“Encompassing sustainability, future-proofing the economy: Food Security and Agribusiness Modernity”

Danilo V. Fausto
President, Philippine Chamber of Agriculture and Food, Inc.
National Chairman, Dairy Confederation of the Philippines
President & CEO, DVF Dairy Farm, Inc.
Past District Governor, Rotary International District 3780

Discussion Objectives

1) Food Security Defined

2) Overview of Philippine agriculture industry

3) Challenges in agriculture and food security

4) The Way Forward

Food Security Defined

> *When all people, at all times, have physical and economic access to sufficient safe and nutritious food that meet their dietary needs and food preferences for an active and healthy life”*

UN/FAO/Global Food Summit

2022 Food Security Index, ASEAN Countries,

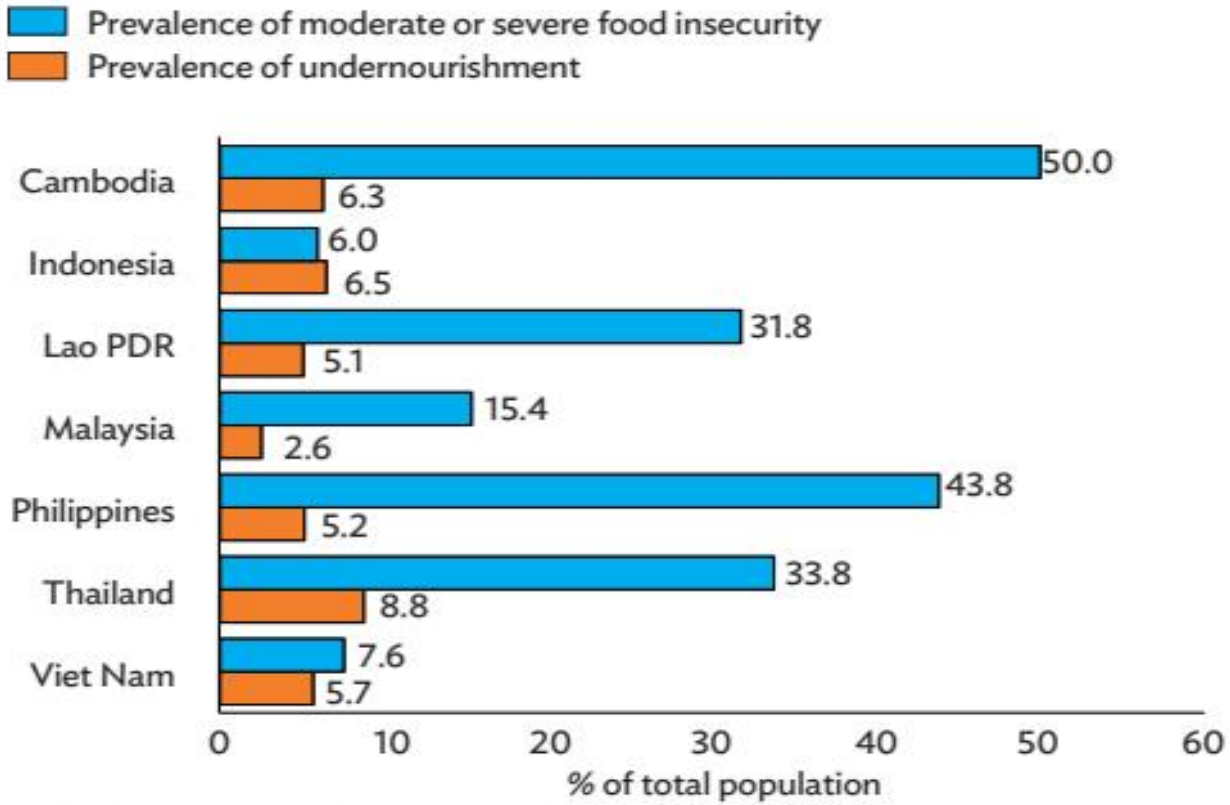
(Indices from 113 countries)

Country	Rank 2020/2022	Overall Index	Affordability	Availability	Quality & Safety	Sustainability & Adaptation
Singapore ↓	19 / 28	73.1	93.2	77.8	69.7	44.3
Malaysia ↑	43 / 41	69.9	87.0	59.5	74.7	53.7
Vietnam ↑	63 / 46	67.9	84.0	60.7	70.2	52.2
Indonesia ↑	65 / 63	60.2	81.4	50.9	56.2	46.3
Thailand ↓	51 / 64	60.1	83.7	52.9	45.3	51.6
Philippines ↑	73 / 67	59.3	71.5	55.2	65.3	41.8
Myanmar ↓	70 / 72	57.6	62.1	53.5	64.4	49.0
Cambodia ↑	81 / 78	55.7	74.3	54.5	54.0	33.9
Laos ↑	90 / 81	53.1	59.7	51.8	51.7	47.0

Source: 2022 Global Food Security Index, Economist Intelligence Unit (EIU)

Figure 2.28.12 Prevalence of Food Insecurity and Undernourishment, 2019–2021

High prevalence of food insecurity is exacerbated by elevated food inflation.



