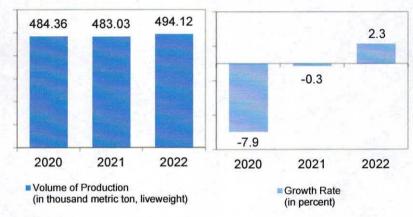


## SPECIAL RELEASE

# CHICKEN SITUATION REPORT October to December 2022

Date of Release: 21 February 2023 Reference No. 2023-SSO-015

Figure 1. Volume and Annual Growth Rate of Chicken Production, Philippines: October to December 2020-2022<sup>p</sup>



p - preliminary

Source: Philippine Statistics Authority, Backyard Livestock and Poultry Survey (BLPS), and Commercial Livestock and Poultry Survey (CLPS)

Total chicken production from October to December 2022 reached 494.12 thousand metric tons, liveweight, indicating an annual growth of 2.3 percent from the 483.03 thousand metric tons, liveweight output in the same quarter of the previous year. This is a recovery from the annual declines in the same quarter of 2020 and 2021 at -7.9 percent and -0.3 percent, respectively. (Figure 1 and Table 1)

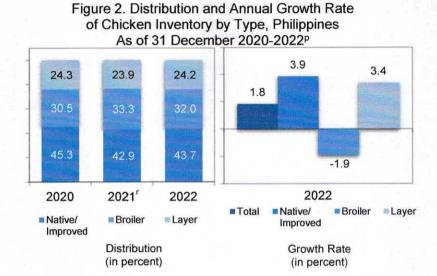
The top five regions with the highest volume of chicken production at liveweight during the period were the following:

- a. Central Luzon, 179.14 thousand metric tons;
- b. CALABARZON, 78.73 thousand metric tons;
- c. Northern Mindanao, 50.29 thousand metric tons;
- d. Western Visayas, 31.71 thousand metric tons; and
- e. Central Visayas, 27.29 thousand metric tons.

These regions accounted for 74.3 percent share to the country's total chicken production during the quarter.



In comparison to their output in the same quarter of 2021, 10 regions reported increases in production during the quarter. In terms of level, Central Luzon posted the highest expansion of 9.64 thousand metric tons, from 169.50 thousand metric tons in the same quarter of the previous year to 179.14 thousand metric tons in the same quarter in 2022. (Table 1)



p - preliminary

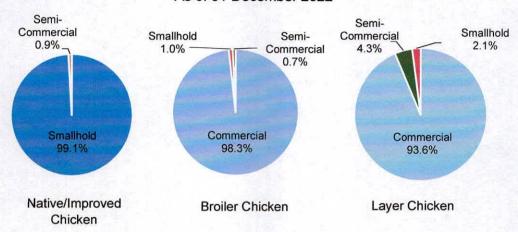
r - revised

Source: Philippine Statistics Authority, BLPS, and CLPS

As of 31 December 2022, the total chicken inventory was registered at 188.48 million birds, or an increase of 1.8 percent from 185.10 million birds in the same period of the previous year. Population of native/improved chicken and layer chicken grew by 3.9 percent and 3.4 percent, respectively. Meanwhile, broiler chicken population declined by -1.9 percent. Of the total chicken inventory, native/improved chicken accounted for 43.7 percent, followed by broiler chicken with 32.0 percent share, and layer chicken with 24.2 percent share. (Figure 2 and Table 2)



Figure 3. Distribution of Chicken Inventory by Type and Classification1, Philippines As of 31 December 2022<sup>p</sup>



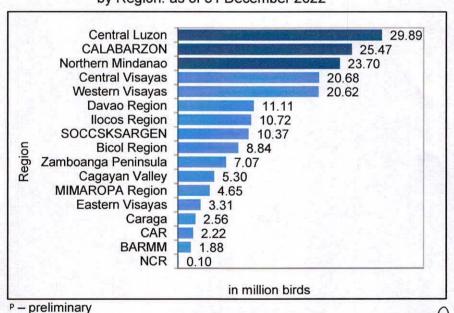
1- Based on new classification of animals per PSA Board Resolution No. 04, series of 2022 dated 13 May 2022 (Refer to the Technical Notes Section V for the new classification)

p - preliminary

Source: Philippine Statistics Authority, BLPS, and CLPS

In terms of distribution by classification, 99.1 percent of the total native/improved chicken were raised by smallhold farms, while bulk of broiler chicken and layer chicken stocks came from commercial farms at 98.3 percent and 93.6 percent, respectively. (Figure 3)

Figure 4. Distribution of Total Chicken Inventory by Region: as of 31 December 2022p

