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Agricultural Indicators System

2017-2021

Food Availability and Sufficiency

The **Agricultural Indicators System (AIS)**
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FOREWORD

The Agricultural Indicators System (AIS) is one of the statistical indicator frameworks maintained by the Philippine Statistics Authority (PSA). It contains eight modules which are updated and released annually. These modular reports provide measures for assessing socio-economic changes in the agriculture sector, characterizing the agrarian structure of the economy, and situating agriculture in the national economy.

This is the sixth module entitled Food Availability and Sufficiency. It provides information on per capita production, per capita net food disposable, and per capita supply of calories, protein, and fats of selected agricultural commodities. Further, this module is supplemented with statistics on self-sufficiency ratio and import dependency ratio of selected agricultural commodities, and data on rice and corn stocks. The reference years are 2017 to 2021.

The AIS aims to cover more agricultural development indicators to support the information needs of our data users. We encourage the readers to give their comments and suggestions on the improvement of the AIS, in general, and this report, in particular.

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Quezon City, Philippines
November 2022

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TECHNICAL NOTES

1. The report highlights a five-year data series on indicators relating to Food Availability and Sufficiency of selected agricultural commodities.

2. Indicators on Food Availability are the following: indices of per capita production, per capita net food disposable (NFD), and per capita supply of calories, protein, and fats of selected agricultural commodities. For Food Sufficiency, indicators presented in the report are the following: Self-Sufficiency Ratio (SSR) of selected agricultural commodities, Import Dependency Ratio (IDR) of selected agricultural commodities, stocks of rice and corn: highest and lowest levels and percentage shares of households, commercial warehouses, and National Food Authority (NFA), and total stocks of rice and corn by month.

3. The basic data is sourced from the Supply Utilization Accounts (SUA) for Selected Agricultural Commodities compiled by the PSA. The SUA provides a framework for physical accounting of agricultural commodities in their "raw/primary" forms.

4. Data on rice and corn stocks are generated from the Rice and Corn Stocks Survey (RCSS: Households, and RCSS: Commercial) of the PSA, while Government stocks are obtained from the NFA.

5. The Nutritive Factor Rate is sourced from the Philippine Food Composition Tables of the Food and Nutrition Research Institute.

   Concepts and Definitions

   Per Capita Production – refers to the volume of production of a particular commodity available for each member of the population. Per capita production is derived by dividing the volume of production of a specific commodity by the number of population.

$$Per\ Capita\ Production = \frac{Volume\ of\ Production\ (by\ commodity)}{Population}$$

   Annual Per Capita Production Index – provides information on the change in the per capita production of the commodity in a given year compared to a base year. It measures the capacity of the country's agriculture sector to produce food commodities in pace with the growth of the population.

$$Annual\ Per\ Capita\ Production\ Index = \left[\frac{\begin{matrix} Annual\ Per\ Capita \\ Production \\ in\ a\ given\ year \end{matrix}}{\begin{matrix} Annual\ Per\ Capita \\ Production \\ in\ the\ base\ year \end{matrix}} \right] \times 100$$

Net Food Disposable (NFD) - refers to the volume of food commodity available in its original (unprocessed) form for human consumption. NFD is the remaining balance after all the "use" parameters are taken into account. The net food disposable in per capita per year and in per capita per day are expressed in kilograms and grams, respectively.

Per Capita Net Food Disposable – refers to the food commodity available in its original (unprocessed) form for each member of the population.

$$\begin{matrix} Daily\ Per\ Capita \\ Net\ Food\ Disposable\ Index \end{matrix} = \left[\frac{\begin{matrix} Daily\ Per\ Capita\ Net \\ Food\ Disposable \\ in\ a\ given\ year \end{matrix}}{\begin{matrix} Daily\ Per\ Capita\ Net \\ Food\ Disposable \\ in\ the\ base\ year \end{matrix}} \right] \times 100$$

Daily Per Capita Net Food Disposable Index – indicates the movement of food available for consumption of each member of the population in a given year relative to a base year. The data on daily per capita net food disposable in the SUA is expressed in grams.

Daily Per Capita Supply of Calories, Protein, and Fats – reflects the nutrient content of the different food intake measured on a per capita per day basis. This indicator will show what food items contribute the highest content of calories, protein and fats.

This is derived by:

Daily Per Capita Supply = Daily Per Capita NFD x Nutritive Factor Rate

Population - the mid-year population estimates of the PSA based on the 2015 Census of Population were used for the estimation of the per capita food supply and the per capita food nutrient.

Self-Sufficiency Ratio (SSR) – shows the magnitude of production in relation to domestic utilization. It indicates the extent to which a country relies on its own production resources, i.e. the higher the ratio the greater the self-sufficiency. A ratio of less than 100 percent indicates inadequacy of food production to cope with the demand of the population; equal to 100 percent indicates that food production capacity of the sector is just enough to support the food needs of the population; ratio of greater than 100 percent indicates that domestic production is more than enough to support the domestic requirements.

$$SSR = \left[\frac{Production}{Production + Import - Export} \right] \times 100$$

Import Dependency Ratio (IDR) – indicates how much of the available domestic food supply comes from imports. The complement of this ratio to 100 would represent that part of the domestic food supply that has been produced in the country itself. The higher ratio implies greater dependency on importation.

$$IDR = \left[\frac{Import}{Production + Import - Export} \right] \times 100$$

Stock – supply stored for future use. The country's rice and corn stocks inventory are generated from three sectors, namely: household, commercial, and government stocks (National Food Authority).

Percentage Shares of Households, Commercial Warehouses, and NFA – indicate the biggest/least source of rice and corn stocks in a given period.

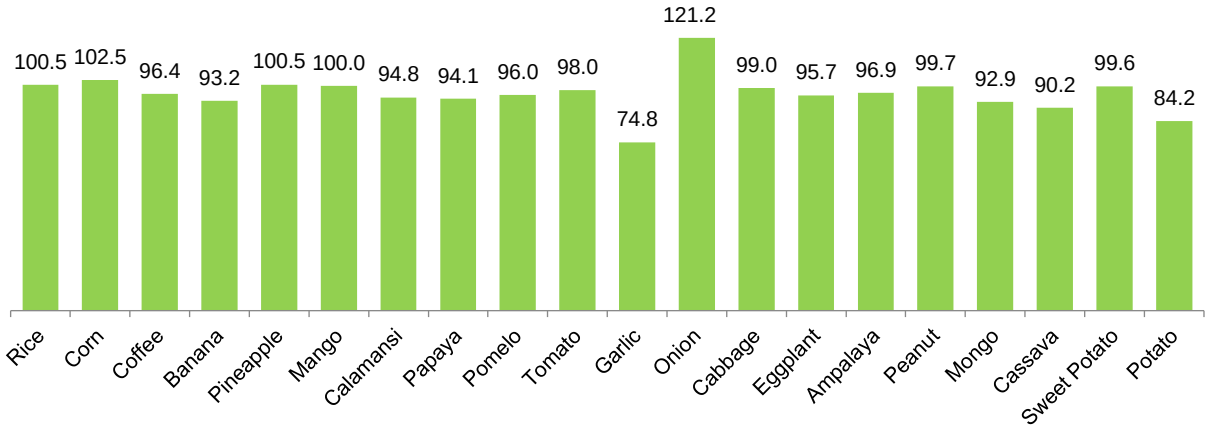
$$\%\ Share\ of\ Stocks\ by\ Sector\ to\ Total\ Stocks = \left[\frac{Stocks\ by\ Sector}{Total\ Stocks} \right] \times 100$$

