



ASEAN FOOD SECURITY INFORMATION SYSTEM (AFSIS) PROJECT

Report on

ASEAN Agricultural Commodity Outlook

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PREFACE

The ASEAN Food Security Information System (AFSIS) Project publishes the Agricultural Commodity Outlook (ACO) Report semi-annually. The contents of the report include national and regional information on production, utilization, stock, trade and FOB prices. The explanation for significant changes and unusual phenomena were also provided in the Report. The Project plans to increase the number of commodities in ACO report gradually to ultimately cover at least 5 major food crops namely rice, maize, soybean, sugarcane and cassava.

The first and the second Reports focused only on rice. The third Report, maize has been included. This fourth report contains information of 3 commodities which are rice, maize and sugarcane. The information was mainly gathered from Member States through the submission of respective National ACO Reports. The Report was scrutinized by the ACO Committee comprises national experts nominated by ASEAN Countries before publication.

The ASEAN Food Security Information and Training (AFSIT) Center, the Secretariat Unit of the Project, would like to thank all Member States and delegates who participated in the ACO Committee Meeting during 17 - 18 June 2010 in Phuket, Thailand for the provision of additional information and revision of this Report. The list of delegates in the Meeting is presented in the ANNEX 4.

The AFSIT Center would like to record its appreciation to the MAFF Japan, Committee, Focal Point of each Member State and other concerned parties including Dr. Apichart Pongsrihadulchai, AFSIS Consultant on ACO Report development, for their support to the implementation of the AFSIS Project and the development of this Report.

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ASEAN Agricultural Commodity Outlook



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Highlights of Rice Outlook

- Rice supply in ASEAN is forecast to increase about 3.6 percent from 150.1 million metric tons of milled rice in 2009 to 155.5 million metric tons in 2010.
- The increase in supply is mostly due to the increase in stock carried over from previous year while the production has increased very little.
- The rice production in 2010 is forecast to be 126.3 million tons, up from 125.7 million tons in 2009 which is less than one percent.
- The beginning stock of 2010 is estimated at 25.8 million tons up from 20.8 million tons in 2009 which is about 24.0 percent while the ending stock is forecast to increase by 12.5 percent from 25.8 million tons to 29.0 million tons.
- The rice export from ASEAN countries is forecast to increase about 4.6 percent from 16.9 million tons in 2009 to 17.7 million tons in 2010 while the rice import by ASEAN countries in 2010 is predicted to decrease about 4.5 percent from 3.5 million tons to 3.4 million tons.
- The ratio of production to domestic utilization (self-sufficiency ratio) is expected to decrease very little from 117.1 percent in 2009 to 116.1 percent in 2010. This indicates that the rice supply in ASEAN as a whole is enough for regional consumption.
- The ratio of beginning stock to domestic utilization (food security ratio) is expected to increase from 19.4 percent in 2009 to 23.7 percent in 2010 which means that food security in ASEAN is expected to be in a better situation.

Table 1 Summary of the ASEAN rice situation, 2009-2010 (milled rice)

| Items | 2009 | 2010 | Change | |
|--|--------|--------|----------|-------|
| | | | Quantity | % |
| Supply (Million tons) | 150.05 | 155.48 | 5.43 | 3.62 |
| Beginning stock | 20.79 | 25.79 | 5.00 | 24.05 |
| Production | 125.72 | 126.33 | 0.61 | 0.49 |
| Import | 3.53 | 3.37 | -0.16 | -4.53 |
| Demand (Million tons) | 150.05 | 155.48 | 5.43 | 3.62 |
| Domestic utilization | 107.34 | 108.77 | 1.43 | 1.33 |
| Export | 16.92 | 17.70 | 0.78 | 4.61 |
| Ending stock | 25.79 | 29.01 | 3.22 | 12.49 |
| Ratio of production to domestic utilization (%) | 117.13 | 116.14 | -0.99 | -0.85 |
| Ratio of beginning stock to domestic utilization (%) | 19.37 | 23.71 | 4.34 | 22.41 |

ASEAN Rice Situation in 2009

Production

The final estimate of paddy production in ASEAN for 2009 (crop year 2008/09) was 196.02 million tons, an increase of 5.19 million tons which is about 2.7 percent from 190.84 million tons in previous year. The increase in production was mainly due to the increase in harvested area. The increase in yield was very small that is less than one percent. The paddy production has increased in every country except Thailand, the Philippines and Brunei. (Table 2, Figure 1).

In **Brunei**, the government policy such as buy-back program, improvement of infrastructure and technological support as well as opening of the new area contributed to the increase in planted area. However, the harvested area has decreased due to the flood and pest. The yield has also increased from 1.22 tons per hectare in 2008 to 1.29 tons per hectare in 2009 because of the farmers used the new improved variety and used more fertilizer and also taking care their crops better in response to the government policy (Table 3-5, Figure 2-4).

In **Cambodia**, the increase in production was attributed to the increase in both area and yield. The expansion in area was due to the government program which promoted and guided the private sector in agricultural investment, especially in land concessions. The increase in yield was mainly due to the favorable weather.

For **Indonesia**, the increase in production was solely due to the increase in yield. The paddy planted area has declined from 12.99 million hectares in 2008 to 12.94 million hectares in 2009 which is less than one percent. However, the harvested area has increased because the damage area in 2009 was less than in 2008. The increase in yield was a result of technological improvement and better crop management as well as incentives provided by the government such as fertilizer and seed subsidy.

In **Lao PDR**, the growth in production was attributed to the increase in both planted area and yield. The increase in harvested area was occurred in both lowland and upland areas. The increase in lowland area was due to the favorable weather while the increase in upland was due to the government policy to promote the planting of upland rice intercropping with rubber, jatropa and other crops. The increase in yield was due to the farmers' adoption of new improved varieties through seed network established by the government, the favorable weather condition and the new technology adopted.

In **Malaysia**, the increase in production was mainly due to the increase in yield. The government encouraged farmers to practice better farm management

through more efficient use of inputs to increase soil fertility, land leveling, better utilization of water resources and improving the irrigation system.

For **Myanmar**, favorable weather and the use of more improved varieties as well as improvement of irrigation facilities contributed to the increase in both harvested area and yield. However, the increase in harvested area and yield is very small.

For **the Philippines**, the decrease in production was due to the decrease in yield which dominated the increase in harvested area. The increase in harvested area was due to the positive response of farmers to the increase in domestic prices. The decrease in yield was due to the unfavorable weather.

In **Thailand**, the total planted area has decreased due to the reduction in dry season (second) crop area because of the falling in farm-gate price just before planting season as well as the government policy to discourage farmers not to grow more paddy due to the shortage of water. The drop in yield of this crop was due to the effect of the cold weather during flowering stage.

In **Vietnam**, the increase in production was derived mainly from the increase in planted area while the yield was relatively the same. The increase in the area was due to the farmers' response to profitable prices of rice, favorable weather and the lower prices of competing crops such as sugarcane.

Utilization and Stock

The domestic utilization of rice in ASEAN in 2009 (calendar year) was estimated at 107.3 million tons of milled rice (Table 7). The ratio of production to domestic utilization (self-sufficiency ratio) for 2009 was 117.1 percent (Table 9, Figure 12). This implied that ASEAN as a whole produced 17.1 percent more than utilization within the region. However, on a country by country basis, Brunei, Malaysia and the Philippines have ratio less than 100 percent. This implied that these countries produced rice not enough for their own consumption. Singapore imported all the rice for domestic consumption and for re - export. The highest ratio was in Thailand, Cambodia and Vietnam respectively.

The beginning stock of rice in 2009 was estimated at 20.8 million tons while the estimated ending rice stock of ASEAN in 2009 was 25.8 million tons. Thailand, Vietnam, Myanmar, and Indonesia carried most of the rice stock in the region (Table 7, Figure 11). These four countries together have stock about 91 percent of the total stock in ASEAN. The ratio of beginning stock to domestic utilization (food security ratio) in the ASEAN was 19.37 which indicated that the situation is still in a good condition.

Trade

In 2009, ASEAN altogether exported about 16.92 million tons of milled rice (Table 7, Figure 5 and 6). Thailand and Vietnam were the two major exporting countries which exported about 8.62 million tons and 5.96 million tons respectively. Cambodia emerged as one of the major rice exporting country and ranked third in ASEAN in rice export amounting to 1.47 million tons.

For the imports, ASEAN imported about 3.53 million tons of milled rice in 2009 (Table 7, Figure 8 and 9). The Philippines and Malaysia were the two major importing countries which imported about 1.76 and 1.09 million tons of milled rice respectively.

Prices

Most of the FOB prices of traded rice in exporting countries in ASEAN start rising again toward the end of 2009 after declining following the highest point in first quarter of 2008. The annual average of FOB prices of 5% rice in exporting countries in 2009, in general, were lower than 2008 prices except Thai Hommali rice. The average monthly prices of Thailand Hommali (fragrant) rice, Thailand 5% rice, Vietnam 5% rice, Cambodia 5% rice and Myanmar 25% rice are shown in Table 11 and Figure 14-15.

Prospects for Rice in 2010

Production

Paddy production of ASEAN in 2010 is forecast to be 196.96 million tons, up 0.94 million tons which is about 0.5 percent from 196.02 million tons in 2009 (Table 2, Figure 1). The increase in production is predicted in every country except Thailand. The decrease in production in Thailand is due to the reduction in yield affected by the outbreak of brown plant hoppers and the limitation of irrigated water. In terms of quantity, Indonesia, Vietnam and Cambodia are expected to increase the most as compared to other countries in the region. In terms of percentage, the most increase is in Brunei, Cambodia and Lao PDR respectively.

The increase in production is due to the expected increase in harvested area and yield but the change is very small, which is less than one percent (Table 3-5, Figure 2-4). This is expected due to the farmers' response to the price increase together with the government policy in dealing with the food security problem in many countries of the region.

Utilization and Stock

The domestic utilization of rice in ASEAN is forecast to increase about 1.3 percent from 107.34 million tons in 2009 to 108.77 million tons in 2010 due to corresponding increase in the population (Table 7 and 8).

The beginning stock in ASEAN is estimated to increase almost 24.1 percent from 20.79 million tons in 2009 to 25.79 million tons in 2010. The ending stock is also forecast to increase from 25.79 million tons to 29.01 million tons (Table 7 and 8, Figure 11). The increase in stock is due to the increase in production and beginning stock. The increase in ending stock is very eminent in Indonesia, from 3.60 million tons in 2009 to 5.73 million tons in 2010 or an increase about 60 percent.

The ratio of production to domestic utilization (self-sufficient ratio) is forecast to decrease slightly from 117.1 percent in 2009 to 116.1 percent in 2010 (Table 9, Figure 12). The ratio of rice stock to domestic utilization (food security ratio) is forecast to increase from 19.37 percent to 23.71 percent which is better situation in terms of food security (Table 10, Figure 13). The ratio is very low for Lao PDR, Indonesia and Cambodia which imply that the food situation for these countries in 2010 is expected to be tight for domestic utilization, although the ratio in general has improved.

Trade

Rice export of ASEAN in 2010 is expected to increase from 16.92 million tons in 2009 to 17.70 million tons (Table 7 and 8, Figure 5 and 7) especially from Thailand, Cambodia and Myanmar. In the case of Vietnam, the export will be decreased due to the increase in the domestic utilization and the increase in the stock even though the production is forecast to increase.

Rice import of ASEAN in 2010 is forecast to decrease from 3.53 million tons in 2009 to 3.37 million tons in 2010 (Table 7 and 8, Figure 8 and 10). However, on the country basis, the Philippines is expected to increase import from 1.76 million tons to 2.25 million tons due to the increase in domestic consumption and to compensate the reduction in ending stock of 2009.

Table 2 Paddy production in ASEAN countries, 2008-2010

Unit : 1,000 Tons

| Country | 2008 (2007/08) | 2009 (2008/09) | change 2009 over 2008 | | 2010 (2009/10) | change 2010 over 2009 | |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
| | | | Quantities | (%) | | Quantities | (%) |
| ASEAN | 190,838.37 | 196,024.78 | 5,186.41 | 2.72 | 196,960.45 | 935.67 | 0.48 |
| Brunei | 1.40 | 1.37 | -0.03 | -2.18 | 4.79 | 3.42 | 249.42 |
| Cambodia | 6,727.12 | 7,175.47 | 448.35 | 6.66 | 7,585.87 | 410.40 | 5.72 |
| Indonesia | 60,251.07 | 64,329.33 | 4,078.26 | 6.77 | 64,897.70 | 568.37 | 0.88 |
| Lao PDR | 2,847.38 | 3,144.80 | 297.42 | 10.45 | 3,320.89 | 176.09 | 5.60 |
| Malaysia | 2,374.18 | 2,511.04 | 136.86 | 5.76 | 2,548.31 | 37.27 | 1.48 |
| Myanmar | 31,442.47 | 32,057.87 | 615.40 | 1.96 | 32,240.38 | 182.51 | 0.57 |
| Philippines | 16,815.55 | 16,258.77 | -556.78 | -3.31 | 16,355.25 | 96.48 | 0.59 |
| Singapore | - | - | - | - | - | - | - |
| Thailand | 32,099.40 | 31,650.63 | -448.77 | -1.40 | 30,622.22 | -1,028.41 | -3.25 |
| Vietnam | 38,279.80 | 38,895.50 | 615.70 | 1.61 | 39,385.04 | 489.54 | 1.26 |

Table 3 Paddy planted area in ASEAN countries, 2008-2010

Unit : 1,000 Hectares

| Country | 2008 (2007/08) | 2009 (2008/09) | change 2009 over 2008 | | 2010 (2009/10) | change 2010 over 2009 | |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
| | | | Quantities | (%) | | Quantities | (%) |
| ASEAN | 48,314.93 | 48,444.77 | 129.84 | 0.27 | 48,736.92 | 292.16 | 0.60 |
| Brunei | 1.30 | 1.73 | 0.43 | 33.14 | 2.47 | 0.74 | 42.60 |
| Cambodia | 2,585.91 | 2,616.53 | 30.62 | 1.18 | 2,720.38 | 103.85 | 3.97 |
| Indonesia | 12,993.28 | 12,943.47 | -49.81 | -0.38 | 13,006.99 | 63.52 | 0.49 |
| Lao PDR | 818.62 | 895.32 | 76.70 | 9.37 | 927.09 | 31.78 | 3.55 |
| Malaysia | 670.52 | 674.93 | 4.40 | 0.66 | 673.75 | -1.18 | -0.18 |
| Myanmar | 8,089.65 | 8,094.30 | 4.65 | 0.06 | 8,066.65 | -27.65 | -0.34 |
| Philippines | 4,525.51 | 4,606.43 | 80.92 | 1.79 | 4,490.24 | -116.21 | -2.52 |
| Singapore | - | - | - | - | - | - | - |
| Thailand | 11,229.94 | 11,171.96 | -57.98 | -0.52 | 11,387.56 | 215.60 | 1.93 |
| Vietnam | 7,400.20 | 7,440.10 | 39.90 | 0.54 | 7,461.80 | 21.70 | 0.29 |

Table 4 Paddy harvested area in ASEAN countries, 2008-2010

Unit : 1,000 Hectares

| Country | 2008 (2007/08) | 2009 (2008/09) | change 2009 over 2008 | | 2010 (2009/10) | change 2010 over 2009 | |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
| | | | Quantities | (%) | | Quantities | (%) |
| ASEAN | 46,929.20 | 47,770.42 | 841.22 | 1.79 | 47,974.20 | 203.78 | 0.43 |
| Brunei | 1.15 | 1.06 | -0.09 | -7.52 | 2.22 | 1.16 | 109.22 |
| Cambodia | 2,566.95 | 2,613.36 | 46.41 | 1.81 | 2,674.60 | 61.24 | 2.34 |
| Indonesia | 12,327.43 | 12,878.04 | 550.61 | 4.47 | 12,891.75 | 13.71 | 0.11 |
| Lao PDR | 825.55 | 872.90 | 47.35 | 5.74 | 895.91 | 23.01 | 2.64 |
| Malaysia | 667.66 | 671.49 | 3.84 | 0.57 | 670.22 | -1.27 | -0.19 |
| Myanmar | 8,011.39 | 8,077.61 | 66.22 | 0.83 | 8,059.47 | -18.14 | -0.22 |
| Philippines | 4,459.98 | 4,532.31 | 72.33 | 1.62 | 4,437.06 | -95.25 | -2.10 |
| Singapore | - | - | - | - | - | - | - |
| Thailand | 10,668.91 | 10,683.55 | 14.64 | 0.14 | 10,881.16 | 197.61 | 1.85 |
| Vietnam | 7,400.20 | 7,440.10 | 39.90 | 0.54 | 7,461.80 | 21.70 | 0.29 |

Note: Vietnam reported only planted area.

Table 5 Paddy yield in ASEAN countries, 2008-2010

Unit : Tons/Hectare

| Country | 2008 (2007/08) | 2009 (2008/09) | change 2009 over 2008 | | 2010 (2009/10) | change 2010 over 2009 | |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
| | | | Quantities | (%) | | Quantities | (%) |
| ASEAN | 4.07 | 4.10 | 0.03 | 0.74 | 4.11 | 0.01 | 0.24 |
| Brunei | 1.22 | 1.29 | 0.07 | 5.74 | 2.16 | 0.87 | 67.44 |
| Cambodia | 2.62 | 2.75 | 0.13 | 4.96 | 2.84 | 0.09 | 3.27 |
| Indonesia | 4.89 | 5.00 | 0.11 | 2.25 | 5.03 | 0.03 | 0.60 |
| Lao PDR | 3.45 | 3.60 | 0.15 | 4.35 | 3.71 | 0.11 | 3.06 |
| Malaysia | 3.56 | 3.74 | 0.18 | 5.06 | 3.80 | 0.06 | 1.60 |
| Myanmar | 3.92 | 3.97 | 0.05 | 1.28 | 4.00 | 0.03 | 0.76 |
| Philippines | 3.77 | 3.59 | -0.18 | -4.77 | 3.69 | 0.10 | 2.79 |
| Singapore | - | - | - | - | - | - | - |
| Thailand | 3.01 | 2.96 | -0.05 | -1.66 | 2.81 | -0.15 | -5.07 |
| Vietnam | 5.17 | 5.23 | 0.06 | 1.16 | 5.28 | 0.05 | 0.96 |

Note: Yield related to harvested area except Vietnam which related to planted area.

