                 | 928,553.32 |          |         | 1        | 8,817   | 10,411             | 5,661,726 | 655                 | 645,164    | 11,066   | 6,306,890 |
| Myanmar           | 66                     | 38,000     | 1,434    | 860,000 | 483      | 121,000 | 1,983              | 1,019,000 | 12,909              | 5,175,000  | 14,892   | 6,194,000 |
| Philippines       |                        |            |          |         |          |         |                    |           | 93.25               | 246,069.00 | 93       | 246,069   |
| Singapore         | N/A                    |            |          |         |          |         |                    |           |                     |            |          |           |
| Thailand          | 10                     | 20,995     |          |         |          |         | 1,576              | 854,495   | 95                  | 147,799    | 1,672    | 1,002,294 |
| Vietnam           |                        |            |          |         |          |         |                    |           |                     |            |          |           |

**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 2020**

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            |                        |        |          |           |           |        |          |        | 69       | 11,689    |          |         |             |        |
| Cambodia          | N/A                    |        |          |           |           |        |          |        |          |           |          |         |             |        |
| Indonesia         |                        |        |          |           |           |        |          |        | 6,343    | 3,007,283 | 0.001    | 4       |             |        |
| Lao PDR           | N/A                    |        |          |           |           |        |          |        |          |           |          |         |             |        |
| Malaysia          | 105                    | 49,230 |          |           |           |        |          |        |          |           |          |         |             |        |
| Myanmar           |                        |        |          |           |           |        |          |        |          |           |          |         |             |        |
| Philippines       |                        |        |          |           |           |        |          |        |          |           |          |         |             |        |
| Singapore         |                        |        |          |           |           |        |          |        | 1,643    | 1,723,492 | 0.09     | 76      |             |        |
| Thailand          |                        |        | 500      | 238,828   |           |        |          |        | 0.39     | 27        | 1,512.00 | 990,074 |             |        |
| Vietnam           |                        |        | 1,925    | 1,120,000 |           |        |          |        |          |           |          |         |             |        |

[59]

| 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            |                        |         |          |        |          |        | 69                 | 11,689    | 589                 | 669,325       | 658       | 681,015       |
| Cambodia          | N/A                    |         |          |        |          |        |                    |           |                     |               |           |               |
| Indonesia         | 1                      | 1,502   | 0.001    | 1      | 0.001    | 3      | 6,343              | 3,008,793 | 2,111,778           | 839,746,658   | 2,118,122 | 842,755,451   |
| Lao PDR           | N/A                    |         |          |        |          |        |                    |           |                     |               |           |               |
| Malaysia          | 1,507                  | 627,700 |          |        |          |        | 1,612              | 676,930   | 621,394             | 267,301,575   | 623,006   | 267,978,506   |
| Myanmar           | 3                      | 2,000   |          |        |          |        | 3                  | 2,000     | 368                 | 233,000       | 371       | 235,000       |
| Philippines       |                        |         | 0.17     | 484    |          |        | 0                  | 484       | 127,775.01          | 56,516,871.00 | 127,775   | 56,517,355    |
| Singapore         |                        |         | 0.11     | 206    | 0.03     | 19     | 1,643              | 1,723,793 | 18,418              | 12,226,530    | 20,061    | 13,950,323    |
| Thailand          | 783                    | 293,018 |          |        |          |        | 2,796              | 1,521,947 | 3,469,814           | 1,361,942,056 | 3,472,609 | 1,363,464,003 |
| Vietnam           |                        |         |          |        |          |        | 1,925              | 1,120,000 | 1,607,239           | 646,798,837   | 1,609,164 | 647,918,837   |

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

**Table 59 FOB Price of soybean in selected ASEAN countries**

Unit: US\$/Tons

| Country   | Year | Jan. | Feb. | Mar. | Apr.  | May | Jun. | Jul. | Aug. | Sep. | Oct.  | Nov. | Dec. | Average |
|-----------|------|------|------|------|-------|-----|------|------|------|------|-------|------|------|---------|
| Cambodia  | 2019 | N/A  |      |      |       |     |      | 972  | 935  | 931  | 932   | 932  | 912  | 936     |
|           | 2020 | 915  | 939  | 853  | 1,002 | 901 | 961  | 952  | 952  | 943  | 1,031 | 987  | 949  | 949     |
| Indonesia | 2019 | 309  | 175  | 342  | 273   | 511 | 189  | 103  | 421  | 188  | 141   | 206  | 100  | 247     |
|           | 2020 | 163  | 204  | 166  | 100   | 120 | 146  | 168  | 180  | 173  | 185   | 179  | 162  | 162     |
| Myanmar   | 2019 | 490  | 370  | 403  | 483   | 444 | 486  | 473  | 281  | 571  | 472   | 427  | 436  | 445     |
|           | 2020 | 404  | 378  | 361  | 491   | 513 | 521  | 625  | 499  | 507  | *503  | *505 | *482 | 478     |
| Malaysia  | 2019 | 507  | 506  | 507  | 510   | 508 | 532  | 500  | 495  | 508  | 522   | 512  | 516  | 510     |
|           | 2020 | 551  | 621  | 847  | 573   | 510 | 599  | 483  | 494  | 513  | 525   | *504 | *518 | 572     |

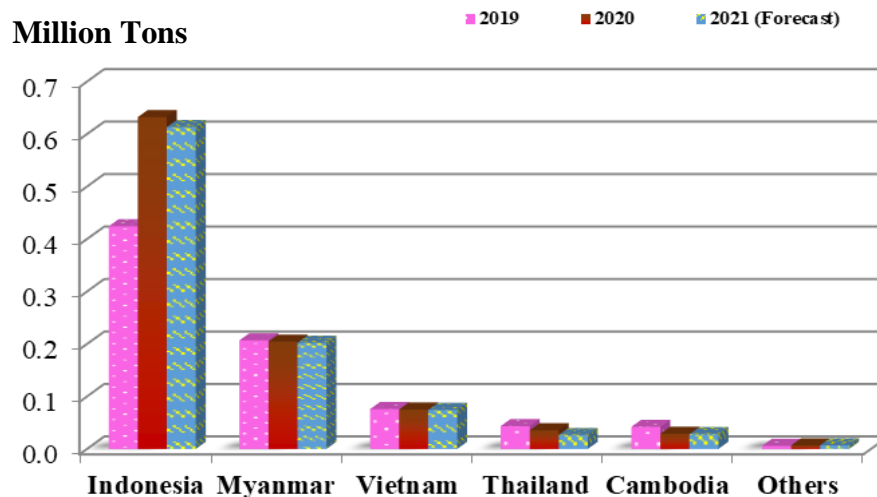
**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.

**Table 60 CIF Price of soybean in selected ASEAN countries**

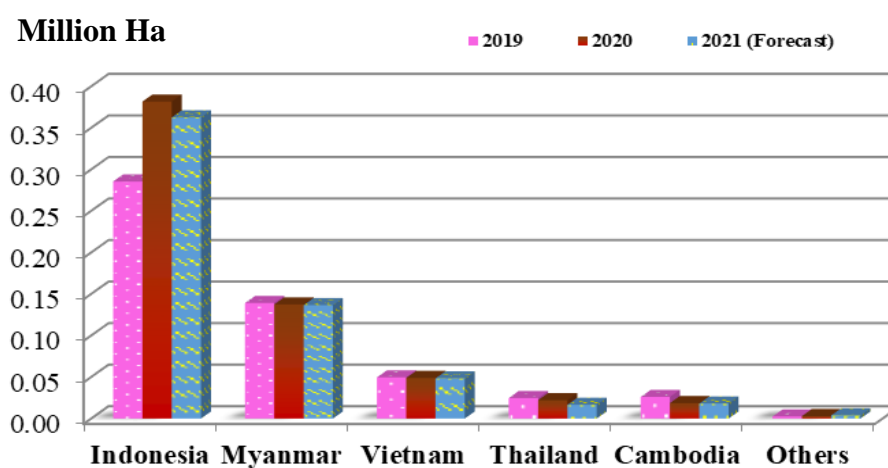
Unit: US\$/Tons

| Country   | Year | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. | Average |
|-----------|------|------|------|------|------|-----|------|------|------|------|------|------|------|---------|
| Indonesia | 2019 | 391  | 399  | 401  | 407  | 402 | 390  | 392  | 396  | 395  | 399  | 407  | 408  | 399     |
|           | 2020 | 409  | 406  | 394  | 389  | 402 | 393  | 388  | 395  | 399  | 403  | 401  | 398  | 398     |
| Myanmar   | 2019 | N/A  | 641  | 637  | 643  | 654 | 650  | N/A  | 645  | N/A  | 667  | N/A  |      | 648     |
|           | 2020 | 621  | N/A  |      |      |     | 629  | N/A  | 634  | N/A  |      |      |      | 628     |
| Singapore | 2019 | 642  | 629  | 654  | 639  | 646 | 658  | 644  | 655  | 664  | 652  | 642  | 671  | 650     |
|           | 2020 | 651  | 716  | 817  | 809  | 684 | 666  | 664  | 679  | 651  | 658  | 700  | 700  | 700     |
| Thailand  | 2019 | 401  | 395  | 398  | 397  | 401 | 396  | 379  | 385  | 383  | 401  | 400  | 400  | 395     |
|           | 2020 | 392  | 394  | 386  | 396  | 391 | 396  | 376  | 383  | 389  | 392  | 415  | 392  | 392     |
| Vietnam   | 2019 | 392  | 398  | 404  | 389  | 402 | 384  | 407  | 407  | 402  | 405  | 405  | 412  | 400     |
|           | 2020 | 414  | 414  | 406  | 397  | 394 | 386  | 388  | 399  | 406  | 437  | 454  | *409 | 409     |
| Malaysia  | 2019 | 419  | 413  | 406  | 430  | 409 | 433  | 412  | 416  | 409  | 409  | 423  | 417  | 416     |
|           | 2020 | 420  | 417  | 421  | 434  | 444 | 418  | 429  | 440  | 438  | 447  | *439 | *436 | 431     |

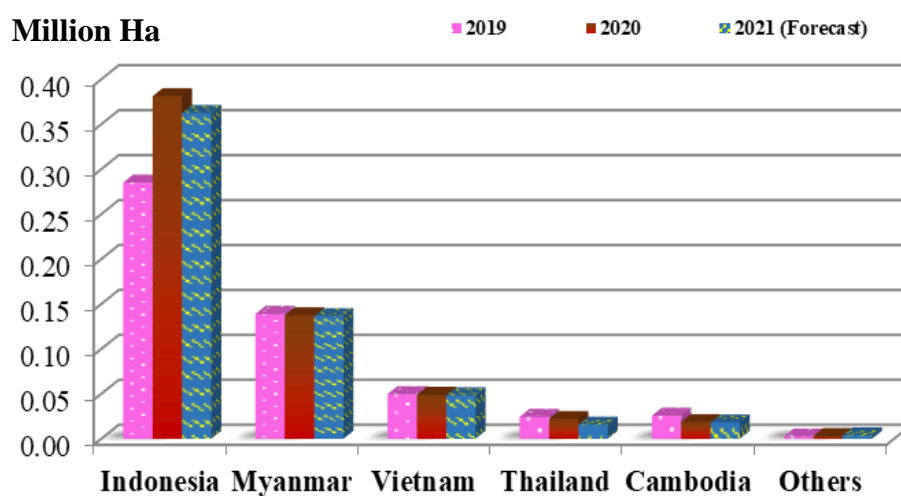
**Remark:** \* N/A refers to data is not available.