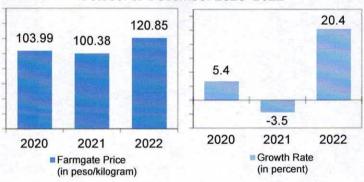


Source: Philippine Statistics Authority, BLPS, and CLPS

As of 31 December 2022, Central Luzon had the highest chicken inventory with 29.89 million birds, followed by CALABARZON with 25.47 million birds, and Northern Mindanao with 23.70 million birds. These regions accounted for 42.0 percent share to the country's total chicken inventory during the period. (Figure 4 and Table 3)

Native/improved chicken inventory was the highest in Western Visayas with 13.18 million birds. Central Luzon reported the highest inventory of broiler chicken with 14.69 million birds, while CALABARZON had the highest layer chicken stocks with 16.92 million birds. (Table 3)

Figure 5. Average Farmgate Price and Annual Growth Rate of Farmgate Price of Broiler Chicken, Philippines October to December 2020<sup>r</sup>-2022<sup>p</sup>



p - preliminary

Source: Philippine Statistics Authority, 2020-2021 Farm Price Survey, and 2022 CLPS

The average farmgate price of broiler chicken at PhP 120.85 per kilogram, liveweight during the quarter was 20.4 percent higher than the previous year's same period average price of PhP 100.38 per kilogram, liveweight. (Figure 5 and Table 4)

The highest farmgate price was recorded in December at PhP 125.19 per kilogram, liveweight, while the lowest was quoted in November at PhP 117.57 per kilogram, liveweight. (Table 4)

DIVINA GRACIA L. DEL PRADO, Ph.D.

(Assistant National Statistician) OIC-Deputy National Statistician Sectoral Statistics Office

RCLMTF

## STATISTICAL TABLES

Table 1. Volume of Chicken Production by Region, Philippines October-December 2020-2022<sup>p</sup>

Region	Production (in metric tons, liveweight)			Annual Growth Rate (in percent)		Percent Share
	2020	2021	<b>2022</b> <sup>p</sup>	2021	2022 <sup>p</sup>	<b>2022</b> <sup>p</sup>
	T			,		
Philippines	484,364	483,028	494,120	-0.3	2.3	100.0
NCR		247	221	0.0	-10.8	a/
CAR	1,872	1,568	1,764	-16.2	12.5	0.4
I - Ilocos Region	22,125	21,119	25,969	-4.5	23.0	5.3
II - Cagayan Valley	14,163	15,654	13,012	10.5	-16.9	2.6
III - Central Luzon	167,788	169,498	179,140	1.0	5.7	36.3
IVA – CALABARZON	81,659	71,946	78,727	-11.9	9.4	15.9
MIMAROPA Region	2,989	3,764	4,326	25.9	14.9	0.9
V - Bicol Region	11,667	12,543	11,194	7.5	-10.8	2.3
VI - Western Visayas	30,156	30,366	31,714	0.7	4.4	6.4
VII - Central Visayas	29,648	32,372	27,289	9.2	-15.7	5.5
VIII - Eastern Visayas	15,360	15,070	12,816	-1.9	-15.0	2.6
IX - Zamboanga Peninsula	10,259	9,822	10,004	-4.3	1.8	2.0
X - Northern Mindanao	51,572	51,844	50,292	0.5	-3.0	10.2
XI - Davao Region	19,608	19,346	19,532	-1.3	1.0	4.0
XII – SOCCSKSARGEN	19,547	21,871	22,249	11.9	1.7	4.5
XIII – Caraga	4,201	3,681	3,481	-12.4	-5.4	0.7
BARMM	1,750	2,317	2,391	32.4	3.2	0.5

<sup>&</sup>lt;sup>p</sup> – preliminary

Note: Details may not add up to total due to rounding. Growth rate and percent share may yield different results when computed manually due to rounding.

Source: Philippine Statistics Authority, Backyard Livestock and Poultry Survey, and Commercial Livestock and

Poultry Survey

a/ - less than 0.1 percent

<sup>.. –</sup> data not applicable

Table 2. Chicken Inventory by Type, Philippines As of 31 December 2020-2022<sup>p</sup>

Chicken Type	Inventory (in thousand birds)			Anr Growt (in pe	Percent Share	
	2020	2020 2021 <sup>r</sup> 2022 <sup>p</sup>			<b>2022</b> <sup>p</sup>	2022 <sup>p</sup>
Total Chicken	176,819.89	185,101.85	188,483.47	4.7	1.8	100.0
Native/Improved Chicken	80,044.71	79,349.98	82,406.38	-3.7	3.9	43.7
Broiler Chicken	53,887.14	61,559.03	60,389.90	1.9	-1.9	32.0
Layer Chicken	42,888.03 44,192.84 45,687.19			-3.3	3.4	24.2

r – revised <sup>p</sup> – preliminary

Note: Details may not add up to total due to rounding. Growth rate and percent share may yield different results when computed manually due to rounding.