Table 6 Paddy damaged area in ASEAN by cause of damage, 2010

| Country | Cause of Damage (Hectares) | | | | | |
|--------------|----------------------------|----------------|----------------|------------|--------------|----------------|
| | Flood | Drought | Pests | Diseases | Others | Total |
| ASEAN | 95,010 | 271,173 | 387,679 | 640 | 8,224 | 762,726 |
| Brunei | 25.6 | 135 | 51 | 35 | - | 247 |
| Cambodia | 40,027 | 5,681 | 69 | - | - | 45,777 |
| Indonesia | 24,909 | 87,603 | 2,726 | - | - | 115,238 |
| Lao PDR | 12,038 | 8,368 | 2,763 | n.a. | 8,012 | 31,181 |
| Malaysia | 1413 | 839 | 666 | 605 | - | 3,523 |
| Myanmar | 5862 | 1111 | - | - | 212 | 7,185 |
| Philippines | - | 53,048 | 124 | - | - | 53,172 |
| Singapore | - | - | - | - | - | - |
| Thailand | 10,735 | 114,388 | 381,280 | - | - | 506,403 |
| Vietnam | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

Note: n.a. = not available

: Damaged area refers to the accumulate damage from the beginning of crop year to May 2010

Table 7 Rice balance sheet of ASEAN countries, 2009 (milled rice)

Unit : Ton

| Country | Supply | | | | Demand | | | |
|--------------|-------------------|--------------------|------------------|--------------------|----------------------|-------------------|-------------------|--------------------|
| | Beginning Stock | Production | Imports | Total | Domestic Utilization | Exports | Ending stock | Total |
| ASEAN | 20,792,403 | 125,723,100 | 3,529,765 | 150,045,268 | 107,337,588 | 16,918,433 | 25,789,247 | 150,045,268 |
| Brunei | 15,505 | 891 | 31,708 | 48,104 | 31,786 | 0 | 16,318 | 48,104 |
| Cambodia | 128,000 | 4,592,303 | 0 | 4,720,303 | 2,927,000 | 1,471,000 | 322,303 | 4,720,303 |
| Indonesia | 1,172,435 | 40,656,136 | 250,225 | 42,078,796 | 38,471,776 | 2,601 | 3,604,419 | 42,078,796 |
| Lao PDR | 30,168 | 1,886,880 | 48,683 | 1,965,731 | 1,795,642 | 16,416 | 153,673 | 1,965,731 |
| Malaysia | 475,899 | 1,585,708 | 1,086,995 | 3,148,602 | 2,422,828 | 0 | 725,774 | 3,148,602 |
| Myanmar | 4,345,208 | 20,196,456 | nil | 24,541,664 | 19,434,132 | 817,068 | 4,290,464 | 24,541,664 |
| Philippines | 2,638,287 | 10,633,234 | 1,755,184 | 15,026,705 | 12,397,428 | 177 | 2,629,100 | 15,026,705 |
| Singapore | 55,000 | - | 280,000 | 335,000 | 262,000 | 33,000 | 40,000 | 335,000 |
| Thailand | 6,251,800 | 20,889,417 | 76,970 | 27,218,187 | 11,267,000 | 8,619,871 | 7,331,316 | 27,218,187 |
| Vietnam | 5,680,101 | 25,282,075 | nil | 30,962,176 | 18,327,996 | 5,958,300 | 6,675,880 | 30,962,176 |

Table 8 Rice balance sheet of ASEAN countries, 2010 (milled rice)

Unit : Ton

| Country | Supply | | | | Demand | | | |
|------------------------|-------------------|--------------------|------------------|--------------------|----------------------|-------------------|-------------------|--------------------|
| | Beginning Stock | Production | Imports | Total | Domestic Utilization | Exports | Ending stock | Total |
| ASEAN | 25,789,247 | 126,326,649 | 3,367,996 | 155,483,891 | 108,772,948 | 17,699,269 | 29,011,675 | 155,483,891 |
| Brunei | 16,318 | 3,115 | 29,526 | 48,958 | 32,849 | 0 | 16,110 | 48,958 |
| Cambodia | 322,303 | 4,854,957 | 0 | 5,177,260 | 2,961,392 | 1,699,235 | 516,633 | 5,177,260 |
| Indonesia | 3,604,419 | 41,015,346 | 28,470 | 44,648,235 | 38,914,508 | 34 | 5,733,693 | 44,648,235 |
| Lao PDR | 153,673 | 1,992,532 | na | 2,146,205 | 1,865,766 | n.a. | 280,439 | 2,146,205 |
| Malaysia | 725,774 | 1,641,985 | 780,000 | 3,147,759 | 2,470,558 | 0 | 677,201 | 3,147,759 |
| Myanmar | 4,290,464 | 20,311,437 | nil | 24,601,901 | 19,346,000 | 1,500,000 | 3,755,901 | 24,601,901 |
| Philippines | 2,629,100 | 10,696,336 | 2,250,000 | 15,575,436 | 12,594,133 | n.a. | 2,981,303 | 15,575,436 |
| Singapore ¹ | 40,000 | - | 280,000 | 320,000 | 270,000 | 0 | 50,000 | 320,000 |
| Thailand | 7,331,316 | 20,210,665 | nil | 27,541,981 | 11,767,000 | 9,000,000 | 6,774,981 | 27,541,981 |
| Vietnam | 6,675,880 | 25,600,276 | - | 32,276,156 | 18,550,742 | 5,500,000 | 8,225,414 | 32,276,156 |

Note: n.a. = not available, nil = very small amount

**Table 9 Ratio of rice production to domestic utilization in ASEAN countries
(Self-sufficiency ratio)**

Unit : Ton

| Country | 2009 | | | 2010 | | |
|--------------|--------------------|----------------------|---------------|--------------------|----------------------|---------------|
| | Production | Domestic Utilization | Ratio (%) | Production | Domestic Utilization | Ratio (%) |
| ASEAN | 125,723,100 | 107,337,588 | 117.13 | 126,326,649 | 108,772,948 | 116.14 |
| Brunei | 891 | 31,786 | 2.80 | 3,115 | 32,849 | 9.48 |
| Cambodia | 4,592,303 | 2,927,000 | 156.89 | 4,854,957 | 2,961,392 | 163.94 |
| Indonesia | 40,656,136 | 38,471,776 | 105.68 | 41,015,346 | 38,914,508 | 105.40 |
| Lao PDR | 1,886,880 | 1,795,642 | 105.08 | 1,992,532 | 1,865,766 | 106.79 |
| Malaysia | 1,585,708 | 2,422,828 | 65.45 | 1,641,985 | 2,470,558 | 66.46 |
| Myanmar | 20,196,456 | 19,434,132 | 103.92 | 20,311,437 | 19,346,000 | 104.99 |
| Philippines | 10,633,234 | 12,397,428 | 85.77 | 10,696,336 | 12,594,133 | 84.93 |
| Singapore | - | 262,000 | - | - | 270,000 | - |
| Thailand | 20,889,417 | 11,267,000 | 185.40 | 20,210,665 | 11,767,000 | 171.76 |
| Vietnam | 25,282,075 | 18,327,996 | 137.94 | 25,600,276 | 18,550,742 | 138.00 |

**Table 10 Ratio of rice beginning stock to domestic utilization in ASEAN countries
(Food security ratio)**

Unit : Ton

| Country | 2009 | | | 2010 | | |
|--------------|-------------------|----------------------|--------------|-------------------|----------------------|--------------|
| | Beginning Stock | Domestic Utilization | Ratio (%) | Beginning Stock | Domestic Utilization | Ratio (%) |
| ASEAN | 20,792,403 | 107,337,588 | 19.37 | 25,789,247 | 108,772,948 | 23.71 |
| Brunei | 15,505 | 31,786 | 48.78 | 16,318 | 32,849 | 49.68 |
| Cambodia | 128,000 | 2,927,000 | 4.37 | 322,303 | 2,961,392 | 10.88 |
| Indonesia | 1,172,435 | 38,471,776 | 3.05 | 3,604,419 | 38,914,508 | 9.26 |
| Lao PDR | 30,168 | 1,795,642 | 1.68 | 153,673 | 1,865,766 | 8.24 |
| Malaysia | 475,899 | 2,422,828 | 19.64 | 725,774 | 2,470,558 | 29.38 |
| Myanmar | 4,345,208 | 19,434,132 | 22.36 | 4,290,464 | 19,346,000 | 22.18 |
| Philippines | 2,638,287 | 12,397,428 | 21.28 | 2,629,100 | 12,594,133 | 20.88 |
| Singapore | 55,000 | 262,000 | 20.99 | 40,000 | 270,000 | 14.81 |
| Thailand | 6,251,800 | 11,267,000 | 55.49 | 7,331,316 | 11,767,000 | 62.30 |
| Vietnam | 5,680,101 | 18,327,996 | 30.99 | 6,675,880 | 18,550,742 | 35.99 |

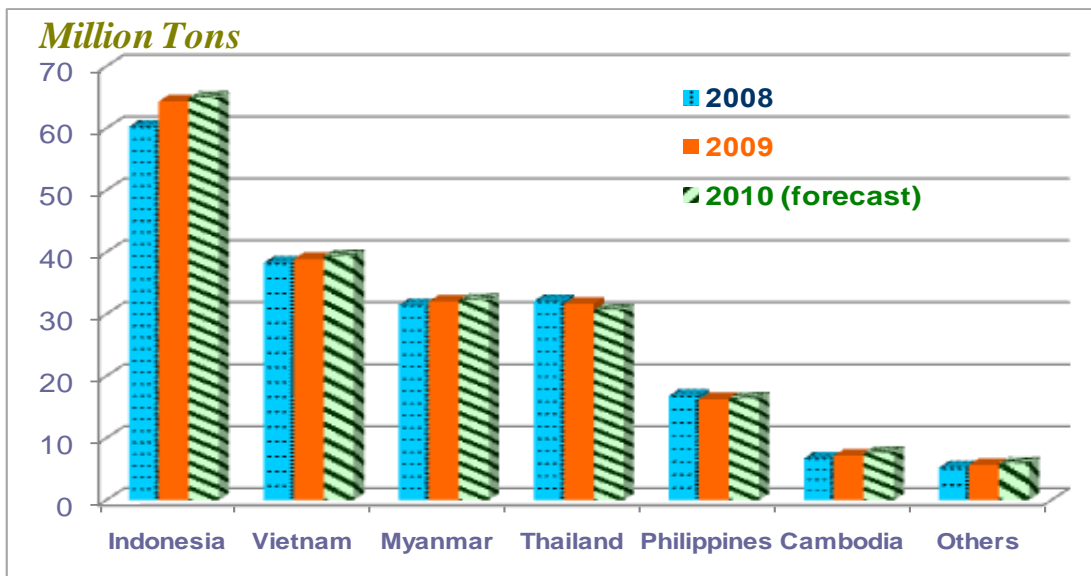


Figure 1 Paddy production of selected countries in ASEAN, 2008-2010

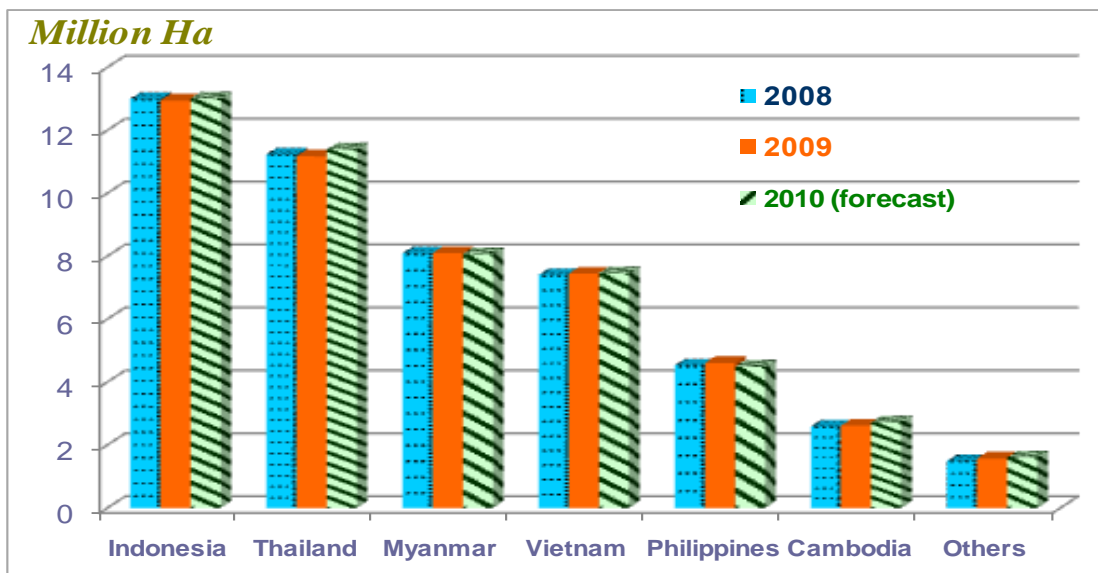


Figure 2 Paddy planted area of selected countries in ASEAN, 2008-2010

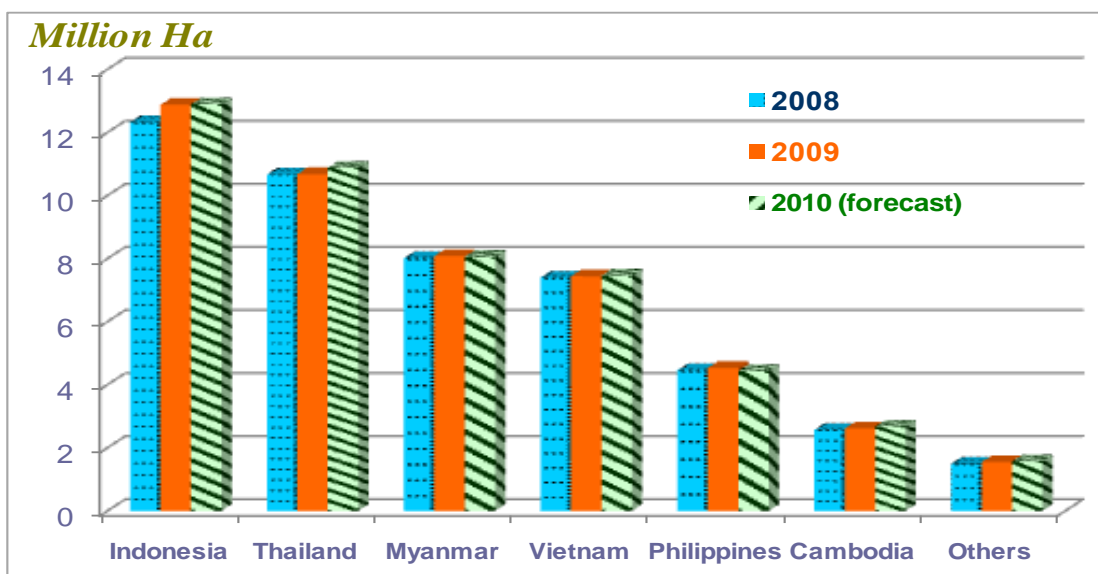


Figure 3 Paddy harvested area of selected countries in ASEAN, 2008-2010

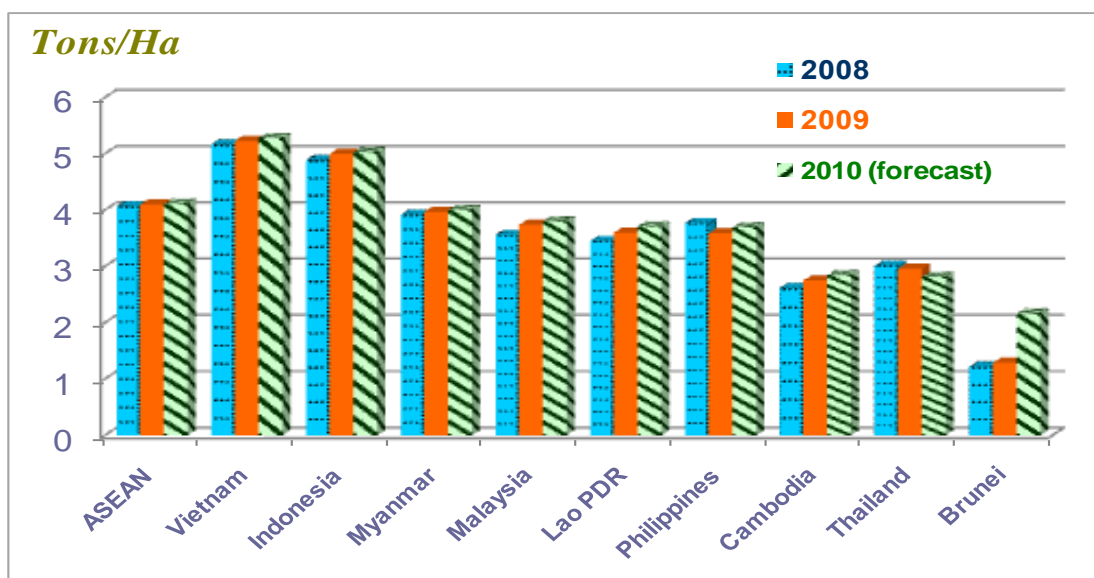


Figure 4 Paddy yield of countries in ASEAN, 2008-2010

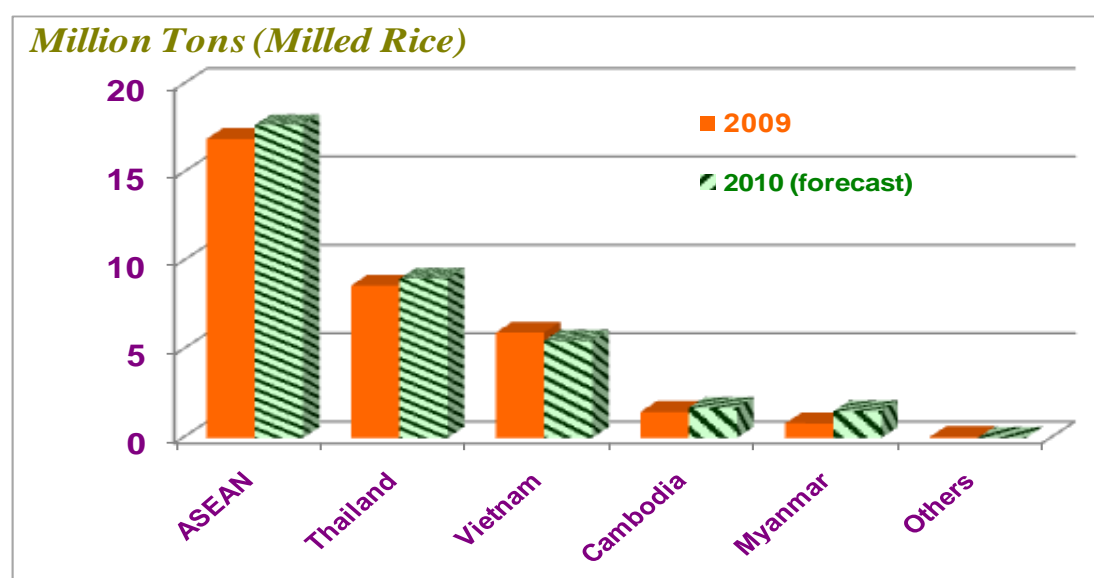


Figure 5 Amount of rice export (million tons) of selected countries in ASEAN in 2009-2010

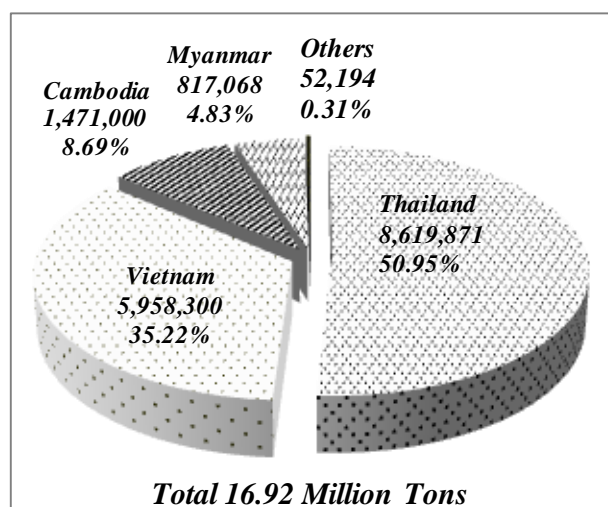


Figure 6 Share of rice export (ton) among ASEAN countries, 2009

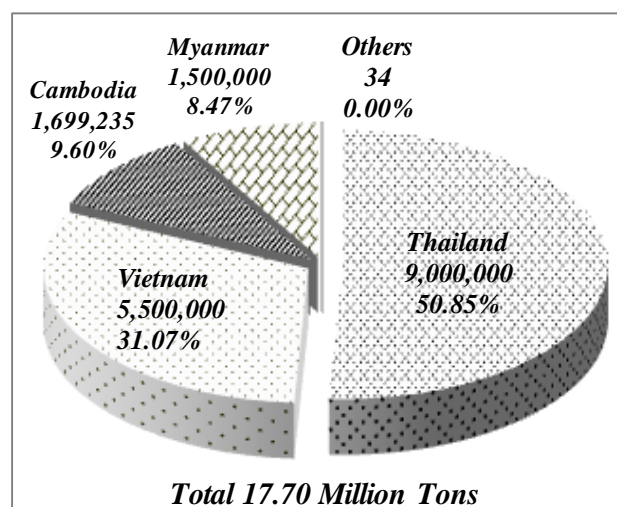


Figure 7 Share of rice export (ton) among ASEAN countries, 2010

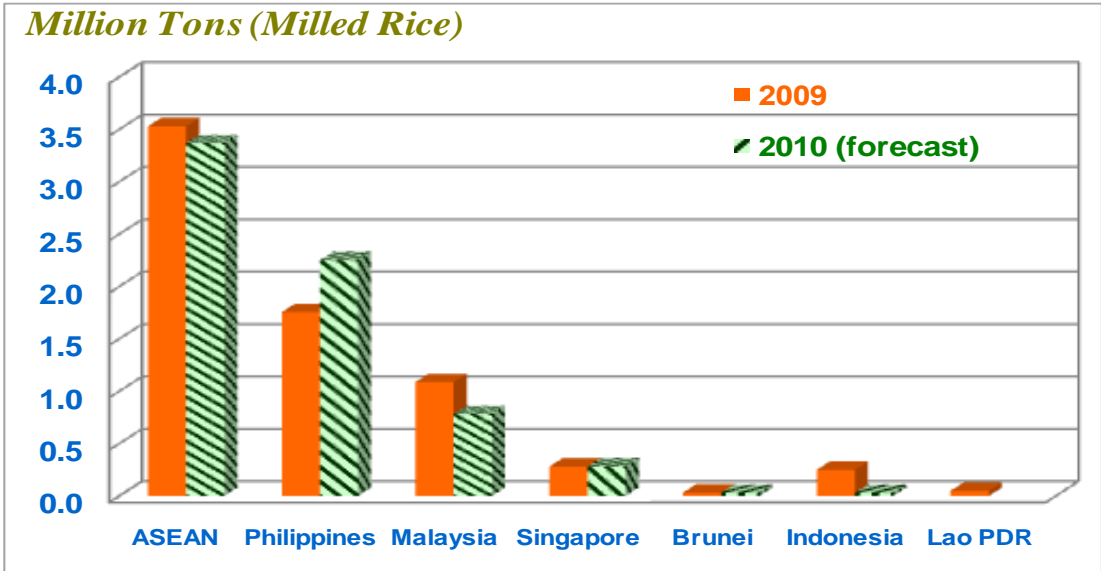


Figure 8 Amount of rice import (million tons) by selected countries in ASEAN in 2009-2010