**Figure 47 Soybean production of selected countries in ASEAN, 2019 – 2021**



**Figure 48 Soybean planted area of selected countries in ASEAN, 2019 – 2021**



**Figure 49 Soybean harvested area of selected countries in ASEAN, 2019 – 2021**

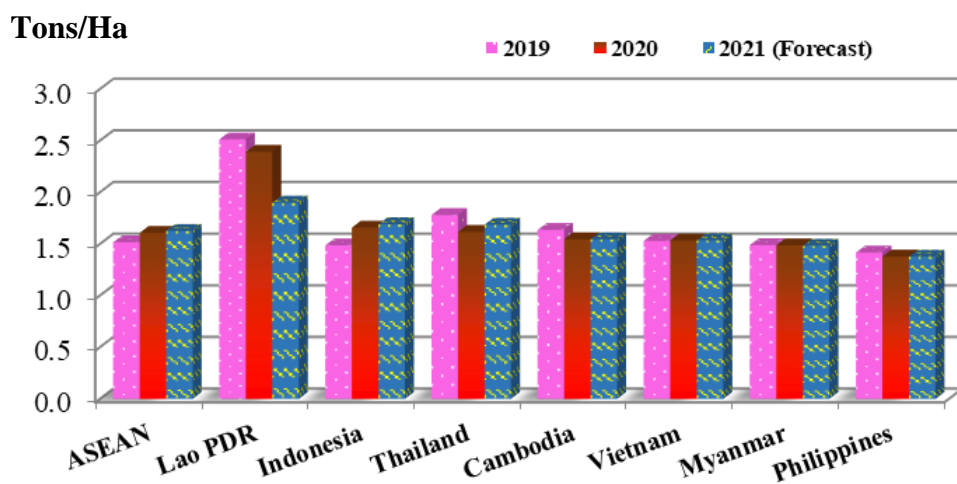


Figure 50 Soybean yield of countries in ASEAN, 2019 – 2021

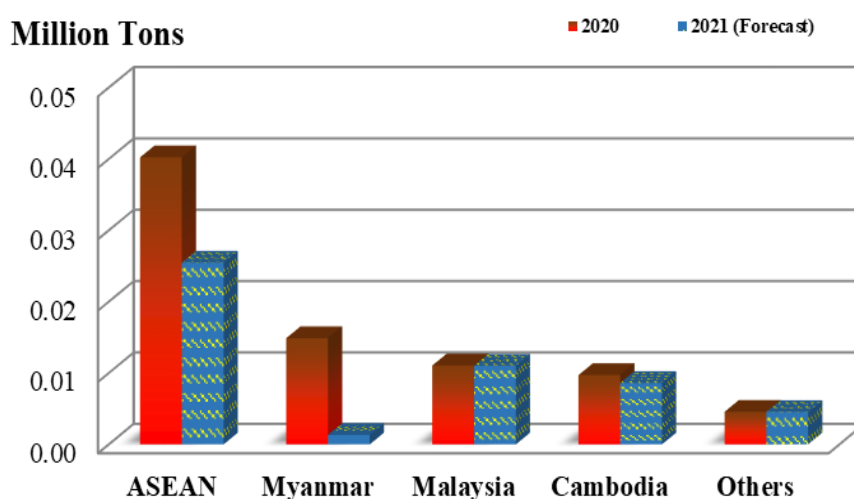
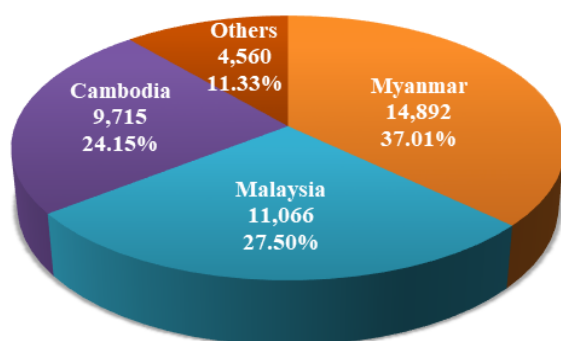
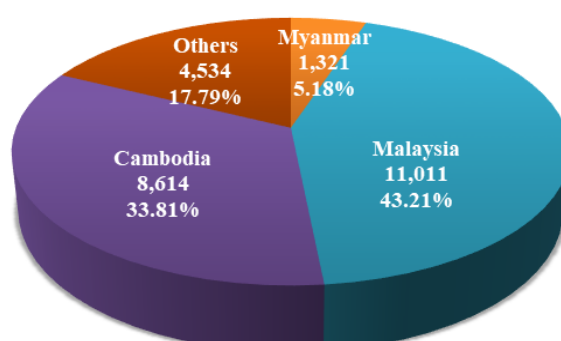


Figure 51 Amount of soybean export (million tons) of selected countries in ASEAN in 2020 – 2021



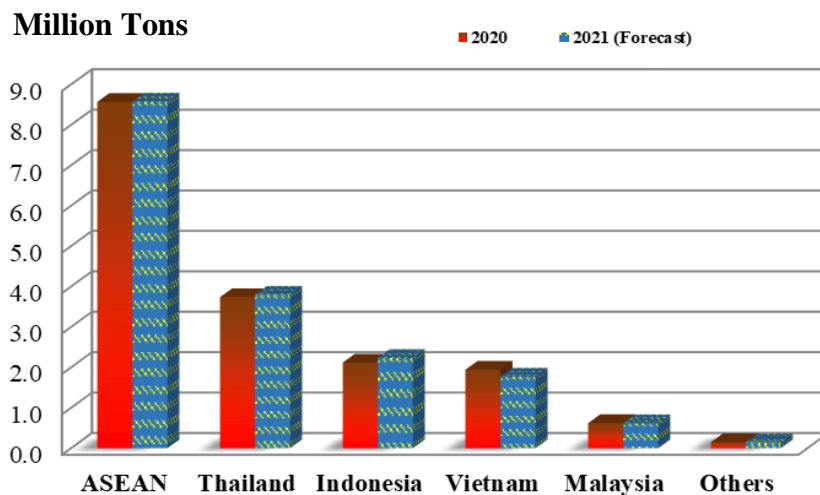
**Total 0.040 million tons**

Figure 52 Share of soybean export (tons) among ASEAN countries, 2020

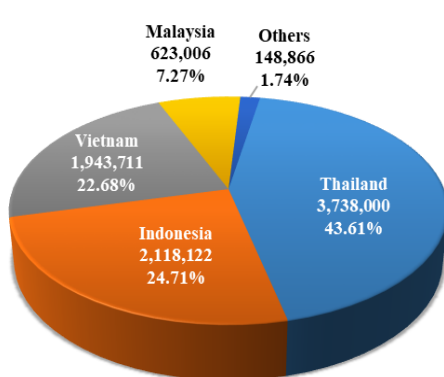


**Total 0.025 million tons**

Figure 53 Share of soybean export (tons) among ASEAN countries, 2021

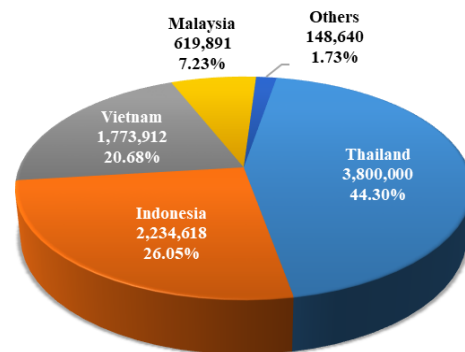


**Figure 54 Amount of soybean import (million tons) by selected countries in ASEAN in 2020 – 2021**



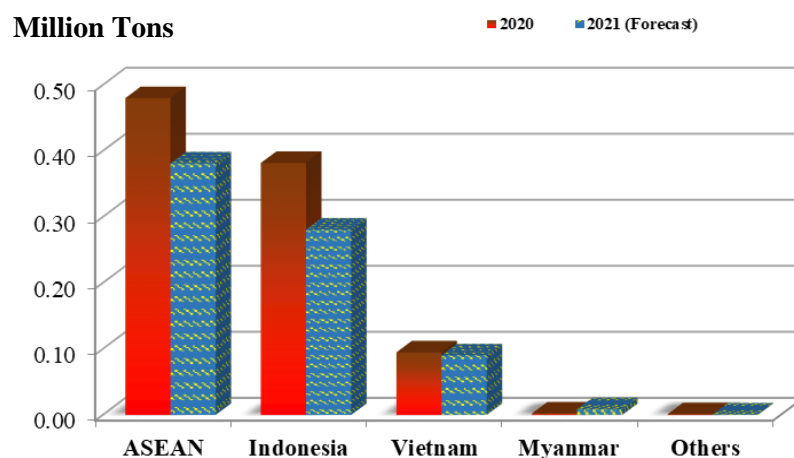
**Total 8.57 million tons**

**Figure 55 Share of soybean import (tons) among ASEAN countries, 2020**

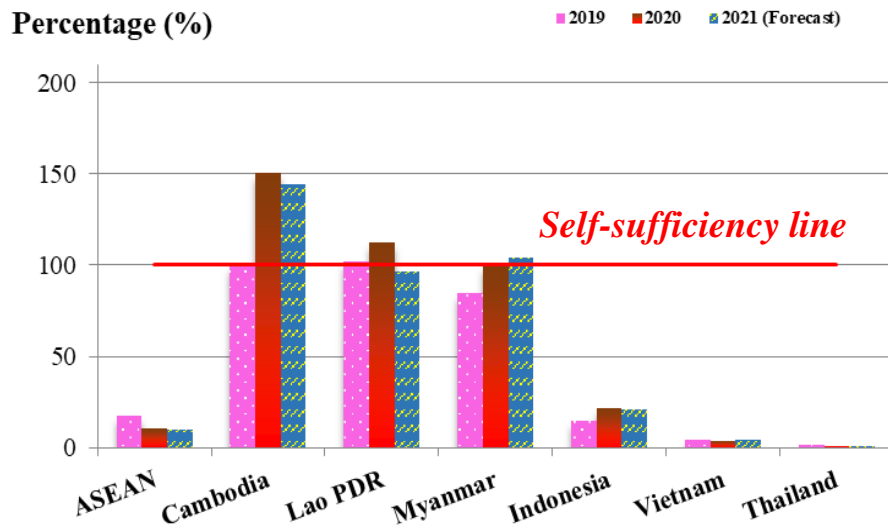


**Total 8.58 million tons**

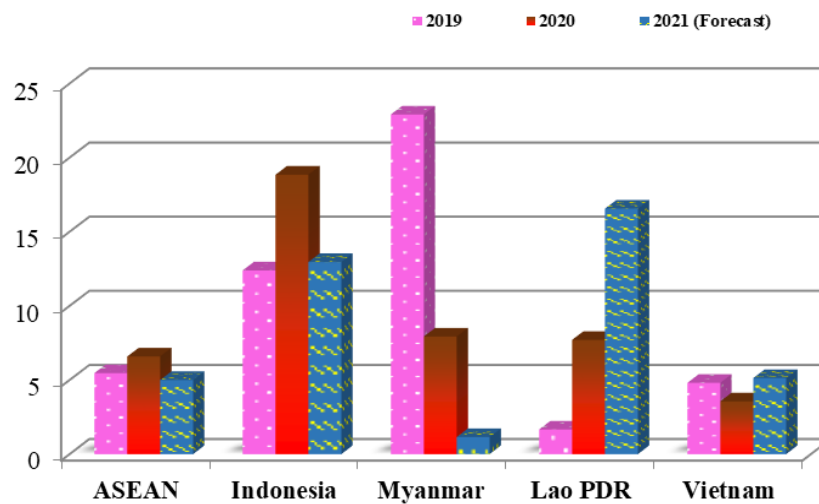
**Figure 56 Share of soybean import (tons) among ASEAN countries, 2021**



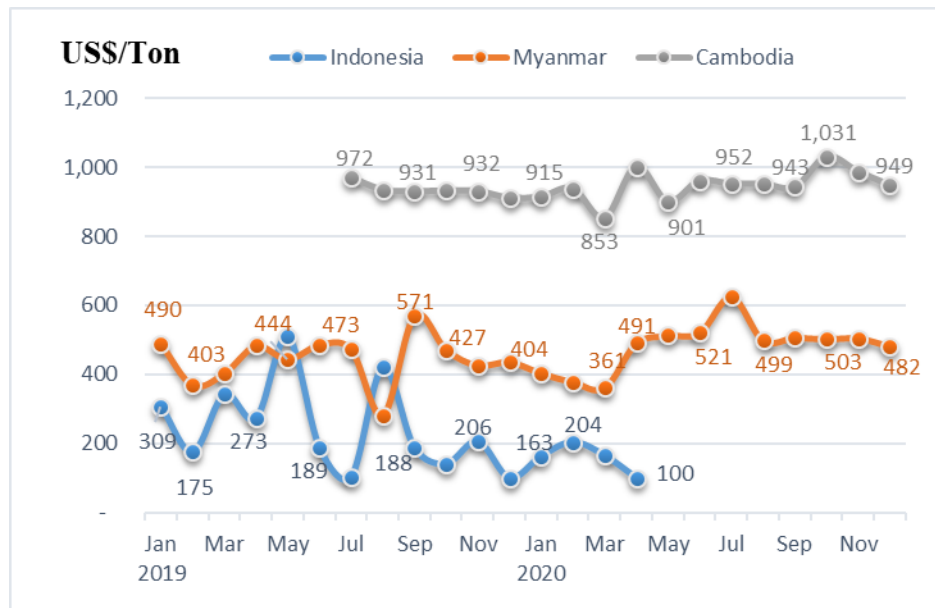
**Figure 57 Amount of ending stock of soybean in ASEAN countries in 2020 – 2021**



