



REPUBLIC OF THE PHILIPPINES

**PHILIPPINE STATISTICS AUTHORITY**

# Agricultural Indicators System

## Output and Productivity



## FOREWORD

The Agricultural Indicators System (AIS) is one of the statistical indicator frameworks maintained by the Philippine Statistics Authority (PSA). As part of the continuing efforts of the PSA to improve its products and services, the coverage of the AIS was reviewed to rationalize releases, merge related indicators and package these into reports with more emphasis on statistics and indicators related to the development of the agriculture sector. The AIS now comprises of eight (8) modules which will be 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 third module entitled Output and Productivity. This module provides information on productivity of the different components of the agricultural sector such as crops, livestock and poultry, and fisheries. The reference years are 2015 to 2019.

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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**OUTPUT  
AND PRODUCTIVITY**



## Crops

The performance of the crops industry can be monitored by looking at the changes in area, production and yield through the use of indices and growth rates. Indices of area harvested can indicate the probable shift in the utilization of the country's arable land. Production indices measure the trends of increases/decreases in the volume of crop production while yield indices indicate the productivity changes through the years compared to a given base year.

### Area

In 2019, the country's harvested area of agricultural crops at 13.30 million hectares was lower by 1.3 percentage points from the 2018 record. By crop, palay area was reduced to 4.65 million hectares or by 3.1 percentage points from the base year's level. Corn area at 2.52 million hectares in 2019 was higher by 0.2 percentage point.

The percentage point increments in the harvested areas of banana, mango and coconut were 0.3, 0.4 and 0.7, respectively. Larger area expansion was exhibited by onion and cacao at more than 11.0 percentage points each. Area of eggplant was up by 0.8 percentage point while that of mongo by 0.4 percentage point. Minimal area increases were observed in rubber, abaca, and cabbage.

The 2019 sugarcane area was 13.3 percentage points below the 2018 level. Lower than the base year areas were recorded in pineapple, cassava, sweet potato, coffee, tobacco, tomato, potato, ampalaya, and calamansi (Table 1a).

From 2015 to 2019, total crop area grew by an average of 0.1 percent yearly. On the average, palay area inched up by 0.03 percent while corn area dropped by 0.4 percent per year. Uptrend in cacao area was sustained during the five reference years and had the highest average growth rate at 22.5 percent. Similar trend was noted in rubber, coconut, and eggplant with respective average increments of 0.8 percent, 0.9 percent, and 1.0 percent.

Banana, pineapple, tomato, ampalaya, and mongo also posted average annual increases during the reference years. Yearly declines were reported in tobacco and calamansi with average contractions corresponding to 4.0 percent and 0.5 percent (Table 1b).

Figure 1. Indices of Area Harvested of Agricultural Crops, Philippines, 2019 (2018=100) (in percent)

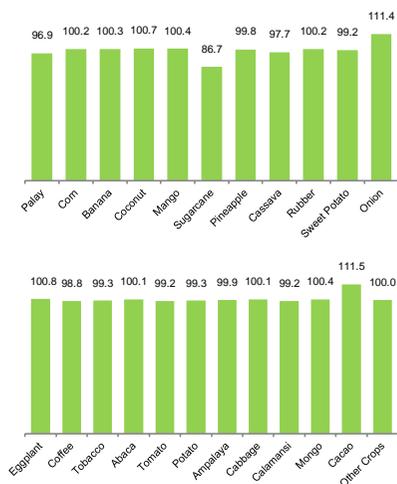
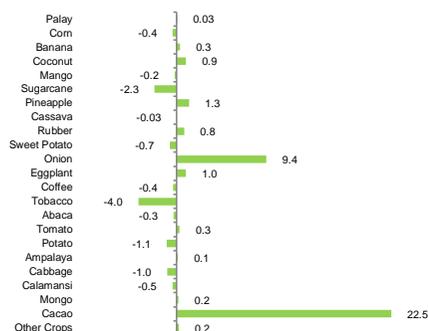


Figure 2. Average Growth Rates of Area Harvested of Agricultural Crops, Philippines, 2015-2019 (in percent)



## Production

Palay production in 2019 estimated at 18.81 million metric tons was 1.3 percentage points below the base year's record. Corn production went up to 7.98 million metric tons in 2019 and surpassed the 2018 level by 2.7 percentage points.

The 2019 production levels of majority of the other crops were above the 2018 record. Higher percentage point increases in outputs were registered in onion at 28.6, calamansi at 10.9, cacao at 6.3, and cabbage at 6.1.

Sugarcane production in 2019 showed the biggest drop by 16.2 percentage points from the base year's level. Other major crops such as banana, cassava, coffee, potato, and mango exhibited production below 2018 levels, with production losses ranging from 0.4 percentage points to 3.4 percentage points (Table 2a).

During the five-year reference period, the production levels of palay and corn improved at yearly averages corresponding to 1.0 percent and 1.6 percent.

Year-on-year increases in outputs were maintained in pineapple, eggplant, and cacao averaging 1.6 percent, 1.8 percent and 9.0 percent, respectively.

Despite the fluctuating trend in production, onion recorded the highest growth rate at an average of 10.1 percent per year. Fluctuations were observed in most of the other crops but exhibited positive growth rates.

Coffee production from 2015 to 2019 was continuously declining and resulted to an average annual contraction of 4.5 percent.

Decreases in output were observed for mango, sugarcane, cassava, sweet potato, tobacco, potato, and calamansi. Mango and calamansi had the biggest average yearly drop at 4.8 percent and 5.1 percent, respectively (Table 2b).