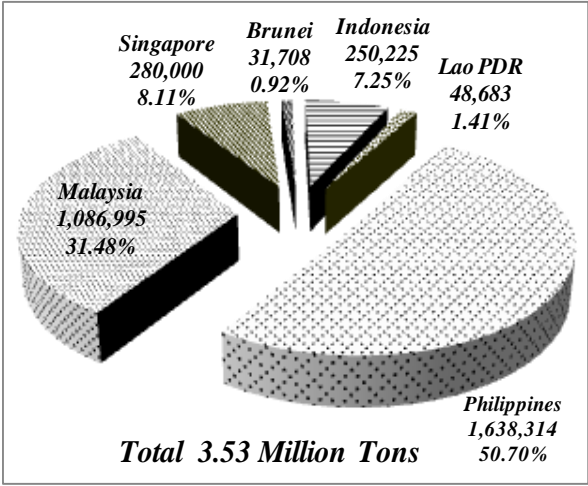


Figure 9 Share of rice import (ton) among ASEAN countries, 2009

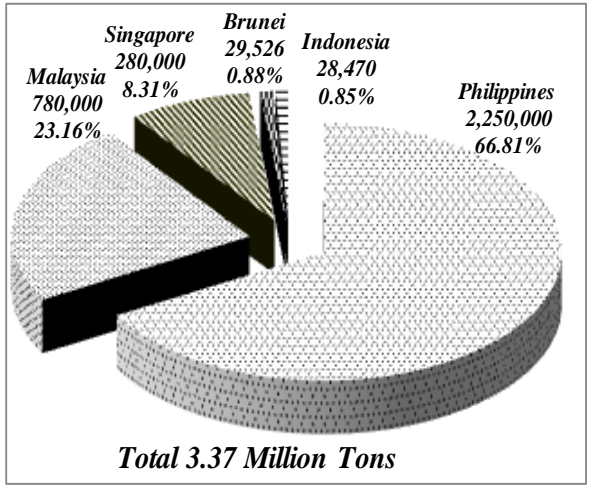


Figure 10 Share of rice import (ton) among ASEAN countries, 2010

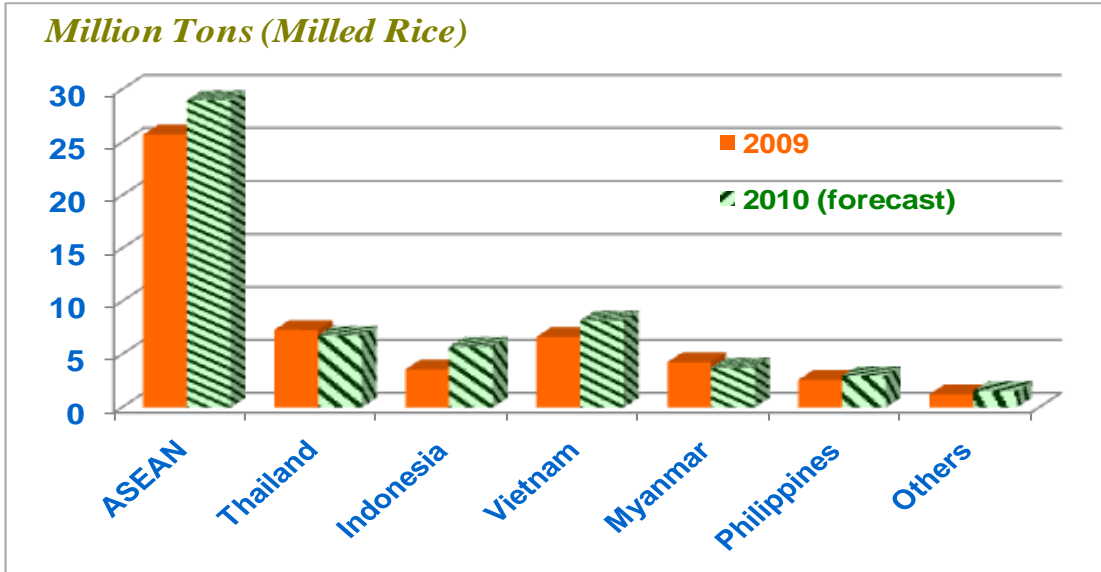


Figure 11 Amount of ending stock of rice in ASEAN countries

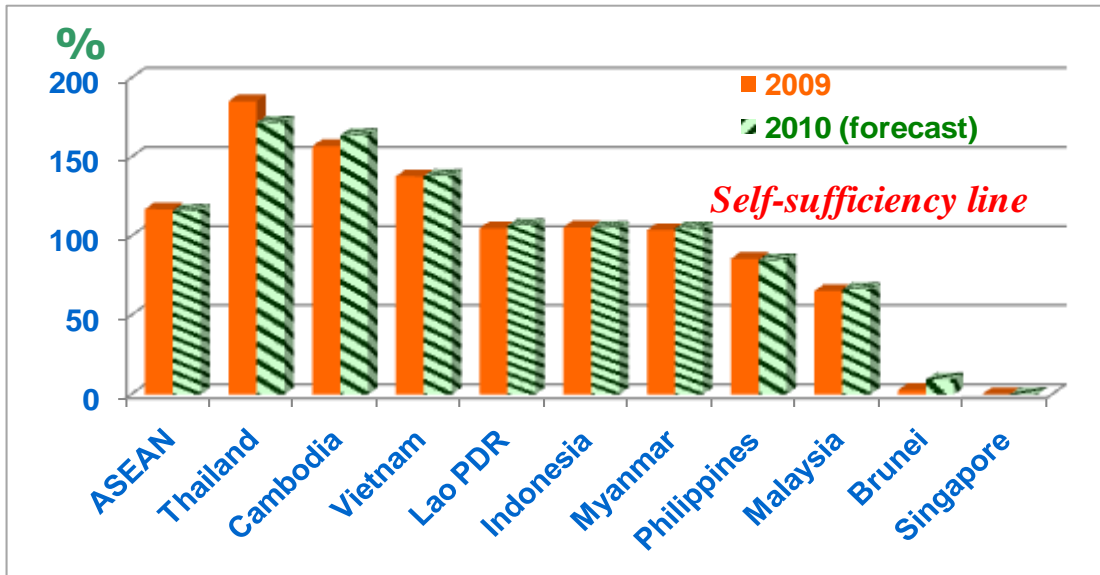


Figure 12 Ratio of rice production to domestic utilization in ASEAN countries (Self-sufficiency ratio)

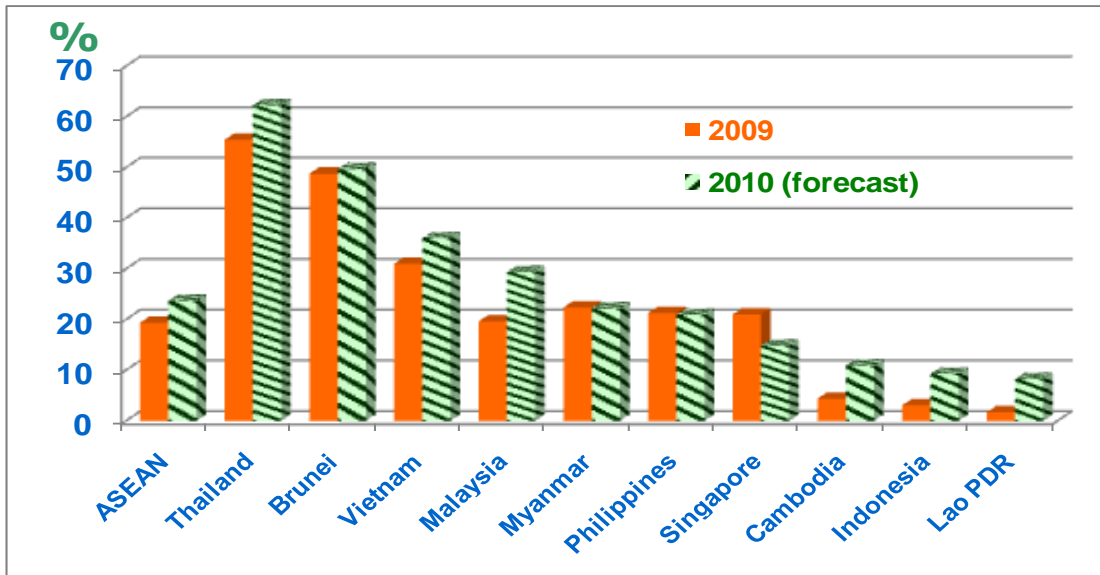


Figure 13 Ratio of rice beginning stock to domestic utilization in ASEAN countries (Food security ratio)

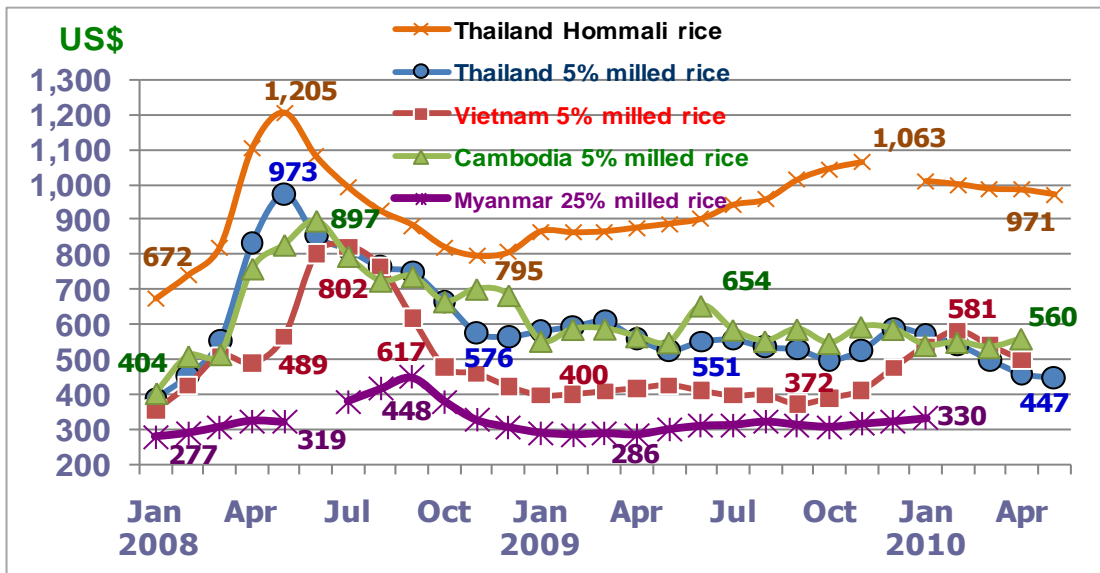


Figure 14 FOB price (US\$) of milled rice of selected countries in ASEAN in 2008-2010

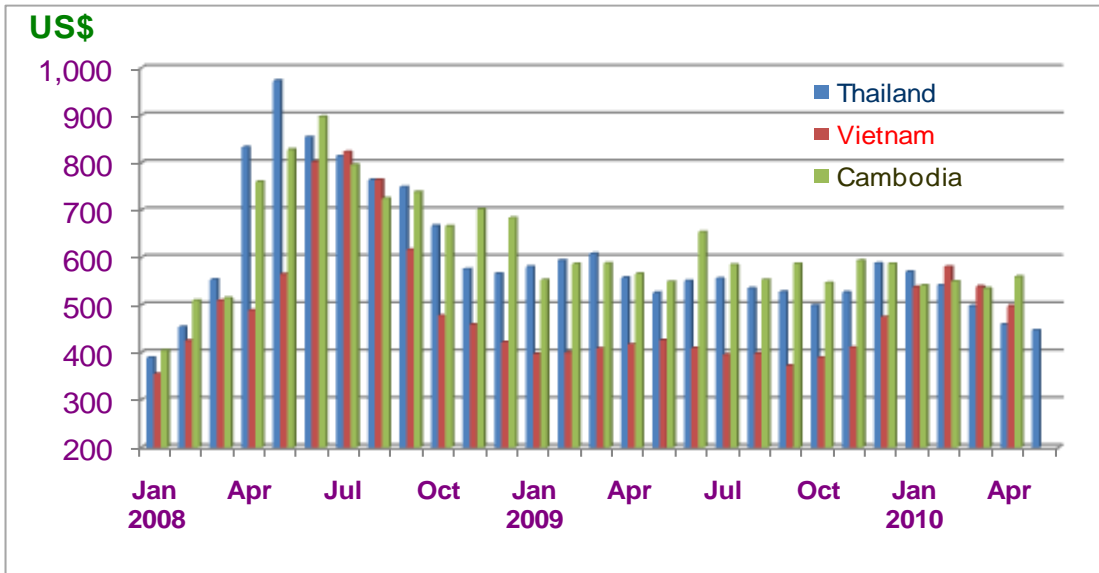


Figure 15 FOB price (US\$) of 5% milled rice of selected countries in ASEAN in 2008-2010

Highlights of Maize Outlook

- Maize supply in ASEAN is forecast to increase about 3.6 percent from 44.39 million tons in 2009 to 45.98 million tons in 2010. The increase in maize supply comes from the increase in both production and the stock carried over from the previous year.
- The maize production is forecast to increase from 36.85 million tons in 2009 to 37.57 million tons in 2010 which is about 1.95 percent mainly due to the expansion of harvested area. The average yield is forecast to increase very little.
- The maize export from ASEAN is expected to decrease from 1.93 million tons to 1.62 million tons which is about 16.06 percent during the same period while the import is predicted to change very little from 4.54 million tons to 4.56 million tons.
- The beginning stock is estimated to increase from 3.00 million tons in 2009 to 3.85 million tons which is about 28.33 percent while the ending stock is forecast to increase considerably from 3.85 million tons to 4.98 million tons, an increase about 29.35 percent during the same period.
- The ratio of production to domestic utilization (self-sufficient ratio) in 2010 is forecast to change very little from 95.42 percent in 2009 to 95.40 percent. The ratio of stock to domestic utilization in 2010 is forecast to increase from 7.77 percent in 2009 to 9.77 percent.

Table 12 Summary of the ASEAN maize situation, 2009-2010

| Items | 2009 | 2010 | Change | |
|--|-------|-------|----------|--------|
| | | | Quantity | % |
| Supply (Million tons) | 44.39 | 45.98 | 1.59 | 3.58 |
| Beginning stock | 3.00 | 3.85 | 0.85 | 28.33 |
| Production | 36.85 | 37.57 | 0.72 | 1.95 |
| Import | 4.54 | 4.56 | 0.02 | 0.44 |
| Demand (Million tons) | 44.39 | 45.98 | 1.59 | 3.58 |
| Domestic utilization | 38.62 | 39.38 | 0.76 | 1.97 |
| Export | 1.93 | 1.62 | -0.31 | -16.06 |
| Ending stock | 3.85 | 4.98 | 1.13 | 29.35 |
| Ratio of production to domestic utilization (%) | 95.42 | 95.40 | -0.02 | -0.02 |
| Ratio of beginning stock to domestic utilization (%) | 7.77 | 9.77 | 2.00 | 25.74 |

Note: Maize refers to maize for human consumption, animal feed and/or bio-fuel excluding baby corn and sweet corn.

ASEAN Maize Situation in 2009

Production

Maize production in ASEAN in 2009 was estimated at 36.85 million tons, up 2.32 million tons, an increase of 6.71 percent from 34.53 million tons in 2008 (Table 13, Figure 16). The increase was found in every country in the region except Vietnam. The increase in production was mostly due to the expansion of the harvested area in response to the rise in prices received by farmers and the increase in yield was a result of the use of more improved varieties together with favorable weather (Table 14-16, Figure 17-19). The increase in harvested was very eminent in Lao PDR and Cambodia. Indonesia ranked first in the region, in terms of maize production which produced about 17.59 million tons or almost half of the regional production. The decrease in Vietnam was because of too much rain during the winter crop. Malaysia, Brunei and Singapore did not grow any maize.

Utilization and Stock

The 2009 production was not sufficient for regional utilization. The production estimate was 36.85 million tons as compared to 38.62 million tons needed for domestic utilization (Table 18). Indonesia, the major maize producer, was also the major user of maize in the region and followed by the Philippines, Thailand and Vietnam respectively.

The beginning stock of maize in 2009 was estimated at 3.00 million tons and the ending stock was estimated at 3.85 million tons. The Indonesia and Thailand carried most of the stock in the region.

The ratio of maize production to domestic utilization for ASEAN in 2009 was estimated at 95.42 percent (Table 20, Figure 27). This indicated that ASEAN as a whole could produce maize only 95.42 percent of regional consumption. Most of the producing countries had the ratio above 100 percent except Vietnam, Indonesia and the Philippines which are the major utilization country. The ratio of maize stock to domestic utilization in the ASEAN was estimated at 7.77 percent which was low compared with regional consumption (Table 21, Figure 28). Only Thailand had stock above 20 percent.

Trade

In 2009 ASEAN exported 1.93 million tons and imported 4.54 million tons of maize (Table 18, Figure 21 and 24). The major exporters were Thailand and Cambodia respectively while Lao PDR and Myanmar were also exported more than 100,000 tons (Table 18, Figure 20 and 21). The two largest importers were Malaysia and Vietnam which imported 2.69 million tons and 0.90 million tons respectively. Indonesia and the Philippines were all imported more than 300,000 tons. Thailand was imported 291,863 tons (Table 18, Figure 23 and 24). Noted that Thailand was considered as both major exporting and importing country in ASEAN. This was due to the fact that the domestic users preferred the lower imported price while the exporters enjoy the higher price overseas. In the case of Brunei did not import any maize. Singapore imported all maize for the domestic utilization.

Prices

The monthly and annual average of FOB prices of maize in 2008 and 2009 for Cambodia, Indonesia, Myanmar and Thailand are shown in Table 22 and Figure 29. In general the prices were relatively stable over the years.

The monthly and annual average of CIF prices of maize in 2008 and 2009 for the Philippines and Vietnam are shown in Table 23 and Figure 30. Similar to the FOB prices, the CIF prices were relatively stable.

Prospects for Maize in 2010

Production

ASEAN Maize production in 2010 is forecast to be 37.57 million tons, up from 36.85 million tons in 2009, an increase of 0.72 million tons which is about 1.95 percent (Table 13, Figure 16). The increase in production is expected in almost every country except the Philippines and Vietnam. Most of the increase is mainly due to the expansion of the harvested area while the increase in yield is very low (Table 14-16, Figure 17-19). For the Philippines, the planted area and the harvested area including the yield are expected to decrease due to the damage caused by drought in the first crop (Table 17). For Vietnam, the reduction in production comes from the lower yield but the amount is not significant.

Utilization and Stock

The domestic utilization of maize in ASEAN is forecast to increase about 1.97 percent from 38.62 million tons in 2009 to 39.38 million tons in 2010 (Table 18-19). The ratio of production to domestic utilization (self-sufficiency ratio) is expected to decrease from 95.42 percent in 2009 to 95.40 percent in 2010 which is about 0.02 percent as compared to previous year (Table 20, Figure 27). The ratio of stock to domestic utilization is forecast to increase from 7.77 percent in 2009 to 9.77 percent in 2010 (Table 21, Figure 28). Most countries have very low ratio except Myanmar and Thailand. Although this ratio is expected to increase, as compared to previous year, the ratio itself is still very low and consider as a tight situation for maize supply.

Trade

The 2010 maize export from ASEAN is forecast to be 1.62 million tons down from 1.93 million tons from previous year (Table 18 and 19, Figure 20). The 2010 maize import by ASEAN countries is forecast to be about 4.56 million tons as compared to 4.54 million tons in 2009 (Table 18 and 19, Figure 23). Cambodia and Thailand are the major exporting countries while Malaysia and Vietnam, are major importing countries in the region.