Lao PDR = Lao People's Democratic Republic.

Note: Data on food insecurity and undernourishment are 3-year averages from 2019 to 2021. Malaysia data on undernourishment are available only from 2018 to 2020.

Source: FAOSTAT. Food and Agriculture Organization of the United Nations.

GDP Growth Rate and Inflation, % Per Year

	GDP Growth				Inflation			
	2021	2022	2023	2024	2021	2022	2023	2024
Developing Asia	**7.2**	**4.2**	**4.8**	**4.8**	**2.6**	**4.4**	**4.2**	**3.3**
Developing Asia excluding the PRC	**6.1**	**5.4**	**4.6**	**5.1**	**4.2**	**6.7**	**6.2**	**4.5**
Southeast Asia	**3.5**	**5.6**	**4.7**	**5.0**	**2.0**	**5.0**	**4.4**	**3.3**
Brunei Darussalam	-1.6	-0.5	2.5	2.8	1.7	3.7	2.0	1.6
Cambodia	3.0	5.2	5.5	6.0	2.9	5.3	3.0	4.0
Indonesia	3.7	5.3	4.8	5.0	1.6	4.2	4.2	3.0
Lao People's Democratic Republic	2.3	2.5	4.0	4.0	3.8	23.0	16.0	5.0
Malaysia	3.1	8.7	4.7	4.9	2.5	3.4	3.1	2.8
Myanmar	-5.9	2.0	2.8	3.2	3.6	16.0	10.5	8.2
Philippines	5.7	7.6	6.0	6.2	3.9	5.8	6.2	4.0
Singapore	8.9	3.6	2.0	3.0	2.3	6.1	5.0	2.0
Thailand	1.5	2.6	3.3	3.7	1.2	6.1	2.9	2.3
Timor-Leste	2.9	3.2	3.1	3.0	3.8	7.0	5.5	2.8
Viet Nam	2.6	8.0	6.5	6.8	1.8	3.2	4.5	4.2

Source: Asian Development Bank

Table 1a. Value of Production in Philippine Agriculture and Fisheries at Constant 2018 Prices
First Quarter 2020 to Fourth Quarter 2022
(in Million PhP)

Subsector	2020				2021				2022				January to December		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2020	2021	2022
Crops	239,871	237,367	220,011	285,303	247,736	244,674	219,632	292,616	243,650	237,868	223,502	289,547	982,552	1,004,658	994,567
Livestock	78,082	76,486	73,229	75,880	59,786	61,743	62,047	68,531	59,215	63,065	64,514	70,221	303,676	252,108	257,015
Poultry	60,574	57,535	58,523	60,078	56,053	58,987	59,260	61,689	62,961	63,615	63,060	62,786	236,710	235,989	252,422
Fisheries	57,329	70,982	65,964	71,549	57,463	70,224	65,973	72,331	54,142	68,572	62,547	67,546	265,824	265,991	252,807
AGRICULTURE AND FISHERIES	435,856	442,369	417,727	492,810	421,038	435,628	406,911	495,168	419,967	433,120	413,623	490,101	1,788,762	1,758,746	1,756,811

Note: Details may not add up to totals due to rounding

Source: Philippine Statistics Authority

7.88%

2022 GDP = US$401.66B ≈ (@US$1 @₱55.5) ₱22,292.13B

2023 per capita GDP = US$ 3,905

Upper middle income US$ 4,046-US$ 12,535

Economy & Politics › International

Philippines: Gross domestic product (GDP) in current prices from 1987 to 2027

(in billion U.S. dollars)