Figure 3. Indices of Production of Agricultural Crops, Philippines, 2019 (2018=100) (in percent)

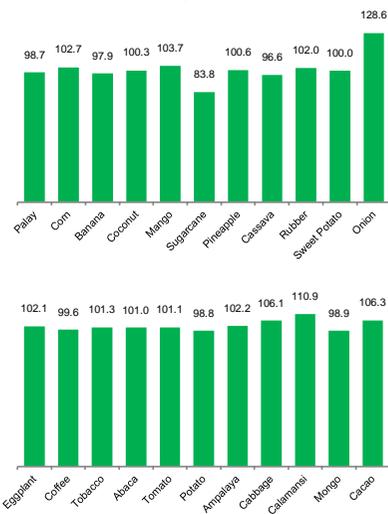
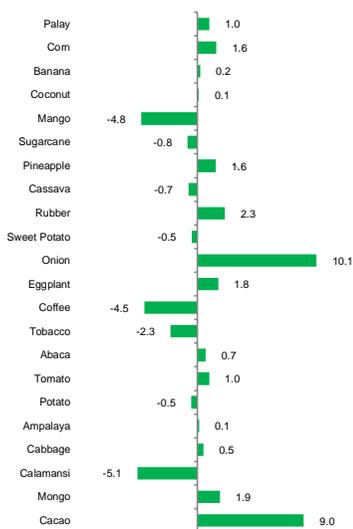


Figure 4. Average Growth Rates of Production of Agricultural Crops, Philippines, 2015-2019 (in percent)



**Yield**

The yield of palay per hectare at 4.04 metric tons in 2019 was higher by 1.8 percentage points from the 2018 yield. Corn yield rose to 3.17 metric tons per hectare, 2.4 percentage points more than the base year's record.

The 2019 yields per hectare of banana at 20.39 metric tons and coconut at 4.04 metric tons were below the 2018 record with respective yield reductions by 2.4 percentage points and 0.4 percentage point.

The yield levels of cassava, potato and mango were lower than the base year's record with declines ranging from 0.4 to 1.5 percentage points. The percentage point decreases were higher for sugarcane at 3.4 and cacao at 4.6.

Bigger yield increments were noted in onion, calamansi, and cabbage with percentage point growths at 15.4, 11.8, and 6.0, respectively. Yield levels of the other ten reference commodities in 2019 remained higher than the 2018 record (Table 3a).

The annual yield levels of palay and corn from 2015 to 2019 posted average yearly increments of 0.9 percent and 2.0 percent, respectively.

Meanwhile, yearly uptrend in yield was recorded in eggplant, resulting to an average of 0.8 percent growth. Annual yield increases averaging from 0.03 percent to 1.9 percent were noted in other eleven major crops.

Downtrend in the yields of cacao and cassava continued over the five reference years. Cacao indicated the highest negative growth rate with an average decline of 9.9 percent. Average yearly contractions were also observed in banana, coconut, mango, onion, coffee and calamansi (Table 3b).

Figure 5. Indices of Yield of Agricultural Crops, Philippines, 2019 (2018=100) (in percent)

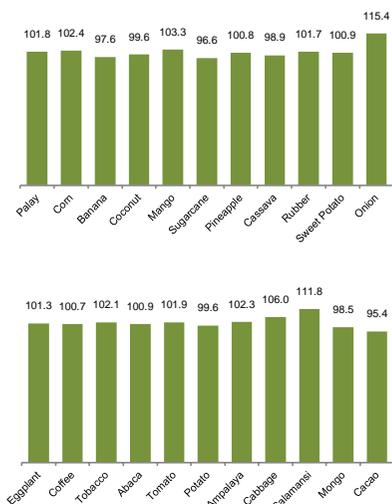
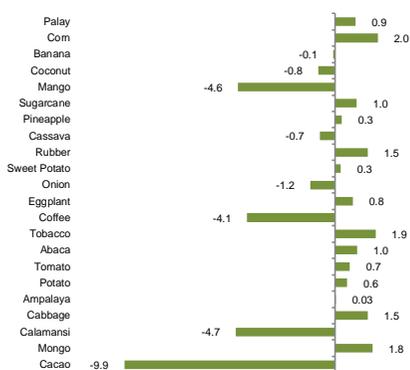


Figure 6. Average Growth Rates of Yield of Agricultural Crops, Philippines, 2015-2019 (in percent)



## Livestock and Poultry

Production indices measure the growth of each livestock and poultry component in a given period compared with that of a base year. The yearly changes in the production of livestock and poultry describe the performance of each animal/bird type across the period in review.

In 2019, the production levels of all the livestock products, except dairy, were lower than the base year's record. Hog, with the biggest production at 2.30 million metric tons in 2019, was down by 1.0 percentage point. Highest drop in output was reported in carabao at 1.7 percentage points, with production of 0.14 million metric tons in 2019. Meanwhile, production of cattle slid by 1.0 percentage point while that of goat by 0.8 percentage point.

On the other hand, the 2019 dairy production of 0.024 million metric tons surpassed the 2018 level by 2.7 percentage points.

For poultry, the 2019 production levels of chicken, chicken egg, and duck were up by 4.9 percentage points, 9.2 percentage points and 6.3 percentage points, respectively. The highest poultry production came from chicken at 1.93 million metric tons and chicken eggs at 0.58 million metric tons in 2019 (Table 4a).