Table 13 Maize production in ASEAN countries, 2008-2010

Unit : 1,000 Tons

| Country | 2008 (2007/08) | 2009 (2008/09) | change 2009 over 2008 | | 2010 (2009/10) | change 2010 over 2009 | |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
| | | | Quantitie | (%) | | Quantitie | (%) |
| ASEAN | 34,534.43 | 36,849.98 | 2,315.55 | 6.71 | 37,570.25 | 720.27 | 1.95 |
| Brunei | - | - | - | - | - | - | - |
| Cambodia | 611.87 | 924.03 | 312.16 | 51.02 | 1,204.29 | 280.26 | 30.33 |
| Indonesia | 16,317.25 | 17,592.31 | 1,275.06 | 7.81 | 18,115.17 | 522.86 | 2.97 |
| Lao PDR | 690.80 | 1,083.47 | 392.67 | 56.84 | 1,645.80 | 562.33 | 51.90 |
| Malaysia | - | - | - | - | - | - | - |
| Myanmar | 1,177.52 | 1,184.95 | 7.43 | 0.63 | 1,225.89 | 40.94 | 3.45 |
| Philippines | 6,928.23 | 7,034.03 | 105.80 | 1.53 | 6,333.70 | -700.33 | -9.96 |
| Singapore | - | - | - | - | - | - | - |
| Thailand | 4,236.56 | 4,599.39 | 362.83 | 8.56 | 4,649.42 | 50.03 | 1.09 |
| Vietnam | 4,572.20 | 4,431.80 | -140.40 | -3.07 | 4,396.00 | -35.80 | -0.81 |

Table 14 Maize planted area in ASEAN countries, 2008-2010

Unit : 1,000 Hectares

| Country | 2008 (2007/08) | 2009 (2008/09) | change 2009 over 2008 | | 2010 (2009/10) | change 2010 over 2009 | |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
| | | | Quantitie | (%) | | Quantitie | (%) |
| ASEAN | 9,592.44 | 9,890.42 | 297.98 | 3.11 | 10,003.49 | 113.07 | 1.14 |
| Brunei | - | - | - | - | - | - | - |
| Cambodia | 163.11 | 221.29 | 58.18 | 35.67 | 279.47 | 58.18 | 26.29 |
| Indonesia | 4,019.64 | 4,168.25 | 148.61 | 3.70 | 4,237.42 | 69.17 | 1.66 |
| Lao PDR | 154.26 | 225.97 | 71.71 | 46.49 | 287.73 | 61.76 | 27.33 |
| Malaysia | - | - | - | - | - | - | - |
| Myanmar | 356.03 | 355.14 | -0.89 | -0.25 | 362.81 | 7.67 | 2.16 |
| Philippines | 2,690.61 | 2,700.03 | 9.42 | 0.35 | 2,595.32 | -104.71 | -3.88 |
| Singapore | - | - | - | - | - | - | - |
| Thailand | 1,068.60 | 1,132.95 | 64.36 | 6.02 | 1,141.74 | 8.79 | 0.78 |
| Vietnam | 1,140.20 | 1,086.80 | -53.40 | -4.68 | 1,099.00 | 12.20 | 1.12 |

Table 15 Maize harvested area in ASEAN countries, 2008-2010

Unit: 1,000 Hectares

| Country | 2008 (2007/08) | 2009 (2008/09) | change 2009 over 2008 | | 2010 (2009/10) | change 2010 over 2009 | |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
| | | | Quantities | (%) | | Quantities | (%) |
| ASEAN | 9,516.55 | 9,822.62 | 306.07 | 3.22 | 9,867.28 | 44.66 | 0.45 |
| Brunei | - | - | - | - | - | - | - |
| Cambodia | 163.06 | 212.96 | 49.90 | 30.60 | 271.47 | 58.51 | 27.47 |
| Indonesia | 4,001.72 | 4,156.71 | 154.99 | 3.87 | 4,224.54 | 67.83 | 1.63 |
| Lao PDR | 154.26 | 225.97 | 71.71 | 46.49 | 287.73 | 61.77 | 27.33 |
| Malaysia | - | - | - | - | - | - | - |
| Myanmar | 355.07 | 354.74 | -0.33 | -0.09 | 362.81 | 8.07 | 2.27 |
| Philippines | 2,661.02 | 2,683.89 | 22.87 | 0.86 | 2,511.26 | -172.63 | -6.43 |
| Singapore | - | - | - | - | - | - | - |
| Thailand | 1,041.22 | 1,102.36 | 61.13 | 5.87 | 1,110.48 | 8.12 | 0.74 |
| Vietnam | 1,140.20 | 1,086.00 | -54.20 | -4.75 | 1,099.00 | 13.00 | 1.20 |

Table 16 Maize yield in ASEAN countries, 2008-2010

Unit : Tons/Hectare

| Country | 2008 (2007/08) | 2009 (2008/09) | change 2009 over 2008 | | 2010 (2009/10) | change 2010 over 2009 | |
|--------------|-------------------|-------------------|--------------------------|-------------|-------------------|--------------------------|-------------|
| | | | Quantities | (%) | | Quantities | (%) |
| ASEAN | 3.63 | 3.75 | 0.12 | 3.31 | 3.81 | 0.06 | 1.53 |
| Brunei | - | - | - | - | - | - | - |
| Cambodia | 3.75 | 4.34 | 0.59 | 15.73 | 4.44 | 0.10 | 2.30 |
| Indonesia | 4.08 | 4.23 | 0.15 | 3.68 | 4.29 | 0.06 | 1.42 |
| Lao PDR | 4.48 | 4.79 | 0.31 | 6.92 | 5.72 | 0.93 | 19.42 |
| Malaysia | - | - | - | - | - | - | - |
| Myanmar | 3.32 | 3.34 | 0.02 | 0.60 | 3.38 | 0.04 | 1.20 |
| Philippines | 2.60 | 2.62 | 0.02 | 0.77 | 2.52 | -0.10 | -3.82 |
| Singapore | - | - | - | - | - | - | - |
| Thailand | 4.07 | 4.17 | 0.10 | 2.46 | 4.19 | 0.02 | 0.48 |
| Vietnam | 4.01 | 4.08 | 0.07 | 1.75 | 4.00 | -0.08 | -1.96 |

Table 17 Maize damaged area in ASEAN by cause of damage, 2010

| Country | Cause of Damage (Hectares) | | | | | Total |
|--------------|----------------------------|----------------|-----------|----------|----------|----------------|
| | Flood | Drought | Pests | Diseases | Others | |
| ASEAN | 16,372 | 119,809 | 30 | 0 | 0 | 136,211 |
| Brunei | - | - | - | - | - | - |
| Cambodia | 8,000 | - | - | - | - | 8,000 |
| Indonesia | 8,372 | 4,478 | 30 | - | - | 12,880 |
| Lao PDR | - | - | - | - | - | - |
| Malaysia | - | - | - | - | - | - |
| Myanmar | - | - | - | - | - | - |
| Philippines | - | 84,064 | - | - | - | 84,064 |
| Singapore | - | - | - | - | - | - |
| Thailand | - | 31,267 | - | - | - | 31,267 |
| Vietnam | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

Note: n.a. = not available

Table 18 Maize balance sheet of ASEAN countries, 2009

Unit : Ton

| Country | Supply | | | | Demand | | | |
|--------------|------------------|-------------------|------------------|-------------------|----------------------|------------------|------------------|-------------------|
| | Beginning Stock | Production | Imports | Total | Domestic Utilization | Exports | Ending stock | Total |
| ASEAN | 2,999,213 | 36,849,975 | 4,543,479 | 44,392,667 | 38,617,368 | 1,929,643 | 3,845,656 | 44,392,667 |
| Brunei | - | - | - | - | - | - | - | - |
| Cambodia | 27,919 | 924,026 | 0 | 951,945 | 194,046 | 711,500 | 46,399 | 951,945 |
| Indonesia | 1,354,485 | 17,592,309 | 338,798 | 19,285,592 | 17,657,060 | 75,283 | 1,553,249 | 19,285,592 |
| Lao PDR | n.a. | 1,083,465 | 192 | 1,083,657 | 905,727 | 177,930 | n.a. | 1,083,657 |
| Malaysia | 287,000 | 0 | 2,691,237 | 2,978,237 | 2,667,839 | 2,398 | 308,000 | 2,978,237 |
| Myanmar | n.a. | 1,184,950 | nil | 1,184,950 | 740,057 | 120,200 | 324,693 | 1,184,950 |
| Philippines | 197,600 | 7,034,033 | 303,116 | 7,534,749 | 7,279,804 | 545 | 254,400 | 7,534,749 |
| Singapore | - | - | 18,273 | 18,273 | 18,205 | 68 | 0 | 18,273 |
| Thailand | 920,940 | 4,599,392 | 291,863 | 5,812,195 | 3,824,726 | 841,719 | 1,145,750 | 5,812,195 |
| Vietnam | 211,269 | 4,431,800 | 900,000 | 5,543,069 | 5,329,904 | 0 | 213,165 | 5,543,069 |

Table 19 Maize balance sheet of ASEAN countries, 2010

Unit : Ton

| Country | Supply | | | | Demand | | | |
|--------------|------------------|-------------------|-----------------------|-------------------|----------------------|----------------------|------------------|-------------------|
| | Beginning Stock | Production | Imports | Total | Domestic Utilization | Exports | Ending stock | Total |
| ASEAN | 3,845,656 | 37,570,252 | 4,564,647 | 45,980,555 | 39,381,794 | 1,620,036 | 4,978,725 | 45,980,555 |
| Brunei | - | - | - | - | - | - | - | - |
| Cambodia | 46,399 | 1,204,288 | 0 | 1,250,687 | 252,901 | 932,907 | 64,879 | 1,250,687 |
| Indonesia | 1,553,249 | 18,115,165 | 283,272 ^{1/} | 19,951,686 | 18,123,987 | 75,283 ^{1/} | 1,752,416 | 19,951,686 |
| Lao PDR | n.a. | 1,645,801 | 329 | 1,646,130 | 1,423,903 | 197,536 | 24,691 | 1,646,130 |
| Malaysia | 308,000 | - | 2,771,046 | 3,079,046 | 2,759,029 | 3,017 | 317,000 | 3,079,046 |
| Myanmar | 324,693 | 1,225,885 | nil | 1,550,578 | 764,054 | 11,293 | 775,231 | 1,550,578 |
| Philippines | 254,400 | 6,333,698 | 292,000 | 6,880,098 | 6,755,049 | nil | 125,049 | 6,880,098 |
| Singapore | 0 | - | 18,000 | 18,000 | 18,000 | - | - | 18,000 |
| Thailand | 1,145,750 | 4,649,415 | 300,000 | 6,095,165 | 3,892,847 | 400,000 | 1,802,318 | 6,095,165 |
| Vietnam | 213,165 | 4,396,000 | 900,000 | 5,509,165 | 5,392,024 | 0 | 117,141 | 5,509,165 |

Note: 1/ The value is estimated by AFSIS Project
n.a. = not available, nil = very small amount

**Table 20 Ratio of maize production to domestic utilization in ASEAN countries
(Self-sufficiency ratio)**

Unit : Ton

| Country | 2009 | | | 2010 | | |
|--------------|-------------------|----------------------|--------------|-------------------|----------------------|--------------|
| | Production | Domestic Utilization | Ratio (%) | Production | Domestic Utilization | Ratio (%) |
| ASEAN | 36,849,975 | 38,617,368 | 95.42 | 37,570,252 | 39,381,794 | 95.40 |
| Brunei | - | - | - | - | - | - |
| Cambodia | 924,026 | 194,046 | 476.19 | 1,204,288 | 252,901 | 476.19 |
| Indonesia | 17,592,309 | 17,657,060 | 99.63 | 18,115,165 | 18,123,987 | 99.95 |
| Lao PDR | 1,083,465 | 905,727 | 119.62 | 1,645,801 | 1,423,903 | 115.58 |
| Malaysia | 0 | 2,667,839 | - | - | 2,759,029 | - |
| Myanmar | 1,184,950 | 740,057 | 160.12 | 1,225,885 | 764,054 | 160.44 |
| Philippines | 7,034,033 | 7,279,804 | 96.62 | 6,333,698 | 6,755,049 | 93.76 |
| Singapore | - | 18,205 | - | - | 18,000 | - |
| Thailand | 4,599,392 | 3,824,726 | 120.25 | 4,649,415 | 3,892,847 | 119.43 |
| Vietnam | 4,431,800 | 5,329,904 | 83.15 | 4,396,000 | 5,392,024 | 81.53 |

**Table 21 Ratio of maize beginning stock to domestic utilization in ASEAN countries
(Food security ratio)**

Unit : Ton

| Country | 2009 | | | 2010 | | |
|--------------|------------------|----------------------|-------------|------------------|----------------------|-------------|
| | Beginning Stock | Domestic Utilization | Ratio (%) | Beginning Stock | Domestic Utilization | Ratio (%) |
| ASEAN | 2,999,213 | 38,617,368 | 7.77 | 3,845,656 | 39,381,794 | 9.77 |
| Brunei | - | - | - | - | - | - |
| Cambodia | 27,919 | 194,046 | 14.39 | 46,399 | 252,901 | 18.35 |
| Indonesia | 1,354,485 | 17,657,060 | 7.67 | 1,553,249 | 18,123,987 | 8.57 |
| Lao PDR | n.a. | 905,727 | - | n.a. | 1,423,903 | - |
| Malaysia | 287,000 | 2,667,839 | 10.76 | 308,000 | 2,759,029 | 11.16 |
| Myanmar | n.a. | 740,057 | - | 324,693 | 764,054 | 42.50 |
| Philippines | 197,600 | 7,279,804 | 2.71 | 254,400 | 6,755,049 | 3.77 |
| Singapore | - | 18,205 | - | 0 | 18,000 | - |
| Thailand | 920,940 | 3,824,726 | 24.08 | 1,145,750 | 3,892,847 | 29.43 |
| Vietnam | 211,269 | 5,329,904 | 3.96 | 213,165 | 5,392,024 | 3.95 |

Note: n.a. = not available

Table 22 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 | 2008 | 215 | 220 | 231 | 218 | 216 | 215 | 230 | 223 | 225 | 230 | 235 | 240 | 225 |
| | 2009 | 220 | 230 | 240 | 220 | 230 | 225 | 240 | 230 | 245 | 230 | 221 | 231 | 230 |
| | 2010 | 215 | 235 | 225 | 255 | | | | | | | | | 233 |
| Indonesia | 2008 | 207 | 220 | 234 | 246 | 243 | 287 | 265 | 235 | 234 | 183 | 164 | 158 | 223 |
| | 2009 | 173 | 163 | 165 | 168 | 180 | 180 | 152 | 152 | 150 | 167 | 172 | | 166 |
| Myanmar | 2008 | 204 | 208 | 209 | 214 | 224 | 223 | 230 | 245 | 262 | 254 | 194 | 191 | 222 |
| | 2009 | 194 | 197 | 239 | 198 | 176 | 199 | 212 | 182 | 210 | 206 | 280 | 235 | 211 |
| | 2010 | 213 | | | | | | | | | | | | 213 |
| Thailand | 2008 | 257 | 274 | 300 | 307 | 295 | 297 | 337 | 318 | 270 | 241 | 231 | 205 | 278 |
| | 2009 | 217 | 213 | 221 | 221 | 215 | 226 | 191 | 190 | 189 | 195 | 222 | 242 | 212 |
| | 2010 | 252 | 261 | 283 | 282 | 295 | | | | | | | | 275 |

Table 23 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 |
|-------------------------|------|------|------|------|------|-----|------|------|------|------|------|------|------|---------|
| Malaysia | 2009 | 212 | 194 | 194 | 199 | 213 | 227 | 227 | 250 | 217 | 215 | 240 | 227 | 218 |
| | 2010 | 238 | 241 | | | | | | | | | | | 240 |
| Philippines In-quota | 2008 | 204 | - | - | 249 | 216 | - | - | 216 | - | - | - | 231 | 223 |
| | 2009 | - | 408 | 212 | 242 | - | 392 | 243 | - | - | - | - | - | 299 |
| Out-quota | 2008 | - | - | 564 | - | 573 | - | - | 216 | 223 | 373 | 219 | 125 | 328 |
| | 2009 | - | 206 | 300 | 165 | 256 | 265 | 525 | 297 | 395 | 248 | - | - | 295 |
| Vietnam | 2008 | 240 | 245 | 240 | 243 | | | 237 | 253 | 249 | 269 | 269 | 281 | 253 |
| | 2009 | 270 | 235 | 257 | 270 | 252 | 225 | 213 | 219 | 235 | 226 | 195 | | 236 |