Source: Statista

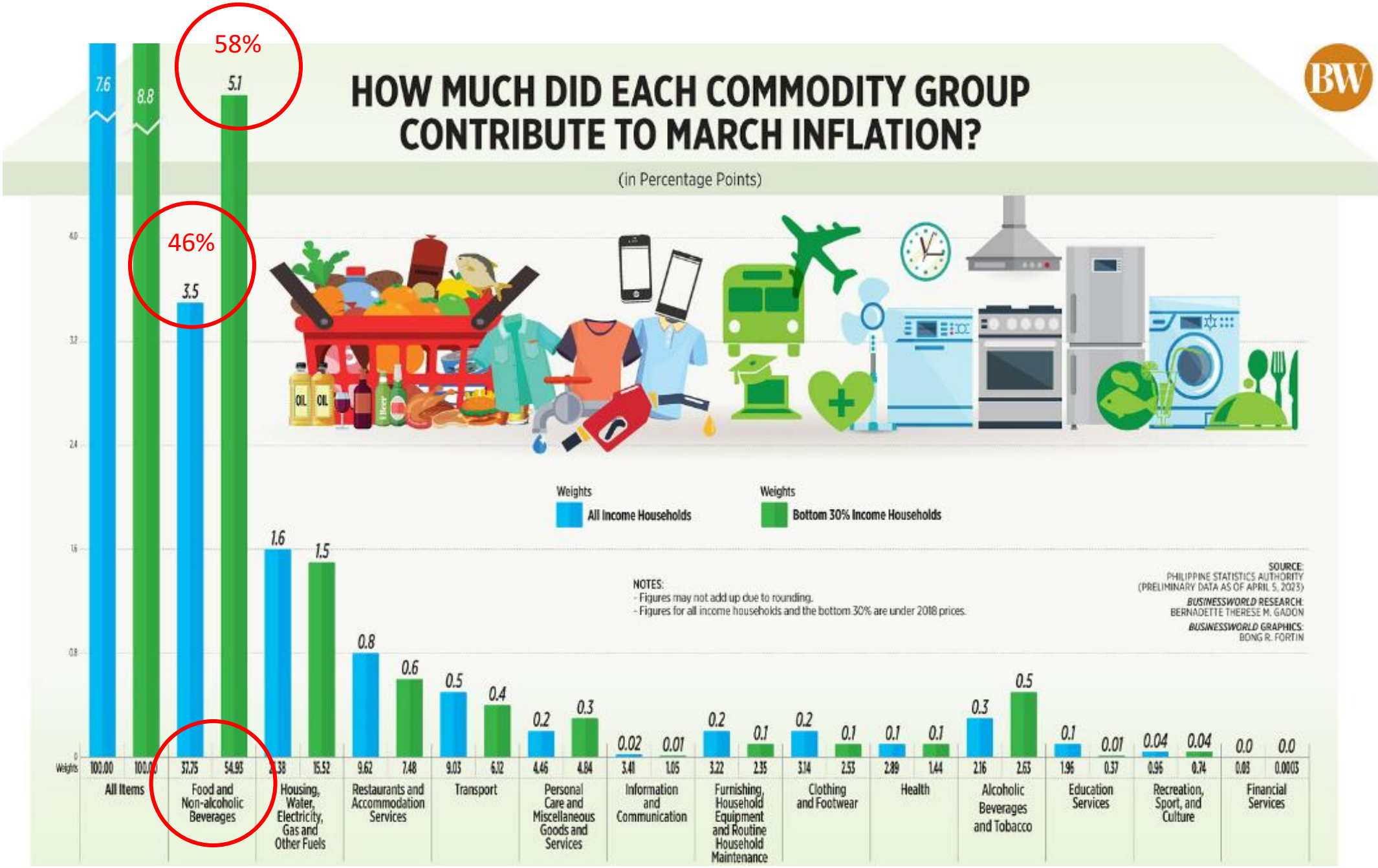

58%
46%
HOW MUCH DID EACH COMMODITY GROUP CONTRIBUTE TO MARCH INFLATION?
(in Percentage Points)
Weights
All Income Households
Weights
Bottom 30% Income Households
NOTES:
- Figures may not add up due to rounding.
- Figures for all income households and the bottom 30% are under 2018 prices.
SOURCE:
PHILIPPINE STATISTICS AUTHORITY
(PRELIMINARY DATA AS OF APRIL 5, 2023)
BUSINESSWORLD RESEARCH:
BERNADETTE THERESE M. GADON
BUSINESSWORLD GRAPHICS:
BONG R. FORTIN
All Items
Food and Non-alcoholic Beverages
Housing, Water, Electricity, Gas and Other Fuels
Restaurants and Accommodation Services
Transport
Personal Care and Miscellaneous Goods and Services
Information and Communication
Furnishing, Household Equipment and Routine Household Maintenance
Clothing and Footwear
Health
Alcoholic Beverages and Tobacco
Education Services
Recreation, Sport, and Culture
Financial Services

Table 2a. Year-on-Year Growth Rates of Value of Production in Philippine Agriculture and Fisheries at Constant 2018 Prices, First Quarter 2020 to Fourth Quarter 2022
(in percent)