From 2015 to 2019, livestock products such as hog and dairy registered average yearly increases at 2.0 percent and 4.5 percent, respectively. Dairy maintained an uptrend in production during the five year period.

Meanwhile, carabao, cattle and goat showed negative growth rates in production by an average of less than one (1) percent per year.

Increasing year-on-year production continued for chicken, chicken egg, and duck egg with respective average increments of 3.8 percent, 7.0 percent and 4.0 percent annually. An opposite trend was noted in duck production with an average decline of 2.9 percent per year (Table 4b).

Figure 7. Indices of Volume of Livestock and Poultry, Philippines, 2019 (2018=100) (in percent)

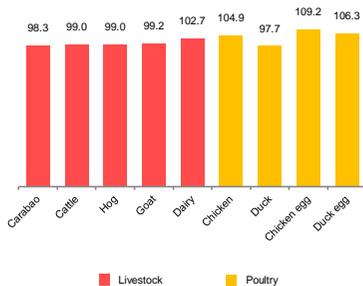
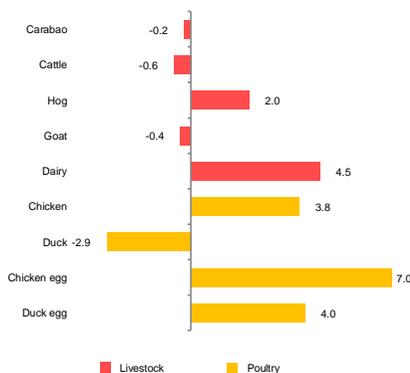


Figure 8. Average Growth Rates of Volume of Livestock and Poultry, Philippines, 2015-2019 (in percent)



## Fisheries

Information on the indices of fisheries production provides a measure of the development of the fisheries industry through the years. Growth rates show the year-on-year variation in the volume of fisheries production by species, by component and by environment. Fisheries cover commercial, municipal and aquaculture fishing.

### By Subsector

The total production in commercial fisheries declined to 0.93 million metric tons in 2019 or by 1.6 percentage points from the base year's output.

Municipal fisheries at 1.13 million metric tons in 2019 registered an output growth at 1.7 percentage points. This can be attributed to the increase in marine municipal fisheries production of 2.9 percentage points. Meanwhile, inland municipal fisheries registered a 4.7 percentage point decline in production in 2019.

For aquaculture, production at 2.36 million metric tons was 2.3 percentage points more than the base year's record. Output increase from marine fishcage/pen of 7.2 percentage points was the highest recorded in the aquaculture sector (Table 5a).

Year-on-year contractions from 2015 to 2019 were exhibited by commercial fisheries production, averaging 3.7 percent per year.

Likewise, output in municipal fisheries dropped yearly by an average of 1.9 percent as both marine and inland production declined by averages of 1.1 percent and 6.0 percent per year, respectively.

Aquaculture recorded an average increase of 0.2 percent annually. Marine fishcage/pen maintained an increasing trend over the five reference years, yielding an average of 2.2 percent growth per year. The highest average output increment was recorded in freshwater fishpond at 2.6 percent (Table 5b).

Figure 9. Indices of Volume of Fisheries Production by Subsector, Philippines, 2019 (2018=100) (in percent)

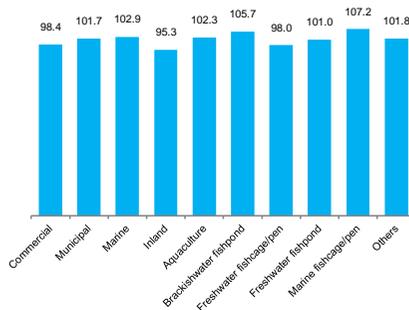
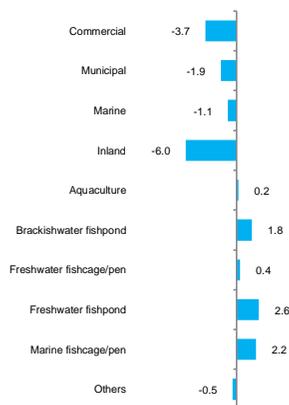


Figure 10. Average Growth Rates of Volume of Fisheries Production by Subsector, Philippines, 2015-2019 (in percent)



## By Species

Most of the reference species reported output gains in 2019 as compared with the 2018 record. The highest production levels in 2019 were recorded in seaweed at 1.50 million metric tons, milkfish at 0.41 million metric tons, and tilapia at 0.32 million metric tons, indicating percentage point increments at 1.5, 3.7 and 0.03, respectively.

Threadfin bream production at 0.04 million metric tons had the biggest increase at 13.9 percentage points. This was followed by roundscad, grouper and Indian mackerel, with increases ranging from 8.0 percentage points to 11.0 percentage points.

Compared to 2018, lower production was noted in frigate tuna, big-eyed scad, bali sardinella, squid, blue crab, bigeye tuna, slipmouth and fimbriated sardines. The highest decline in 2019 was recorded in bigeye tuna production which was down by 43.0 percentage points (Table 6a).

During the five-year period, the average yearly production increases of milkfish and tilapia were 1.4 percent and 0.8 percent, respectively. Bigeye tuna had biggest output gain at an average of 22.8 percent per year.

Yellowfin tuna and frigate tuna posted the largest average annual reduction at 7.7 percent and 5.1 percent, respectively. Ten other reference commodities recorded average yearly contraction from 0.8 percent to 4.7 percent.