FOOD AVAILABILITY AND SUFFICIENCY

Per Capita Production

Per capita production refers to the volume of production of a particular commodity available for each member of the population. Annual per capita production index provides information on the change in the per capita production of the commodity in a given year compared to a base year. It measures the capacity of the country's agriculture sector to produce food commodities in pace with the growth of the population.

Figure 1. Indices of Annual Per Capita Production of Selected Agricultural Commodities, Philippines, 2021
2018=100
(in percent)

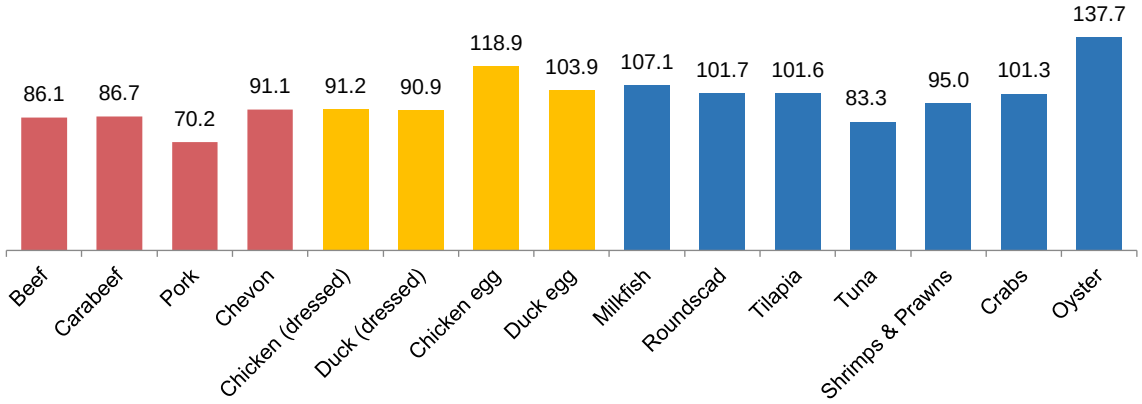


In 2021, the annual per capita production of rice went up to 118.46 kilograms and was above its 2018 record. This corresponds to a production index of 100.5 percent which means that the 2021 per capita production of rice was 0.5 percent higher than the 2018 level. Similarly, per capita production of corn increased to 75.32 kilograms or by 2.5 percent from its 2018 level. On the other hand, lower than the base year per person production was reported in coffee at -3.6 percent.

Among the reference fruits, the per capita production of pineapple at 25.95 kilograms was higher than the base year record by 0.5 percent. For mango, per capita production in 2021 equaled its base year level. Meanwhile, per capita production of banana, calamansi, papaya, and pomelo were lower than their respective base year's per capita production.

In the case of vegetables and rootcrops, onion with per capita production of 1.98 kilograms was 21.2 percent higher than its base year's level. Below the base year's per capita production levels were reported in tomato, garlic, cabbage, eggplant, ampalaya, peanut, mongo, cassava, sweet potato, and potato.

Figure 1. Indices of Annual Per Capita Production … (Concluded)



Source: Philippine Statistics Authority

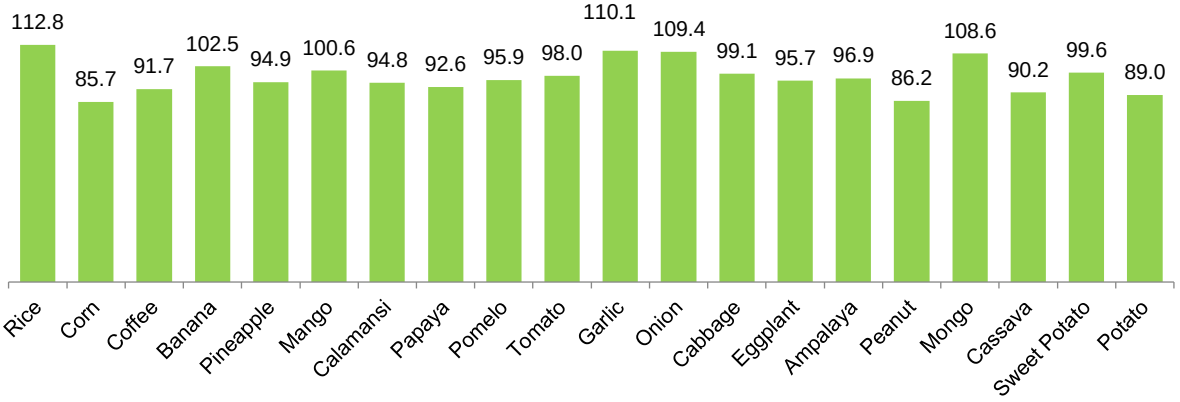
The 2021 per capita production of beef, carabeef, pork, and chevon were below their base year's records ranging from -8.9 percent to -29.8 percent. For poultry products, the per capita production of chicken and duck in 2021 remained below their respective base year's level by -8.8 percent and -9.1 percent. Above the 2018 per capita production level were observed in chicken egg by 18.9 percent and duck egg by 3.9 percent.

Majority of the reference fishery products reported per capita production gains in 2021 as compared with their 2018 records. Per capita production of oyster at 0.38 kilogram had the biggest increment of 37.7 percent from its 2018 level. This was followed by milkfish which was 7.1 percent above its base year per person production. Meanwhile, the per capita production of tuna, and shrimps and prawns were -16.7 percent and -5.0 percent lower than their 2018 records, respectively. (Table 1 and Figure 1)

Daily Per Capita Net Food Disposable (NFD)

Net Food Disposable (NFD) refers to the volume of commodity available in its original (unprocessed) form for human consumption. The daily net food disposable of a commodity of each member of the population measured through an index indicates the movement of food available for consumption in a specified year relative to a base year.