Source: Philippine Statistics Authority, Backyard Livestock and Poultry Survey, and Commercial Livestock and

Poultry Survey

Table 3. Chicken Inventory by Type and Region, Philippines As of 31 December 2020-2022p

Chicken Type/ Region	Inventory (in million birds)			Annual Growth Rate (in percent)		Percent Share
	2020	2021 <sup>r</sup>	<b>2022</b> <sup>p</sup>	2021 <sup>r</sup>	<b>2022</b> <sup>p</sup>	2022 <sup>p</sup>
Total Chicken						
Philippines	176.82	185.10	188.48	4.7	1.8	100.0
NCR	0.004	0.20	0.10	5,064.5	-51.2	0.1
CAR	1.66	1.88	2.22	13.3	18.1	1.2
I - Ilocos Region	10.81	12.08	10.72	11.7	-11.3	5.7
II - Cagayan Valley	6.41	6.54	5.30	2.0	-18.9	2.8
III - Central Luzon	28.06	31.26	29.89	11.4	-4.4	15.9
IVA - CALABARZON	24.49	23.55	25.47	-3.8	8.2	13.5
MIMAROPA Region	3.83	4.11	4.65	7.2	13.1	2.5
V - Bicol Region	8.88	8.31	8.84	-6.4	6.4	4.7
VI - Western Visayas	20.80	20.45	20.62	-1.7	8.0	10.9
VII - Central Visayas	19.83	19.54	20.68	-1.5	5.8	11.0
VIII - Eastern Visayas	2.44	2.20	3.31	-9.6	50.2	1.8
IX - Zamboanga Peninsula	5.87	7.82	7.07	33.0	-9.6	3.7
X - Northern Mindanao	18.76	21.55	23.70	14.9	10.0	12.6
XI - Davao Region	10.54	11.85	11.11	12.4	-6.2	5.9
XII - SOCCSKSARGEN	10.37	9.90	10.37	-4.5	4.8	5.5
XIII - Caraga	2.76	2.53	2.56	-8.1	1.1	1.4
BARMM	1.30	1.34	1.88	3.3	40.1	1.0

Continued

Table 3 - Continued

Chicken Type/ Region	Inventory (in million birds)			Annual Growth Rate (in percent)		Percent Share		
3	2020	<b>2021</b> <sup>r</sup>	<b>2022</b> <sup>p</sup>	2021r	2022 <sup>p</sup>	2022 <sup>p</sup>		
Native/Improved Chicken								
Philippines	80.04	79.35	82.41	-0.9	3.9	100.0		
NCR	0.0	0.003	0.0	0.0	-100.0	0.0		
CAR	1.19	1.49	1.94	25.2	30.3	2.4		
I - Ilocos Region	5.10	4.33	4.19	-15.1	-3.3	5.1		
II - Cagayan Valley	4.13	4.23	3.82	2.4	-9.8	4.6		
III - Central Luzon	6.88	6.29	5.72	-8.6	-9.1	6.9		
IVA - CALABARZON	1.99	1.97	2.03	-1.2	3.3	2.5		
MIMAROPA Region	3.36	3.39	3.73	1.0	10.0	4.5		
V - Bicol Region	6.18	5.28	5.88	-14.6	11.5	7.1		
VI - Western Visayas	12.74	12.64	13.18	-0.8	4.3	16.0		
VII - Central Visayas	9.14	8.58	9.64	-6.1	12.4	11.7		
VIII - Eastern Visayas	1.40	1.30	1.85	-6.7	41.8	2.2		
IX - Zamboanga Peninsula	4.02	4.51	4.40	12.4	-2.5	5.3		
X - Northern Mindanao	9.00	10.16	10.50	12.9	3.3	12.7		
XI - Davao Region	6.78	7.21	7.04	6.3	-2.3	8.5		
XII - SOCCSKSARGEN	5.37	5.21	5.37	-3.1	3.1	6.5		
XIII - Caraga	1.47	1.42	1.24	-3.0	-13.0	1.5		
BARMM	1.30	1.34	1.87	3.3	39.5	2.3		
Broiler Chicken								
Philippines	53.89	61.56	60.39	14.2	-1.9	100.0		
NCR	a/	0.20	0.10	33,057.6	-50.6	0.2		
CAR	0.26	0.15	0.07	-39.2	-58.0	0.1		
I - Ilocos Region	4.44	6.65	5.25	49.8	-21.2	8.7		
II - Cagayan Valley	1.36	1.41	0.71	3.8	-49.8	1.2		
III - Central Luzon	11.86	14.73	14.69	24.2	-0.3	24.3		
IVA - CALABARZON	7.63	5.59	6.52	-26.7	16.5	10.8		
MIMAROPA Region	0.19	0.33	0.43	79.0	28.7	0.7		
V - Bicol Region	1.95	2.29	2.20	17.9	-4.1	3.6		
VI - Western Visayas	6.60	6.43	6.13	-2.5	-4.7	10.1		
VII - Central Visayas	7.05	6.75	6.99	-4.2	3.5	11.6		
VIII - Eastern Visayas	0.42	0.38	0.62	-11.3	64.1	1.0		
IX - Zamboanga Peninsula	1.16	2.38	1.57	105.1	-34.0	2.6		
X - Northern Mindanao	5.81	8.53	9.88	46.7	15.9	16.4		
XI - Davao Region	1.72	2.90	2.24	68.6	-22.7	3.7		
XII - SOCCSKSARGEN	2.69	2.38	2.40	-11.4	0.6	4.0		
XIII - Caraga	0.75	0.43	0.59	-43.4	38.8	1.0		
BARMM	0.0	0.0	0.01	0.0	0.0	b/		