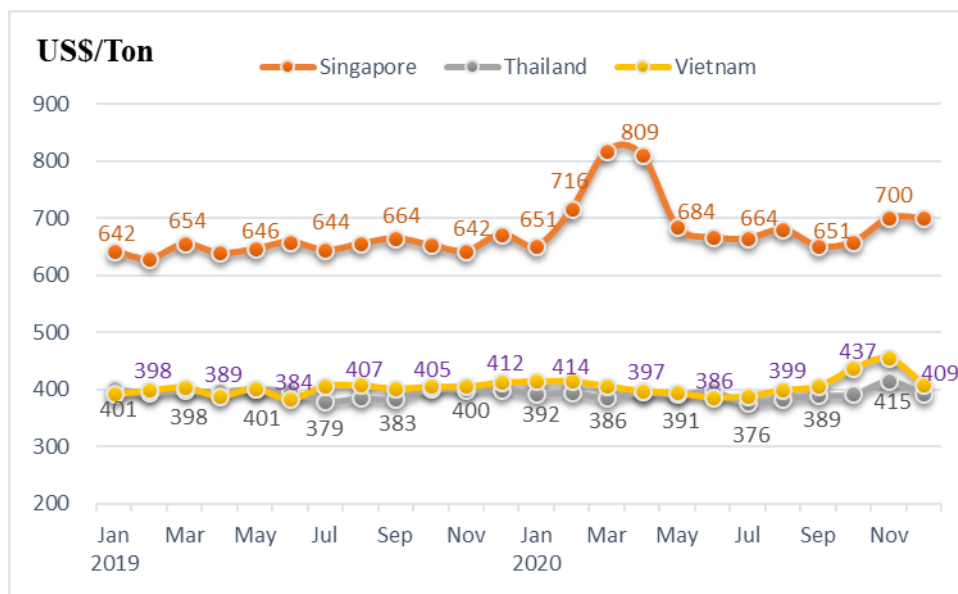
**Figure 58 Ratio of soybean production to domestic utilization in ASEAN countries, 2019 – 2021**



**Figure 59 Ratio of soybean beginning stock to domestic utilization in ASEAN countries, 2019 – 2021**



**Figure 60 FOB price (US\$/Ton) of soybean of selected countries in ASEAN in 2019 – 2020**



**Figure 61 CIF price (US\$/Ton) of soybean of selected countries in ASEAN in 2019 – 2020**



# Cassava Outlook for 2021

## Highlights

The supply of cassava in ASEAN is forecasted to be 92.09 million tons in 2021, an increase of 5.20 million tons or about 5.99 percent from 86.88 million tons in 2020 (Table 61). The increase is due to the increase in import, production and the expected increase in the beginning stock.

The beginning stock of cassava in 2021 is projected to be at 8.15 million tons, which increased from 4.68 million tons in 2020 due to the increase in stock in Lao PDR. While the ending stock in 2021 is expected to be 10.83 million tons, which increased from 8.15 million tons in 2020.

The export of cassava is expected to increase 0.85 million tons or around 2.57 percent from 33.06 million tons in 2020 to 33.91 million tons in 2021. While the import of cassava is forecasted to be 6.05 million tons in 2021, increased about 7.66 percent from 5.62 million tons in 2020.

The ratio of production to domestic utilization in 2021 is forecasted to be 164.52 percent, which decreased about 3.16 percent from 167.68 percent in 2020. The ratio of beginning stock to domestic utilization in 2021 is forecasted to be about 17.21 percent, which increased about 6.96 percent from 10.25 percent in 2020.

**Table 61 Summary of the ASEAN cassava situation, 2020-2021**

Unit: Million tons

| Items  | 2020   | 2021   | Change   |       |
|--|--------|--------|----------|-------|
|  |        |        | Quantity | %     |
| Supply (Million tons)                                | 86.88  | 92.09  | 5.20     | 5.99  |
| Beginning stock                                      | 4.68   | 8.15   | 3.47     | 74.10 |
| Production   | 76.59  | 77.89  | 1.30     | 1.70  |
| Import   | 5.62   | 6.05   | 0.43     | 7.66  |
| Demand (Million tons)                                | 86.88  | 92.09  | 5.20     | 5.99  |
| Domestic utilization                                 | 45.68  | 47.34  | 1.67     | 3.65  |
| Export   | 33.06  | 33.91  | 0.85     | 2.57  |
| Ending stock   | 8.15   | 10.83  | 2.68     | 32.93 |
| Ratio of production to domestic utilization (%)      | 167.68 | 164.52 | -3.16    | -     |
| Ratio of beginning stock to domestic utilization (%) | 10.25  | 17.21  | 6.96     | -     |

# ASEAN Cassava Situation in 2020

## ► Production

*The estimated cassava production (root fresh) in ASEAN in 2020 (crop year 2019/20) was 76.59 million tons which decreased from 77.44 million tons in 2019 or about 1.10 percent. The decrease has occurred in Cambodia, Vietnam, Thailand, the Philippines and Myanmar (Table 62-65, Figure 62-65).*

For the country reported the most decrease in production, **Thailand**, the production was reported to decrease about 6.70 percent or 2.08 million tons (from 31.08 million tons in 2019 to 29.00 million tons in 2020). The decrease in production came from the decrease in yield caused by the drought, lack of water supply, diseases (Cassava mosaic diseases) and lack of cassava roots good varieties, while the planted area was estimated to increase due to farmers' response to price increase and government policy.

For **Cambodia**, the production was reported to decrease about 10.89 percent or 1.47 million tons (from 13.51 million tons in 2019 to 12.04 million tons in 2020). The decrease in production came from the decrease in yield caused by flood, while the planted area was estimated to increase due to government policy.

For **Vietnam**, the decrease in production was approximately 7.00 percent or 0.71 million tons (from 10.11 million tons in 2019 to 9.40 million tons in 2020). The decrease in production came from the decrease in harvested area and yield, which caused by unfavorable weather as a result of storms, prolonged rain, flash floods and landslides.

For **the Philippines**, the production was reported to decrease about 1.17 percent or 0.03 million tons (from 2.63 million tons in 2019 to 2.60 million tons in 2020). The decrease in production came from the decrease in planted area and yield caused by insufficient rainfall.

For **Myanmar**, the decrease in production was approximately 0.55 percent or 2,180 tons (from 0.395 million tons in 2019 to 0.392 million tons in 2020). The decrease in production came from the decrease in planted area caused by unfavorable weather.

**Indonesia**, the production was reported to increase about 6.73 percent or 1.10 million tons (from 16.35 million tons in 2019 to 17.45 million tons in 2020). The increase in production came from the increase in planted area and yield due to farmers' response to price increase, better taking care of crops from farmers and favorable weather as a result of rainfall and sunlight sufficiency.

For **Lao PDR**, the production was reported to increase about 70.45 percent or 2.34 million tons (from 3.32 million tons in 2019 to 5.66 million tons in 2020). The increase in production came from the increase in planted area and yield caused by government policy and better taking care of crops from farmers.

For **Malaysia**, the production was reported to increase about 2.50 percent or 1,060 tons (from 0.042 million tons in 2019 to 0.043 million tons in 2020). The increase in production came from the increased in planted area and yield caused by the decrease in price of competing crop and better taking care of crops from farmers.

For **Brunei**, the production was reported to increase about 3.37 percent or 10 tons from 296.35 tons in 2019 to 306.34 tons in 2020. The increase in production was because farmers used more fertilizer and took better care of the crop.

### ► *Utilization and Stock*

Cassava root in ASEAN, in general, can be used for human food, animal feed and ethanol production. The domestic utilization of cassava for all purposes in ASEAN in 2020 was estimated at 45.68 million tons, which increased about 0.64 million tons or about 1.42 percent from 45.03 million tons in 2019 (Table 67-68).

The beginning stock in 2020 was estimated at 4.68 million tons, which increased dramatically around 3.07 million tons compared to 1.61 million tons in 2019. The ending stock of cassava in 2020 was estimated to be 8.15 million tons, which increased dramatically around 3.47 million tons compared to 4.68 million tons in 2019. This came from the increase in ending stock of Lao PDR.

The ratio of production to domestic utilization in 2020 was estimated to be about 167.68 percent which decreased from about 171.95 percent in 2019. 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 2020 is estimated to be 10.25 percent which increased from 3.58 percent in 2019 (Table 71, Figure 74).

### ► *Trade*

The cassava exported from ASEAN in 2020 is expected to be 33.06 million tons, which decreased 0.66 million tons from 33.72 million tons in 2019. The cassava imported by ASEAN in 2020 was estimated to be 5.62 million tons, which increased approximately 1.23 million tons from 4.39 million tons in 2019 (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 counties of origin are given in Table 72 and 73.

### ► *Prices*

The FOB prices of cassava in Cambodia, Indonesia, Malaysia, Myanmar, Thailand, and Vietnam between 2019 and 2020, and the CIF prices of Indonesia, Myanmar, and Singapore are presented in Table 74-75. The average FOB prices of starch in Thailand in 2020 decreased from 2019, while the average FOB prices of pellets in Thailand in 2020 increased from 2019. Besides, the average FOB prices of shredded in Thailand in 2020 remained the same as in 2019.

### ► *Damaged Area*

The cassava damaged area in 2020 in ASEAN was reported to be 156,599 hectares, of which 83,321 hectares or about 53.21 percent caused by drought and has occurred in Thailand, while 72,804 hectares or about 46.49 percent caused by flood and has occurred in Cambodia 46,839 hectares and Vietnam 25,965 hectares (Table 66).

# Prospects for Cassava in 2021

## ► **Production**

*The cassava production in ASEAN in 2021 is forecasted to be 77.89 million tons which increased 1.30 million tons or about 1.70 percent from 76.59 million tons in 2020. The increase in production is expected in all countries except Lao PDR and the Philippines (Table 62). The greatest increase in term of quantity and percentage is expected in **Vietnam**, which is forecasted to be 10.11 million tons or an increase of 7.53 percent from 9.40 million tons in 2020. The increase was due to the increase in harvested area and yield (Table 62-65, Figure 62-65). The increase in production in **Cambodia** which is forecasted to be 12.55 million tons or an increase of 4.20 percent from 12.04 million tons in 2020. The increase was due to the increase in planted area and yield. The increase in production in **Thailand** which is forecasted to be 29.49 million tons or an increase of 1.70 percent from 29.00 million tons in 2020. The increase was due to the increase in planted area, which came from favorable weather and farmers' response to price increase. The increase in production in **Indonesia** which is forecasted to be 17.72 million tons or an increase of 1.52 percent from 17.45 million tons in 2020. The increase was due to the increase in yield.*

## ► **Utilization and Stock**

The domestic utilization of cassava is predicted to increase to 47.34 million tons in 2021 compared to 45.68 million tons in 2020, an increase of 1.67 million tons. The beginning stock in 2021 is forecasted to be 8.15 million tons, an increase of about 3.47 million tons, compared to 4.68 million tons in 2020. The ending stock in 2021 is predicted to be 10.83 million tons, an increase of 2.68 million tons from 8.15 million tons in 2020 (Table 68-69).

The ratio of production to domestic utilization for 2021 is forecasted to be about 164.52 percent which decreased from 167.68 percent in 2020. This indicates that the self-sufficiency in cassava in ASEAN is slightly decreasing (Table 70, Figure 73). The ratio of beginning stock to the domestic utilization in 2021 is predicted to be about 17.21 percent, compared to about 10.25 percent in 2020. This indicates that the cassava supply situation in ASEAN is dramatically increasing (Table 71, Figure 74).

## ► **Trade**

The cassava export from ASEAN is expected to increase to 33.91 million tons in 2021, an increase of 0.85 million tons compared to 33.06 million tons in 2020. For the import, it is expected to 6.05 million tons in 2021, an increase about 0.43 million tons from 5.62 million tons in 2020 (Table 68-69, Figure 66, 68, 69 and 71).