Figure 2. Indices of Daily Per Capita Net Food Disposable of Selected Agricultural Commodities, Philippines, 2021
2018=100
(in percent)

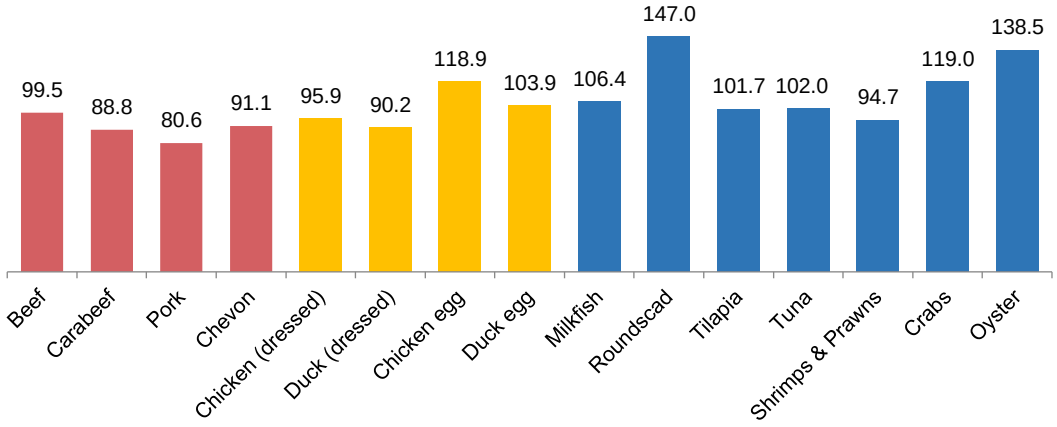


The daily per capita NFD of rice in 2021 at 370.10 grams per day recorded an increment of 12.8 percent from its 2018 level. Meanwhile, the per capita NFD of corn was reduced to 64.95 grams per day in 2021, which was -14.3 percent lower than the base year's record. Lower than the base year's daily per capita NFD was reported in coffee at -8.3 percent.

In 2021, banana indicated the highest per capita NFD at 114.23 kilograms which was up by 2.5 percent from its 2018 level. Similary, above the 2018 per capita NFD was also reported for mango at 0.6 percent. On the other hand, below the base year's levels were reported in pineapple, calamansi, papaya, and pomelo.

Most of the reference vegetables and rootcrops reported lower daily per capita NFD in 2021 as compared to their base year's levels. This included tomato, cabbage, eggplant, ampalaya, peanut, cassava, sweet potato, and potato. Meanwhile, above the 2018 per capita NFD were observed for garlic at 10.1 percent, onion at 9.4 percent, and mongo at 8.6 percent.

Figure 2. Indices of Daily Per Capita Net Food Disposable … (Concluded)



Source: Philippine Statistics Authority

The daily per capita NFD in 2021 of all livestock products were lower than their respective 2018 levels. Pork, which registered the biggest per capita NFD at 35.83 kilograms, was down by -19.4 percent from the base year's record. In the case of poultry products, chicken (dressed) and duck (dressed) were below their base year's levels by -4.1 percent and -9.8 percent, respectively. In contrast, higher than the base year's per capita NFD were reported for chicken egg at 18.9 percent, and duck egg at 3.9 percent.

All the reference fishery products, except shrimps and prawns, were above their respective 2018 records. In 2021, the daily per capita NFD of roundscad had the biggest increment of 47.0 percent from its 2018 level. This was followed by oyster which was 38.5 percent more than its base year record. (Table 2 and Figure 2)

Per Capita Supply of Calories, Protein, and Fats

Information on the nutrient equivalents of the different food intake measured on per capita per day basis will show the food items that contributed the highest content of calories, protein, and fats.

In 2021, rice remained as the major source of calories as it contributed 1,371.56 kilocalories per person per day. High supply of calories was also noted for corn at 231.86 kilocalories per capita per day. Meanwhile, coffee supplied 0.57 kilocalories per day. Among fruits, banana continued to record the biggest quantity of calories at 128.36 kilocalories. This was followed by pineapple at 15.82 kilocalories and mango at 12.33 kilocalories. Vegetables and rootcrops such as sweet potato, cassava, and peanut contained larger amount of calories ranging from 9.53 kilocalories to 15.57 kilocalories. For livestock and poultry, the main source of calories in 2021 were pork, chicken (dressed), and chicken egg with corresponding contents of 127.96 kilocalories, 74.93 kilocalories, and 21.03 kilocalories. Likewise, the calorie contents of fishery products were also high such as tuna at 13.99 kilocalories, milkfish at 9.60 kilocalories, tilapia at 8.78 kilocalories, and roundscad at 4.45 kilocalories. (Table 3a)

In terms of daily per capita protein, rice continued as the leading source of protein at 27.39 grams. Other main sources of protein were corn, pork, and chicken (dressed) at 5.39 grams, 5.43 grams, and 6.81 grams, respectively. The protein contents of banana, chicken egg, milkfish, tilapia, and tuna ranged from 1.28 grams to 2.95 grams. (Table 3b)

For fats supply, rice contained 1.85 grams while corn provided 0.97 gram per capita daily in 2021. Pork was the main source of fats as it supplied 11.79 grams. Chicken (dressed) and chicken egg contained 5.31 grams and 1.42 grams of fats, respectively. Other agricultural commodities contained less than 1.0 gram of fats. (Table 3c)

Self-Sufficiency Ratio

Self-sufficiency ratio (SSR) shows the magnitude of production in relation to domestic utilization. It is the extent to which a country's supply of commodities is derived from its own domestic production. A ratio of less than 100 percent indicates inadequacy of food production to cope with the demand of the population; equal to 100 percent indicates that food production capacity of the sector is just enough to support the food needs of the population; ratio of greater than 100 percent indicates that domestic production is more than enough to support the domestic requirements. The higher the ratio, the greater the self-sufficiency.