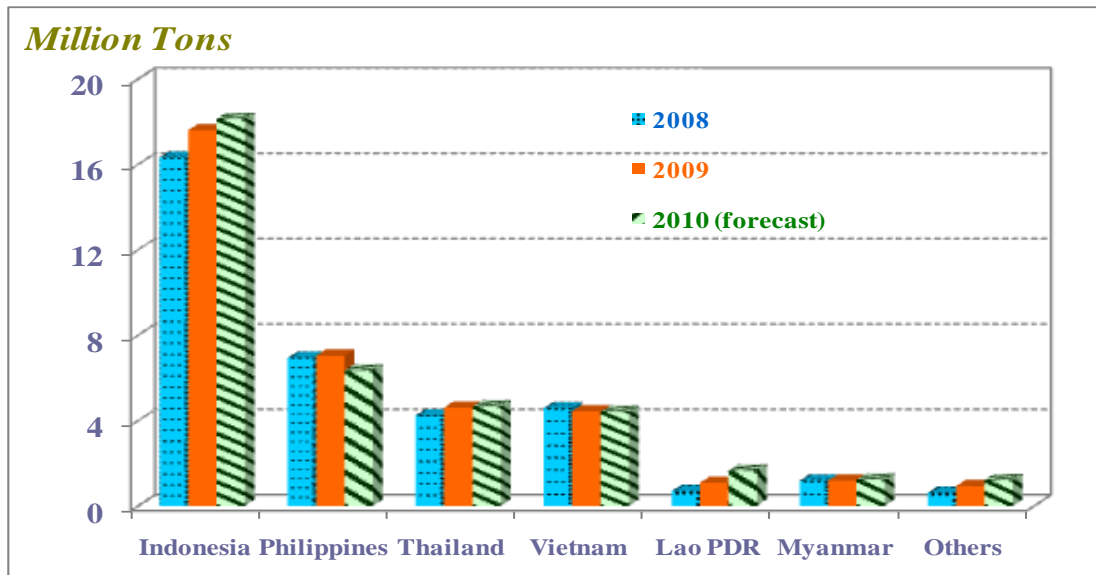


Figure 16 Maize production of selected countries in ASEAN, 2008-2010

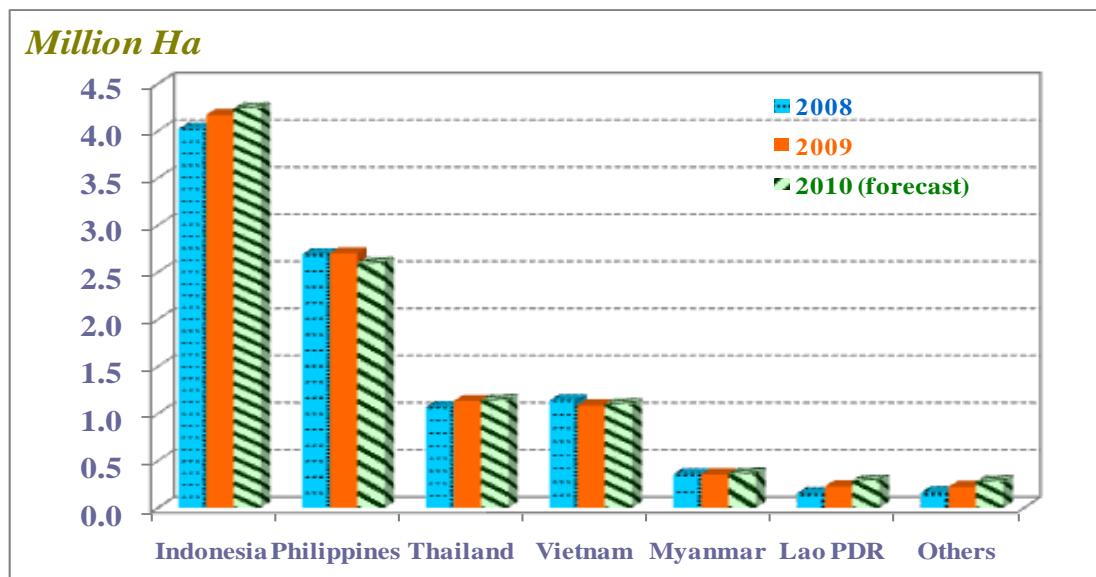


Figure 17 Maize planted area of selected countries in ASEAN, 2008-2010

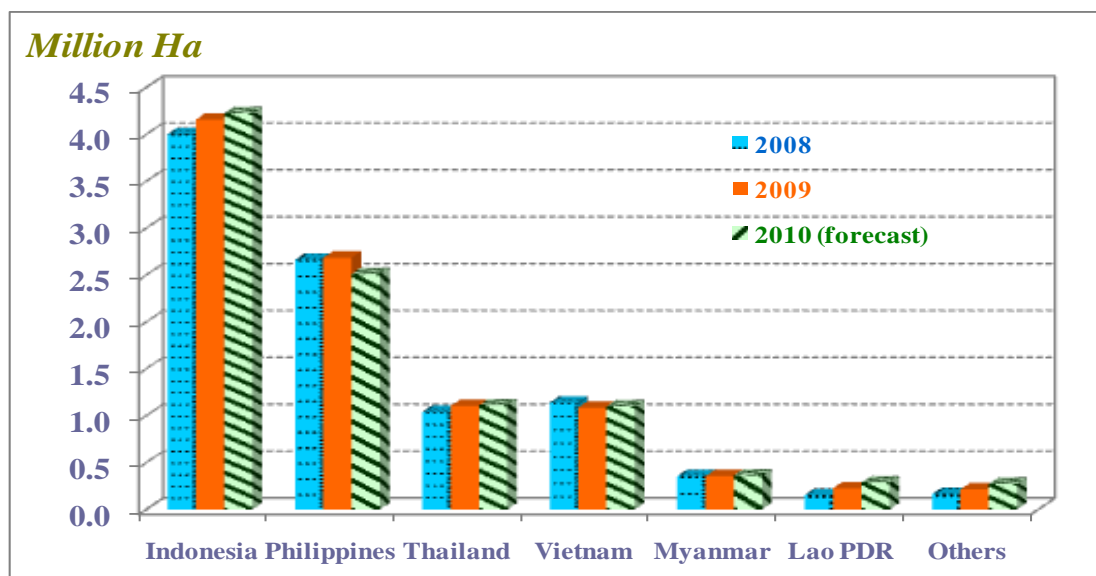


Figure 18 Maize harvested area of selected countries in ASEAN, 2008-2010

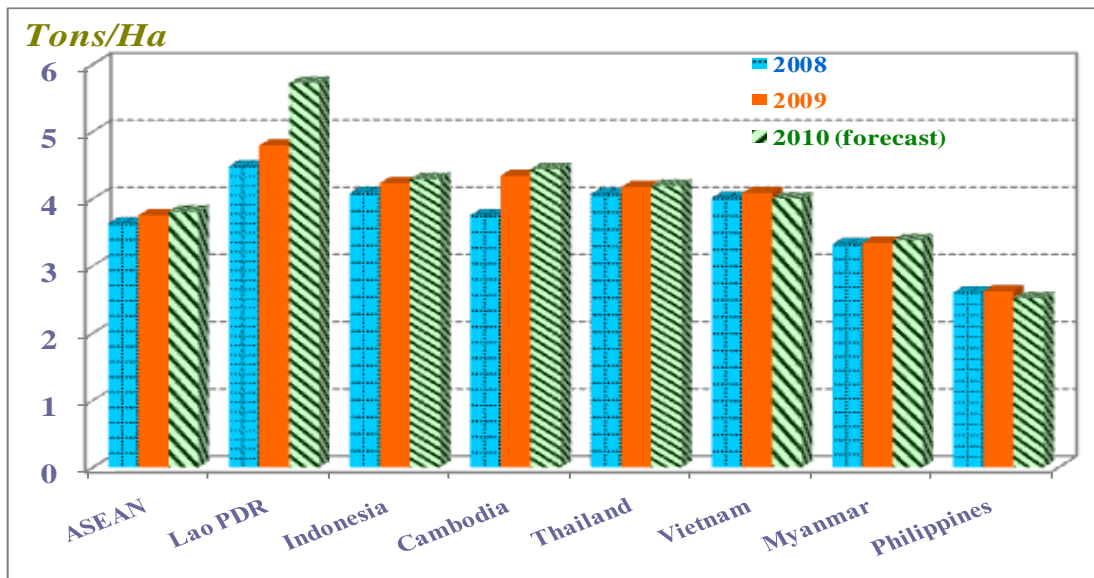


Figure 19 Maize yield of countries in ASEAN, 2008-2010

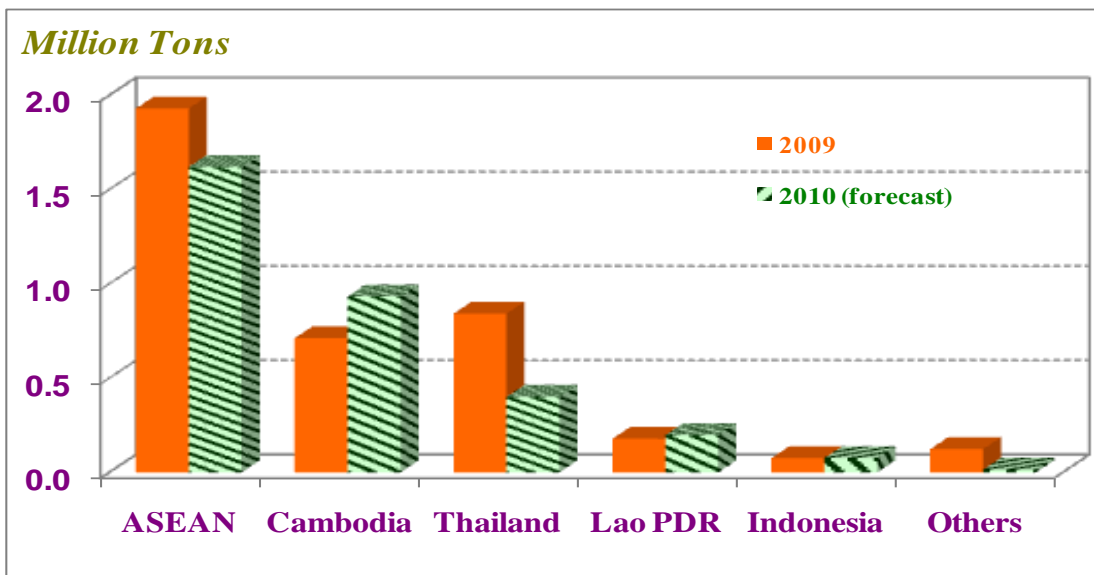


Figure 20 Amount of maize export (million tons) of selected countries in ASEAN in 2009-2010

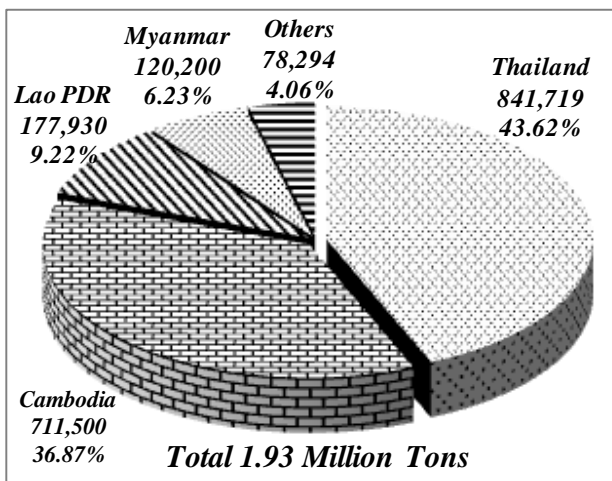


Figure 21 Share of maize export (ton) among ASEAN countries, 2009

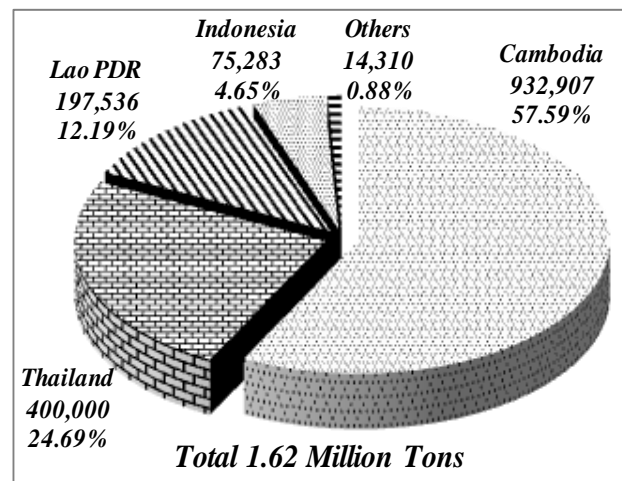


Figure 22 Share of maize export (ton) among ASEAN countries, 2010

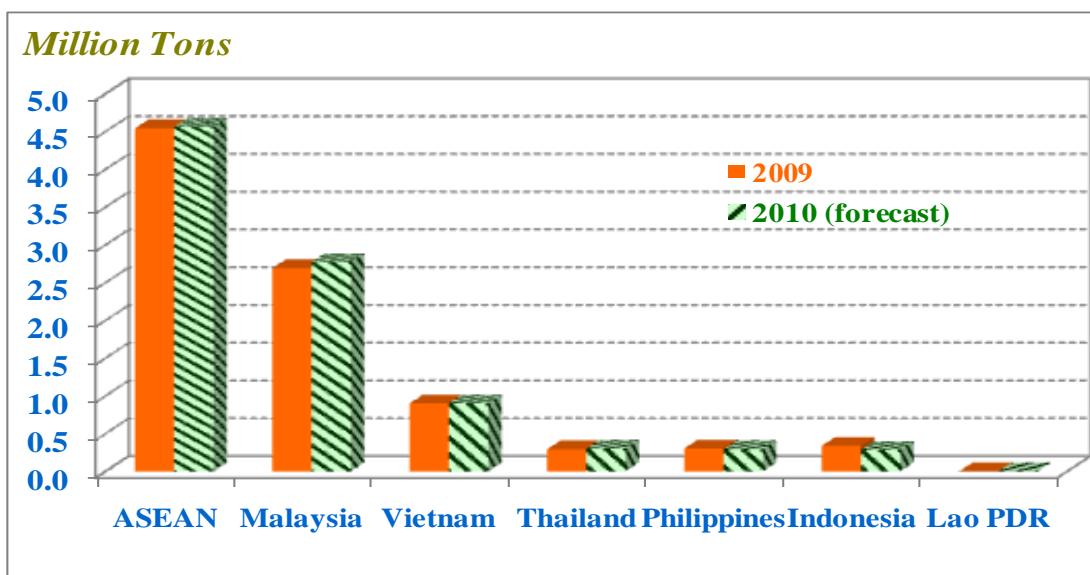


Figure 23 Amount of maize import (million tons) by selected countries in ASEAN in 2009-2010

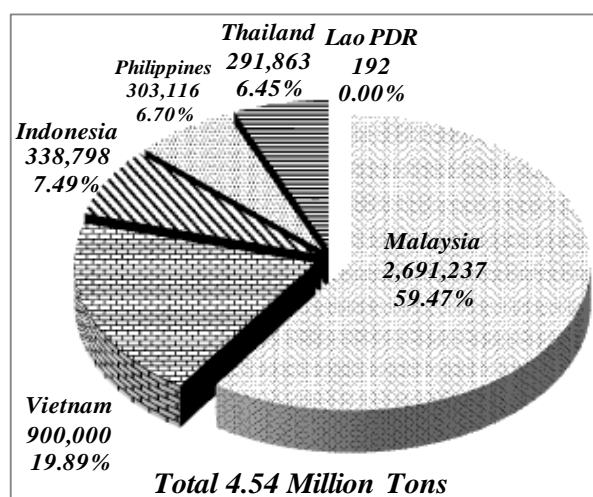


Figure 24 Share of maize import (ton) among ASEAN countries, 2009

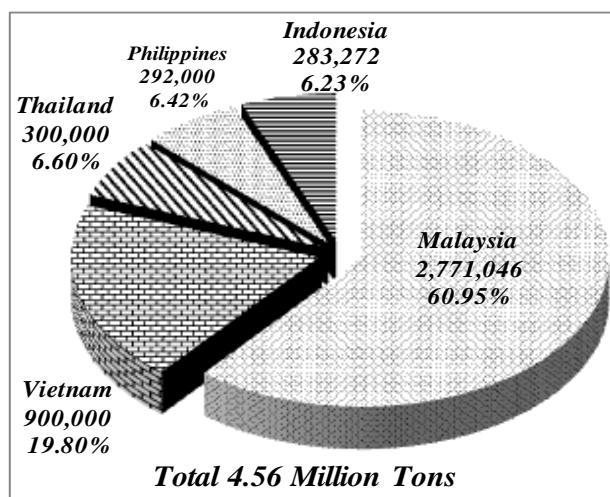


Figure 25 Share of maize import (ton) among ASEAN countries, 2010

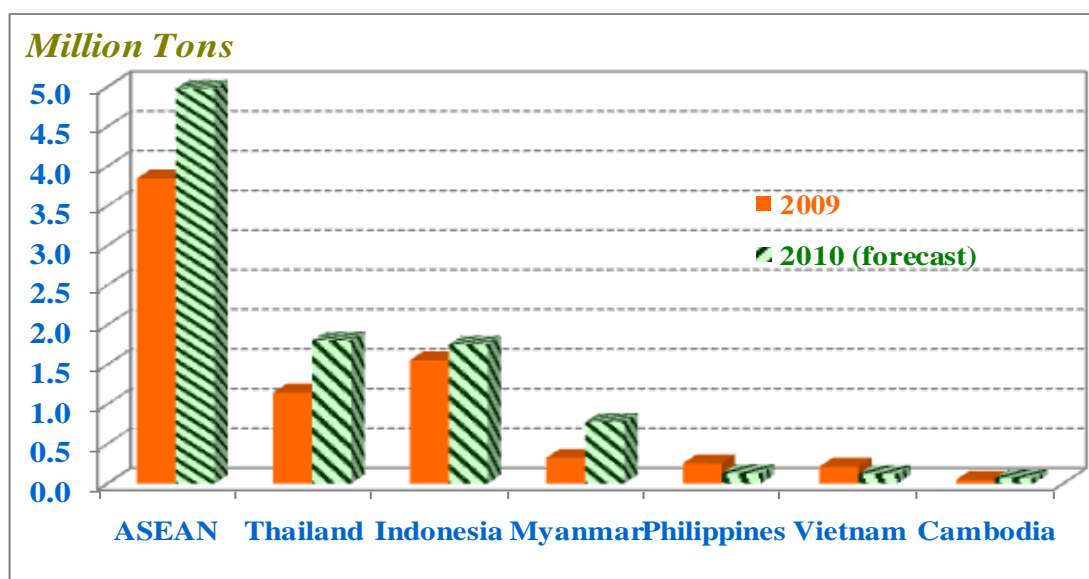


Figure 26 Amount of ending stock of maize in ASEAN countries

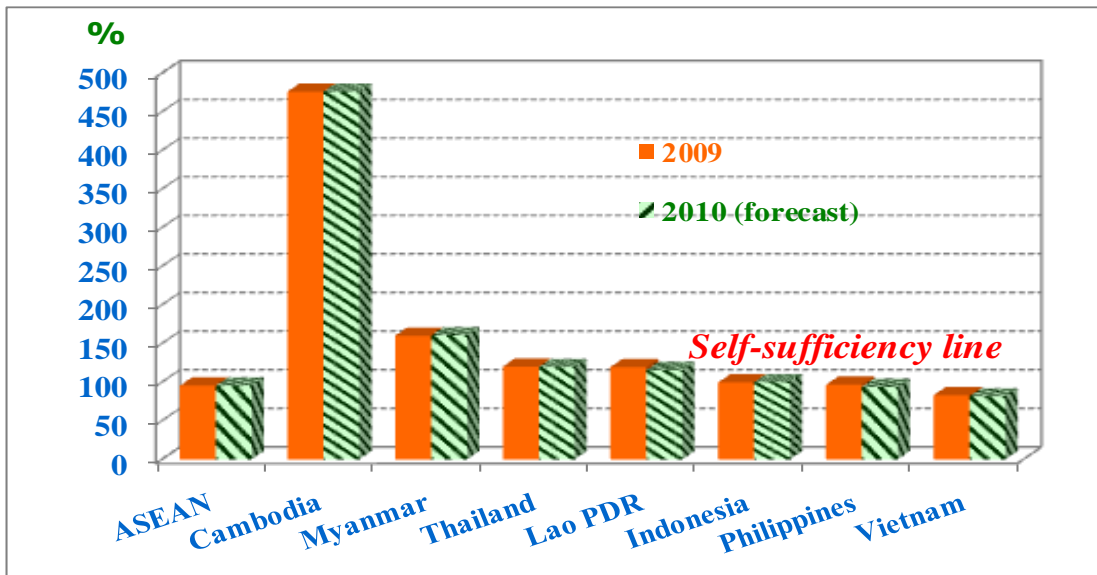


Figure 27 Ratio of maize production to domestic utilization in ASEAN countries (Self-sufficiency ratio)

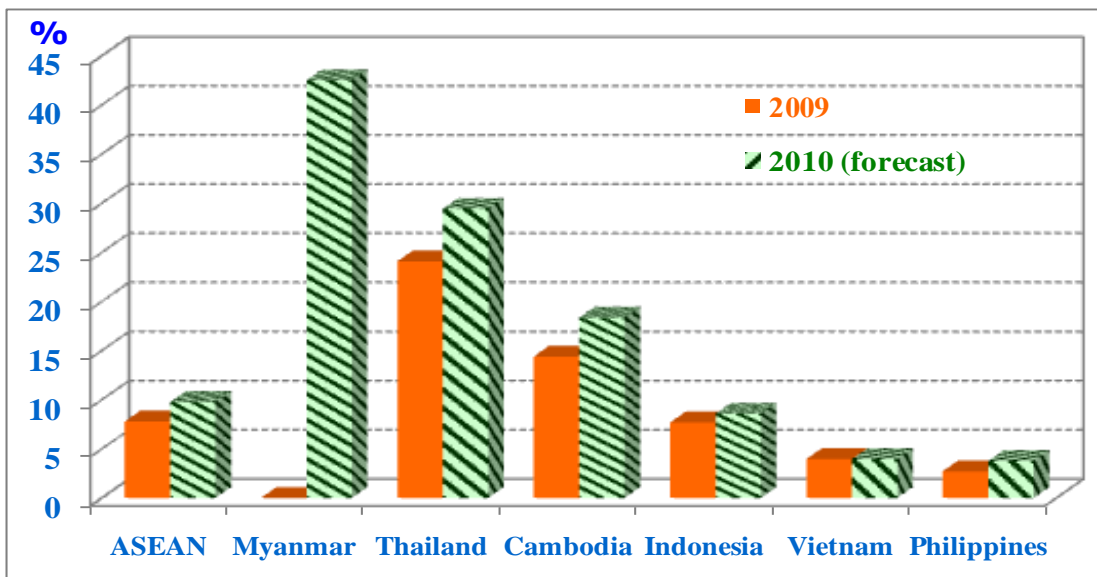


Figure 28 Ratio of maize beginning stock to domestic utilization in ASEAN countries (Food security ratio)