**Table 62 Cassava production in ASEAN countries, 2019 – 2021**

Unit: 1,000 Tons

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |              | 2021<br>(2020/21) | Change<br>2021 over 2020 |             |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|-------------|
|              |                   |                   | Quantities               | (%)          |                   | Quantities               | (%)         |
| <b>ASEAN</b> | <b>77,439.52</b>  | <b>76,587.84</b>  | <b>-851.68</b>           | <b>-1.10</b> | <b>77,891.85</b>  | <b>1,304.01</b>          | <b>1.70</b> |
| Brunei       | 0.30              | 0.31              | 0.01                     | 3.37         | 0.32              | 0.02                     | 5.00        |
| Cambodia     | 13,512.76         | 12,041.81         | -1,470.94                | -10.89       | 12,547.57         | 505.76                   | 4.20        |
| Indonesia    | 16,350.37         | 17,450.86         | 1,100.49                 | 6.73         | 17,716.23         | 265.37                   | 1.52        |
| Lao PDR      | 3,320.05          | 5,658.87          | 2,338.82                 | 70.45        | 4,992.06          | -666.81                  | -11.78      |
| Malaysia     | 42.29             | 43.34             | 1.06                     | 2.50         | 43.99             | 0.65                     | 1.50        |
| Myanmar      | 394.61            | 392.43            | -2.18                    | -0.55        | 412.31            | 19.88                    | 5.07        |
| Philippines  | 2,634.09          | 2,603.36          | -30.73                   | -1.17        | *2,580.93         | -22.43                   | -0.86       |
| Singapore    | N/A               |                   |                          |              |                   |                          |             |
| Thailand     | 31,079.97         | 28,999.12         | -2,080.84                | -6.70        | 29,493.34         | 494.22                   | 1.70        |
| Vietnam      | 10,105.10         | 9,397.74          | -707.36                  | -7.00        | 10,105.10         | 707.36                   | 7.53        |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 63 Cassava planted area in ASEAN countries, 2019 – 2021**

Unit: 1,000 Hectares

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |             | 2021<br>(2020/21) | Change<br>2021 over 2020 |             |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
|              |                   |                   | Quantities               | (%)         |                   | Quantities               | (%)         |
| <b>ASEAN</b> | <b>3,576.82</b>   | <b>3,766.10</b>   | <b>189.28</b>            | <b>5.29</b> | <b>3,803.78</b>   | <b>37.68</b>             | <b>1.00</b> |
| Brunei       | N/A               |                   |                          |             |                   |                          |             |
| Cambodia     | 656.87            | 658.65            | 1.78                     | 0.27        | *676.43           | 17.78                    | 2.70        |
| Indonesia    | 628.30            | 648.16            | 19.85                    | 3.16        | 635.69            | -12.47                   | -1.92       |
| Lao PDR      | 101.20            | 172.10            | 70.90                    | 70.06       | 154.46            | -17.64                   | -10.25      |
| Malaysia     | 2.88              | 2.96              | 0.09                     | 3.00        | 3.05              | 0.09                     | 3.00        |
| Myanmar      | 33.37             | 33.07             | -0.31                    | -0.91       | 33.26             | 0.20                     | 0.59        |
| Philippines  | 223.15            | 221.62            | -1.53                    | -0.69       | *218.49           | -3.14                    | -1.42       |
| Singapore    | N/A               |                   |                          |             |                   |                          |             |
| Thailand     | 1,411.75          | 1,510.24          | 98.49                    | 6.98        | *1,563.10         | 52.86                    | 3.50        |
| Vietnam      | 519.30            | 519.30            | 0.00                     | 0.00        | 519.30            | 0.00                     | 0.00        |

**Remark:** \* The value is estimated by AFSIS Secretariat. N/A refers to data is not available.**Table 64 Cassava harvested area in ASEAN countries, 2019 – 2021**

Unit: 1,000 Hectares

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |             | 2021<br>(2020/21) | Change<br>2021 over 2020 |             |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
|              |                   |                   | Quantities               | (%)         |                   | Quantities               | (%)         |
| <b>ASEAN</b> | <b>3,546.97</b>   | <b>3,654.90</b>   | <b>107.93</b>            | <b>3.04</b> | <b>3,692.29</b>   | <b>37.39</b>             | <b>1.02</b> |
| Brunei       | N/A               |                   |                          |             |                   |                          |             |
| Cambodia     | 652.53            | 657.21            | 4.68                     | 0.72        | *673.64           | 16.43                    | 2.50        |
| Indonesia    | 628.30            | 648.16            | 19.85                    | 3.16        | 635.69            | -12.47                   | -1.92       |
| Lao PDR      | 101.20            | 172.10            | 70.90                    | 70.06       | 154.46            | -17.64                   | -10.25      |
| Malaysia     | 2.45              | 2.49              | 0.03                     | 1.40        | 2.56              | 0.07                     | 3.00        |
| Myanmar      | 33.37             | 33.07             | -0.31                    | -0.91       | 33.26             | 0.20                     | 0.59        |
| Philippines  | 223.15            | 221.62            | -1.53                    | -0.69       | *218.49           | -3.14                    | -1.42       |
| Singapore    | N/A               |                   |                          |             |                   |                          |             |
| Thailand     | 1,386.66          | 1,426.92          | 40.27                    | 2.90        | 1,454.89          | 27.97                    | 1.96        |
| Vietnam      | 519.30            | 493.34            | -25.97                   | -5.00       | 519.30            | 25.97                    | 5.26        |

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

**Table 65 Cassava yield in ASEAN countries, 2019 – 2021**

Unit: Ton/Hectare

| Country      | 2019<br>(2018/19) | 2020<br>(2019/20) | Change<br>2020 over 2019 |              | 2021<br>(2020/21) | Change<br>2021 over 2020 |             |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|-------------|
|              |                   |                   | Quantities               | (%)          |                   | Quantities               | (%)         |
| <b>ASEAN</b> | <b>21.83</b>      | <b>20.95</b>      | <b>-0.88</b>             | <b>-4.03</b> | <b>21.10</b>      | <b>0.15</b>              | <b>0.72</b> |
| Brunei       | N/A               |                   |                          |              |                   |                          |             |
| Cambodia     | 20.71             | 18.32             | -2.39                    | -11.54       | 18.63             | 0.31                     | 1.69        |
| Indonesia    | 26.02             | 26.92             | 0.90                     | 3.46         | 27.87             | 0.95                     | 3.53        |
| Lao PDR      | 32.81             | 32.88             | 0.07                     | 0.21         | 32.32             | -0.56                    | -1.70       |
| Malaysia     | 17.22             | 17.41             | 0.19                     | 1.10         | 17.16             | -0.25                    | -1.44       |
| Myanmar      | 11.82             | 11.87             | 0.05                     | 0.42         | 12.40             | 0.53                     | 4.47        |
| Philippines  | 11.80             | 11.75             | -0.05                    | -0.42        | *11.81            | 0.06                     | 0.51        |
| Singapore    | N/A               |                   |                          |              |                   |                          |             |
| Thailand     | 22.41             | 20.32             | -2.09                    | -9.33        | 20.27             | -0.05                    | -0.25       |
| Vietnam      | 19.46             | 19.05             | -0.41                    | -2.11        | 19.46             | 0.41                     | 2.15        |

**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, 2020**

Unit: Hectares

| Country      | Cause of Damage (Hectares) |               |            |          |        |            |                |
|--------------|----------------------------|---------------|------------|----------|--------|------------|----------------|
|              | Flood                      | Drought       | Pests      | Diseases | Others | Unspecitfy | Total          |
| <b>ASEAN</b> | <b>72,804</b>              | <b>83,321</b> | <b>474</b> | -        | -      | -          | <b>156,599</b> |
| Brunei       | N/A                        |               |            |          |        |            |                |
| Cambodia     | 46,839                     | -             | -          | -        | -      | -          | <b>46,839</b>  |
| Indonesia    | N/A                        |               |            |          |        |            |                |
| Lao PDR      | N/A                        |               |            |          |        |            |                |
| Malaysia     | -                          | -             | 474        | -        | -      | -          | <b>474</b>     |
| Myanmar      | N/A                        |               |            |          |        |            |                |
| Philippines  | N/A                        |               |            |          |        |            |                |
| Singapore    | N/A                        |               |            |          |        |            |                |
| Thailand     | -                          | 83,321        | -          | -        | -      | -          | <b>83,321</b>  |
| Vietnam      | 25,965                     | -             | -          | -        | -      | -          | <b>25,965</b>  |

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



**Table 67 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             |
| <b>ASEAN</b> | <b>1,610,454</b> | <b>77,436,236</b> | <b>4,386,056</b> | <b>83,432,747</b> | <b>45,034,546</b>    | <b>33,717,909</b> | <b>4,680,292</b> | <b>83,432,747</b> |
| Brunei       | -                | 296               | -                | 296               | 296                  | -                 | -                | 296               |
| Cambodia     | -                | 13,512,755        | -                | 13,512,755        | 4,417,389            | 9,095,366         | -                | 13,512,755        |
| Indonesia    | -                | 16,350,370        | 348,112          | 16,698,482        | 16,686,271           | 12,211            | -                | 16,698,482        |
| Lao PDR      | 556,983          | 3,320,050         | -                | 3,877,033         | 2,137,089            | 75,691            | 1,664,253        | 3,877,033         |
| Malaysia     | 14,626           | 42,285            | 523              | 57,434            | 44,355               | 556               | 12,523           | 57,434            |
| Myanmar      | 14,626           | 394,614           | 284.00           | 409,524           | 396,902              | 99                | 12,523           | 409,524           |
| Philippines  | -                | 2,630,800         | -                | 2,630,800         | 2,629,991            | 809               | -                | 2,630,800         |
| Singapore    | -                | -                 | 1,492            | 1,492             | 1,490.46             | 1.88              | -                | 1,492             |
| Thailand     | *681,219         | 31,079,966        | 3,800,000        | 35,561,185        | 10,900,000           | 22,000,000        | *2,661,185       | 35,561,185        |
| Vietnam      | 343,000          | 10,105,100        | 235,644          | 10,683,744        | 7,820,761            | 2,533,175         | 329,808          | 10,683,744        |

**Remark:** \* The value is estimated by AFSIS Secretariat.**Table 68 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             |
| <b>ASEAN</b> | <b>4,680,292</b> | <b>76,587,841</b> | <b>5,615,879</b> | <b>86,884,012</b> | <b>45,675,434</b>    | <b>33,060,803</b> | <b>8,147,774</b> | <b>86,884,011</b> |
| Brunei       | -                | 306               | -                | 306               | 306                  | -                 | -                | 306               |
| Cambodia     | -                | 12,041,813        | -                | 12,041,813        | 4,439,476            | 7,203,128         | 399,209          | 12,041,813        |
| Indonesia    | -                | 17,450,856        | 145,455          | 17,596,311        | 17,574,096           | 22,215            | -                | 17,596,311        |
| Lao PDR      | 1,664,253        | 5,658,870         | -                | 7,323,123         | 2,220,468            | 253,362           | 4,849,293        | 7,323,123         |
| Malaysia     | 12,523           | 43,342            | 727              | 56,592            | 43,873               | 273               | 12,446           | 56,592            |
| Myanmar      | 12,523           | 392,430           | 5,009            | 409,962           | 395,253              | 55                | 14,654           | 409,962           |
| Philippines  | -                | 2,603,358         | 73,431           | 2,676,789         | *2,676,233           | 556               | -                | 2,676,789         |
| Singapore    | -                | -                 | 1,870            | 1,870             | 1,867                | 2                 | -                | 1,870             |
| Thailand     | *2,661,185       | 28,999,122        | *5,320,000       | 36,980,307        | 11,400,000           | 23,000,000        | *2,580,307       | 36,980,307        |
| Vietnam      | 329,808          | 9,397,743         | 69,387           | 9,796,938         | 6,923,861            | 2,581,212         | 291,865          | 9,796,938         |

**Remark:** \* The value is estimated by AFSIS Secretariat.**Table 69 Cassava balance sheet of ASEAN countries, 2021 (Cassava roots fresh)**