Meanwhile, production uptrend was constantly noted in mudcrab over the five year period, while frigate tuna maintained a downtrend in output (Table 6b).

Figure 11. Indices of Volume of Fisheries Production by Species, Philippines, 2019 (2018=100) (in percent)

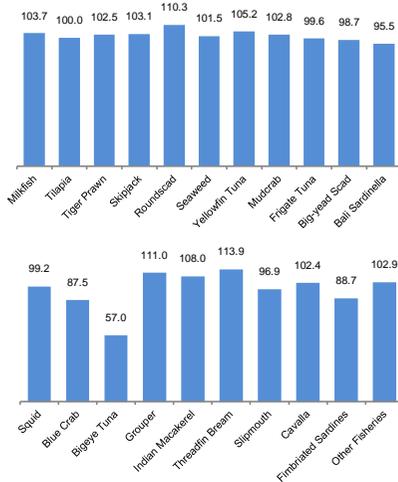
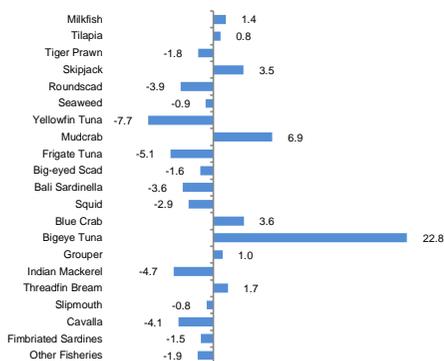


Figure 12. Average Growth Rates of Volume of Fisheries Production by Species, Philippines, 2015-2019 (in percent)



## OUTPUT AND PRODUCTIVITY

Table 1a. Indices of Area Harvested of Agricultural Crops, Philippines, 2015-2019  
(2018=100)  
(in percent)

Item	2018 Area ('000 has.)	Indices					Percentage Point Difference <sup>1/</sup>	2019 Area ('000 has.)
		2015	2016	2017	2018	2019		
All Crops	13,476.32	98.2	97.1	100.2	100.0	98.7	-1.3	13,298.13
A.Cereals	7,311.84	98.7	96.3	100.7	100.0	98.0	-2.0	7,168.21
Palay	4,800.41	97.0	94.9	100.2	100.0	96.9	-3.1	4,651.49
Corn	2,511.44	102.0	98.9	101.6	100.0	100.2	0.2	2,516.72
B.Major Crops	5,750.66	97.4	98.1	99.7	100.0	99.4	-0.6	5,716.20
Banana	447.89	99.0	98.9	99.7	100.0	100.3	0.3	449.03
Coconut	3,628.13	97.0	98.3	99.6	100.0	100.7	0.7	3,651.87
Mango	185.86	101.4	101.1	100.1	100.0	100.4	0.4	186.62
Sugarcane	437.51	96.3	93.7	100.0	100.0	86.7	-13.3	379.25
Pineapple	66.19	94.9	98.5	99.7	100.0	99.8	-0.2	66.05
Cassava	227.64	98.0	100.9	103.0	100.0	97.7	-2.3	222.44
Rubber	228.94	97.2	97.5	98.8	100.0	100.2	0.2	229.43
Sweet Potato	84.05	102.1	100.8	101.1	100.0	99.2	-0.8	83.34
Onion	17.90	83.0	72.5	102.0	100.0	111.4	11.4	19.95
Eggplant	21.65	97.0	97.2	99.0	100.0	100.8	0.8	21.82
Coffee	113.35	100.3	101.3	99.6	100.0	98.8	-1.2	112.02
Tobacco	28.21	117.3	115.2	109.3	100.0	99.3	-0.7	28.01
Abaca	132.25	101.5	101.6	100.2	100.0	100.1	0.1	132.37
Tomato	16.49	98.0	98.2	100.0	100.0	99.2	-0.8	16.36
Potato	7.57	103.6	102.3	102.9	100.0	99.3	-0.7	7.51
Ampalaya	10.68	99.6	98.6	99.8	100.0	100.0	-0.03	10.68
Cabbage	7.84	104.3	102.3	100.9	100.0	100.1	0.1	7.85
Calamansi	19.78	101.1	100.2	100.1	100.0	99.2	-0.8	19.62
Mungo	41.58	99.7	99.4	100.8	100.0	100.4	0.4	41.73
Cacao	27.13	51.3	54.6	67.3	100.0	111.5	11.5	30.26
C.Other Crops	413.82	99.3	98.6	99.1	100.0	100.0	-0.03	413.71

<sup>1/</sup> 2019 Index less 2018 Index, (2018=100)

Source of basic data: Philippine Statistics Authority

Table 1b. Growth Rates of Area Harvested of Agricultural Crops, Philippines, 2015-2019  
(in percent)