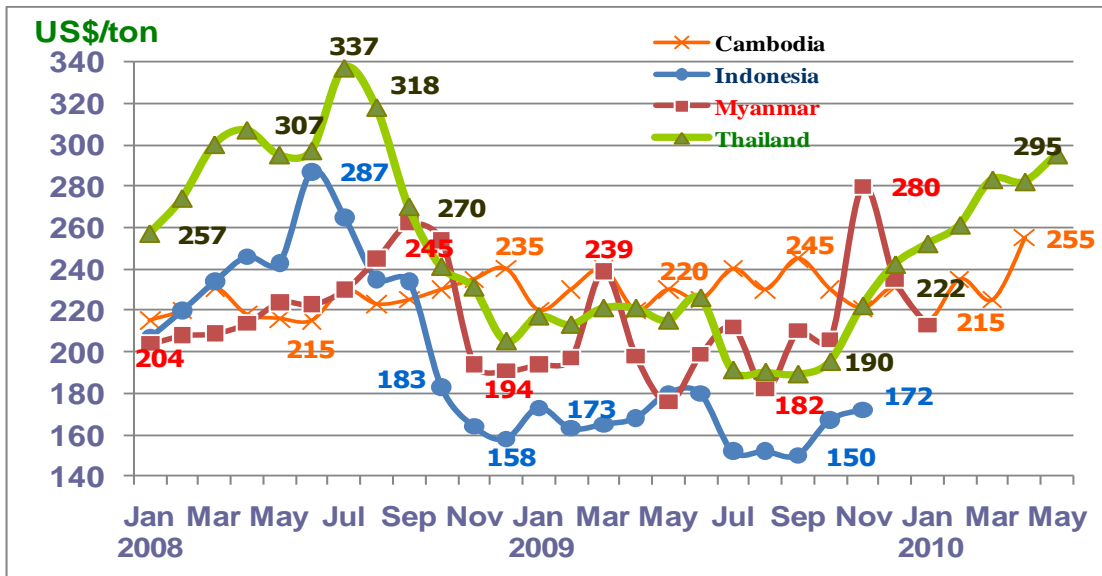


Figure 29 FOB price (US\$) of maize of selected countries in ASEAN in 2008-2010

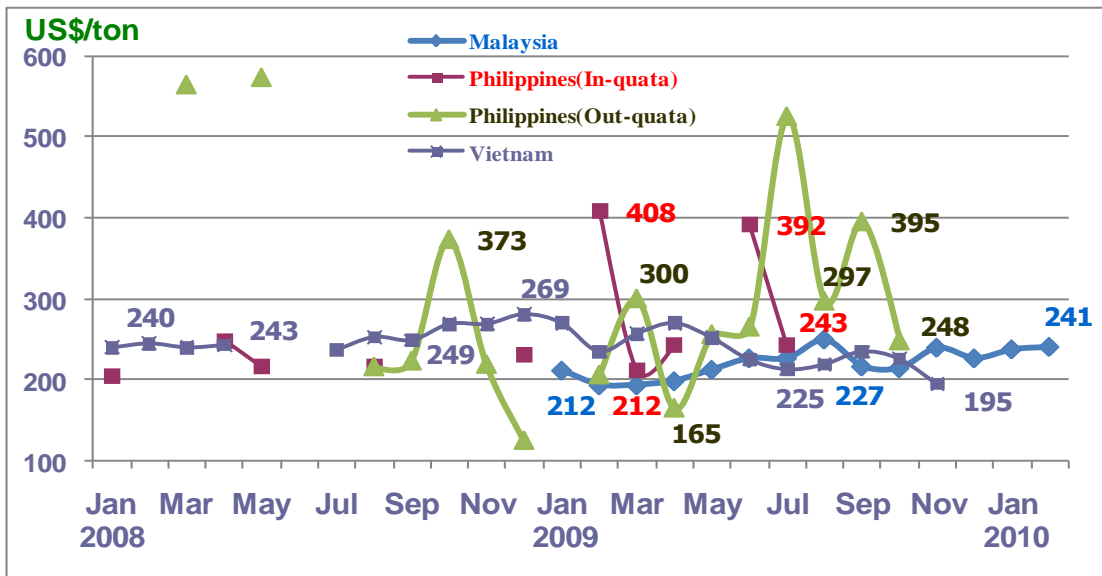


Figure 30 CIF price (US\$) of maize of selected countries in ASEAN in 2008-2010

Highlights of Sugar Outlook

- ASEAN sugar supply in 2010 is forecast to be 17.87 million tons down from 18.23 million tons in 2009 which is 1.97 percent decrease due to the reduction in production, import and beginning stock.
- The sugar production is forecast to decrease by 1.17 percent from 14.54 million tons in 2009 to 14.37 million tons in 2010.
- The beginning stock of sugar in 2010 is forecast at 1.73 million tons, down from 1.91 million tons in 2009. The ending stock of the year 2010 is predicted to increase a little from 1.73 million tons in 2009 to 1.79 million tons in 2010.
- For the sugar export, it is forecast to be 5.01 million tons in 2010, down from 5.33 million tons in 2009. Regarding import, about 1.76 million tons are predicted in 2010 for ASEAN as a whole, about the same as in 2009.
- The ratio of production to domestic utilization (self-sufficiency ratio) for 2010 is forecast to be 129.82 percent down from 130.13 percent in 2009. This ratio is still above 100 percent indicating that ASEAN as a whole can produce sugar more than regional consumption.
- The ratio of beginning stock to domestic utilization in 2010 is estimated at 15.65 percent as compared to 17.09 percent in 2009. Since this ratio is under 20 percent, it is indicated that the sugar supply is in a tight situation in the beginning of the year 2010.

Table 24 : Summary of the ASEAN sugar situation, 2009-2010

| Items | 2009 | 2010 | Change | |
|--|--------|--------|----------|-------|
| | | | Quantity | % |
| Supply (Million tons) | 18.23 | 17.87 | -0.36 | -1.97 |
| Beginning stock | 1.91 | 1.73 | -0.18 | -9.42 |
| Production | 14.54 | 14.37 | -0.17 | -1.17 |
| Import | 1.79 | 1.76 | -0.03 | -1.68 |
| Demand (Million tons) | 18.23 | 17.87 | -0.36 | -1.97 |
| Domestic utilization | 11.17 | 11.07 | -0.10 | -0.90 |
| Export | 5.33 | 5.01 | -0.32 | -6.00 |
| Ending stock | 1.73 | 1.79 | 0.06 | 3.47 |
| Ratio of production to domestic utilization (%) | 130.13 | 129.82 | -0.31 | -0.24 |
| Ratio of beginning stock to domestic utilization (%) | 17.09 | 15.65 | -1.44 | -8.43 |

ASEAN Sugar Situation in 2009

Production

The sugarcane production in ASEAN in 2009 (2008/09 crop year) was estimated at 133.50 million tons down from 144.76 million tons which was 7.78 percent from previous year (Table 25, Figure 31). The decrease in production was due to the decrease in both harvested area and yield (Table 27 and 28, Figure 33 and 34). Thailand is the number one producing country in the region and followed by the Philippines, Indonesia and Vietnam. Malaysia, Singapore and Brunei do not grow sugarcane. The decrease in production in 2009 had most occurred in Thailand, the Philippines, Vietnam, Myanmar and Cambodia. Indonesia and Lao PDR, the production had increased.

The average yield of sugarcane in ASEAN in 2009 was estimated at 59.50 tons per hectare down from 61.54 tons in 2008 (Table 28, Figure 34). The decrease in yield was found in Cambodia, the Philippines, Thailand and Vietnam. For other countries, the yield was estimated to increase.

Utilization and Stock

The domestic utilization of sugar in ASEAN in 2009 (calendar year) was estimated at 11.17 million tons (Table 30). The beginning stock of sugar in 2009 was estimated at 1.91 million tons and the ending stock was estimates at 1.73 million tons. The ratio of production to domestic utilization for 2009 was 130.13 percent (Table 32, Figure 42). This implied that ASEAN as a whole produced 30.13 percent more than utilization within the region. However, some major producing countries such as Indonesia and Vietnam were still not produced enough for domestic consumption. The high ratio was in Lao PDR, Thailand and Philippines respectively.

The estimated ending sugar stock of ASEAN in 2009 was 1.73 million tons. Indonesia and Thailand carried most of the stock in the region (Table 30, Figure 41). These two countries together have stock about 90 percent of the total sugar stock in ASEAN.

Trade

In 2009, ASEAN altogether exported about 5.33 million tons of sugar (Table 30, Figure 35 and 36). Only Thailand is considered as major sugar exporting country in the region which exported about 5.10 million tons which was about 96 percent of the total ASEAN export. The other 4 percent export is from other countries.

For the import, ASEAN imported about 1.79 million tons of sugar in 2009 (Table 30, Figure 38 and 39). Indonesia and Singapore are two major importing countries which imported about 1.38 and 0.35 million tons of sugar respectively.

Prices

The FOB and CIF price of raw sugar and white sugar in selected countries in ASEAN is shown in Table 34 and 35 (Figure 44).

Prospects for Sugar in 2010

Production

Sugarcane production of ASEAN in 2010 is forecast to be 136.54 million tons, up 3.04 million tons which is 2.3 percent from 133.50 million tons in 2009 (Table 25, Figure 31). The increase in production is predicted in every country except Myanmar. In terms of quantity, Thailand, Vietnam and Lao PDR are expected to increase the most as compared to other countries in the region. In terms of percentages, the most increase is in Lao PDR and Cambodia respectively. The increase in production is mainly due to the increase in harvested area. The increase in yield is very small amount which is less than one percent. However, the sugar production in ASEAN as a whole is forecast to decrease due to the reduction of the conversion rate from sugarcane to sugar in Thailand, the major producing country, from 1,000 to 108 in 2009 as compared to 1,000 to 101 in 2010 due to the weather condition during the growing period.

The harvested area is forecast to increase from 2.24 million hectares in 2009 to 2.28 million hectares in 2010, up about 0.03 million hectares which is 1.5 percent (Table 27, Figure 33). In Lao PDR, the expansion area is a result of the increase in demand of the sugar factory which recently established in the country. For Indonesia, Thailand and Vietnam, the reason for increasing of

harvested area is the increase in price received by farmers. Only the Philippines and Myanmar are expected to have a reduction in harvested area. The decrease in harvested area in the Philippines is due to the rising cost of fertilizer as a result the farmers did not want to expand the area. For Myanmar, the decrease is because of the increase in prices of competing crops.

The yield in 2010 is forecast to be 59.96 tons per hectare up 0.46 tons per hectare which is 0.77 percent from previous year (Table 28, Figure 34). The decrease in yield is expected in Indonesia, Thailand and Vietnam. In Indonesia, the reduction in yield is because of the farmers use less fertilizer due to unavailable subsidized price fertilizer and high price of the regular fertilizer. For Vietnam, the decrease in yield is due to the flood during the wet season and the drought during the dry season especially in Mekong river region. In Thailand, the reduction in yield is due to the insufficient of rainfall during growing period.

Utilization and Stock

The domestic utilization of sugar in ASEAN in 2010 is forecast to be about the same as in 2009 (Table 31).

The beginning stock in ASEAN is forecast to decrease about 9.42 percent from 1.91 million tons in 2009 to 1.73 million tons in 2010. The ending stock is forecast to increase a little from 1.73 million tons in 2009 to 1.79 million tons in 2010 (Table 31, Figure 41).

The ratio of production to domestic utilization (self-sufficient ratio) is forecast to decrease from 130.13 percent in 2009 to 129.82 percent in 2010 which means that production is still enough for region consumption (Table 32, Figure 42). The ratio of stock to domestic utilization is forecast to decrease from 17.09 percent to 15.65 percent which is still not a good situation in terms of food security (Table 33, Figure 43). The ratio is very high for Thailand and Indonesia. However, some countries do not have stock data.

Trade

Sugar exports by ASEAN countries are forecast to decrease from 5.33 million tons in 2009 to 5.01 million tons in 2010 (Table 31, Figure 35 and 37). Thailand is the only major exporting country in the region. However the export from Thailand is predicted to decrease from 5.1 million tons to 4.8 million tons due to the expected reduction in production. Lao PDR is now emerging as the new exporter of sugar.

Regarding imports, all ASEAN countries together is forecast to about the same as in 2009 (Table 31, Figure 38 and 40). Indonesia is the major importing in the region. The import is expected to decrease from 1.79 million tons in 2009 to 1.76 million tons in 2010.

Table 25 Sugarcane production in ASEAN countries, 2008-2010

Unit: 1,000 Tons

| Country | 2008 (2007/08) | 2009 (2008/09) | change 2009 over 2008 | | 2010 (2009/10) | change 2010 over 2009 | |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|-------------|
| | | | Quantities | (%) | | Quantitie | (%) |
| ASEAN | 144,756.52 | 133,499.15 | -11,257.36 | -7.78 | 136,538.66 | 3,039.50 | 2.28 |
| Brunei | - | - | - | - | - | - | - |
| Cambodia | 385.24 | 350.16 | -35.08 | -9.11 | 406.26 | 56.10 | 16.02 |
| Indonesia | 17,344.78 | 18,523.50 | 1,178.72 | 6.80 | 18,597.17 | 73.67 | 0.40 |
| Lao PDR | 749.30 | 819.74 | 70.44 | 9.40 | 1,063.24 | 243.50 | 29.71 |
| Malaysia | - | - | - | - | - | - | - |
| Myanmar | 9,833.00 | 9,744.22 | -88.78 | -0.90 | 9,561.98 | -182.24 | -1.87 |
| Philippines | 26,798.04 | 21,998.90 | -4,799.14 | -17.91 | 22,152.20 | 153.30 | 0.70 |
| Singapore | - | - | - | - | - | - | - |
| Thailand | 73,501.61 | 66,816.45 | -6,685.16 | -9.10 | 68,807.80 | 1,991.35 | 2.98 |
| Vietnam | 16,144.55 | 15,246.20 | -898.35 | -5.56 | 15,950.00 | 703.80 | 4.62 |

Table 26 Sugarcane planted area in ASEAN countries, 2008-2010

Unit: 1,000 Hectares

| Country | 2008 (2007/08) | 2009 (2008/09) | change 2009 over 2008 | | 2010 (2009/10) | change 2010 over 2009 | |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|-------------|
| | | | Quantities | (%) | | Quantities | (%) |
| ASEAN | 2,390.59 | 2,286.96 | -103.63 | -4.33 | 2,327.82 | 40.86 | 1.79 |
| Brunei | - | - | - | - | - | - | - |
| Cambodia | 13.30 | 13.53 | 0.23 | 1.75 | 13.77 | 0.24 | 1.74 |
| Indonesia | 460.41 | 473.84 | 13.43 | 2.92 | 478.21 | 4.37 | 0.92 |
| Lao PDR | 18.16 | 18.43 | 0.27 | 1.50 | 22.35 | 3.92 | 21.26 |
| Malaysia | - | - | - | - | - | - | - |
| Myanmar | 168.58 | 165.27 | -3.31 | -1.96 | 160.12 | -5.15 | -3.12 |
| Philippines | 405.33 | 391.90 | -13.43 | -3.31 | 353.79 | -38.11 | -9.72 |
| Singapore | - | - | - | - | - | - | - |
| Thailand | 1,054.11 | 963.65 | -90.46 | -8.58 | 1,009.58 | 45.93 | 4.77 |
| Vietnam | 270.70 | 260.33 | -10.37 | -3.83 | 290.00 | 29.67 | 11.40 |

Table 27 Sugarcane harvested area in ASEAN countries, 2008-2010

Unit: 1,000 Hectares

| Country | 2008 (2007/08) | 2009 (2008/09) | change 2009 over 2008 | | 2010 (2009/10) | change 2010 over 2009 | |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|-------------|
| | | | Quantities | (%) | | Quantities | (%) |
| ASEAN | 2,352.37 | 2,243.78 | -108.59 | -4.62 | 2,277.23 | 33.45 | 1.49 |
| Brunei | - | - | - | - | - | - | - |
| Cambodia | 13.30 | 13.48 | 0.19 | 1.40 | 13.71 | 0.23 | 1.68 |
| Indonesia | 436.51 | 443.83 | 7.32 | 1.68 | 446.15 | 2.32 | 0.52 |
| Lao PDR | 17.06 | 18.43 | 1.37 | 8.05 | 22.35 | 3.92 | 21.26 |
| Malaysia | - | - | - | - | - | - | - |
| Myanmar | 165.90 | 161.78 | -4.12 | -2.48 | 157.69 | -4.11 | -2.53 |
| Philippines | 405.33 | 391.90 | -13.43 | -3.31 | 353.79 | -38.11 | -9.72 |
| Singapore | - | - | - | - | - | - | - |
| Thailand | 1,043.57 | 954.01 | -89.56 | -8.58 | 993.54 | 39.53 | 4.14 |
| Vietnam | 270.70 | 260.33 | -10.37 | -3.83 | 290.00 | 29.67 | 11.40 |

Table 28 Sugarcane yield in ASEAN countries, 2008-2010

Unit: Ton/Hectare

| Country | 2008 (2007/08) | 2009 (2008/09) | change 2009 over 2008 | | 2010 (2009/10) | change 2010 over 2009 | |
|--------------|-------------------|-------------------|--------------------------|--------------|-------------------|--------------------------|-------------|
| | | | Quantities | (%) | | Quantities | (%) |
| ASEAN | 61.54 | 59.50 | -2.04 | -3.31 | 59.96 | 0.46 | 0.77 |
| Brunei | - | - | - | - | - | - | - |
| Cambodia | 28.97 | 25.97 | -3.00 | -10.36 | 29.63 | 3.66 | 14.11 |
| Indonesia | 39.74 | 41.74 | 2.00 | 5.03 | 41.68 | -0.04 | -0.12 |
| Lao PDR | 43.92 | 44.47 | 0.55 | 1.25 | 47.57 | 3.10 | 6.96 |
| Malaysia | - | - | - | - | - | - | - |
| Myanmar | 59.27 | 60.23 | 0.96 | 1.62 | 60.64 | 0.41 | 0.68 |
| Philippines | 66.11 | 56.13 | -9.98 | -15.10 | 62.61 | 6.48 | 11.54 |
| Singapore | - | - | - | - | - | - | - |
| Thailand | 70.43 | 70.04 | -0.40 | -0.56 | 69.26 | -0.78 | -1.12 |
| Vietnam | 59.64 | 58.56 | -1.08 | -1.80 | 55.00 | -3.56 | -6.09 |

Table 29 Sugarcane damage area in ASEAN by cause of damage, 2009/10 crop year

| Country | Cause of Damage (Hectares) | | | | | | Total |
|--------------|----------------------------|---------------|---------------|----------|--------------|-------------|---------------|
| | Flood | Drought | Pests | Diseases | Others | Not specify | |
| ASEAN | 50 | 10,445 | 37,656 | - | 2,434 | - | 50,585 |
| Brunei | - | - | - | - | - | - | - |
| Cambodia | 50 | - | - | - | - | - | 50 |
| Indonesia | - | - | 32,056 | - | - | - | 32,056 |
| Lao PDR. | - | - | - | - | - | - | - |
| Malaysia | - | - | - | - | - | - | - |
| Myanmar | - | - | - | - | 2,434 | - | 2,434 |
| Philippines | - | - | - | - | - | - | - |
| Singapore | - | - | - | - | - | - | - |
| Thailand | - | 10,445 | 5,600 | - | - | - | 16,045 |
| Vietnam | n.a. | n.a. | n.a. | n.a. | n.a. | - | n.a. |

Note: n.a. = not available

Table 30 Sugar balance sheet of ASEAN countries, 2009

Unit : Ton

| Country | Supply | | | | Demand | | | |
|--------------|------------------|-------------------|------------------|-------------------|----------------------|------------------|------------------|-------------------|
| | Beginning Stock | Production | Imports | Total | Domestic Utilization | Exports | Ending stock | Total |
| ASEAN | 1,908,579 | 14,536,180 | 1,785,600 | 18,230,358 | 11,170,546 | 5,327,382 | 1,732,430 | 18,230,358 |
| Brunei | - | - | - | - | - | - | - | - |
| Cambodia | 1,051 | 35,016 | 0 | 36,066 | 34,840 | 0 | 1,226 | 36,066 |
| Indonesia | 961,203 | 2,849,769 | 1,376,527 | 5,187,499 | 4,187,299 | 1,357 | 998,843 | 5,187,499 |
| Lao PDR | n.a. | 81,974 | 747 | 82,720 | 17,371 | 64,546 | 803 | 82,720 |
| Malaysia | - | - | - | - | - | - | - | - |
| Myanmar | 0 | 974,422 | nil | 974,422 | 973,552 | 870 | 0 | 974,422 |
| Philippines | n.a. | 2,137,891 | 16 | 2,137,907 | 2,114,203 | 23,703 | n.a. | 2,137,907 |
| Singapore | - | - | 346,804 | 346,804 | 242,825 | 103,979 | 0 | 346,804 |
| Thailand | 772,725 | 7,186,592 | 506 | 7,959,823 | 2,284,455 | 5,098,927 | 576,441 | 7,959,823 |
| Vietnam | 173,600 | 1,270,517 | 61,000 | 1,505,117 | 1,316,000 | 34,000 | 155,117 | 1,505,117 |