Unit: Tons

| Country      | Supply           |                   |                  |                   | Demand               |                   |                   |                   |
|--------------|------------------|-------------------|------------------|-------------------|----------------------|-------------------|-------------------|-------------------|
|              | Beginning Stock  | Production        | Imports          | Total             | Domestic Utilization | Exports           | Ending stock      | Total             |
| <b>ASEAN</b> | <b>8,147,774</b> | <b>77,891,847</b> | <b>6,045,656</b> | <b>92,085,278</b> | <b>47,343,475</b>    | <b>33,910,688</b> | <b>10,831,099</b> | <b>92,085,262</b> |
| Brunei       | -                | 322               | -                | 322               | 306                  | -                 | -                 | 306               |
| Cambodia     | 399,209          | 12,547,569        | -                | 12,946,778        | 4,828,394            | 8,118,384         | -                 | 12,946,778        |
| Indonesia    | -                | 17,716,226        | 146,213          | 17,862,439        | 17,839,886           | 22,553            | -                 | 17,862,439        |
| Lao PDR      | 4,849,293        | 4,992,063         | -                | 9,841,356         | 2,189,493            | 235,742           | 7,416,120         | 9,841,356         |
| Malaysia     | 12,446           | 43,993            | *752             | 57,191            | 45,409               | *282              | 11,500            | 57,191            |
| Myanmar      | 14,654           | 412,309           | 99               | 427,062           | 413,038              | -                 | 14,024            | 427,062           |
| Philippines  | -                | 2,580,927         | 75,267           | 2,656,193         | *2,655,643           | *550              | -                 | 2,656,193         |
| Singapore    | -                | -                 | 1,681            | 1,681             | 1,679                | 2                 | -                 | 1,681             |
| Thailand     | *2,580,307       | 29,493,340        | *5,586,000       | 37,659,647        | 11,600,000           | 23,000,000        | *3,059,647        | 37,659,647        |
| Vietnam      | 291,865          | 10,105,100        | 235,644          | 10,632,609        | 7,769,627            | 2,533,175         | 329,808           | 10,632,609        |

**Remark:** \* The value is estimated by AFSIS Secretariat.



**Table 70 Ratio of cassava production to domestic utilization in ASEAN countries (Self-sufficiency ratio), 2019 – 2021**

Unit: Tons

| Country      | 2019              |                      |               | 2020              |                      |               | 2021              |                      |               |
|--------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
|              | Production        | Domestic Utilization | Ratio (%)     | Production        | Domestic Utilization | Ratio (%)     | Production        | Domestic Utilization | Ratio (%)     |
| <b>ASEAN</b> | <b>77,436,236</b> | <b>45,034,546</b>    | <b>171.95</b> | <b>76,587,841</b> | <b>45,675,434</b>    | <b>167.68</b> | <b>77,891,847</b> | <b>47,343,475</b>    | <b>164.52</b> |
| Brunei       | 296               | 296                  | 100.00        | 306               | 306                  | 100.00        | 322               | 306                  | 105.00        |
| Cambodia     | 13,512,755        | 4,417,389            | 305.90        | 12,041,813        | 4,439,476            | 271.24        | 12,547,569        | 4,828,394            | 259.87        |
| Indonesia    | 16,350,370        | 16,686,271           | 97.99         | 17,450,856        | 17,574,096           | 99.30         | 17,716,226        | 17,839,886           | 99.31         |
| Lao PDR      | 3,320,050         | 2,137,089            | 155.35        | 5,658,870         | 2,220,468            | 254.85        | 4,992,063         | 2,189,493            | 228.00        |
| Malaysia     | 42,285            | 44,355               | 95.33         | 43,342            | 43,873               | 98.79         | 43,993            | 45,409               | 96.88         |
| Myanmar      | 394,614           | 396,902              | 99.42         | 392,430           | 395,253              | 99.29         | 412,309           | 413,038              | 99.82         |
| Philippines  | 2,630,800         | 2,629,991            | 100.03        | 2,603,358         | *2,676,233           | 97.28         | 2,580,927         | *2,655,643           | 97.19         |
| Singapore    | -                 | 1,490                | -             | -                 | 1,867                | -             | -                 | 1,679                | -             |
| Thailand     | 31,079,966        | 10,900,000           | 285.14        | 28,999,122        | 11,400,000           | 254.38        | 29,493,340        | 11,600,000           | 254.25        |
| Vietnam      | 10,105,100        | 7,820,761            | 129.21        | 9,397,743         | 6,923,861            | 135.73        | 10,105,100        | 7,769,627            | 130.06        |

**Remark:** \* The value is estimated by AFSIS Secretariat.**Table 71 Ratio of cassava beginning stock to domestic utilization in ASEAN countries (Food security ratio), 2019 – 2021**

Unit: Tons

| Country      | 2019             |                      |             | 2020             |                      |              | 2021             |                      |              |
|--------------|------------------|----------------------|-------------|------------------|----------------------|--------------|------------------|----------------------|--------------|
|              | Beginning Stock  | Domestic Utilization | Ratio (%)   | Beginning Stock  | Domestic Utilization | Ratio (%)    | Beginning Stock  | Domestic Utilization | Ratio (%)    |
| <b>ASEAN</b> | <b>1,610,454</b> | <b>45,034,546</b>    | <b>3.58</b> | <b>4,680,292</b> | <b>45,675,434</b>    | <b>10.25</b> | <b>8,147,774</b> | <b>47,343,475</b>    | <b>17.21</b> |
| Brunei       | -                | 296                  | -           | -                | 306                  | -            | -                | 306                  | -            |
| Cambodia     | -                | 4,417,389            | -           | -                | 4,439,476            | -            | 399,209          | 4,828,394            | 8.27         |
| Indonesia    | -                | 16,686,271           | -           | -                | 17,574,096           | -            | -                | 17,839,886           | -            |
| Lao PDR      | 556,983          | 2,137,089            | 26.06       | 1,664,253        | 2,220,468            | 74.95        | 4,849,293        | 2,189,493            | 221.48       |
| Malaysia     | 14,626           | 44,355               | 32.97       | 12,523           | 43,873               | 28.54        | 12,446           | 45,409               | 27.41        |
| Myanmar      | 14,626           | 396,902              | 3.69        | 12,523           | 395,253              | 3.17         | 14,654           | 413,038              | 3.55         |
| Philippines  | -                | 2,629,991            | -           | -                | * 2,676,233          | -            | -                | * 2,655,643          | -            |
| Singapore    | -                | 1,490                | -           | -                | 1,867                | -            | -                | 1,679                | -            |
| Thailand     | *681,219         | 10,900,000           | 6.25        | *2,661,185       | 11,400,000           | 23.34        | * 2,580,307      | 11,600,000           | 22.24        |
| Vietnam      | 343,000          | 7,820,761            | 4.39        | 329,808          | 6,923,861            | 4.76         | 291,865          | 7,769,627            | 3.76         |

**Remark:** \* The value is estimated by AFSIS Secretariat.

**Table 72 Quantity and Value of Cassava Export by Countries of Destination in 2020**

Quantity: Tons, Values: US\$

| Exporting Country | Country of Destination |         |          |         |           |             |          |           |          |            |          |           |             |            |
|-------------------|------------------------|---------|----------|---------|-----------|-------------|----------|-----------|----------|------------|----------|-----------|-------------|------------|
|                   | Brunei                 |         | Cambodia |         | Indonesia |             | Lao PDR  |           | Malaysia |            | Myanmar  |           | Philippines |            |
|                   | Quantity               | Values  | Quantity | Values  | Quantity  | Values      | Quantity | Values    | Quantity | Values     | Quantity | Values    | Quantity    | Values     |
| Brunei            | N/A                    |         |          |         |           |             |          |           |          |            |          |           |             |            |
| Cambodia          |                        |         |          |         |           |             |          |           |          |            |          |           |             |            |
| Indonesia         |                        |         |          |         |           |             |          |           | 156      | 20,834     | 1        | 2,640     |             |            |
| Lao PDR           |                        |         |          |         |           |             |          |           |          |            |          |           |             |            |
| Malaysia          |                        |         |          |         |           |             |          |           |          |            |          |           |             |            |
| Myanmar           |                        |         |          |         |           |             |          |           |          |            |          |           |             |            |
| Philippines       |                        |         |          |         |           |             |          |           |          |            |          |           |             |            |
| Singapore         | N/A                    |         |          |         |           |             |          |           |          |            |          |           |             |            |
| Thailand          | 371                    | 230,537 | 750      | 539,547 | 219,996   | 110,686,920 | 4,454    | 2,700,293 | 122,173  | 57,324,624 | 10,829   | 5,260,706 | 85,999      | 41,199,261 |
| Vietnam           |                        |         |          |         |           |             |          |           | 25,945   | 10,805,531 |          |           | 9,635       | 3,749,199  |

| Exporting Country | Country of Destination |            |           |           |          |            | Total within ASEAN |             | Total outside ASEAN |               | Total     |               |
|-------------------|------------------------|------------|-----------|-----------|----------|------------|--------------------|-------------|---------------------|---------------|-----------|---------------|
|                   | Singapore              |            | Thailand  |           | Vietnam  |            |                    |             |                     |               |           |               |
|                   | Quantity               | Values     | Quantity  | Values    | Quantity | Values     | Quantity           | Values      | Quantity            | Values        | Quantity  | Values        |
| Brunei            | N/A                    |            |           |           |          |            |                    |             |                     |               |           |               |
| Cambodia          |                        |            | 1,282,824 |           | 521,706  |            | 1,804,530          | 0           | 8047                |               | 1,812,577 | 0             |
| Indonesia         | 5                      | 14,417     | 569       | 837,719   | 1,332    | 1,351,489  | 2,063              | 2,227,099   | 6,392               | 5,126,155     | 8,455     | 7,353,254     |
| Lao PDR           |                        |            | 128,496   | 7,473,541 | 75,691   | 5,012,369  | 204,187            | 12,485,910  | 49,175              | 3,970,798     | 253,362   | 16,456,708    |
| Malaysia          | 273                    | 90,634     |           |           |          |            | 273                | 90,634      |                     |               | 273       | 90,634        |
| Myanmar           |                        |            | 50        | 16,000    |          |            | 50                 | 16,000      | 5                   | 2,000         | 55        | 18,000        |
| Philippines       | 29                     | 102,520    |           |           |          |            | 29                 | 102,520     | 527                 | 617,500       | 556       | 720,020       |
| Singapore         | N/A                    |            |           |           |          |            |                    |             |                     |               |           |               |
| Thailand          | 55,000                 | 24,730,675 |           |           | 28,512   | 21,439,914 | 528,085            | 264,112,478 | 5,260,246           | 1,895,770,398 | 5,788,331 | 2,159,882,876 |
| Vietnam           |                        |            |           |           |          |            | 35,580             | 14,554,729  | 2,115,430           | 750,550,148   | 2,151,010 | 765,104,877   |

**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 2020**

Quantity: Tons Values: US\$

| Importing Country | Country of Origin |        |           |             |           |         |          |             |          |         |          |        |             |        |
|-------------------|-------------------|--------|-----------|-------------|-----------|---------|----------|-------------|----------|---------|----------|--------|-------------|--------|
|                   | Brunei            |        | Cambodia  |             | Indonesia |         | Lao PDR  |             | Malaysia |         | Myanmar  |        | Philippines |        |
|                   | Quantity          | Values | Quantity  | Values      | Quantity  | Values  | Quantity | Values      | Quantity | Values  | Quantity | Values | Quantity    | Values |
| Brunei            | N/A               |        |           |             |           |         |          |             |          |         |          |        |             |        |
| Cambodia          |                   |        |           |             |           |         |          |             |          |         |          |        |             |        |
| Indonesia         |                   |        |           |             |           |         |          |             |          |         |          |        |             |        |
| Lao PDR           | N/A               |        |           |             |           |         |          |             |          |         |          |        |             |        |
| Malaysia          |                   |        |           |             |           |         |          |             |          |         |          |        |             |        |
| Myanmar           |                   |        |           |             |           |         |          |             |          |         |          |        |             |        |
| Philippines       |                   |        |           |             | 607       | 222,068 |          |             |          |         |          |        |             |        |
| Singapore         |                   |        |           |             | 5.46      | 10,209  |          |             | 1,863    | 565,846 |          |        |             |        |
| Thailand          |                   |        | 1,614,567 | 224,045,863 |           |         | 931,093  | 124,588,881 | 74       | 203,360 |          |        | 0           | 1,267  |
| Vietnam           | N/A               |        |           |             |           |         |          |             |          |         |          |        |             |        |

| Importing Country | Country of Origin |         |           |            |          |           | Total within ASEAN |             | Total outside ASEAN |            | Total     |             |
|-------------------|-------------------|---------|-----------|------------|----------|-----------|--------------------|-------------|---------------------|------------|-----------|-------------|
|                   | Singapore         |         | Thailand  |            | Vietnam  |           |                    |             |                     |            |           |             |
|                   | Quantity          | Values  | Quantity  | Values     | Quantity | Values    | Quantity           | Values      | Quantity            | Values     | Quantity  | Values      |
| Brunei            | N/A               |         |           |            |          |           |                    |             |                     |            |           |             |
| Cambodia          |                   |         | 1,282,824 |            | 521,706  |           | 1,804,530          | 0           | 8,047               |            | 1,812,577 | 0           |
| Indonesia         | 1,019             | 262,773 |           |            | 964      | 239,186   | 1,983              | 501,959     | 269                 | 63,786     | 2,252     | 565,745     |
| Lao PDR           | N/A               |         |           |            |          |           |                    |             |                     |            |           |             |
| Malaysia          |                   |         | 5         | 1,628      | 161      | 53,043    | 166                | 54,671      | 560                 | 706,198    | 727       | 760,870     |
| Myanmar           |                   |         | 5,009     | 229,000    |          |           | 5,009              | 229,000     |                     |            | 5,009     | 229,000     |
| Philippines       | 3                 | 7,166   | 61,468    | 27,889,865 | 9,841    | 4,047,716 | 71,919             | 32,166,815  | 1,513               | 1,839,213  | 73,431    | 34,006,028  |
| Singapore         |                   |         | 0.03      | 286        |          |           | 1,869              | 576,342     | 1.02                | 4,308      | 1,870     | 580,650     |
| Thailand          |                   |         |           |            | 35       | 52,229    | 2,545,769          | 348,891,600 | 17,085              | 41,536,475 | 2,562,854 | 390,428,075 |
| Vietnam           | N/A               |         |           |            |          |           |                    |             |                     |            |           |             |