Item	2015 Area ('000 has.)	Growth Rates				Average 2015-2019
		15-16	16-17	17-18	18-19	
All Crops	13,229.25	-1.0	3.2	-0.2	-1.3	0.1
A.Cereals	7,218.16	-2.5	4.6	-0.7	-2.0	-0.1
Palay	4,656.23	-2.2	5.6	-0.2	-3.1	0.03
Corn	2,561.93	-3.0	2.7	-1.6	0.2	-0.4
B.Major Crops	5,600.17	0.8	1.6	0.3	-0.6	0.5
Banana	443.37	-0.1	0.9	0.3	0.3	0.3
Coconut	3,517.74	1.3	1.3	0.4	0.7	0.9
Mango	188.42	-0.3	-1.0	-0.1	0.4	-0.2
Sugarcane	421.31	-2.7	6.7	0.01	-13.3	-2.3
Pineapple	62.81	3.8	1.2	0.3	-0.2	1.3
Cassava	222.99	3.0	2.1	-2.9	-2.3	-0.03
Rubber	222.60	0.3	1.3	1.2	0.2	0.8
Sweet Potato	85.84	-1.3	0.3	-1.1	-0.8	-0.7
Onion	14.86	-12.6	40.6	-1.9	11.4	9.4
Eggplant	21.01	0.1	1.9	1.0	0.8	1.0
Coffee	113.74	1.0	-1.7	0.5	-1.2	-0.4
Tobacco	33.10	-1.8	-5.1	-8.5	-0.7	-4.0
Abaca	134.19	0.2	-1.5	-0.2	0.1	-0.3
Tomato	16.17	0.2	1.8	0.02	-0.8	0.3
Potato	7.84	-1.3	0.6	-2.8	-0.7	-1.1
Ampalaya	10.63	-1.0	1.2	0.2	-0.03	0.1
Cabbage	8.18	-2.0	-1.3	-0.9	0.1	-1.0
Calamansi	19.99	-0.8	-0.2	-0.1	-0.8	-0.5
Mongo	41.45	-0.2	1.4	-0.8	0.4	0.2
Cacao	13.91	6.5	23.3	48.6	11.5	22.5
C.Other Crops	410.92	-0.7	0.6	0.9	-0.03	0.2

Source of basic data: Philippine Statistics Authority

## OUTPUT AND PRODUCTIVITY

Table 2a. Indices of Production of Agricultural Crops, Philippines, 2015-2019  
(2018=100)  
(in percent)

Item	2018 Prod'n ('000 mt.)	Indices					Percentage Point Difference <sup>1/</sup>	2019 Prod'n ('000 mt.)
		2015	2016	2017	2018	2019		
<b>A. Cereals</b>								
Palay	19,066.09	95.2	92.5	101.1	100.0	98.7	-1.3	18,814.83
Corn	7,771.92	96.7	92.9	101.8	100.0	102.7	2.7	7,978.84
<b>B. Major Crops</b>								
Banana	9,358.78	97.1	95.1	97.9	100.0	97.9	-2.1	9,157.68
Coconut	14,726.17	100.1	93.9	95.4	100.0	100.3	0.3	14,765.06
Mango	711.66	126.8	114.4	103.6	100.0	103.7	3.7	737.94
Sugarcane	24,730.82	92.7	90.5	118.4	100.0	83.8	-16.2	20,719.29
Pineapple	2,730.98	94.6	95.7	97.8	100.0	100.6	0.6	2,747.86
Cassava	2,723.03	99.7	101.2	103.1	100.0	96.6	-3.4	2,630.80
Rubber	423.37	94.0	85.7	96.1	100.0	102.0	2.0	431.67
Sweet Potato	525.63	102.0	100.7	102.2	100.0	100.0	0.04	525.86
Onion	172.67	104.9	71.0	106.8	100.0	128.6	28.6	222.08
Eggplant	244.84	95.1	96.2	98.8	100.0	102.1	2.1	249.89
Coffee	60.31	119.9	114.1	102.9	100.0	99.6	-0.4	60.04
Tobacco	50.38	111.5	112.1	101.3	100.0	101.3	1.3	51.06
Abaca	71.52	98.4	100.5	96.3	100.0	101.0	1.0	72.21
Tomato	220.82	97.3	95.4	99.1	100.0	101.1	1.1	223.29
Potato	117.42	100.9	99.5	100.2	100.0	98.8	-1.2	116.06
Ampalaya	87.40	101.7	100.1	102.4	100.0	102.2	2.2	89.34
Cabbage	120.66	104.2	102.0	101.5	100.0	106.1	6.1	128.05
Calamansi	113.55	143.3	104.1	102.7	100.0	110.9	10.9	125.97
Mongo	36.66	91.7	92.8	96.4	100.0	98.9	-1.1	36.25
Cacao	7.98	75.5	78.4	87.8	100.0	106.3	6.3	8.49

<sup>1/</sup> 2019 Index less 2018 Index, (2018=100)

Source of basic data: Philippine Statistics Authority

Table 2b. Growth Rates of Production of Agricultural Crops, Philippines, 2015-2019  
(in percent)

Item	2015 Prod'n ( <sup>'000</sup> mt.)	Growth Rates				Average 2015-2019
		15-16	16-17	17-18	18-19	
<b>A. Cereals</b>						
Palay	18,149.84	-2.9	9.4	-1.1	-1.3	1.0
Corn	7,518.76	-4.0	9.6	-1.8	2.7	1.6
<b>B. Major Crops</b>						
Banana	9,083.93	-2.0	2.9	2.1	-2.1	0.2
Coconut	14,735.19	-6.2	1.6	4.8	0.3	0.1
Mango	902.74	-9.8	-9.5	-3.4	3.7	-4.8
Sugarcane	22,926.44	-2.4	30.9	-15.6	-16.2	-0.8
Pineapple	2,582.70	1.2	2.3	2.2	0.6	1.6
Cassava	2,714.35	1.5	1.9	-3.0	-3.4	-0.7
Rubber	398.14	-8.9	12.2	4.0	2.0	2.3
Sweet Potato	536.00	-1.2	1.5	-2.2	0.04	-0.5
Onion	181.21	-32.3	50.4	-6.4	28.6	10.1
Eggplant	232.86	1.2	2.7	1.2	2.1	1.8
Coffee	72.34	-4.9	-9.8	-2.8	-0.4	-4.5
Tobacco	56.19	0.5	-9.6	-1.3	1.3	-2.3
Abaca	70.36	2.1	-4.2	3.9	1.0	0.7
Tomato	214.77	-1.9	3.8	0.9	1.1	1.0
Potato	118.48	-1.4	0.7	-0.2	-1.2	-0.5
Ampalaya	88.92	-1.6	2.3	-2.3	2.2	0.1
Cabbage	125.75	-2.1	-0.5	-1.5	6.1	0.5
Calamansi	162.68	-27.3	-1.3	-2.7	10.9	-5.1
Mongo	33.62	1.2	3.8	3.7	-1.1	1.9
Cacao	6.02	4.0	11.9	13.9	6.3	9.0