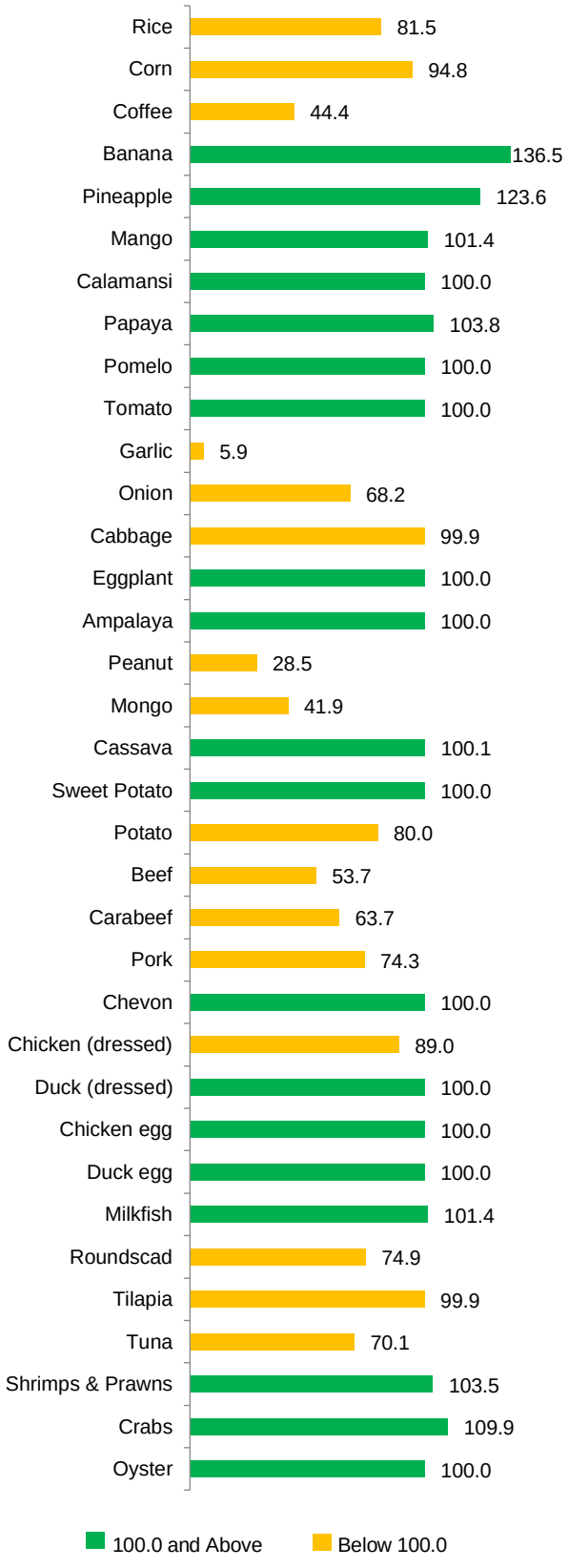
In 2021, the country's self-sufficiency ratio (SSR) of rice stood at 81.5 percent, lower than the previous year's ratio of 85.0 percent. This means that 81.5 percent of the country's total supply of rice came from domestic production. In contrast, the SSR of corn was higher at 94.8 percent from the 2020 ratio of 91.4 percent.

Domestic production of coffee remained insufficient in 2021 with a reported SSR of 44.4 percent. The SSR of banana decreased to 136.5 percent but remained as the highest among the reference fruits in 2021. This was followed by pineapple with SSR of 123.6 percent. Sufficiency in production was likewise observed for mango, calamansi, papaya, and pomelo. Similarly, self-sufficiency was achieved for vegetables and rootcrops such as tomato, eggplant, ampalaya, cassava and sweet potato. Moreover, the country was almost self-sufficient for cabbage at 99.9 percent. On the other hand, inadequate production was noted for garlic, peanut, and mongo with corresponding SSRs of 5.9 percent, 28.5 percent, and 41.9 percent. Onion and potato registered inadequacies in production with SSRs of 68.2 percent and 80.0 percent, respectively.

Adequacy in production was attained for livestock and poultry products such as chevon, chicken egg, and duck egg. Self-sufficiency was likewise reached for duck (dressed) in 2021 as compared with the 2020 ratio of 99.7 percent. However, decreases in SSRs were estimated for beef at 53.7 percent, carabeef at 63.7 percent, pork at 74.3 percent, and chicken (dressed) at 89.0 percent.

Among the fishery products, sufficiency in production was continuously noted for milkfish, shrimps and prawns, crabs, and oyster. On the other hand, tilapia recorded SSR of 99.9 percent in 2021. Likewise, production of tuna and roundscad remained inadequate as their SSRs further slid to 70.1 percent and 74.9 percent, respectively. (Table 4 and Figure 3)

Figure 3. Self-Sufficiency Ratio of Selected Agricultural Commodities, Philippines, 2021 (in percent)



Source: Philippine Statistics Authority

Import Dependency Ratio

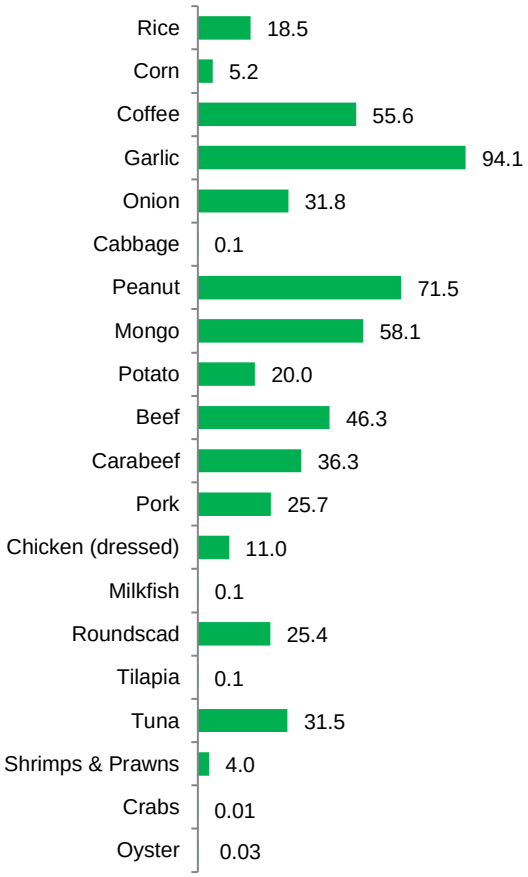
Import dependency ratio (IDR) indicates the extent to which a country's supply of commodities came from imports. A high ratio implies greater dependency on importation.

The country's import dependency ratio (IDR) of rice in 2021 increased to 18.5 percent as compared to the derived 2020 ratio of 15.0 percent. This indicates that 18.5 percent of the available supply of rice came from imports. In contrast, less dependency on importation was observed for corn at 5.2 percent from the previous year's record of 8.6 percent.

Dependency on importation slowed down for coffee with a computed IDR of 55.6 percent in 2021. On the other hand, higher and increasing importation was reported for peanut and mongo with corresponding IDRs of 71.5 percent and 58.1 percent. Importation of onion and potato were noted with IDRs of 31.8 percent and 20.0 percent, respectively. Meanwhile, importation continued for garlic with a dependency ratio of 94.1 percent which had the highest IDR among the reference crops in 2021.

In 2021, higher dependency on importation was observed for beef, carabeef, and pork. Their corresponding IDRs increased to 46.3 percent, 36.3 percent, and 25.7 percent. Dependency on imports for chicken (dressed) was noted at 11.0 percent.