Subsector	2020-2021				2021-2022				January to December	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2020-2021	2021-2022
Crops	3.3	3.1	-0.2	2.6	-1.6	-2.8	1.8	-1.0	2.2	-1.0
Livestock	-23.4	-19.3	-15.3	-9.7	-1.0	2.1	4.0	2.5	-17.0	1.9
Poultry	-7.5	2.5	1.3	2.7	12.3	7.8	6.4	1.8	-0.3	7.0
Fisheries	0.2	-1.1	0.01	1.1	-5.8	-2.4	-5.2	-6.6	0.1	-5.0
AGRICULTURE AND FISHERIES	-3.4	-1.5	-2.6	0.5	-0.3	-0.6	1.6	-1.0	-1.7	-0.1

Source: Philippine Statistics Authority

Table 2a. Growth Rates of Value of Production in Philippine Agriculture and Fisheries
at Constant 2018 Prices
First Quarter 2022 to First Quarter 2023
(in percent)

Subsector	2021-2022				2022-2023
	Q1	Q2	Q3	Q4	Q1
Crops	-1.7	-2.7	1.8	-1.0	1.7
Livestock	-1.0	2.1	4.0	2.5	4.1
Poultry	12.3	7.8	6.4	1.8	3.2
Fisheries	-5.8	-2.4	-5.2	-6.7	0.3
AGRICULTURE AND FISHERIES	-0.3	-0.5	1.6	-1.0	2.1

Source: Philippine Statistics Authority

AGRICULTURAL INDICATORS SYSTEM (AIS)

SELF-SUFFICIENCY RATIO (SSR)