Source of basic data: Philippine Statistics Authority

## OUTPUT AND PRODUCTIVITY

Table 3a. Yield Indices of Agricultural Crops, Philippines, 2015-2019  
(2018=100)  
(in percent)

Item	2018 Yield mt./ha.	Indices					Percentage Point Difference <sup>1/</sup>	2019 Yield mt./ha.
		2015	2016	2017	2018	2019		
Palay	3.97	98.1	97.4	100.9	100.0	101.8	1.8	4.04
Corn	3.09	94.8	93.9	100.2	100.0	102.4	2.4	3.17
Banana	20.90	98.1	96.2	98.2	100.0	97.6	-2.4	20.39
Coconut	4.06	103.2	95.5	95.8	100.0	99.6	-0.4	4.04
Mango	3.83	125.1	113.2	103.5	100.0	103.3	3.3	3.95
Sugarcane	56.53	96.3	96.5	118.4	100.0	96.6	-3.4	54.63
Pineapple	41.26	99.7	97.1	98.1	100.0	100.8	0.8	41.60
Cassava	11.96	101.8	100.2	100.0	100.0	98.9	-1.1	11.83
Rubber	1.85	96.7	87.8	97.3	100.0	101.7	1.7	1.88
Sweet Potato	6.25	99.8	99.9	101.1	100.0	100.9	0.9	6.31
Onion	9.64	126.4	97.9	104.7	100.0	115.4	15.4	11.13
Eggplant	11.31	98.0	99.0	99.7	100.0	101.3	1.3	11.45
Coffee	0.53	119.5	112.6	103.4	100.0	100.7	0.7	0.54
Tobacco	1.79	95.1	97.3	92.7	100.0	102.1	2.1	1.82
Abaca	0.54	97.0	98.8	96.1	100.0	100.9	0.9	0.55
Tomato	13.39	99.2	97.2	99.1	100.0	101.9	1.9	13.65
Potato	15.51	97.4	97.2	97.3	100.0	99.6	-0.4	15.45
Ampalaya	8.18	102.2	101.5	102.6	100.0	102.3	2.3	8.37
Cabbage	15.39	99.9	99.7	100.6	100.0	106.0	6.0	16.32
Calamansi	5.74	141.7	103.9	102.7	100.0	111.8	11.8	6.42
Mongo	0.88	92.0	93.4	95.6	100.0	98.5	-1.5	0.87
Cacao	0.29	147.2	143.7	130.4	100.0	95.4	-4.6	0.28

<sup>1/</sup> 2019 Index less 2018 Index, (2018=100)

Source of basic data: Philippine Statistics Authority

Table 3b. Growth Rates of Yield of Agricultural Crops, Philippines, 2015-2019  
(in percent)

Item	2015 Yield mt./ha.	Growth Rates				Average 2015-2019
		15-16	16-17	17-18	18-19	
Palay	3.90	-0.7	3.5	-0.9	1.8	0.9
Corn	2.93	-1.0	6.7	-0.2	2.4	2.0
Banana	20.49	-1.9	2.1	1.8	-2.4	-0.1
Coconut	4.19	-7.4	0.3	4.4	-0.4	-0.8
Mango	4.79	-9.5	-8.6	-3.3	3.3	-4.6
Sugarcane	54.42	0.2	22.7	-15.6	-3.4	1.0
Pineapple	41.12	-2.6	1.1	1.9	0.8	0.3
Cassava	12.17	-1.5	-0.2	-0.04	-1.1	-0.7
Rubber	1.79	-9.2	10.7	2.8	1.7	1.5
Sweet Potato	6.24	0.1	1.2	-1.1	0.9	0.3
Onion	12.19	-22.6	7.0	-4.5	15.4	-1.2
Eggplant	11.08	1.0	0.7	0.3	1.3	0.8
Coffee	0.64	-5.8	-8.2	-3.3	0.7	-4.1
Tobacco	1.70	2.3	-4.7	7.9	2.1	1.9
Abaca	0.52	1.9	-2.8	4.1	0.9	1.0
Tomato	13.29	-2.1	2.0	0.9	1.9	0.7
Potato	15.11	-0.2	0.1	2.7	-0.4	0.6
Ampalaya	8.36	-0.6	1.0	-2.5	2.3	0.03
Cabbage	15.37	-0.2	0.8	-0.6	6.0	1.5
Calamansi	8.14	-26.7	-1.2	-2.6	11.8	-4.7
Mongo	0.81	1.5	2.4	4.6	-1.5	1.8
Cacao	0.43	-2.4	-9.2	-23.3	-4.6	-9.9