Table 31 Sugar balance sheet of ASEAN countries, 2010

Unit : Ton

| Country | Supply | | | | Demand | | | |
|--------------|------------------|-------------------|------------------|-------------------|----------------------|----------------------|------------------|-------------------|
| | Beginning Stock | Production | Imports | Total | Domestic Utilization | Exports | Ending stock | Total |
| ASEAN | 1,732,430 | 14,374,921 | 1,758,997 | 17,866,347 | 11,073,161 | 5,005,628 | 1,787,558 | 17,866,347 |
| Brunei | - | - | - | - | - | - | - | - |
| Cambodia | 1,226 | 40,626 | 0 | 41,852 | 38,798 | 0 | 3,054 | 41,852 |
| Indonesia | 998,843 | 2,861,103 | 1,403,040 | 5,262,986 | 4,175,622 | nil | 1,087,364 | 5,262,986 |
| Lao PDR | 803 | 106,324 | 957 | 108,084 | 34,587 | 70,795 | 2,702 | 108,084 |
| Malaysia | - | - | - | - | - | - | - | - |
| Myanmar | n.a. | 956,198 | nil. | 956,198 | 950,365 | 5,834 | n.a. | 956,198 |
| Philippines | n.a. | 2,152,789 | 0 | 2,152,789 | 2,128,789 | 24,000 ^{1/} | n.a. | 2,152,789 |
| Singapore | 0 | - | 350,000 | 350,000 | 245,000 | 105,000 | 0 | 350,000 |
| Thailand | 576,441 | 6,928,713 | nil. | 7,505,154 | 2,100,000 | 4,800,000 | 605,154 | 7,505,154 |
| Vietnam | 155,117 | 1,329,167 | 5,000 | 1,489,284 | 1,400,000 | 0 | 89,284 | 1,489,284 |

Note: 1/ The value is estimated by AFSIS Project

n.a. = not available

nil = very small amount

**Table 32 Ratio of sugar production to domestic utilization in ASEAN countries
(Self-sufficiency ratio)**

Unit: Ton

| Country | 2009 | | | 2010 | | |
|--------------|-------------------|----------------------|---------------|-------------------|----------------------|---------------|
| | Production | Domestic Utilization | Ratio (%) | Production | Domestic Utilization | Ratio (%) |
| ASEAN | 14,536,180 | 11,170,546 | 130.13 | 14,374,921 | 11,073,161 | 129.82 |
| Brunei | - | - | - | - | - | - |
| Cambodia | 35,016 | 34,840 | 100.50 | 40,626 | 38,798 | 104.71 |
| Indonesia | 2,849,769 | 4,187,299 | 68.06 | 2,861,103 | 4,175,622 | 68.52 |
| Lao PDR | 81,974 | 17,371 | 471.89 | 106,324 | 34,587 | 307.41 |
| Malaysia | - | - | - | - | - | - |
| Myanmar | 974,422 | 973,552 | 100.09 | 956,198 | 950,365 | 100.61 |
| Philippines | 2,137,891 | 2,114,203 | 101.12 | 2,152,789 | 2,128,789 | 101.13 |
| Singapore | - | 242,825 | - | - | 245,000 | - |
| Thailand | 7,186,592 | 2,284,455 | 314.59 | 6,928,713 | 2,100,000 | 329.94 |
| Vietnam | 1,270,517 | 1,316,000 | 96.54 | 1,329,167 | 1,400,000 | 94.94 |

**Table 33 Ratio of sugar beginning stock to domestic utilization in ASEAN countries
(Food security ratio)**

Unit: Ton

| Country | 2009 | | | 2010 | | |
|--------------|------------------|----------------------|--------------|------------------|----------------------|--------------|
| | Beginning Stock | Domestic Utilization | Ratio (%) | Beginning Stock | Domestic Utilization | Ratio (%) |
| ASEAN | 1,908,579 | 11,170,546 | 17.09 | 1,732,430 | 11,073,161 | 15.65 |
| Brunei | - | - | - | - | - | - |
| Cambodia | 1,051 | 34,840 | 3.02 | 1,226 | 38,798 | 3.16 |
| Indonesia | 961,203 | 4,187,299 | 22.96 | 998,843 | 4,175,622 | 23.92 |
| Lao PDR | n.a. | 17,371 | - | 803 | 34,587 | 2.32 |
| Malaysia | - | - | - | - | - | - |
| Myanmar | n.a. | 973,552 | - | n.a. | 950,365 | - |
| Philippines | n.a. | 2,114,203 | - | n.a. | 2,128,789 | - |
| Singapore | 0 | 242,825 | - | 0 | 245,000 | - |
| Thailand | 772,725 | 2,284,455 | 33.83 | 576,441 | 2,100,000 | 27.45 |
| Vietnam | 173,600 | 1,316,000 | 13.19 | 155,117 | 1,400,000 | 11.08 |

Note: n.a. = not available

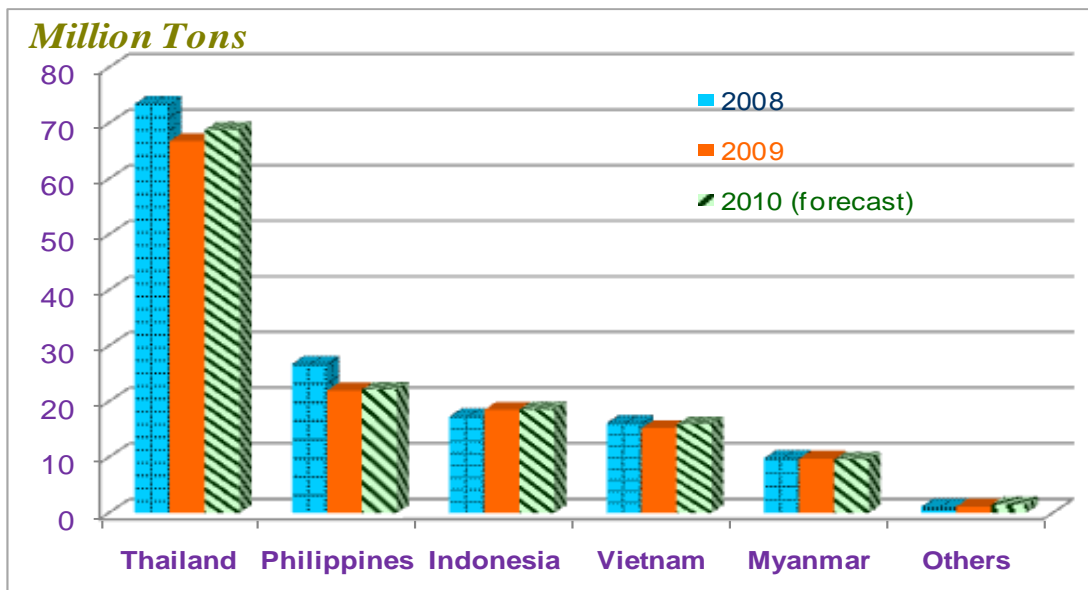


Figure 31 Sugarcane production of selected countries in ASEAN, 2008-2010

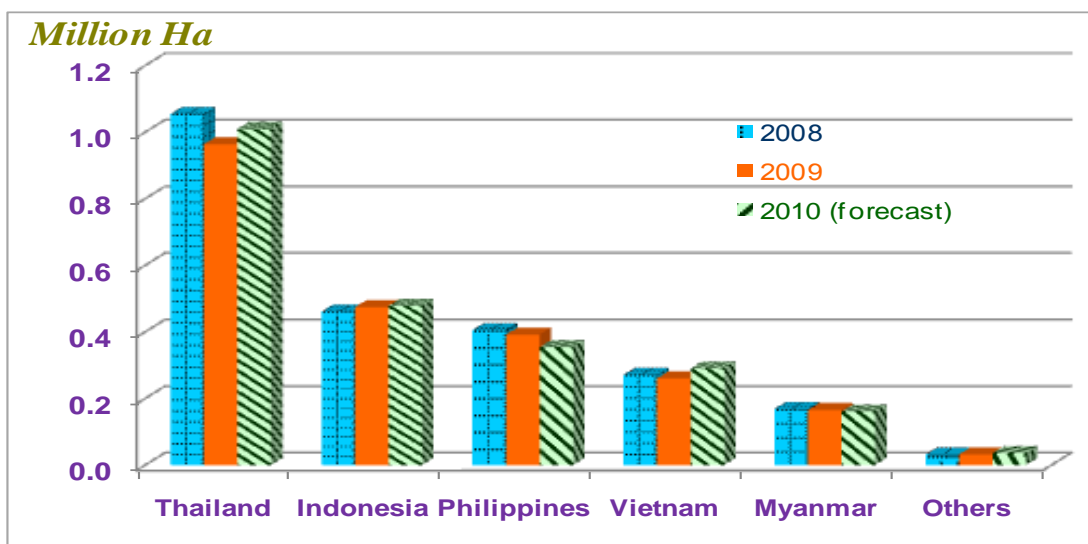


Figure 32 Sugarcane planted area of selected countries in ASEAN, 2008-2010

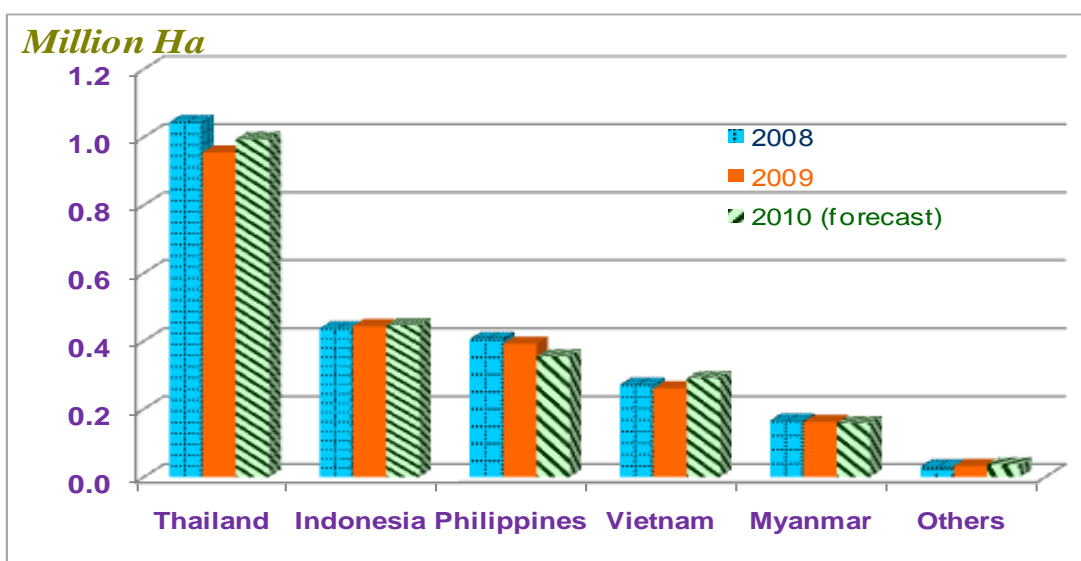


Figure 33 Sugarcane harvested area of selected countries in ASEAN, 2008-2010

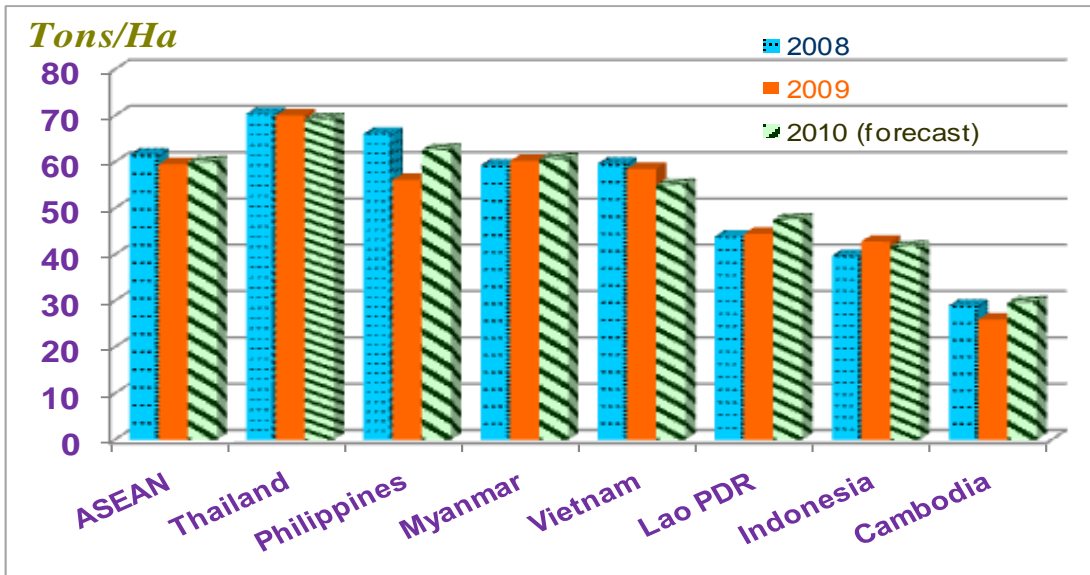


Figure 34 Sugarcane yield of countries in ASEAN, 2008-2010

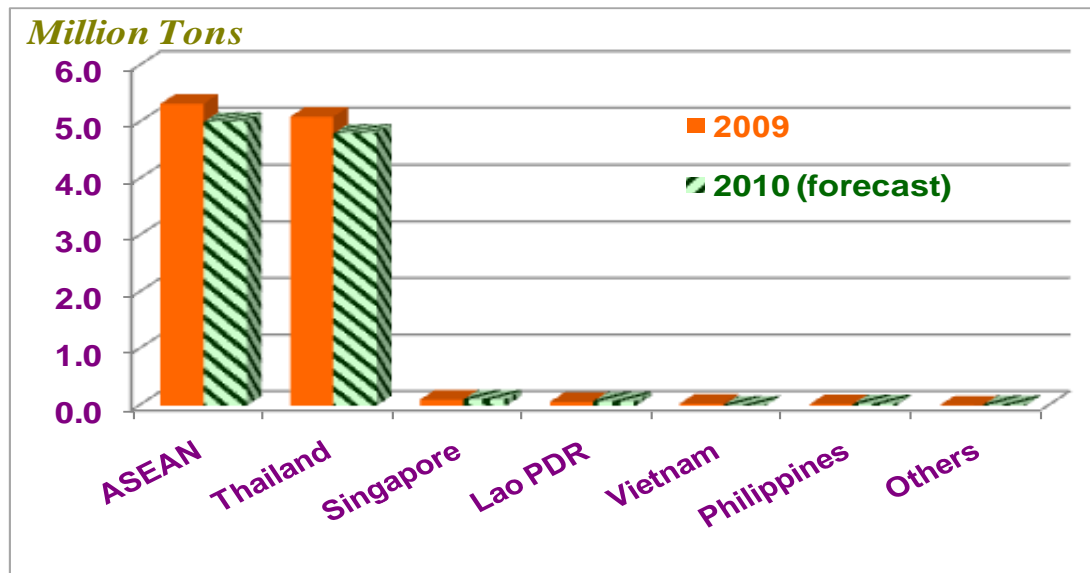


Figure 35 Amount of sugar export (million tons) of selected countries in ASEAN in 2009-2010

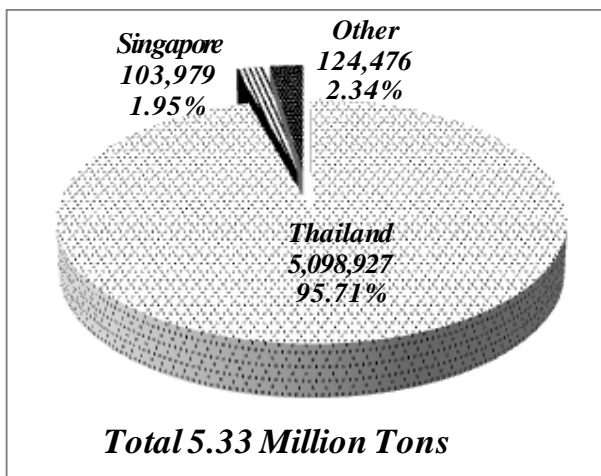


Figure 36 Share of sugar export (ton) among ASEAN countries, 2009

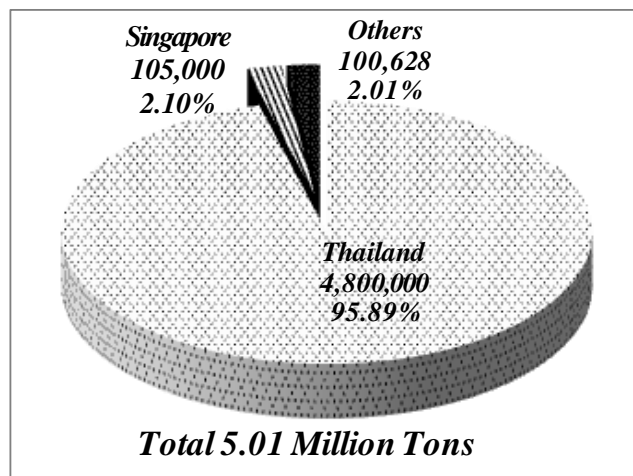


Figure 37 Share of sugar export (ton) among ASEAN countries, 2010

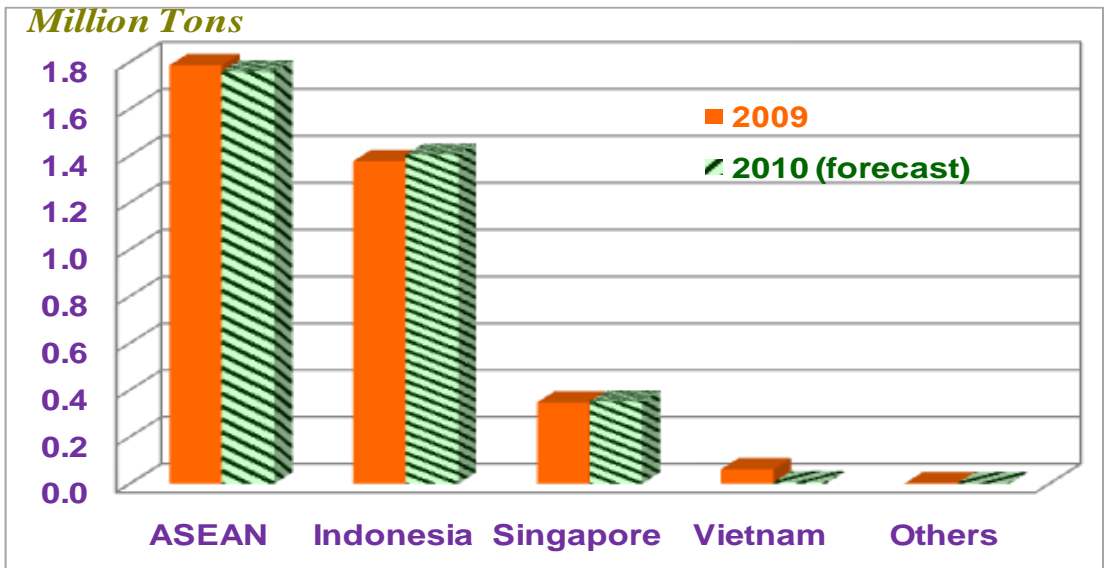


Figure 38 Amount of sugar import (million tons) by selected countries in ASEAN in 2009-2010