**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

Unit: US\$/Ton

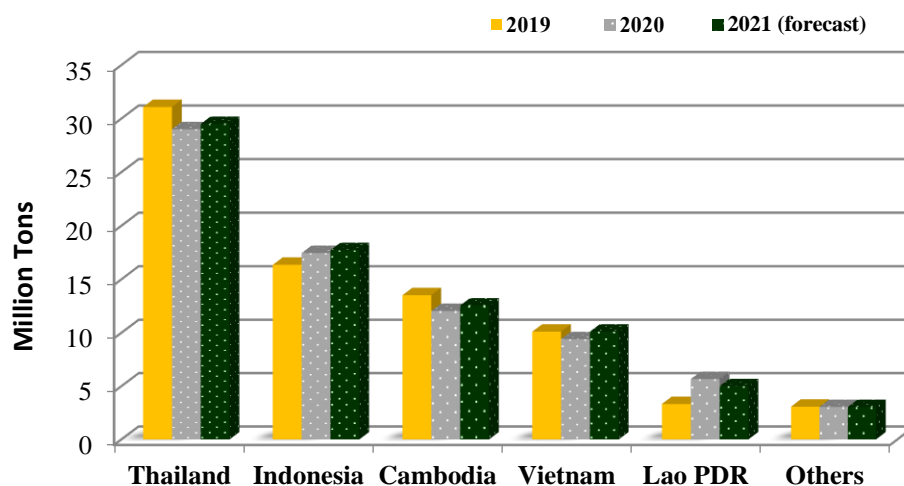
| Country   | Product       | Year | Jan.  | Feb.  | Mar.  | Apr.  | May   | Jun.  | Jul.  | Aug.  | Sep.  | Oct.  | Nov.  | Dec.  | Average |
|-----------|---------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| Cambodia  | Not specified | 2019 | N/A   |       |       |       |       |       | 199   | 179   | 179   | 195   | 210   | 181   | 191     |
|           |               | 2020 | 174   | 179   | 176   | 173   | 189   | 172   | 148   | 144   | 147   | *146  | *151  | *157  | 167     |
| Indonesia | Flour         | 2019 | 973   | 6,677 | 1,863 | 1,300 | 1,680 | 5,336 | 236   | 911   | 2,495 | 1,516 | 1,420 | 1,477 | 2,157   |
|           |               | 2020 | 1,350 | 1,375 | 1,516 | 2,629 | 2,065 | 965   | 1,829 | 1,530 | 378   | 269   | 1,001 | 794   | 1,308   |
| Malaysia  | Not specified | 2019 | N/A   |       |       |       |       |       |       |       |       |       |       |       |         |
|           |               | 2020 | 315   | 323   | 1,114 | 368   | *319  | 346   | 224   | 330   | *300  | 305   | 301   | 312   | 394     |
| Myanmar   | Not specified | 2019 | N/A   |       |       |       |       |       | 347   | 321   | 321   | N/A   |       |       | 329     |
|           |               | 2020 | N/A   |       |       |       | 400   | N/A   |       |       |       |       |       | 400   |         |
| Thailand  | Starch        | 2019 | 445   | 438   | 432   | 446   | 455   | 463   | 438   | 430   | 443   | 441   | 434   | 430   | 441     |
|           |               | 2020 | 424   | 410   | 404   | 409   | 412   | 427   | 411   | 418   | 415   | 421   | *416  | *417  | 415     |
|           | Pellets       | 2019 | 296   | 246   | 232   | 267   | 320   | 293   | 286   | 299   | 318   | 322   | 248   | 302   | 286     |
|           |               | 2020 | 302   | 312   | 295   | 248   | 305   | 313   | 306   | 330   | 326   | 325   | *322  | *326  | 306     |
|           | Shredded      | 2019 | 224   | 210   | 208   | 212   | 214   | 225   | 231   | 229   | 238   | 230   | 220   | 224   | 222     |
|           |               | 2020 | 213   | 204   | 204   | 208   | 210   | 217   | 225   | 245   | 246   | 252   | *242  | *246  | 222     |
| Vietnam   | Not specified | 2019 | 364   | 385   | 388   | 395   | 398   | 397   | 392   | 397   | 397   | 404   | 361   | 348   | 386     |
|           |               | 2020 | 344   | 314   | 349   | 349   | 354   | 341   | 367   | 365   | 395   | 390   | *382  | *359  | 357     |

**Remark:** N/A refers to data is not available. \* The value is estimated by AFSIS Secretariat.**Table 75 CIF Price of Cassava in selected ASEAN countries**

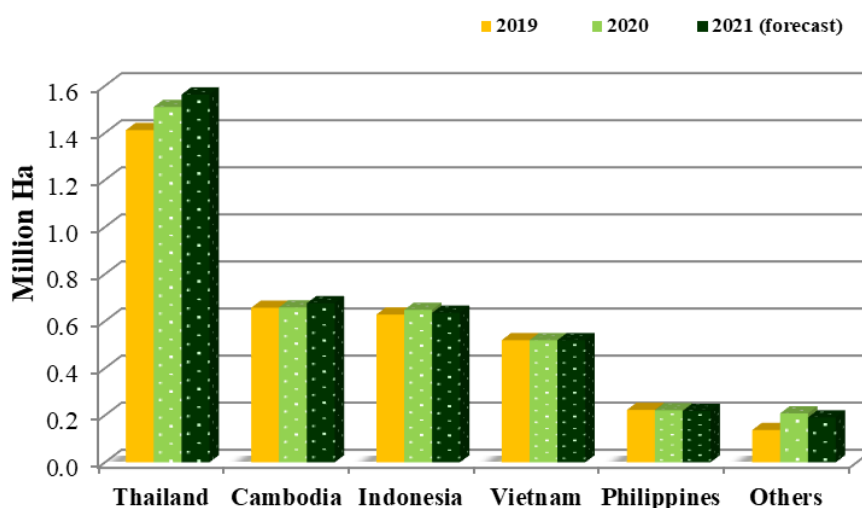
Unit: US\$/Ton

| Country          | Product       | Year | Jan. | Feb. | Mar.  | Apr.  | May | Jun. | Jul. | Aug. | Sep. | Oct.  | Nov. | Dec. | Average |
|------------------|---------------|------|------|------|-------|-------|-----|------|------|------|------|-------|------|------|---------|
| <b>Indonesia</b> | Flour         | 2019 | 287  | 290  | 290   | 291   | 290 | 272  | 290  | 284  | 284  | 285   | 286  | 300  | 287     |
|                  |               | 2020 | *287 | *289 | *288  | *288  | 248 | 258  | 230  | *245 | 245  | *264. | *248 | *253 | 245     |
| <b>Singapore</b> | Not specified | 2019 | 258  | 278  | 267   | 252   | 261 | 293  | 302  | 289  | 318  | 333   | 314  | 299  | 289     |
|                  |               | 2020 | 304  | 307  | 329   | 311   | 299 | 304  | 347  | 301  | 297  | 301   | 310  | 310  | 310     |
| <b>Myanmar</b>   | Not specified | 2019 | 932  | *932 | 1,549 | 1,150 | 500 | 329  | 340  | *390 | 491  | 518   | 294  | 750  | 685     |
|                  |               | 2020 | 570  | 306  | 529   | 522   | 486 | *483 | 946  | 297  | 517  | *587  | *562 | *554 | 522     |

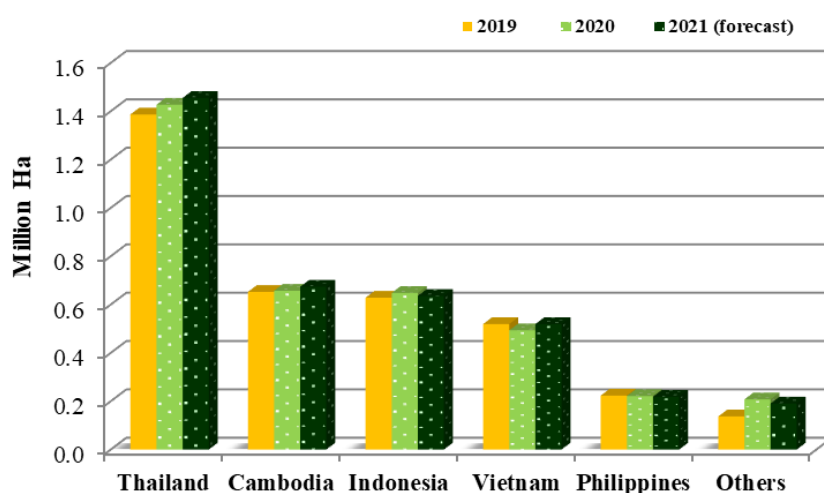
**Remark:** N/A refers to data is not available. \* The value is estimated by AFSIS Secretariat.



**Figure 62 Cassava production of selected countries in ASEAN, 2019 – 2021**



**Figure 63 Cassava planted area of selected countries in ASEAN, 2019 – 2021**



**Figure 64 Cassava harvested area of selected countries in ASEAN, 2019 – 2021**

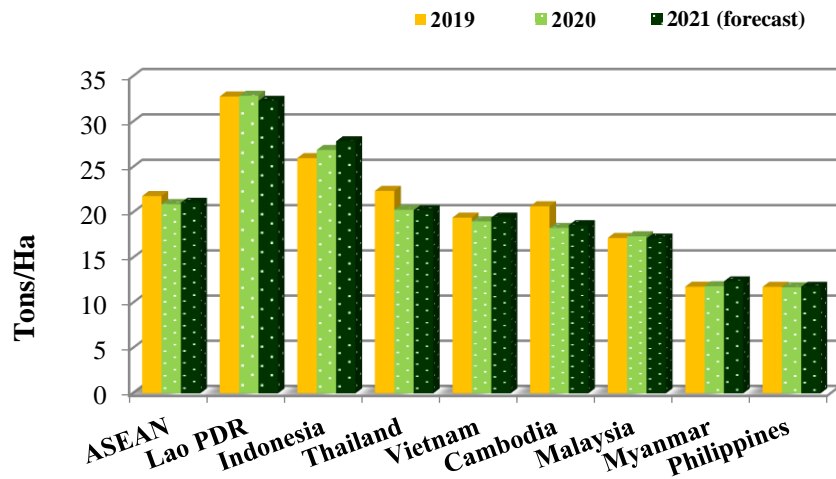


Figure 65 Cassava yield of countries in ASEAN, 2019 – 2021

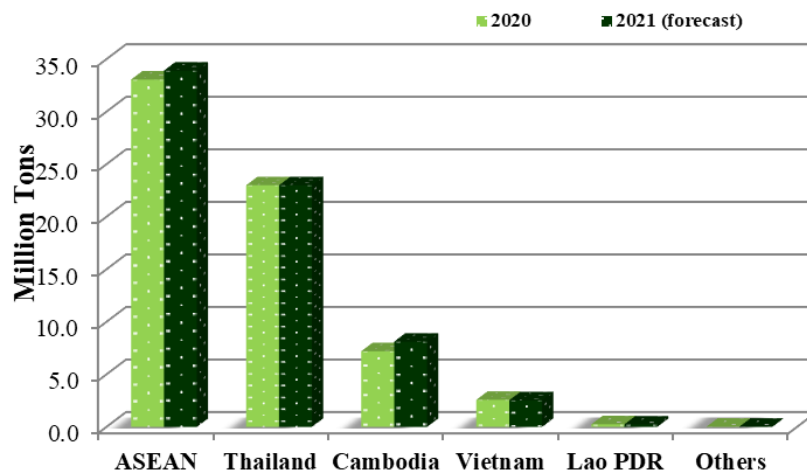


Figure 66 Amount of cassava export (million tons) of selected countries in ASEAN in 2020 – 2021