Source of basic data: Philippine Statistics Authority

## OUTPUT AND PRODUCTIVITY

Table 4a. Indices of Volume of Livestock and Poultry Production, Philippines, 2015-2019  
(2018=100)  
(in percent)

Item	2018 Prod'n ( <sup>'000</sup> mt)	Indices					Percentage Point Difference <sup>1/</sup>	2019 Prod'n ( <sup>'000</sup> mt)
		2015	2016	2017	2018	2019		
<b>A. Livestock</b>								
Carabao	143.14	99.2	101.1	100.9	100.0	98.3	-1.7	140.66
Cattle	263.31	101.4	102.7	101.1	100.0	99.0	-1.0	260.62
Hog	2,319.76	91.4	96.2	97.6	100.0	99.0	-1.0	2,296.65
Goat	76.95	100.7	100.7	100.5	100.0	99.2	-0.8	76.36
Dairy	23.69	86.1	89.3	96.1	100.0	102.7	2.7	24.32
<b>B. Poultry</b>								
Chicken	1,836.66	90.4	91.2	95.1	100.0	104.9	4.9	1,927.41
Duck	30.81	110.2	104.6	100.9	100.0	97.7	-2.3	30.10
<b>C. Eggs</b>								
Chicken egg	533.91	83.3	86.5	92.2	100.0	109.2	9.2	583.23
Duck egg	46.61	91.0	94.7	97.5	100.0	106.3	6.3	49.57

<sup>1/</sup> 2019 Index less 2018 Index, (2018=100)

Source of basic data: Philippine Statistics Authority

Table 4b. Growth Rates of Volume of Livestock and Poultry Production,  
Philippines 2015-2019  
(in percent)

Item	2015 Prod'n ( <sup>'</sup> 000 mt)	Growth Rates				Average 2015-2019
		15-16	16-17	17-18	18-19	
A. Livestock						
Carabao	142.04	1.9	-0.2	-0.9	-1.7	-0.2
Cattle	266.90	1.3	-1.5	-1.1	-1.0	-0.6
Hog	2,120.33	5.3	1.5	2.4	-1.0	2.0
Goat	77.48	-0.03	-0.1	-0.5	-0.8	-0.4
Dairy	20.39	3.8	7.6	4.1	2.7	4.5
B. Poultry						
Chicken	1,660.81	0.8	4.3	5.2	4.9	3.8
Duck	33.94	-5.1	-3.5	-0.9	-2.3	-2.9
C. Eggs						
Chicken egg	444.55	3.9	6.6	8.4	9.2	7.0
Duck egg	42.40	4.1	2.9	2.6	6.3	4.0

Source of basic data: Philippine Statistics Authority

Table 5a. Indices of Volume of Fisheries Production by Subsector, Philippines, 2015-2019  
(2018=100)  
(in percent)

Item	2018 Prod'n ( <sup>000</sup> mt)	Indices					Percentage Point Difference <sup>1/</sup>	2019 Prod'n ( <sup>000</sup> mt)
		2015	2016	2017	2018	2019		
A. Commercial	946.44	114.6	107.5	100.2	100.0	98.4	-1.6	931.5
B. Municipal	1,106.07	110.0	102.9	101.8	100.0	101.7	1.7	1,125.2
Marine	941.87	107.4	103.7	102.2	100.0	102.9	2.9	968.8
Inland	164.20	124.7	98.0	99.8	100.0	95.3	-4.7	156.46
C. Aquaculture	2,304.37	101.9	95.5	97.1	100.0	102.3	2.3	2,358.3
Brackishwater fishpond <sup>2/</sup>	329.63	98.8	103.3	105.4	100.0	105.7	5.7	348.3
Freshwater fishcage/pen	160.99	96.6	95.8	98.5	100.0	98.0	-2.0	157.8
Freshwater fishpond <sup>3/</sup>	161.61	91.4	90.2	96.9	100.0	101.0	1.0	163.3
Marine fishcage/pen	118.82	98.3	98.9	99.1	100.0	107.2	7.2	127.4
Others <sup>4/</sup>	1,533.31	104.5	94.1	95.1	100.0	101.8	1.8	1,561.6

<sup>1/</sup> 2019 Index less 2018 Index, (2018=100)

<sup>2/</sup> Includes Brackishwater fishcage and fishpen

<sup>3/</sup> Includes small farm reservoir and rice fish

<sup>4/</sup> Includes Oyster, Mussel and Seaweed

Source of basic data: Philippine Statistics Authority

Table 5b. Growth Rates of Volume of Fisheries Production by Subsector, Philippines, 2015-2019  
(in percent)

Item	2015 Prod'n ('000 mt)	Growth Rates				Average 2015-2019
		15-16	16-17	17-18	18-19	
A. Commercial	1,084.62	-6.2	-6.8	-0.2	-1.6	-3.7
B. Municipal	1,216.53	-6.5	-1.0	-1.8	1.7	-1.9
Marine	1,011.79	-3.4	-1.5	-2.1	2.9	-1.1
Inland	204.73	-21.4	1.8	0.2	-4.7	-6.0
C. Aquaculture	2,348.16	-6.3	1.7	3.0	2.3	0.2
Brackishwater fishpond <sup>2/</sup>	325.63	4.6	2.0	-5.1	5.7	1.8
Freshwater fishcage/pen	155.56	-0.9	2.8	1.6	-2.0	0.4
Freshwater fishpond <sup>3/</sup>	147.64	-1.3	7.4	3.2	1.0	2.6
Marine fishcage/pen	116.76	0.7	0.2	0.9	7.2	2.2
Others <sup>4/</sup>	1,602.57	-10.0	1.0	5.2	1.8	-0.5