OF SELECTED AGRICULTURAL COMMODITIES, 2020

As of November2021
MAS 05-IG-15112021

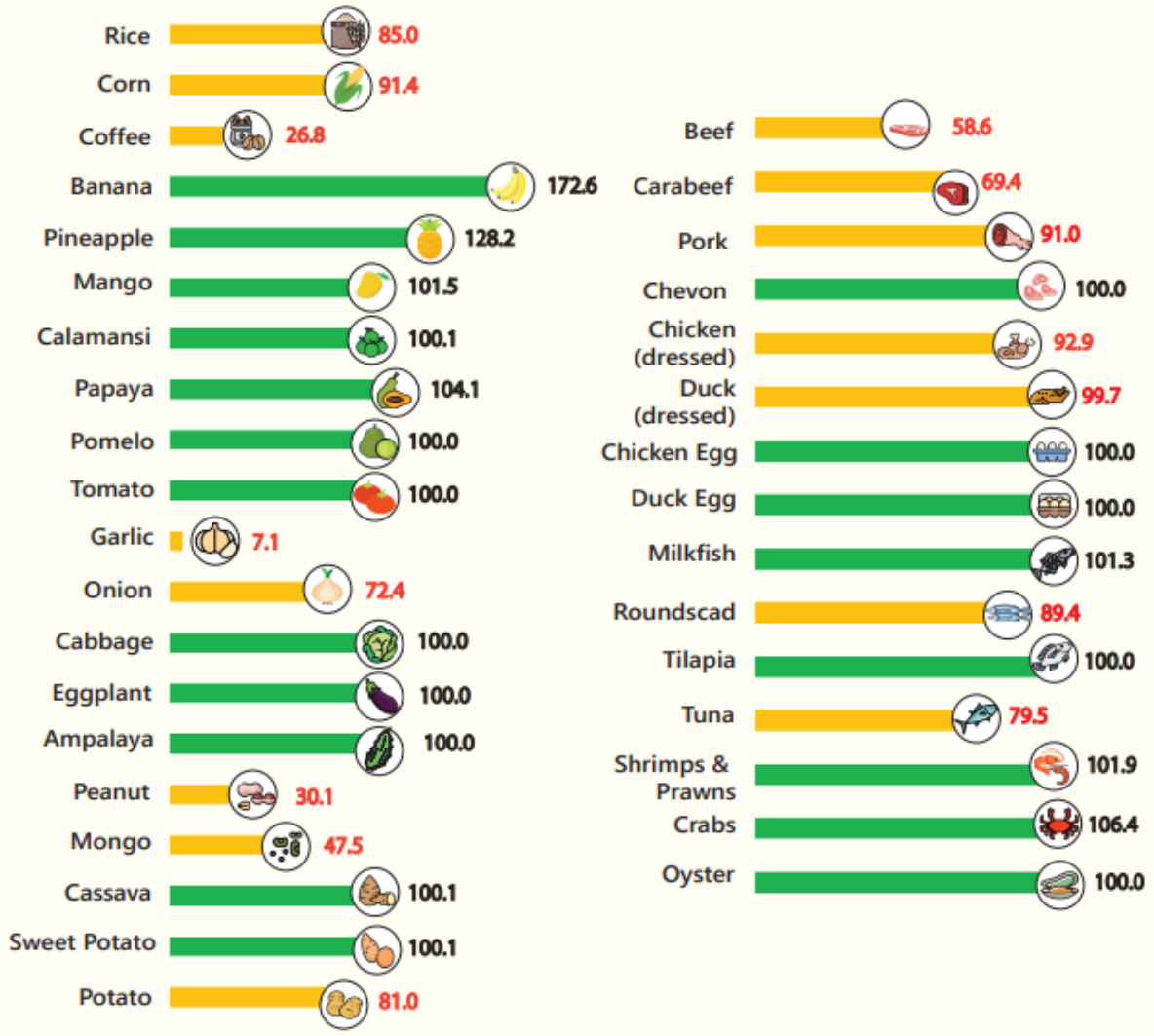


Table 7a. Volume of Crop Production
First Quarter 2020 to Fourth Quarter 2022
(in Thousand Metric Tons)

Subsector/ Commodity	2020				2021				2022				January to December		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2020	2021	2022
Crops															
Palay	4,261.44	4,125.23	3,516.35	7,391.83	4,626.92	4,172.94	3,752.73	7,407.58	4,541.26	4,202.42	3,789.60	7,223.12	19,294.86	19,960.17	19,756.39
Corn	2,296.04	1,352.56	2,817.37	1,652.57	2,445.20	1,437.14	2,292.13	2,125.85	2,441.39	1,484.64	2,349.53	1,980.05	8,118.55	8,300.32	8,255.61
Banana	2,063.11	2,230.66	2,362.50	2,399.87	2,084.16	2,258.90	2,358.23	2,390.03	2,014.61	2,267.46	2,359.61	2,371.61	9,056.15	9,091.31	9,013.29
Coconut	3,167.38	3,263.68	4,002.31	4,057.55	3,141.86	3,292.04	4,080.57	4,202.82	3,204.62	3,359.29	4,123.18	4,244.07	14,490.92	14,717.29	14,931.16
Mango	94.07	558.07	59.58	27.53	97.90	556.82	59.93	27.05	94.00	535.43	57.66	25.47	739.25	741.69	712.55
Sugarcane	12,182.88	5,124.62	499.44	6,592.00	11,634.40	6,908.22	1,052.67	6,682.11	10,455.06	3,188.96	1,881.67	7,929.72	24,398.94	26,277.40	23,455.40
Pineapple	626.52	712.26	651.13	712.64	662.50	744.82	736.40	716.48	669.13	734.31	747.43	763.56	2,702.55	2,860.20	2,914.42
Cassava	515.46	722.79	590.93	778.58	477.68	692.60	589.43	800.11	465.25	698.63	591.06	805.11	2,607.76	2,559.81	2,560.04
Rubber	45.75	116.94	104.43	155.28	47.49	123.82	107.13	152.20	47.34	123.11	106.78	138.52	422.41	430.64	415.75
Sweet Potato	116.52	157.47	137.70	135.20	115.41	157.68	135.74	136.73	114.39	163.94	138.68	141.31	546.89	545.56	558.32
Onion	163.66	55.98	0.02	9.87	141.17	68.27	0.02	8.58	147.15	82.08	0.02	10.58	229.54	218.05	239.83
Eggplant	75.40	104.44	39.76	23.13	76.12	106.66	37.77	23.60	79.15	106.87	38.63	23.50	242.73	244.14	248.15
Coffee	17.22	5.88	5.75	31.79	19.35	5.87	5.50	29.89	18.60	5.45	5.28	30.59	60.64	60.61	59.91
Tobacco	12.72	37.62	0.91	1.19	11.93	36.83	0.94	1.23	9.06	36.38	0.96	1.33	52.43	50.93	47.73
Abaca	14.97	18.28	20.09	17.62	12.77	18.20	15.85	15.58	14.56	17.97	19.27	16.03	70.95	62.40	67.82
Tomato	94.22	74.27	27.52	26.00	95.87	76.47	27.96	25.20	90.00	71.59	29.65	25.37	222.00	225.50	216.61
Potato	23.13	12.52	16.58	61.33	17.02	15.63	14.43	55.98	19.01	15.12	14.29	59.00	113.56	103.06	107.42
Ampalaya	18.26	30.67	20.38	18.50	18.63	31.49	19.60	18.58	18.79	32.05	20.13	17.70	87.80	88.30	88.68
Cabbage	32.32	22.36	15.07	60.06	29.21	25.27	12.34	57.73	27.07	24.44	12.48	57.26	129.80	124.55	121.25
Calamansi	13.31	14.51	55.47	25.39	13.10	13.38	60.10	25.54	12.90	13.69	56.40	24.90	108.69	112.13	107.90
Mongo	8.63	23.80	1.47	3.13	9.17	21.77	1.36	3.19	9.17	23.17	1.37	3.13	37.04	35.49	36.85
Cacao	2.01	2.02	2.54	2.76	2.25	2.22	2.45	3.08	2.38	2.26	2.65	3.16	9.34	10.00	10.45
Other Crops	804.81	961.35	755.15	893.18	798.64	991.61	757.61	898.58	807.01	864.05	766.91	891.32	3,414.49	3,446.45	3,329.29