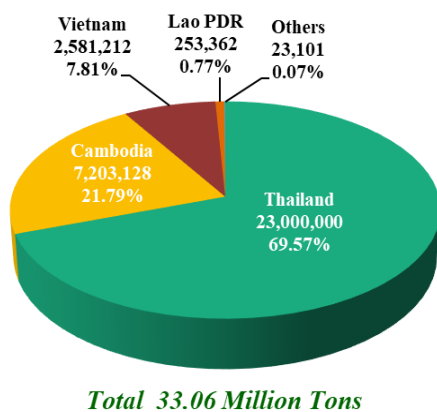


Figure 67 Share of cassava export (tons) among ASEAN countries, 2020

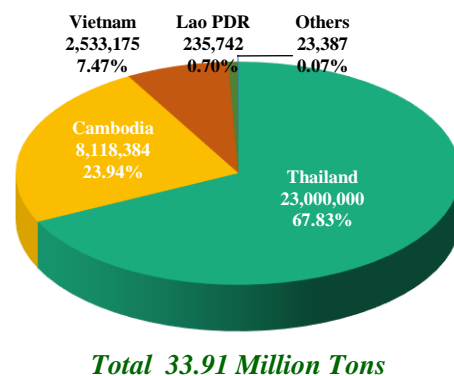


Figure 68 Share of cassava export (tons) among ASEAN countries, 2021

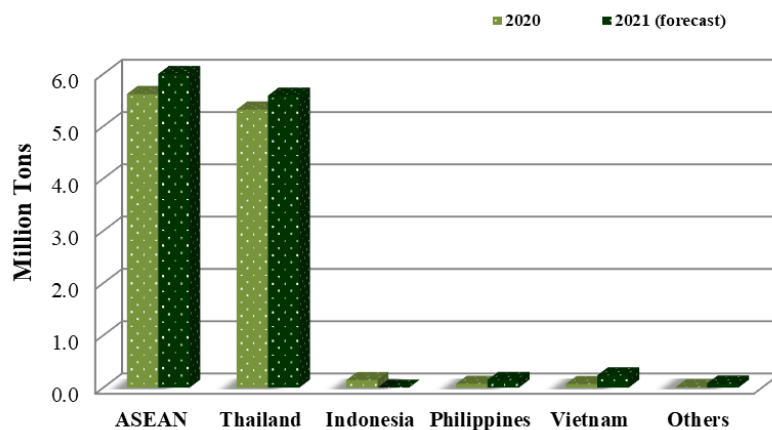


Figure 69 Amount of cassava import (million tons) by selected countries in ASEAN in 2020 – 2021

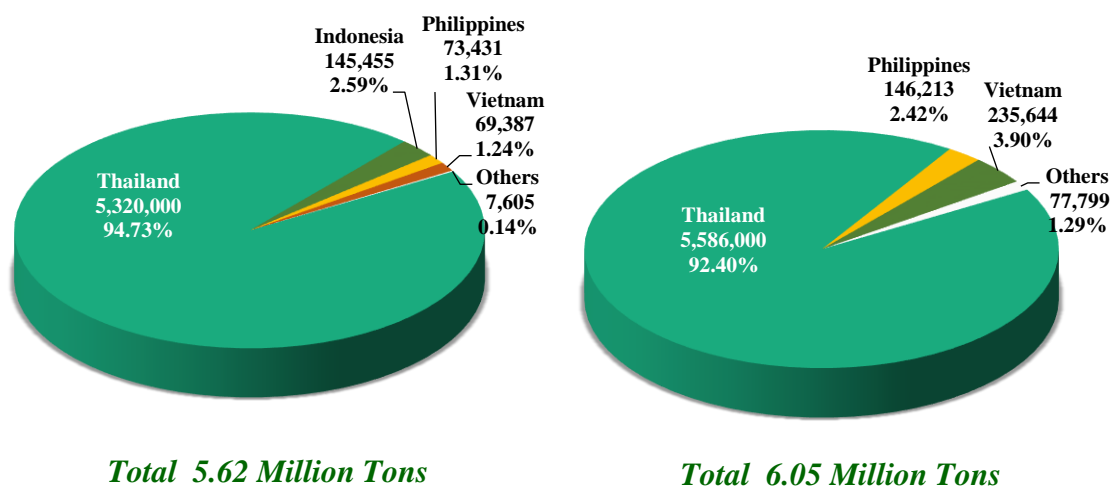


Figure 70 Share of cassava import (tons) among ASEAN countries, 2020

Figure 71 Share of cassava import (tons) among ASEAN countries, 2021

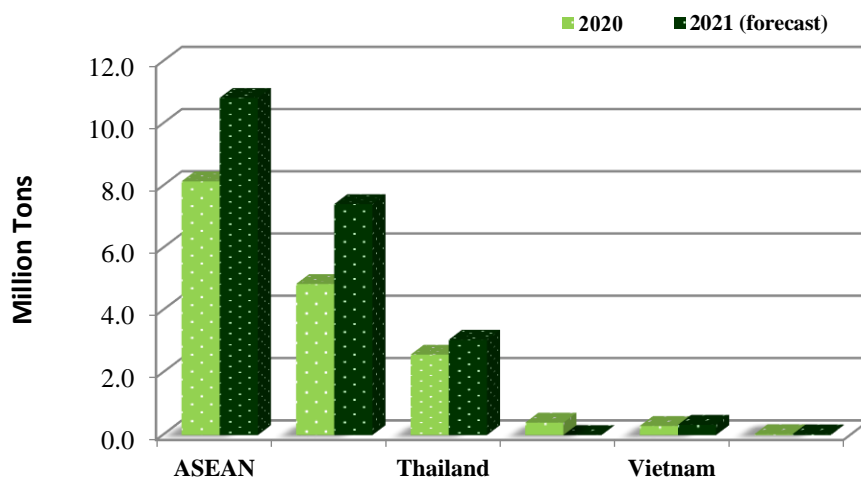


Figure 72 Amount of ending stock of cassava in ASEAN countries in 2020 – 2021

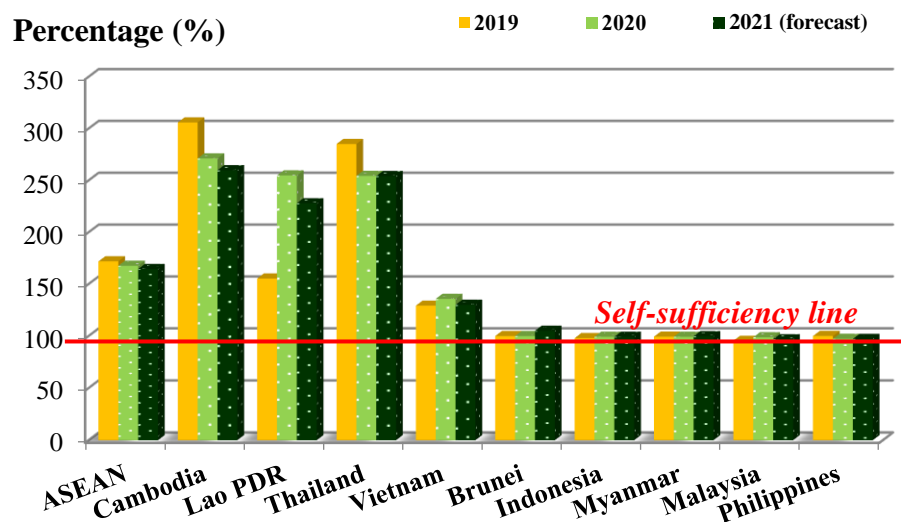


Figure 73 Ratio of cassava production to domestic utilization in ASEAN countries, 2019 – 2021

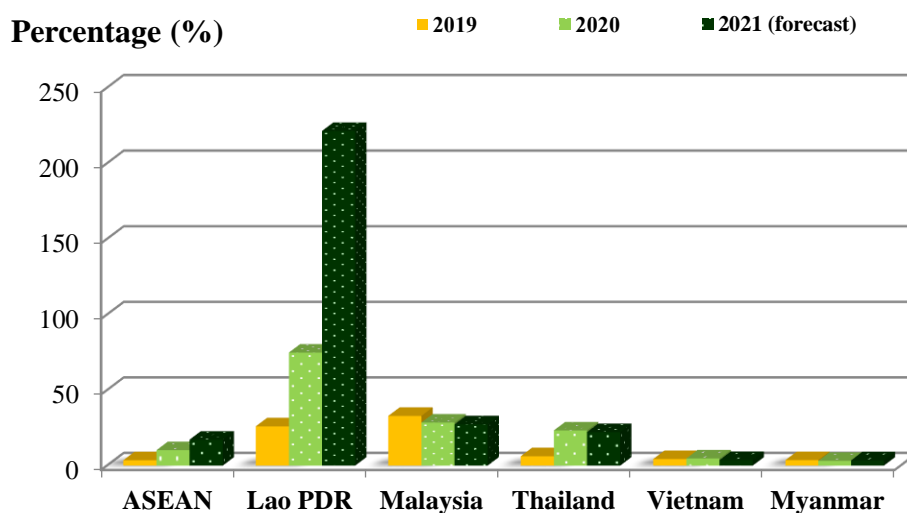


Figure 74 Ratio of cassava beginning stock to domestic utilization in ASEAN countries, 2019 – 2021

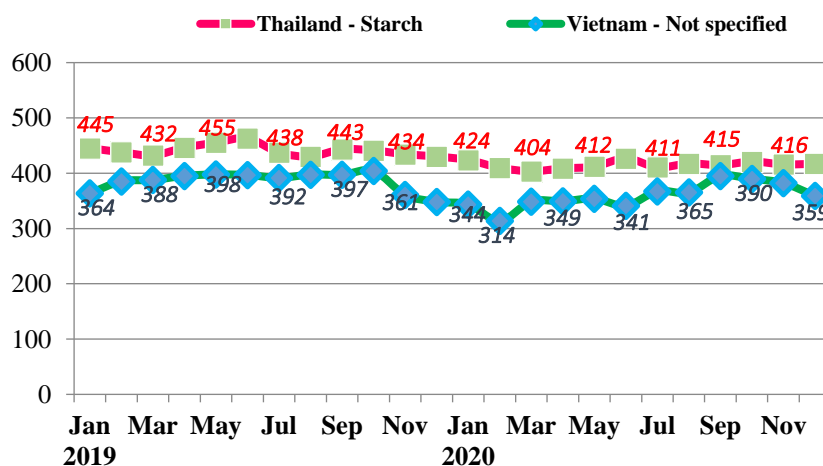


Figure 75 FOB price (US\$/Ton) of cassava flour of selected countries in ASEAN in 2019 – 2020



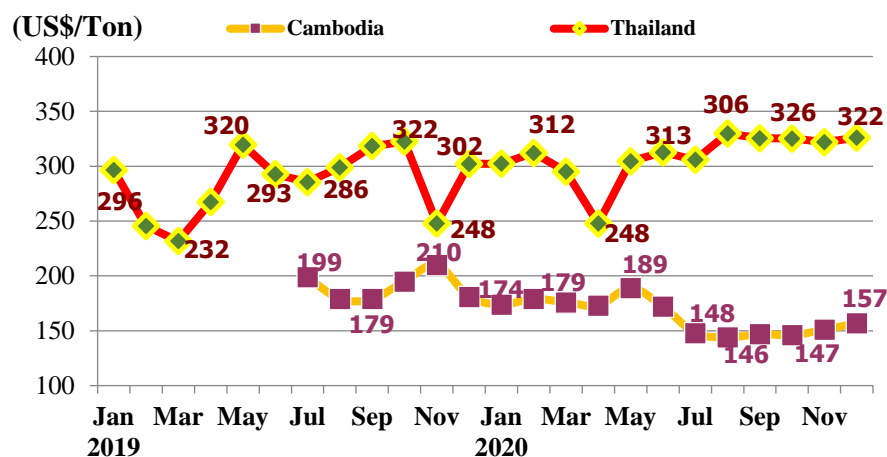


Figure 76 FOB price (US\$/Ton) of cassava pellets of selected countries in ASEAN in 2019 – 2020

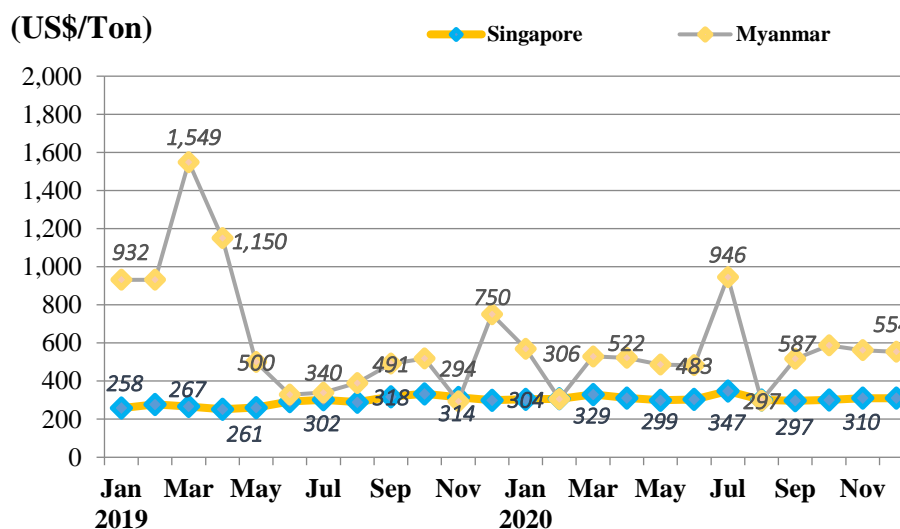


Figure 77 CIF price (US\$/Ton) of cassava selected countries in ASEAN in 2019 – 2020

## **Explanatory Notes**

### **Production of Paddy for 2020**

#### **▶ Brunei:**

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

#### **▶ Cambodia:**

- Wet season refers to the crop harvested during August to December 2019.
- Dry season refers to the crop harvested during January to March 2020.