<sup>2/</sup> Includes Brackishwater fishcage and fishpen

<sup>3/</sup> Includes small farm reservoir and rice fish

<sup>4/</sup> Includes Oyster, Mussel and Seaweed

Source of basic data: Philippine Statistics Authority

## OUTPUT AND PRODUCTIVITY

Table 6a. Indices of Volume of Fisheries Production by Species, Philippines, 2015-2019  
(2018=100)  
(in percent)

Item	2018 Prod'n ( <sup>1</sup> 000 mt)	Indices					Percentage Point Difference <sup>1/</sup>	2019 Prod'n ( <sup>1</sup> 000 mt)
		2015	2016	2017	2018	2019		
Milkfish	400.12	98.2	100.6	104.1	100.0	103.7	3.7	414.94
Tilapia	321.08	97.1	93.7	96.9	100.0	100.0	0.03	321.19
Tiger Prawn	44.88	110.6	109.7	102.8	100.0	102.5	2.5	46.00
Skipjack	258.38	90.4	85.2	95.8	100.0	103.1	3.1	266.38
Roundscad	171.31	131.4	123.6	106.9	100.0	110.3	10.3	189.00
Seaweed	1,478.30	106.0	95.0	95.7	100.0	101.5	1.5	1,499.96
Yellowfin Tuna	94.44	151.8	109.1	113.2	100.0	105.2	5.2	99.35
Mudcrab	21.68	78.9	82.3	87.6	100.0	102.8	2.8	22.28
Frigate Tuna	111.92	123.0	119.6	109.1	100.0	99.6	-0.4	111.51
Big-eyed Scad	110.92	105.2	101.7	98.4	100.0	98.7	-1.3	109.44
Bali Sardinella	259.13	112.2	108.2	93.2	100.0	95.5	-4.5	247.50
Squid	47.33	111.9	110.1	105.5	100.0	99.2	-0.8	46.95
Blue Crab	33.93	77.4	84.3	92.3	100.0	87.5	-12.5	29.68
Bigeye Tuna	31.13	34.9	48.9	88.8	100.0	57.0	-43.0	17.76
Grouper	17.78	107.3	100.6	98.3	100.0	111.0	11.0	19.73
Indian Mackerel	55.77	132.8	113.5	107.7	100.0	108.0	8.0	60.21
Threadfin Bream	36.34	107.8	109.2	109.0	100.0	113.9	13.9	41.38
Slipmouth	47.95	100.3	101.4	98.5	100.0	96.9	-3.1	46.46
Cavalla	23.66	122.2	106.0	101.5	100.0	102.4	2.4	24.22
Fimbriated Sardines	87.58	95.7	87.4	90.7	100.0	88.7	-11.3	77.72
Other Fisheries	703.24	111.1	106.9	102.0	100.0	102.9	2.9	723.32

<sup>1/</sup> 2019 Index less 2018 Index, (2018=100)

Source of basic data: Philippine Statistics Authority

Table 6b. Growth Rates of Volume of Fisheries Production by Species,  
Philippines, 2015-2019  
(in percent)

Item	2015 Prod'n ('000 mt)	Growth Rates				Average 2015-2019
		15-16	16-17	17-18	18-19	
Milkfish	392.74	2.5	3.4	-3.9	3.7	1.4
Tilapia	311.68	-3.5	3.4	3.2	0.03	0.8
Tiger Prawn	49.63	-0.8	-6.3	-2.8	2.5	-1.8
Skipjack	233.54	-5.8	12.5	4.4	3.1	3.5
Roundscad	225.10	-5.9	-13.6	-6.4	10.3	-3.9
Seaweed	1,566.36	-10.3	0.8	4.4	1.5	-0.9
Yellowfin Tuna	143.39	-28.1	3.8	-11.7	5.2	-7.7
Mudcrab	17.10	4.4	6.5	14.1	2.8	6.9
Frigate Tuna	137.68	-2.8	-8.8	-8.3	-0.4	-5.1
Big-eyed Scad	116.75	-3.4	-3.2	1.6	-1.3	-1.6
Bali Sardinella	290.65	-3.5	-13.9	7.3	-4.5	-3.6
Squid	52.95	-1.6	-4.2	-5.2	-0.8	-2.9
Blue Crab	26.25	9.0	9.5	8.3	-12.5	3.6
Bigeye Tuna	10.87	40.0	81.6	12.6	-43.0	22.8
Grouper	19.07	-6.3	-2.2	1.7	11.0	1.0
Indian Mackerel	74.08	-14.5	-5.1	-7.2	8.0	-4.7
Threadfin Bream	39.17	1.3	-0.2	-8.2	13.9	1.7
Slipmouth	48.11	1.1	-2.8	1.5	-3.1	-0.8
Cavalla	28.90	-13.2	-4.3	-1.5	2.4	-4.1
Fimbriated Sardines	83.84	-8.7	3.7	10.3	-11.3	-1.5
Other Fisheries	781.43	-3.8	-4.6	-1.9	2.9	-1.9

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. Employment and Wages in the Agriculture Sector
8. Prices and Marketing of Agricultural Commodities

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OUTPUT AND PRODUCTY  
PHILIPPINE STATISTICS AUTHORITY**

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