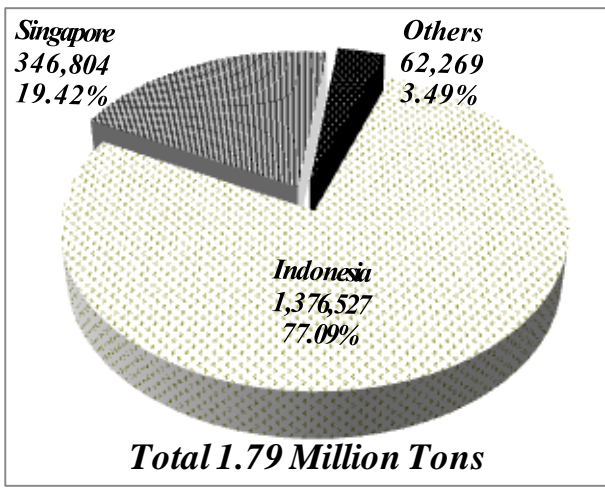


Figure 39 Share of sugar import (ton) among ASEAN countries, 2009

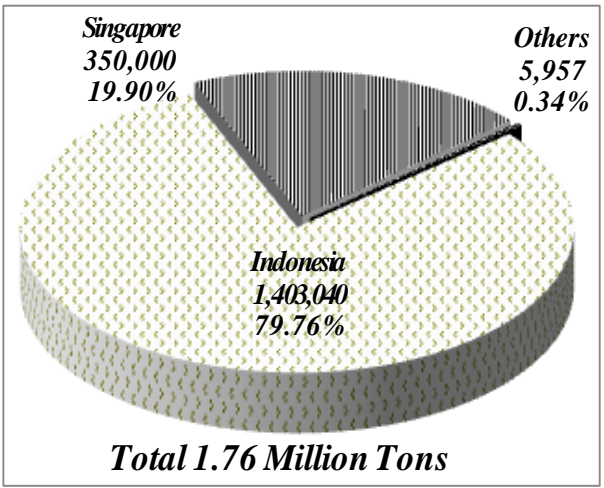


Figure 40 Share of sugar import (ton) among ASEAN countries, 2010

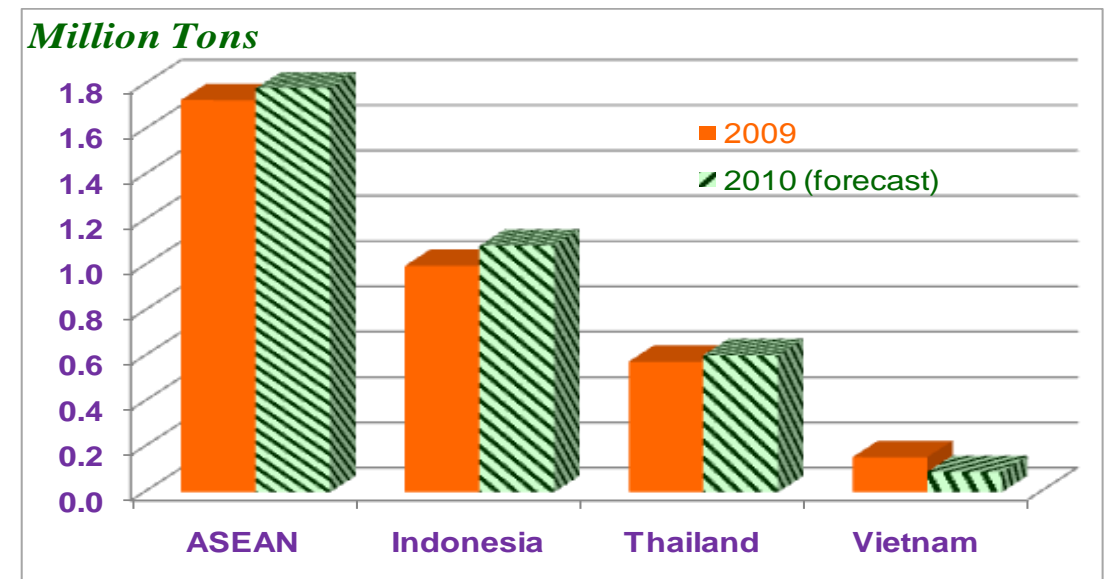


Figure 41 Amount of ending stock of sugar in ASEAN countries

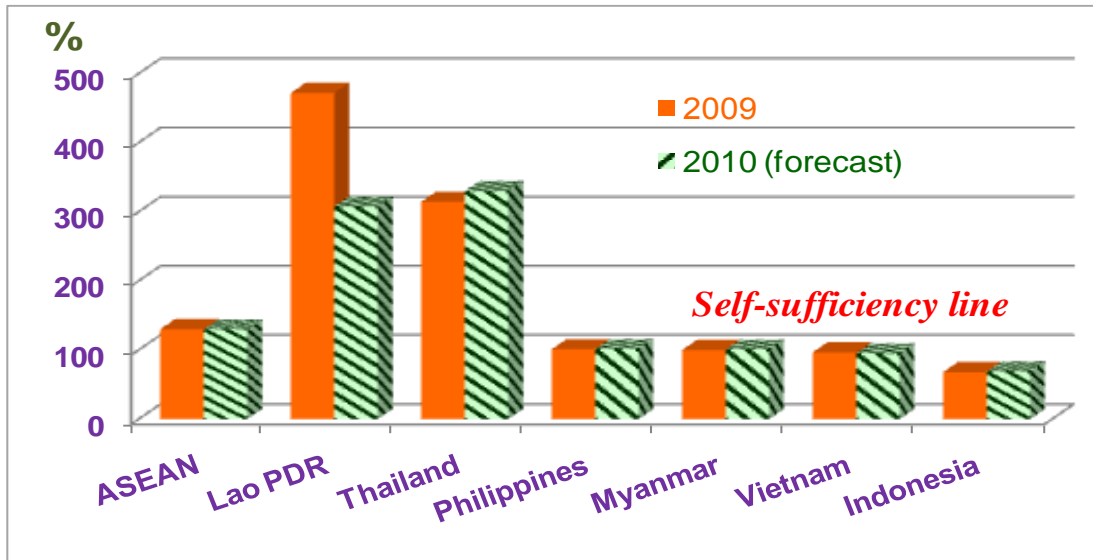


Figure 42 Ratio of sugar production to domestic utilization in ASEAN countries (Self-sufficiency ratio)

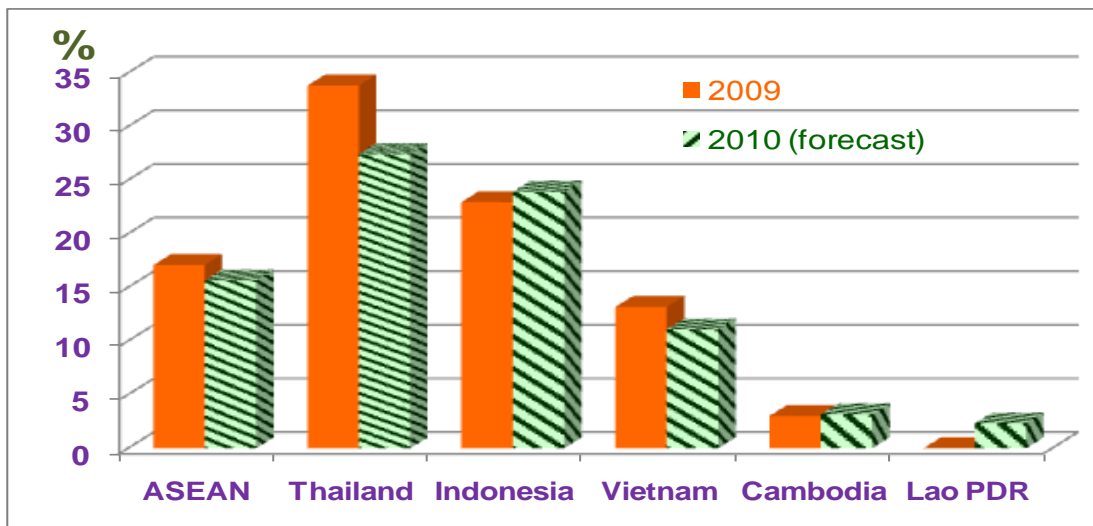


Figure 43 Ratio of sugar beginning stock to domestic utilization in ASEAN countries (Food security ratio)

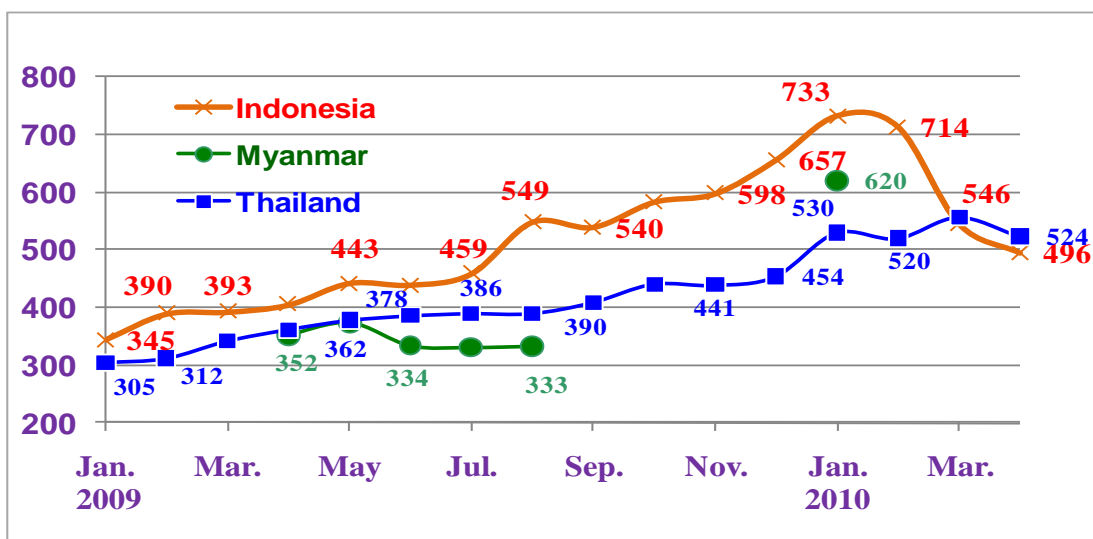


Figure 44 FOB price (US\$) of white sugar of selected countries in ASEAN in 2009-2010

Explanatory notes

Production of Paddy for 2010

Brunei:

- Wet season refers to the crop harvested during August to October 2010.
- Dry season refers to the crop harvested during February to April 2010.

Cambodia:

- Wet-season refers to the crop harvested during August to December 2009.
- Dry-season refers to the crop harvested during January to March 2010.

Indonesia:

- Sumatera refers to the crop harvested during May to July 2010 and the crop harvested during November 2010 to January 2011.
- Jawa Bali and West Nusa refer to the crop harvested during April to July 2010 and the crop harvested during October to December 2010.
- East Nusa refers to the crop harvested during June to September 2010.
- Kalimantan refers to the crop harvested during March to June 2010 and the crop harvested during August to November 2010.
- Sulawesi refers to the crop harvested during June to August 2010 and the crop harvested during November 2010 to January 2011.
- Maluku and Papua refer to the crop harvested during April to July 2010 and the crop harvested during August to November 2010.

Lao PDR:

- Wet-season refers to the crop harvested during September 2009 to January 2010.
- Dry-season refers to the crop harvested during February to May 2010.

Malaysia:

- Wet-season refers to the crop harvested during December 2009 to June 2010.
- Dry-season refers to the crop harvested during July to November 2010.

Myanmar:

- Wet-season refers to the crop harvested during August 2009 to January 2010.
- Dry-season refers to the crop harvested during February to August 2010.

Philippines:

- Wet-season refers to the crop harvested during September to December 2010.
- Dry-season refers to the crop harvested during February to May 2010.

Thailand :

- Wet-season refers to the crop harvested during August 2009 to April 2010. The bulk of harvest occurred in November - December 2009.
- Dry-season refers to the crop harvested during February to October 2010.

Vietnam:

Spring-season

- North refers to the crop harvested during June to July 2010.
- South refers to the crop harvested during February to May 2010

Autumn-season

- North refers to the crop harvested during August to September 2010
- South refers to the crop harvested during July to September 2010

Winter-season

- North refers to the crop harvested during October to November 2010
- South refers to the crop harvested during October 2010 to January 2011

Production of Maize for 2010

Cambodia:

- 1st crop harvested during February to March 2010.
- 2nd crop harvested during August to October 2010.

Indonesia:

- 1st crop harvested during January to October 2010.
- 2nd crop will be harvested during January to October 2010.

Lao PDR:

- 1st crop harvested during June to July 2010.
- 2nd crop will be harvested during September to December 2010.

Malaysia:

- 1st crop harvested during April to May 2010.
- 2nd crop will be harvested during September to November 2010.

Myanmar:

- 1st crop harvested during January to March 2010.
- 2nd crop will be harvested during August to November 2010.

Philippines:

- 1st crop harvested during February to May 2010.
- 2nd crop will be harvested during July to November 2010.

Thailand:

- 1st crop harvested during February to July 2010.
- 2nd crop will be harvested during August 2010 to January 2011.

Vietnam:

- 1st crop harvested during January to March 2010.
- 2nd crop will be harvested during April to September 2010.
- 3rd crop will be harvested during July 2010 to January 2011.

Production of Sugarcane for 2010

Cambodia:

- 1st crop harvested during April to June 2010.
- 2nd crop will be harvested during October to December 2010.

Indonesia:

- 1st crop harvested during May to July 2010.
- 2nd crop will be harvested during September to November 2010.

Lao PDR:

- The crop harvested during December 2009 to June 2010.

Myanmar:

- The crop harvested during October 2009 to April 2010.

Philippines:

- The crop harvested during October 2009 to Jun 2010.

Thailand:

- The crop harvested during November 2009 to May 2010.

Vietnam:

- The crop harvested during November 2009 to May 2010.

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

NA : The data is not available due to there is no collecting or reporting systems in the country yet.

Nil : Small amount

Table Milling Rate of Rice

Unit: ton

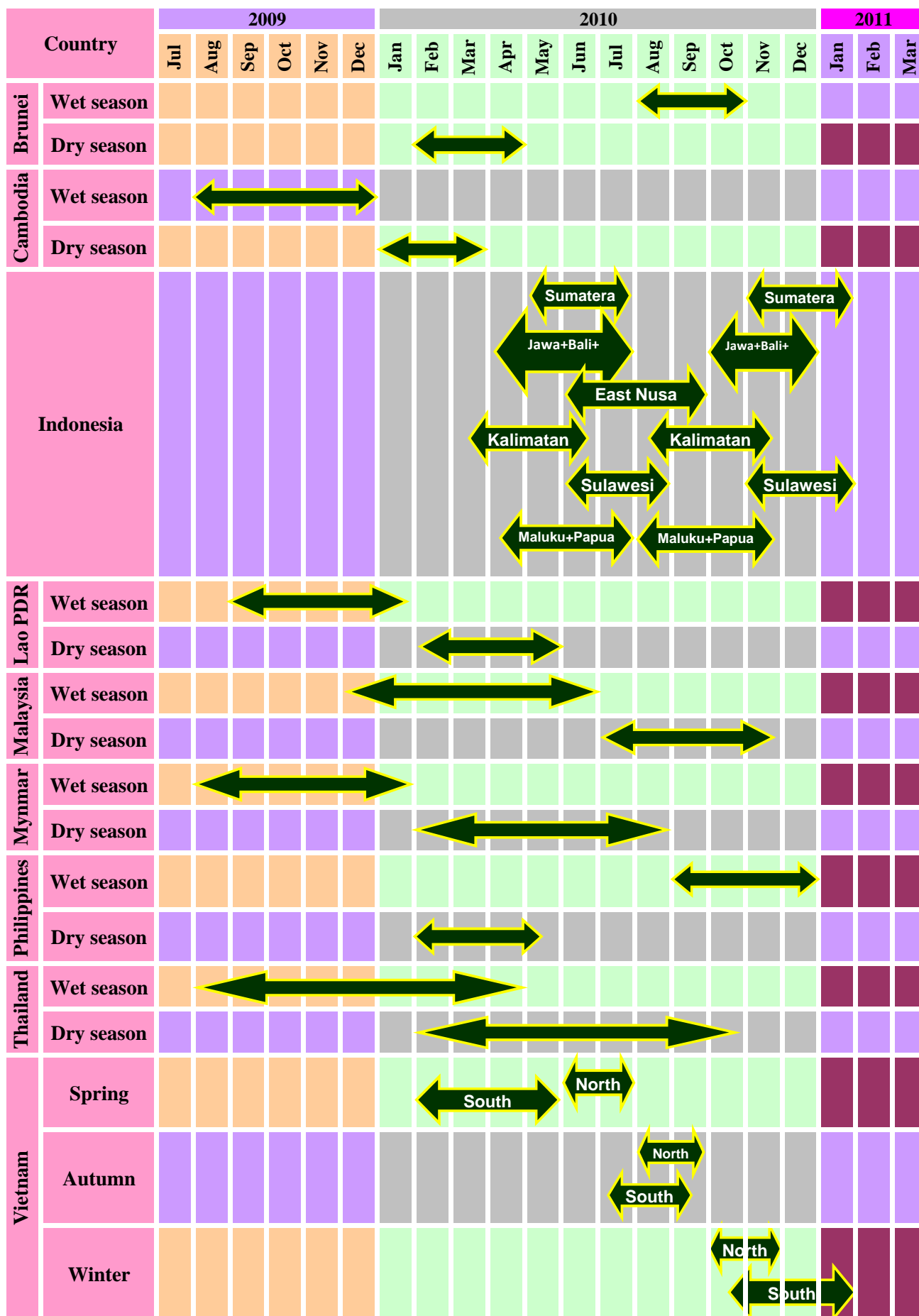
| Country | Paddy | Rice |
|----------------|--------------|-------------|
| ASEAN | 1 | 0.641 |
| Brunei | 1 | 0.650 |
| Cambodia | 1 | 0.640 |
| Indonesia | 1 | 0.632 |
| Lao PDR | 1 | 0.600 |
| Malaysia | 1 | 0.631 |
| Myanmar | 1 | 0.630 |
| Philippines | 1 | 0.654 |
| Thailand | 1 | 0.660 |
| Vietnam | 1 | 0.650 |

Table Extraction Rate of Sugar

Unit: tons

| Country | Sugarcane | Sugar |
|----------------|------------------|--------------|
| ASEAN | 1000 | 105.284 |
| Brunei | - | - |
| Cambodia | 1000 | 100.000 |
| Indonesia | 1000 | 153.846 |
| Lao PDR | 1000 | 100.000 |
| Malaysia | - | - |
| Myanmar | 1000 | 100.000 |
| Philippines | 1000 | 97.182 |
| Thailand | 1000 | 100.697 |
| Vietnam | 1000 | 83.333 |

Rice crop calendar (harvested months) for crop year 2009/10 (2010) in ACO-4 report



ANNEX 2

Maize crop calendar (harvested months) for crop year 2009/10 (2010) in ACO-4 report

| Country | Crop | 2009 | | | 2010 | | | | | | | | | | | | 2011 | |
|-------------|------|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|
| | | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb |
| Cambodia | 1st | | | | | ↔ | | | | | | | | | | | | |
| | 2nd | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | ↔ | ↔ | █ | █ | █ | █ |
| Indonesia | 1st | | | | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | | | |
| | 2nd | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ |
| Lao PDR | 1st | | | | | | | | | ↔ | ↔ | | | | | | | |
| | 2nd | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | ↔ | ↔ | ↔ | █ | █ | █ |
| Malaysia | 1st | | | | | | | ↔ | ↔ | | | | | | | | | |
| | 2nd | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | ↔ | ↔ | █ | █ | █ | █ |
| Myanmar | 1st | | | | ↔ | ↔ | | | | | | | | | | | | |
| | 2nd | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | ↔ | ↔ | ↔ | █ | █ | █ |
| Philippines | 1st | | | | | ↔ | ↔ | ↔ | | | | | | | | | | |
| | 2nd | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | ↔ | ↔ | ↔ | █ | █ | █ | █ |
| Thailand | 1st | | | | | ↔ | ↔ | ↔ | ↔ | | | | | | | | | |
| | 2nd | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | █ | ↔ | ↔ | ↔ | ↔ | █ | █ |
| Vietnam | 1st | | | | ↔ | ↔ | | | | | | | | | | | | |
| | 2nd | █ | █ | █ | █ | █ | █ | █ | ↔ | ↔ | ↔ | ↔ | █ | █ | █ | █ | █ | █ |
| | 3rd | | | | | | | | | | | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ | ↔ |

List of Delegates
The Forth Agricultural Commodity Outlook Committee Meeting
Phuket Graceland Resort & Spa, Phuket, Thailand
17 - 18 June 2010

| Name | Position |
|------------------------------------|--|
| 1. Mr. Montol Jeamchareon | AFSIS Project Manager Chairman of the Meeting Ministry of Agriculture and Cooperatives Thailand |
| 2. Dr.Haji Anjah Haji Abdul Rahman | Senior Livestock Husbandry Officer Department of Agriculture Ministry of Industry and Primary Resources Brunei Darussalam |
| 3. Mr.Tuor Vannak | Deputy Chief of Statistics Office Department of Planning and Statistics Ministry of Agriculture Forestry and Fisheries Cambodia |
| 4. Mr. Togar Napitupulu | Senior Lecturer Graduate School Binus University Indonesia |
| 5. Ms. Vivanh Souvannamethy | Deputy Director Center for Statistics and Information Department of Planning Ministry of Agriculture and Forestry Lao PDR |
| 6. Ms.Yeoh Gim Bee | Undersecretary Strategic Planning & International Division Ministry of Agriculture and Agro-Based Industry Malaysia |
| 7. Dr. Win Htut | Assistant Director Settlement and Land Records Department Ministry of Agriculture and Irrigation Myanmar |
| 8. Ms.Nareenat Roonnaphai | Deputy Secretary-General Office of Agricultural Economics Ministry of Agriculture and Cooperatives Thailand |

ANNEX 4

9. Mr. Ha Hai Ly
Senior Statistician
Center for Information Technology and Statistics
Ministry of Agriculture and Rural Development
Vietnam
10. Mr. Ryuki IKEDA
Deputy Director
Statistics Planning Division
Statistics Department Minister's Secretariat
Ministry of Agriculture Forestry and Fisheries
Japan
11. Dr. Apichart Pongsrihadulchai
AFSIS Consultant
Adviser to the Minister
Ministry of Agriculture and Cooperatives
Thailand