Source: Philippine Statistics Authority

Rice Supply Analysis, April 2023

Assumptions:

- Per Capita Consumption (Source: PSA) = 118.8 kilos
- Rice Sufficiency (118.8x112M) = 13,305,600.00 MT
- Annual Palay Sufficiency (@55% conversion) = 24,192,000.00 MT
- 2022 Palay Production = 19,756,390.00 MT

  Less: Feeds, waste & use as seeds (10%) = 17,780,751.00 MT
- Projected Shortage: Palay = 6,411,249.00 MT

  Rice = 3,526,186.95 MT
- Requirements per day = 36,453.70 MT
- Buffer Stock for 3 days (current NFA stocks, Mar'23) = 103,070.00 MT
- Buffer Stock for 9 days (per Pres BBM) = 328,083.29 MT
- Ideal Stock for NFA 100 days (P87.49 B @ ₱24/kl) = 3,645,370.00 MT
- 2023 NFA Budget of ₱9.0 B = 10 days
- NFA requested additional Budget (₱50.0 B?) = 57 days

Table 2.2 Crops: Area Planted/Harvested, [1/]
Philippines, 2016-2020

Item	2016	2017	2018	2019	2020
			('000 has)		
Total	**13,091.5**	**13,507.8**	**13,476.3**	**13,298.1**	**13,422.3**
Palay	4,556.0	4,811.8	4,800.4	4,651.5	4,718.9
Corn	2,484.5	2,552.6	2,511.4	2,516.7	2,553.8
Banana	442.9	446.8	447.9	449.0	451.2
Coconut	3,565.1	3,612.3	3,628.1	3,651.9	3,651.3
Mango	187.8	186.0	185.9	186.6	186.8
Sugarcane	410.1	437.5	437.5	379.3	399.1
Pineapple	65.2	66.0	66.2	66.0	66.9
Cassava	229.8	234.5	227.6	222.4	219.2
Rubber	223.3	226.3	228.9	229.4	230.7
Sweet Potato	84.8	85.0	84.0	83.3	83.7
Onion	13.0	18.3	17.9	19.9	18.4
Eggplant	21.0	21.4	21.7	21.8	21.8
Coffee	114.8	112.8	113.4	112.0	113.3
Tobacco	32.5	30.8	28.2	28.0	28.9
Abaca	134.4	132.5	132.3	132.4	132.4
Tomato	16.2	16.5	16.5	16.4	16.4
Potato	7.7	7.8	7.6	7.5	7.2
Ampalaya	10.5	10.7	10.7	10.7	10.7
Cabbage	8.0	7.9	7.8	7.8	8.0
Calamansi	19.8	19.8	19.8	19.6	19.7
Mongo	41.3	41.9	41.6	41.7	41.9
Cacao	14.8	18.3	27.1	30.3	31.3
Other Crops	407.9	410.3	413.8	413.7	410.9

85%

1/ Area planted for permanent crops and area harvested for temporary crops.
Source: PSA

Table 1c. Value of Livestock and Poultry Production at Constant 2018 Prices
First Quarter 2020 to Fourth Quarter 2022
(in Million PhP)