Figure 4. Import Dependency Ratio of Selected Agricultural Commodities, Philippines, 2021 (in percent)



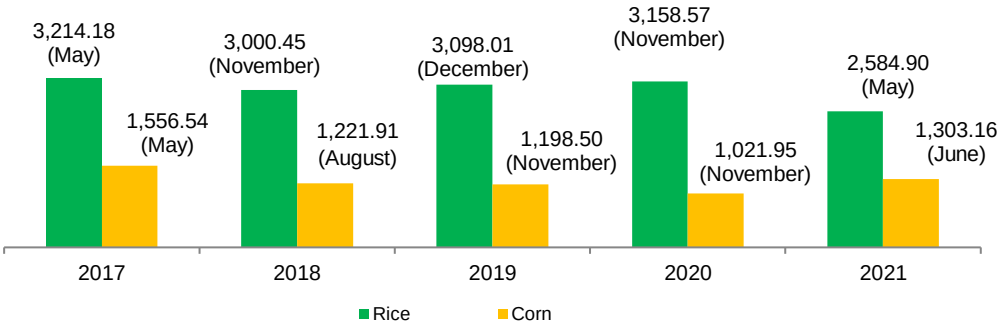
Source: Philippine Statistics Authority

Among the reference fishery products, tuna had the highest IDR at 31.5 percent followed by roundscad at 25.4 percent, and shrimps and prawns at 4.0 percent. Milkfish and tilapia recorded IDRs at 0.1 percent each. Further, minimal importation was noted for crabs and oyster. (Table 5 and Figure 4)

Cereals Stocks

Information on supply condition is vital to be able to maintain food balance. The occurrence of typhoons and other calamities as well as volatile grains market structures necessitate the need to monitor stocks situation of the staple grains. This is to ensure supply and demand equilibrium, access, and price stability.

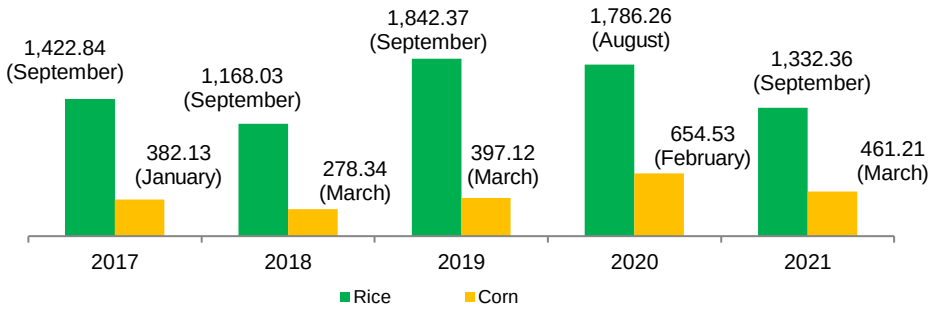
Figure 5. Cereals Inventory Levels During Peak Months of Stocking, 2017-2021 (in '000 MT)



Sources: Philippine Statistics Authority and National Food Authority

In 2021, the volume of rice stocks was reported to be the highest in May at 2.58 million metric tons. Of the total inventory, households comprised the biggest share at 55.1 percent, followed by commercial warehouses at 35.5 percent. Meanwhile, 9.3 percent was held in National Food Authority (NFA) depositories. In contrast, the least volume of rice stocks inventory was observed in September at 1.33 million metric tons. The bulk of this volume came from households at 47.9 percent, and commercial warehouses at 40.8 percent. About 11.3 percent was accounted for NFA depositories. (Tables 6a and 6b, and Figures 5 and 6)

Figure 6. Cereals Inventory Levels During Lean Months of Stocking, 2017-2021 (in '000 MT)



Sources: Philippine Statistics Authority and National Food Authority

For corn, the peak month of stocking in 2021 was recorded in June at 1.30 million metric tons. Corn stocks were kept in commercial warehouses and households at 89.3 percent and 10.7 percent, respectively. On the other hand, the lowest corn stocks with a total inventory of 0.46 million metric tons was reported in the month of March. The commercial warehouses had the biggest contribution in the total volume at 56.4 percent, followed by the households at 43.6 percent. (Tables 7a and 7b, and Figures 5 and 6)

Statistical Tables

Table 1. Indices of Annual Per Capita Production of Selected Agricultural Commodities, Philippines, 2017-2021
(2018=100)
(in percent)

Commodity	2018 Per Capita Production (kg/annum)	Indices					2021 Per Capita Production (kg/annum)
		2017	2018	2019	2020	2021	
Rice	117.91	102.6	100.0	97.3	98.4	100.5	118.46
Corn	73.49	103.4	100.0	101.2	101.6	102.5	75.32
Coffee	0.29	104.5	100.0	98.1	97.8	96.4	0.27
Banana	88.49	99.4	100.0	96.5	94.1	93.2	82.50
Pineapple	25.82	99.3	100.0	99.2	96.2	100.5	25.95
Mango	6.73	105.1	100.0	102.2	101.0	100.0	6.73
Calamansi	1.07	104.3	100.0	109.3	93.1	94.8	1.02
Papaya	1.60	100.3	100.0	96.8	93.9	94.1	1.51
Pomelo	0.25	102.7	100.0	97.9	97.0	96.0	0.24
Tomato	2.09	100.6	100.0	99.7	97.7	98.0	2.05
Garlic	0.07	104.1	100.0	94.6	87.0	74.8	0.05
Onion	1.63	108.4	100.0	126.8	129.3	121.2	1.98
Cabbage	1.14	103.1	100.0	104.6	104.6	99.0	1.13
Eggplant	2.32	100.3	100.0	100.6	96.4	95.7	2.21
Ampalaya	0.83	103.9	100.0	100.8	97.7	96.9	0.80
Peanut	0.278	101.3	100.0	98.1	97.1	99.7	0.277
Mongo	0.35	97.9	100.0	97.5	98.2	92.9	0.32
Cassava	25.75	104.6	100.0	95.2	93.1	90.2	23.23
Sweet Potato	4.97	103.8	100.0	98.6	101.2	99.6	4.95
Potato	1.11	101.7	100.0	97.4	94.0	84.2	0.94
Beef	1.46	102.7	100.0	97.6	84.6	86.1	1.26
Carabeef	0.79	102.4	100.0	96.9	81.8	86.7	0.69
Pork	18.50	99.1	100.0	97.6	89.8	70.2	12.98
Chevon	0.42	102.0	100.0	97.8	90.6	91.1	0.39
Chicken (dressed)	13.37	96.5	100.0	103.4	95.8	91.2	12.19
Duck (dressed)	0.22	102.5	100.0	96.3	93.3	90.9	0.20
Chicken egg	5.05	93.6	100.0	107.7	110.3	118.9	6.00
Duck egg	0.44	99.0	100.0	104.8	105.3	103.9	0.46
Milkfish	3.78	105.6	100.0	102.2	102.3	107.1	4.05
Roundscad	1.62	108.5	100.0	108.8	114.6	101.7	1.65
Tilapia	3.04	98.3	100.0	98.6	92.2	101.6	3.09
Tuna	5.04	103.1	100.0	98.2	94.9	83.3	4.20
Shrimps & Prawns	0.49	103.7	100.0	100.0	91.7	95.0	0.46
Crabs	0.53	91.9	100.0	92.1	93.1	101.3	0.53
Oyster	0.28	81.8	100.0	127.2	184.1	137.7	0.38