#### **▶ Indonesia:**

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

#### **▶ Lao PDR:**

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

#### **▶ Malaysia:**

- Wet season refers to the crop harvested during December 2019 to June 2020.
- Dry season refers to the crop harvested during July to November 2020.

#### **▶ Myanmar:**

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

#### **▶ Philippines:**

- Wet season refers to the crop harvested during July to December 2019.
- Dry season refers to the crop harvested during January to June 2020.

#### **▶ Thailand:**

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

#### **▶ Vietnam:**

##### **❖ Spring-season**

- North refers to the crop harvested during June to July 2020.
- South refers to the crop harvested during March to May 2020.

##### **❖ Autumn-season**

- North refers to the crop harvested during August to September 2020.
- South refers to the crop harvested during July to September 2020.

##### **❖ Winter-season**

- North refers to the crop harvested during October to November 2020.
- South refers to the crop harvested during October 2019 to January 2021.



## Production of Maize for 2020

### ► Brunei:

- The crop harvested during January to December 2020.

### ► Cambodia:

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

### ► Indonesia:

- 1<sup>st</sup> crop harvested during January to April 2020.
- 2<sup>nd</sup> crop harvested during May to August 2020.
- 3<sup>rd</sup> crop harvested during September to December 2020.

### ► Lao PDR:

- Wet season refers to the crop harvested during May to September 2020.
- Dry season refers to the crop harvested during November 2019 to March 2020.

### ► Myanmar:

- Wet season refers to the crop harvested during August 2019 to January 2020.
- Dry season refers to the crop harvested during January to June 2020.

### ► Philippines:

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

### ► Thailand:

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

### ► Vietnam:

- 1<sup>st</sup> crop harvested during January to March 2020.
- 2<sup>nd</sup> crop harvested during April to September 2020.
- 3<sup>rd</sup> crop harvested during July 2019 to January 2021.



## Production of Sugarcane for 2020

### ▶ Brunei:

- The crop harvested during January to December 2020.

### ▶ Cambodia:

- The crop harvested during October to December 2020.

### ▶ Indonesia:

- The crop harvested during February to November 2020.

### ▶ Lao PDR:

- The crop harvested during February to May 2020.

### ▶ Myanmar:

- The crop harvested during October 2019 to May 2020.

### ▶ Philippines:

- The crop harvested during October 2019 to June 2020.

### ▶ Thailand:

- The crop harvested during December 2019 to March 2020.

### ▶ Vietnam:

- The crop harvested during November 2019 to May 2020.



## Production of Soybean for 2020

### ▶ **Cambodia:**

- The crop harvested during November to December 2020.

### ▶ **Indonesia:**

- 1<sup>st</sup> crop harvested during January to April 2020.
- 2<sup>nd</sup> crop harvested during May to August 2020.
- 3<sup>rd</sup> crop harvested during September to December 2020.

### ▶ **Lao PDR:**

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

### ▶ **Myanmar:**

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

### ▶ **Philippines:**

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

### ▶ **Thailand:**

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

### ▶ **Vietnam:**

- Wet season refers to the crop harvested during August to October 2020.
- Dry season refers to the crop harvested during March to May 2020.





## Production of Cassava for 2020

### ▶ Brunei:

- The crop harvested during January to December 2020.

### ▶ Cambodia:

- The crop harvested during half November to December 2020.

### ▶ Indonesia:

- 1<sup>st</sup> crop harvested during January to April 2020.
- 2<sup>nd</sup> crop harvested during May to August 2020.
- 3<sup>rd</sup> crop harvested during September to December 2020.

### ▶ Lao PDR:

- The crop harvested during May to November 2020.

### ▶ Malaysia:

- The crop harvested during October 2019 to December 2020.

### ▶ Myanmar:

- The crop harvested during September 2019 to June 2020.

### ▶ Philippines:

- 1<sup>st</sup> crop harvested during January to June 2020.
- 2<sup>nd</sup> crop harvested during July to December 2020.

### ▶ Thailand:

- The crop harvested during October 2019 to September 2020.

### ▶ Vietnam:

- North refers to the crop harvested during February to March 2020.
- South refers to the crop harvested during September to October 2020.

**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 (2020)

Unit: Tons

| Country     | Paddy | Rice |
|-------------|-------|------|
| ASEAN       | 1     | 0.65 |
| Brunei      | 1     | 0.65 |
| Cambodia    | 1     | 0.65 |
| Indonesia   | 1     | 0.63 |
| Lao PDR     | 1     | 0.60 |
| Malaysia    | 1     | 0.64 |
| Myanmar     | 1     | 0.63 |
| Philippines | 1     | 0.66 |
| Thailand    | 1     | 0.78 |
| Vietnam     | 1     | 0.65 |

### Extraction rate of Sugar (2020)

Unit: Tons

| Country     | Sugarcane | Sugar  |
|-------------|-----------|--------|
| ASEAN       | 1,000     | 105    |
| Brunei      | 1,000     | 78.28  |
| Cambodia    | 1,000     | 100.00 |
| Indonesia   | 1,000     | 76.82  |
| Lao PDR     | 1,000     | 200    |
| Myanmar     | 1,000     | 80     |
| Philippines | 1,000     | 94.31  |
| Thailand    | 1,000     | 110.58 |
| Vietnam     | 1,000     | 100    |



## ANNEX 1

Rice crop calendar (harvested months) for crop year 2019/20 (2020) in ACO No.25 report

| Country     |            | 2019 |     |     |     |     |     | 2020 |         |     |     |         |     |         |     |         |     |         |     | 2021 |     |
|-------------|------------|------|-----|-----|-----|-----|-----|------|---------|-----|-----|---------|-----|---------|-----|---------|-----|---------|-----|------|-----|
|             |            | Jul  | Aug | Sep | Oct | Nov | Dec | Jan  | Feb     | Mar | Apr | May     | Jun | Jul     | Aug | Sep     | Oct | Nov     | Dec | Jan  | Feb |
| Brunei      | Wet season |      |     |     |     |     |     | ↔    |         |     |     |         |     |         |     |         |     |         |     |      |     |
|             | Dry season |      |     |     |     |     |     |      |         |     |     |         |     | ↔       |     |         |     |         |     |      |     |
| Cambodia    | Wet season |      | ↔   |     |     |     |     |      |         |     |     |         |     |         |     |         |     |         |     |      |     |
|             | Dry season |      |     |     |     |     |     | ↔    |         |     |     |         |     |         |     |         |     |         |     |      |     |
| Indonesia   | Wet season |      |     |     |     |     |     | ↔    |         |     |     |         |     |         |     | ↔       |     |         |     |      |     |
|             | Dry season |      |     |     |     |     |     |      |         |     |     | ↔       |     |         |     |         |     |         |     |      |     |
| Lao PDR     | Wet season |      |     | ↔   |     |     |     |      |         |     |     |         |     |         |     |         |     |         |     |      |     |
|             | Dry season |      |     |     |     |     |     | ↔    |         |     |     |         |     |         |     |         |     |         |     |      |     |
| Malaysia    | Wet season |      |     |     |     |     |     | ↔    |         |     |     |         |     |         |     |         |     |         |     |      |     |
|             | Dry season |      |     |     |     |     |     |      |         |     |     |         |     | ↔       |     |         |     |         |     |      |     |
| Myanmar     | Wet season |      | ↔   |     |     |     |     |      |         |     |     |         |     |         |     |         |     |         |     |      |     |
|             | Dry season |      |     |     |     |     |     | ↔    |         |     |     |         |     |         |     |         |     |         |     |      |     |
| Philippines | Wet season | ↔    |     |     |     |     |     |      |         |     |     |         |     |         |     |         |     |         |     |      |     |
|             | Dry season |      |     |     |     |     |     | ↔    |         |     |     |         |     |         |     |         |     |         |     |      |     |
| Thailand    | Wet season |      | ↔   |     |     |     |     |      |         |     |     |         |     |         |     |         |     |         |     |      |     |
|             | Dry season |      |     |     |     |     |     | ↔    |         |     |     |         |     |         |     |         |     |         |     |      |     |
| Vietnam     | Spring     |      |     |     |     |     |     |      | ↔ South |     |     | ↔ North |     |         |     |         |     |         |     |      |     |
|             | Autumn     |      |     |     |     |     |     |      |         |     |     |         |     | ↔ North |     | ↔ South |     |         |     |      |     |
|             | Winter     |      |     |     |     |     |     |      |         |     |     |         |     |         |     | ↔ North |     | ↔ South |     |      |     |



## ANNEX 2

**Maize crop calendar (harvested months) for crop year 2019/20 (2020) in ACO No.25 report**

| Country     | Crop       | 2019 |     |     |     |     | 2020 |     |     |     |     |     |     |     |     |     |     |     | 2021 |     |  |  |
|-------------|------------|------|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|--|--|
|             |            | Aug  | Sep | Oct | Nov | Dec | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan  | Feb |  |  |
| Brunei      |            |      |     |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |      |     |  |  |
| 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        |      |     |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |      |     |  |  |



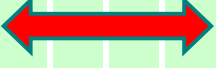









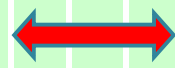

### ANNEX 3

Sugarcane crop calendar (harvested months) for crop year 2019/20 (2020) in ACO No.25 report

| Country     | Crop | 2019 |     |     |     | 2020 |     |     |     |     |     |     |     |     |     |     |     |  |
|-------------|------|------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|             |      | Sep  | Oct | Nov | Dec | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |  |
| Brunei      |      |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |  |
| Cambodia    |      |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |  |
| Indonesia   |      |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |  |
| Lao PDR     |      |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |  |
| Myanmar     |      |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |  |
| Philippines |      |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |  |
| Thailand    |      |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |  |
| Vietnam     |      |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |  |

## ANNEX 4

**Soybean crop calendar (harvested months) for crop year 2019/20 (2020) in ACO No.25 report**

| Country     | Crop       |   |     |     |  |   | 2020   |     |   |     |  |     |   |   |   |     |   |     |
|-------------|------------|---|-----|-----|--|---|--|-----|---|-----|--|-----|---|---|---|-----|---|-----|
|             |            | 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 2019/20 (2020) in ACO No.25 report**

| Country     | Crop  | 2019 |     |     |     | 2020 |     |     |     |     |     |     |     |     |     |     |     |
|-------------|-------|------|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|             |       | Sep  | Oct | Nov | Dec | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Brunei      |       |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
| Cambodia    |       |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
| Indonesia   | 1st   |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
|             | 2nd   |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
|             | 3rd   |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
| Lao PDR     |       |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
| Malaysia    |       |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
| Myanmar     |       |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
| Philippines | 1st   |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
|             | 2nd   |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
| Thailand    |       |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
| Vietnam     | North |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
|             | South |      |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |





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