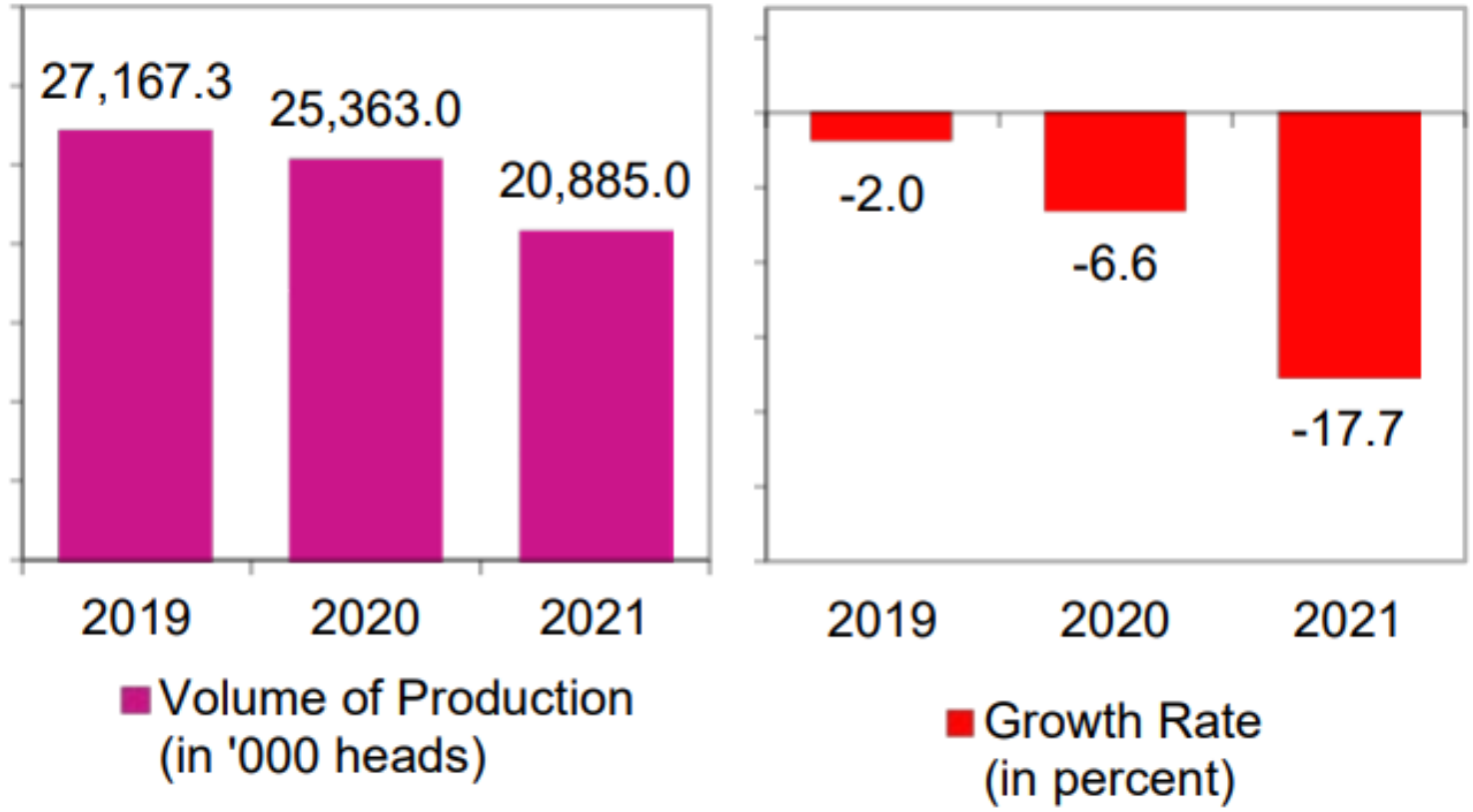
Subsector/ Commodity	2020				2021				2022				January to December			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2020	2021	2022	
Livestock	78,082	76,486	73,229	75,880	59,786	61,743	62,047	68,531	59,215	63,065	64,514	70,221	303,676	252,108	257,015	
Hog	66,271	66,756	61,675	61,563	49,154	49,284	50,667	53,814	48,563	50,782	52,922	55,618	256,265	202,919	207,885	80.88%
Cattle	6,429	4,950	5,874	7,679	5,647	6,563	5,721	7,763	5,610	6,622	5,791	7,730	24,932	25,694	25,753	
Carabao	2,774	2,575	2,675	3,458	2,541	3,251	2,881	3,659	2,666	3,124	2,982	3,649	11,482	12,332	12,421	
Goat	2,362	1,950	2,723	2,905	2,192	2,407	2,507	3,016	2,068	2,246	2,504	2,942	9,939	10,122	9,760	
Dairy	245	255	282	276	252	238	272	280	308	291	315	283	1,058	1,042	1,197	
Poultry	60,574	57,535	58,523	60,078	56,053	58,987	59,260	61,689	62,961	63,615	63,060	62,786	236,710	235,989	252,422	
Chicken	43,099	41,374	41,372	42,507	38,259	40,726	40,809	42,390	43,224	43,548	43,539	43,364	168,352	162,184	173,674	68.80%
Duck	874	505	794	826	773	699	777	709	607	646	682	739	2,999	2,957	2,674	
Chicken Eggs	15,503	14,353	15,278	15,405	15,909	16,237	16,518	17,367	17,888	17,943	17,522	17,407	60,540	66,031	70,761	28.03%
Duck Eggs	1,098	1,303	1,079	1,339	1,112	1,326	1,155	1,224	1,242	1,478	1,317	1,276	4,819	4,817	5,313	