Source of basic data: Philippine Statistics Authority

Table 2. Indices of Daily Per Capita Net Food Disposable of Selected Agricultural Commodities, Philippines, 2017-2021
(2018=100)
(in percent)

Commodity	2018 Per Capita NFD (grams/day)	Indices					2021 Per Capita NFD (grams/day)
		2017	2018	2019	2020	2021	
Rice	328.11	99.5	100.0	107.2	104.6	112.8	370.10
Corn	75.78	54.5	100.0	67.4	78.9	85.7	64.95
Coffee	1.31	75.2	100.0	89.8	104.2	91.7	1.20
Banana	111.41	102.8	100.0	75.2	81.9	102.5	114.23
Pineapple	30.30	94.5	100.0	89.2	87.6	94.9	28.77
Mango	17.00	104.8	100.0	102.2	101.5	100.6	17.10
Calamansi	2.76	104.3	100.0	109.3	93.1	94.8	2.62
Papaya	4.03	101.0	100.0	95.6	92.1	92.6	3.73
Pomelo	0.66	102.7	100.0	97.9	97.0	95.9	0.63
Tomato	4.46	100.6	100.0	99.7	97.7	98.0	4.37
Garlic	2.05	89.2	100.0	104.8	106.9	110.1	2.25
Onion	6.62	78.6	100.0	86.0	109.9	109.4	7.24
Cabbage	2.87	103.1	100.0	104.6	104.6	99.1	2.85
Eggplant	5.83	100.3	100.0	100.6	96.4	95.7	5.58
Ampalaya	2.08	103.9	100.0	100.8	97.7	96.9	2.02
Peanut	2.86	99.6	100.0	96.8	79.7	86.2	2.46
Mongo	1.93	97.3	100.0	95.4	101.2	108.6	2.09
Cassava	7.05	104.7	100.0	95.2	93.1	90.2	6.36
Sweet potato	12.89	103.8	100.0	98.5	101.1	99.6	12.84
Potato	2.73	98.7	100.0	99.9	97.8	89.0	2.43
Beef	5.32	98.4	100.0	100.7	89.2	99.5	5.29
Carabeef	3.02	98.6	100.0	87.0	76.2	88.8	2.68
Pork	44.43	98.2	100.0	96.7	88.2	80.6	35.83
Chevon	0.88	102.0	100.0	97.8	90.6	91.1	0.80
Chicken (dressed)	39.12	94.1	100.0	104.3	96.6	95.9	37.53
Duck (dressed)	0.60	102.3	100.0	96.3	92.9	90.2	0.54
Chicken egg	12.72	93.6	100.0	107.7	110.3	118.9	15.13
Duck egg	1.14	98.9	100.0	104.8	105.3	103.9	1.18
Milkfish	6.64	106.2	100.0	101.6	101.8	106.4	7.06
Roundscad	3.02	105.8	100.0	148.5	129.4	147.0	4.45
Tilapia	8.07	98.4	100.0	98.6	92.1	101.7	8.21
Tuna	12.14	99.3	100.0	106.8	98.1	102.0	12.38
Shrimps & Prawns	1.28	94.4	100.0	99.5	92.9	94.7	1.21
Crabs	1.10	84.3	100.0	101.8	113.0	119.0	1.31
Oyster	0.75	81.1	100.0	127.8	185.1	138.5	1.04

Source of basic data: Philippine Statistics Authority

Table 3a. Daily Per Capita Calories Supply of Selected Agricultural Commodities, Philippines, 2017-2021
(in Kilocalories)

Commodity	2017	2018	2019	2020	2021
Rice	1,161.68	1,168.08	1,252.56	1,221.67	1,317.56
Corn	147.33	270.52	182.33	213.31	231.86
Coffee	0.46	0.62	0.55	0.64	0.57
Banana	128.68	125.18	94.13	102.48	128.36
Pineapple	15.75	16.66	14.86	14.60	15.82
Mango	12.85	12.26	12.53	12.44	12.33
Calamansi	1.27	1.22	1.33	1.13	1.15
Papaya	2.16	2.14	2.04	1.97	1.98
Pomelo	0.34	0.33	0.33	0.32	0.32
Tomato	1.12	1.12	1.11	1.09	1.09
Garlic	2.35	2.64	2.77	2.82	2.91
Onion	3.12	3.97	3.42	4.37	4.35
Cabbage	0.93	0.91	0.95	0.95	0.90
Eggplant	1.70	1.69	1.70	1.63	1.62
Ampalaya	0.56	0.54	0.55	0.53	0.52
Peanut	11.41	11.46	11.09	9.13	9.88
Mongo	6.68	6.86	6.55	6.95	7.46
Cassava	11.07	10.58	10.07	9.84	9.53
Sweet Potato	16.22	15.63	15.39	15.80	15.57
Potato	2.10	2.13	2.13	2.08	1.90
Beef	8.23	8.37	8.43	7.47	8.32
Carabeef	3.56	3.61	3.14	2.75	3.20
Pork	155.88	158.66	153.36	139.93	127.96
Chevon	0.91	0.89	0.87	0.81	0.81
Chicken (dressed)	73.49	78.12	81.46	75.43	74.93
Duck (dressed)	1.02	1.00	0.96	0.93	0.90
Chicken egg	16.56	17.69	19.05	19.51	21.03
Duck egg	1.99	2.01	2.11	2.12	2.09
Milkfish	9.59	9.03	9.17	9.19	9.60
Roundscad	3.20	3.02	4.49	3.91	4.45
Tilapia	8.50	8.64	8.51	7.96	8.78
Tuna	13.62	13.72	14.65	13.45	13.99
Shrimps & Prawns	1.11	1.17	1.17	1.09	1.11
Crabs	1.13	1.34	1.36	1.51	1.59
Oyster	0.36	0.45	0.57	0.83	0.62

Source of basic data: Philipine Food Composition Tables, Food and Nutrition Research Institute, and Philippine Statistics Authority

Table 3b. Daily Per Capita Protein Supply of Selected Agricultural Commodities, Philippines, 2017-2021
(in grams)