Continued

Table 3 - Concluded

Chicken Type/ Region	Inventory (in million birds)			Annual Growth Rate (in percent)		Percent Share
	2020	2021 <sup>r</sup>	2022 <sup>p</sup>	2021 <sup>r</sup>	2022 <sup>p</sup>	2022 <sup>p</sup>
Layer Chicken						
Philippines	42.89	44.19	45.69	3.0	3.4	100.0
NCR	0.003	a/	0.0	-99.1	-100.0	0.0
CAR	0.21	0.23	0.21	10.2	-9.4	0.5
I - Ilocos Region	1.27	1.10	1.28	-13.6	16.9	2.8
II - Cagayan Valley	0.91	0.89	0.77	-2.3	-12.8	1.7
III - Central Luzon	9.31	10.23	9.47	9.9	-7.5	20.7
IVA - CALABARZON	14.87	15.99	16.92	7.5	5.8	37.0
MIMAROPA Region	0.29	0.39	0.49	32.4	26.8	1.1
V - Bicol Region	0.76	0.74	0.76	-2.6	2.3	1.7
VI - Western Visayas	1.46	1.38	1.31	-5.8	-4.9	2.9
VII - Central Visayas	3.65	4.21	4.05	15.3	-3.9	8.9
VIII - Eastern Visayas	0.62	0.52	0.84	-15.0	61.1	1.8
IX - Zamboanga Peninsula	0.70	0.92	1.09	31.8	19.0	2.4
X - Northern Mindanao	3.95	2.86	3.33	-27.5	16.3	7.3
XI - Davao Region	2.04	1.74	1.82	-14.6	4.8	4.0
XII - SOCCSKSARGEN	2.31	2.31	2.61	-0.0	13.0	5.7
XIII - Caraga	0.54	0.69	0.73	27.6	6.8	1.6
BARMM	0.0	0.0	0.0	0.0	0.0	0.0

<sup>&</sup>lt;sup>r</sup> – revised <sup>p</sup> - preliminary

Note: Details may not add up to total due to rounding. Growth rate and percent share may yield different results when computed manually due to rounding.

Source: Philippine Statistics Authority, Backyard Livestock and Poultry Survey, and Commercial Livestock and Poultry Survey

Table 4. Monthly Average Farmgate Price of Broiler Philippines: October-December 2020-2022<sup>p</sup>

Month		ge Farmgat kilogram, liv	Annual Growth Rate (in percent)		
	2020 2021 2022 <sup>p</sup>			2021	2022 <sup>p</sup>
Average	103.99	100.38	120.85	-3.5	20.4
October	108.77	95.85	119.78	-11.9	25.0
November	100.61	101.48	117.57	0.9	15.9
December	102.59	103.80	125.19	1.2	20.6

p - preliminary

Note: Quarterly average and growth rate may yield different results when computed manually due to rounding.