Note: Details may not add up to totals due to rounding

Source: Philippine Statistics Authority

-6,282.3 heads

Figure 2. Volume of Hog Production (in '000 heads) and Annual Growth Rate, Philippines January-December 2019-2021[p]



P – preliminary
Source: Philippine Statistics Authority

Table 1. Volume of Fisheries Production by Subsector: Philippines, January to December 2020 - 2022[P]

Subsector	Volume of Production (metric tons)			Percent Change (%)		Percent Share to Total Volume of Fisheries Production
	2020	2021	2022[P]	2021/2020	2022[P]/2021	2022
Fisheries	4,400,373.01	4,248,261.40	4,339,888.55	-3.5	2.2	100.0
Commercial Fisheries	975,205.08	870,038.30	868,408.94	-10.8	-0.2	20.0
Municipal Fisheries	1,102,262.36	1,131,907.32	1,122,227.60	2.7	-0.9	25.9
Marine	952,188.62	926,368.90	946,875.91	-2.7	2.2	21.8
Inland	150,073.74	205,538.42	175,351.69	37.0	-14.7	4.0
Aquaculture	2,322,905.57	2,246,315.78	2,349,252.01	-3.3	4.6	54.1

[P] - Preliminary

Note: Percent change and percent share may yield different results when computed manually due to rounding.

Sources: Philippine Statistics Authority, Quarterly Commercial Fisheries Survey, Quarterly Municipal Fisheries Survey, Quarterly Inland Fisheries Survey, and Quarterly Aquaculture Survey

Challenges in Agriculture and Food Security

1.) Rural Poverty and Lack of Productivity
2.) Government budget allocation
3.) Small, fragmented farm holdings
4.) Insufficient linkages of primary producers to markets
5.) Lack of product diversification and value adding (processing)
6.) Failure to fully exploit the potential of our fisheries and aquatic resources.

Challenges in Agriculture and Food Security

7.) Agricultural trade policy and smuggling of agri products

8.) Innovation, modern technologies and R&D, and human resources development

9.) Technology transfer and extension service

10.) Strategic shift from traditional farming into agribusiness (industrialization)

11.) Export promotion and supply chain issues

Challenges in Agriculture and Food Security

12.) Lack of access to cheap credit

13.) Failure to implement appropriate Land Use Plan and local agricultural development plan

14.) Enhancing support and coordination between national and local government units

15.) Water Security and Climate Change

The Way Forward/ Recommendations

- Rationalize agriculture budget by parity contribution to agricultural production. At least double, if not triple, the budget of DA to gradually increase to 4% to 6% of the National Budget for the next five years.
- Improve the absorptive capacity of DA
- Revive the Presidential Assistance for Convergence or an Inter-Agency Council
- RCEF funds to include fertilizer, irrigation and value chain facilities
- Increase productivity of rice farming to attain self sufficiency:
  - high yielding varieties
  - triple cropping
  - Improve Irrigation
  - use of organic and inorganic fertilizers

The Way Forward/Recommendations

- Farm consolidation for economies of scale.
- Establish **Mini Agro-Industrial Centers (MAIC)** in at least 4,000 barangays or cluster of barangays, and establish **Regional Food Trading Centers**.
- Rationalize international trade policies and copying the best practices of our neighbors.
- Diversify our products and migrate from a rice centric crop production.
- Stop smuggling of agriculture products and implement biosecurity measures for livestock and poultry.

The Way Forward/Recommendations

- Develop our fisheries and aquatic resources
- Protect and rehabilitate our coral reefs, mangroves establish more protected areas and sanctuaries where the fish may spawn
- Scale up research and development (R&D) on biology, breeding, fry production, nutrition, culture, and fish health for new species.
- Practice precision agriculture
- Establish reliable and real time data information system

The Way Forward/Recommendations

- Enhance coconut farming thru replanting and intercropping.
- Allocate the revenues generated from tariff to the specific products and/or commodities where import tariffs were collected.
- Pass and implement the appropriate national and local land use plans.
- Formulate and implement an LGU Agricultural Development Plan
- Provide credit guarantee to farmers to get credit access from banks.

PGC Outstanding Guarantees

Outstanding Guarantees	2020 (₱Millions)	2021 (₱Millions)
Housing	179,114.15 (97.5%)	184,320.00 (96.3%)
Agriculture	4,247.25 (2.30%)	4,703.00 (2.5%)
SMSE	348.65 (0.2%)	2,381.00 (1.2%)
TOTAL	183,710.05 (100%)	191,404.00 (100%)

Food security is not for free!

“We need to work for it. Farmer security is the key to food security”

Thank You !!!