Commodity	2017	2018	2019	2020	2021
Rice	24.15	24.28	26.04	25.39	27.39
Corn	3.43	6.29	4.24	4.96	5.39
Coffee	0.07	0.09	0.08	0.09	0.08
Banana	1.28	1.25	0.94	1.02	1.28
Pineapple	0.11	0.12	0.11	0.11	0.12
Mango	0.10	0.10	0.10	0.10	0.10
Calamansi	0.01	0.01	0.01	0.01	0.01
Papaya	0.02	0.02	0.02	0.02	0.02
Pomelo	0.005	0.005	0.004	0.004	0.004
Tomato	0.04	0.04	0.04	0.03	0.03
Garlic	0.13	0.14	0.15	0.15	0.16
Onion	0.09	0.11	0.10	0.12	0.12
Cabbage	0.05	0.05	0.05	0.05	0.05
Eggplant	0.06	0.06	0.06	0.06	0.06
Ampalaya	0.02	0.02	0.02	0.02	0.02
Peanut	0.49	0.50	0.48	0.40	0.43
Mongo	0.44	0.45	0.43	0.46	0.49
Cassava	0.05	0.05	0.04	0.04	0.04
Sweet potato	0.12	0.11	0.11	0.11	0.11
Potato	0.06	0.07	0.07	0.06	0.06
Beef	0.11	0.11	0.11	0.10	0.11
Carabeef	0.65	0.66	0.57	0.50	0.58
Pork	6.62	6.73	6.51	5.94	5.43
Chevon	0.17	0.16	0.16	0.15	0.15
Chicken (dressed)	6.68	7.10	7.40	6.86	6.81
Duck (dressed)	0.14	0.14	0.13	0.13	0.12
Chicken egg	1.47	1.57	1.69	1.73	1.86
Duck egg	0.13	0.13	0.14	0.14	0.14
Milkfish	1.40	1.31	1.34	1.34	1.40
Roundscad	0.65	0.62	0.92	0.80	0.91
Tilapia	1.44	1.46	1.44	1.35	1.49
Tuna	2.87	2.89	3.09	2.83	2.95
Shrimps & Prawns	0.23	0.24	0.24	0.22	0.23
Crabs	0.13	0.15	0.15	0.17	0.18
Oyster	0.04	0.04	0.06	0.08	0.06

Source of basic data: Philippine Food Composition Tables, Food and Nutrition Research Institute, and Philippine Statistics Authority

Table 3c. Daily Per Capita Fats Supply of Selected Agricultural Commodities, Philippines, 2017-2021
(in grams)

Commodity	2017	2018	2019	2020	2021
Rice	1.63	1.64	1.76	1.72	1.85
Corn	0.62	1.14	0.77	0.90	0.97
Banana	0.46	0.45	0.34	0.36	0.46
Pineapple	0.06	0.06	0.05	0.05	0.06
Mango	0.07	0.07	0.07	0.07	0.07
Calamansi	0.03	0.03	0.03	0.03	0.03
Papaya	0.01	0.01	0.01	0.01	0.01
Pomelo	0.004	0.004	0.004	0.004	0.004
Tomato	0.004	0.004	0.004	0.004	0.004
Garlic	0.01	0.01	0.01	0.01	0.01
Onion	0.02	0.03	0.02	0.03	0.03
Cabbage	0.004	0.004	0.005	0.005	0.004
Eggplant	0.01	0.01	0.01	0.01	0.01
Amplaya	0.01	0.01	0.01	0.01	0.01
Peanut	0.76	0.76	0.74	0.61	0.66
Mongo	0.03	0.03	0.03	0.03	0.03
Cassava	0.01	0.01	0.01	0.01	0.01
Sweet potato	0.05	0.05	0.05	0.05	0.05
Potato	0.003	0.003	0.003	0.003	0.002
Beef	0.04	0.04	0.04	0.04	0.04
Carabeef	0.11	0.11	0.09	0.08	0.10
Pork	14.36	14.62	14.13	12.89	11.79
Chevon	0.03	0.03	0.03	0.02	0.02
Chicken (dressed)	5.21	5.54	5.77	5.35	5.31
Duck (dressed)	0.05	0.05	0.05	0.05	0.05
Chicken egg	1.12	1.20	1.29	1.32	1.42
Duck egg	0.14	0.14	0.15	0.15	0.15
Milkfish	0.45	0.42	0.43	0.43	0.45
Roundscad	0.07	0.06	0.09	0.08	0.09
Tilapia	0.30	0.31	0.30	0.28	0.31
Tuna	0.24	0.24	0.26	0.24	0.25
Shrimps & Prawns	0.01	0.02	0.02	0.01	0.01
Crabs	0.04	0.04	0.04	0.05	0.05
Oyster	0.01	0.01	0.02	0.02	0.02

Source of basic data: Philippine Food Composition Tables, Food and Nutrition Research Institute, and Philippine Statistics Authority

Table 4. Self-Sufficiency Ratio of Selected Agricultural Commodities, Philippines, 2017-2021
(in percent)

Commodity	2017	2018	2019	2020	2021
Rice	93.4	86.2	79.8	85.0	81.5
Corn	94.3	88.4	94.6	91.4	94.8
Coffee	58.7	42.2	46.1	39.6	44.4
Banana	145.3	150.2	192.6	172.6	136.5
Pineapple	122.7	116.8	129.8	128.2	123.6
Mango	102.2	101.9	102.0	101.5	101.4
Calamansi	100.1	100.1	100.1	100.1	100.0
Papaya	101.4	102.2	103.5	104.1	103.8
Pomelo	100.0	100.0	100.0	100.0	100.0
Tomato	100.0	100.0	100.0	100.0	100.0
Garlic	10.1	8.7	7.9	7.1	5.9
Onion	84.6	61.5	90.5	72.4	68.2
Cabbage	100.0	100.0	100.0	100.0	99.9
Eggplant	100.0	100.0	100.0	100.0	100.0
Ampalaya	100.0	100.0	100.0	100.0	100.0
Peanut	25.1	24.7	25.0	30.1	28.5
Mongo	49.2	49.0	50.0	47.5	41.9
Cassava	100.0	100.0	100.0	100.1	100.1
Sweet Potato	100.0	100.0	100.1	100.1	100.0
Potato	85.3	83.4	81.9	81.0	80.0
Beef	64.3	61.0	59.7	58.6	53.7
Carabeef	67.3	65.1	71.7	69.4	63.7
Pork	87.5	86.1	87.1	91.0	74.3
Chevon	100.0	100.0	100.0	100.0	100.0
Chicken (dressed)	96.1	93.6	92.9	92.9	89.0
Duck (dressed)	99.4	99.3	99.5	99.7	100.0
Chicken egg	100.0	100.0	100.0	100.0	100.0
Duck egg	100.0	100.0	100.0	100.0	100.0
Milkfish	100.6	101.0	101.4	101.3	101.4
Roundscad	98.6	96.9	78.1	89.4	74.9
Tilapia	99.9	100.0	100.0	100.0	99.9
Tuna	83.6	81.4	76.5	79.5	70.1
Shrimps & Prawns	113.1	103.2	103.7	101.9	103.5
Crabs	140.0	128.7	116.7	106.4	109.9
Oyster	101.4	100.6	100.1	100.0	100.0

Source of basic data: Philippine Statistics Authority

Table 5. Import Dependency Ratio of Selected Agricultural Commodities, Philippines, 2017-2021
(in percent)

Commodity	2017	2018	2019	2020	2021
Rice	6.6	13.8	20.2	15.0	18.5
Corn	5.7	11.6	5.4	8.6	5.2
Coffee	41.3	57.8	53.9	60.4	55.6
Banana	a/	a/	a/	a/	a/
Pineapple	a/				
Mango					a/
Garlic	90.0	91.4	92.2	92.9	94.1
Onion	15.6	38.5	9.6	27.6	31.8
Cabbage					0.1
Peanut	75.0	75.3	75.0	70.0	71.5
Mongo	50.8	51.0	50.5	52.6	58.1
Sweet Potato	a/		a/	a/	
Potato	14.7	16.6	18.1	19.0	20.0
Beef	35.7	39.0	40.3	41.4	46.3
Carabeef	32.7	34.9	28.3	30.6	36.3
Pork	12.5	13.9	12.9	9.0	25.7
Chevon					
Chicken (dressed)	4.0	6.4	7.2	7.1	11.0
Duck (dressed)	0.6	0.7	0.6	0.3	0.02
Milkfish	0.1		0.1	0.1	0.1
Roundscad	1.5	3.1	21.9	10.6	25.4
Tilapia	0.1	0.03	0.02	a/	0.1
Tuna	22.5	24.5	27.9	27.1	31.5
Shrimps & Prawns	8.4	10.1	8.2	3.7	4.0
Crabs	0.3	0.1	0.1	0.04	0.01
Oyster	0.04	0.03	0.1	0.1	0.03

a/ - less than 0.01 percent
- Blank cell indicates no report
Source of basic data: Philippine Statistics Authority

Table 6a. Stocks of Rice: Highest and Lowest Levels and Percentage Shares of Households, Commercial Warehouses, and NFA to Total, Philippines, 2017-2021

Item	2017	2018	2019	2020	2021
Highest					
Month	May	November	December	November	May
Quantity ('000 MT)	3,214.18	3,000.45	3,098.01	3,158.54	2,584.90
Percent share					
Households	46.4	51.9	51.9	57.3	55.1
Commercial	45.2	44.6	32.6	30.5	35.5
NFA	8.4	3.5	15.5	12.2	9.3
Lowest					
Month	September	September	September	August	September
Quantity ('000 MT)	1,422.84	1,168.03	1,842.37	1,786.25	1,332.36
Percent share					
Households	48.4	52.2	36.5	47.7	47.9
Commercial	47.0	38.2	41.2	40.9	40.8
NFA	4.6	9.5	22.2	11.4	11.3

Note: Percent shares may yield different results when computed manually due to rounding.
Sources of basic data: Philippine Statistics Authority and National Food Authority

Table 6b. Total Stock of Rice by Month, Philippines, 2017-2021
(in '000 metric tons)

Month	2017	2018	2019	2020	2021
January	2,765.12	2,289.65	2,550.70	2,675.04	2,332.00
February	2,296.32	1,795.78	2,141.23	2,375.50	2,193.10
March	2,176.20	1,697.37	2,221.42	2,178.64	2,080.10
April	2,675.55	2,182.67	2,629.03	2,367.87	2,444.31
May	3,214.18	2,909.46	2,947.42	2,794.89	2,584.90
June	2,572.94	2,360.98	2,598.34	2,395.94	2,530.82
July	2,347.90	1,990.82	2,625.25	2,104.76	2,177.68
August	2,028.00	1,520.76	2,133.84	1,786.25	1,578.31
September	1,422.84	1,168.03	1,842.37	1,823.31	1,332.36
October	1,935.87	1,589.89	2,279.73	2,647.65	1,954.72
November	2,958.73	3,000.45	2,962.46	3,158.54	2,418.43
December	2,849.37	2,718.48	3,098.01	2,766.40	2,377.85

Source of basic data: Philippine Statistics Authority

Table 7a. Stocks of Corn: Highest and Lowest Levels and Percentage Shares of Households, Commercial Warehouses, and NFA to Total, Philippines, 2017-2021

Item	2017	2018	2019	2020	2021
Highest					
Month	May	August	November	November	June
Quantity ('000 MT)	1,556.54	1,221.91	1,198.50	1,021.95	1,303.16
Percent share					
Households	6.6	5.7	18.6	33.9	10.7
Commercial	93.0	94.3	81.4	66.1	89.3
NFA *	0.4	-	-	-	-
Lowest					
Month	January	March	March	February	March
Quantity ('000 MT)	382.13	278.34	397.12	654.53	461.21
Percent share					
Households	45.8	26.0	28.3	23.4	43.6
Commercial	53.9	74.0	71.7	76.6	56.4
NFA *	0.3	0.01	-	-	-

* Note: Generation of data for corn stocks of NFA warehouses has already stopped since May 2018. NFA will no longer maintain buffer stock for corn. Hence, no data to be collected.

Percent shares may yield different results when computed manually due to rounding.

Sources of basic data: Philippine Statistics Authority and National Food Authority

Table 7b. Total Stock of Corn by Month, Philippines, 2017-2021
(in '000 metric tons)

Month	2017	2018	2019	2020	2021
January	382.13	951.60	676.13	812.00	914.07
February	439.57	410.33	781.52	654.53	599.69
March	1,078.29	278.34	397.12	793.28	461.21
April	1,146.76	369.34	614.00	736.07	713.68
May	1,556.54	338.31	829.11	840.52	826.68
June	978.86	592.01	859.77	905.52	1,303.16
July	683.62	480.86	822.70	741.66	924.25
August	696.46	1,221.91	724.08	732.18	707.65
September	1,422.21	531.07	768.66	797.37	560.61
October	1,368.86	566.83	1,095.92	985.54	513.93
November	603.29	639.52	1,198.50	1,021.95	554.68
December	536.56	629.91	794.87	960.95	562.84

Source of basic data: Philippine Statistics Authority

MODULES OF THE AGRICULTURAL INDICATORS SYSTEM

1. Government Support in Agriculture Sector
2. Economic Growth: Agriculture
3. Output and Productivity
4. Agricultural Resources
5. Agricultural Exports and Imports
6. **Food Availability and Sufficiency**
7. Prices and Marketing of Agricultural Commodities
8. Employment and Wages in the Agriculture Sector

AGRICULTURAL INDICATORS SYSTEM
FOOD AVAILABILITY AND SUFFICIENCY
PHILIPPINE STATISTICS AUTHORITY

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