Source: Philippine Statistics Authority, 2020-2021 Farm Price Survey, and 2022 Commercial Livestock and Poultry Survey

a/ less than 1,000 birds

b/ - less than 0.1 percent

#### **TECHNICAL NOTES**

#### I. Introduction

The Chicken Situation Report presents the industry situation in terms of volume of production, inventory by chicken type, and monthly average farmgate prices. It serves as a ready reference for the various clients and stakeholders of the Philippine Statistics Authority (PSA) in the agriculture sector.

The data for this report were collected by PSA through the two surveys, namely, Backyard Livestock and Poultry Survey (BLPS) and the Commercial Livestock and Poultry Survey (CLPS).

The BLPS aims to generate estimates on the supply and disposition of livestock and poultry commodities at the household level. In Q4 2022, the number of sample households covered was 21,501 from the 1,145 sample barangays nationwide. On the other hand, the CLPS seeks to generate estimates on the supply and disposition of livestock and poultry commodities from the sample establishments. There were 892 sample broiler establishments and 691 layer establishments covered in 2022.

Both surveys are conducted quarterly in all provinces including National Capital Region. Moreover, the commodities covered in the surveys include: cattle, carabao, swine, goat, chicken, duck, and other animals raised/tended by households and establishments.

#### II. Data Collection

## A. Backyard Livestock and Poultry Survey

#### 1. Data collection procedure

The field data collection for fourth quarter 2022 was conducted from 01 to 07 December 2022. The data collection was undertaken by hired Statistical Researchers (SRs) and is done through face-to-face interview with qualified respondents of the sample households. Prior to data collection, training of selected staff from Field Offices, including SRs, was conducted to ensure uniform understanding of concepts and proper implementation of survey procedures. Field and manual editing of the accomplished questionnaires was done to ensure completeness, consistency, and reasonableness of the information gathered.

#### 2. Survey Questionnaire

The BLPS Questionnaire is a thirteen-page form composed of 16 blocks that aims to gather information on the basic characteristics and operations of the household.

The data items included in the survey are as follows:

- a. Type of Operation/Purpose
- b. Inventory
- c. Number of hatched live
- d. Number of acquired animals
- e. Dressed in the household/farm

- f. Sold live for dressing and for other purposes
- g. Disposition by areas of destination
- h. Average liveweight
- i. Average farmgate price
- j. Number of deaths/losses and cause/reason
- k. Egg production indicators

## B. Commercial Livestock and Poultry Survey

## 1. Data collection procedure

The schedule of field data collection was during the last ten (10) days of November 2022. The data collection was undertaken by hired SRs and is done through a face-to-face interview with qualified respondents of the farm/establishment. Prior to data collection, training of Field Office personnel, including SRs, was conducted to ensure that the procedures and concepts of the survey are understood and properly implemented. Field and manual editing of the accomplished questionnaires was done to ensure completeness, consistency, and reasonableness of the information gathered.

## 2. Survey Questionnaire

The CLPS Broiler and Layer Survey Questionnaires is a four-page questionnaire that aims to gather necessary information on supply and disposition of broiler and layer commercial farms/establishment.

The data items included in the survey are as follows:

- Type of Operation/Purpose
- b. Inventory
- c. Number of hatched live
- d. Number of acquired animals
- e. Dressed in the farm/establishment
- f. Sold live for dressing and for other purposes
- g. Disposition by areas of destination
- h. Average liveweight
- i. Average farmgate price
- i. Number of deaths/losses and cause/reason
- k. Egg production indicators

#### III. Sampling Design

## A. Backyard Livestock and Poultry Survey

#### 1. Sampling Frame

The BLPS sampling frame is based on the results of the 2017 Listing of Farm Household (LFH) and 2012 Census of Agriculture and Fisheries (CAF). For barangays not covered in the 2017 LFH, the list of households was taken from the 2012 CAF. The sampling frame is updated quarterly based on the status of the sampled households using structured Frame Maintenance Form (FMF) submitted by the PSOs every quarter.

## 2. Sample Selection Procedure

The BLPS uses two-stage sampling design. The first stage is the selection of barangays using probability proportional to size where the measure of size is the total animal inventory. The number of sample barangays is based on a target coefficient of variation of five (5) percent. The sample barangays are the same for all quarters of 2022.

The second stage is the selection of sample households that are engaged in livestock and poultry raising in the sampled barangays using systematic sampling.

The number of sample households per selected barangay is 20 but this could be less if the selected barangay has less than 20 households. The sample households per quarter are independent.

#### 3. Estimation Procedure

## a. Sampling Weights

## a.1. Base Weight

The base weight is computed as follows:

$$w_{1i} = \begin{cases} \frac{\sum_{i=1}^{A} X_i - X_{certain}}{a'X_i} & \text{, if non-certainty brgy} \\ & 1 & \text{, if certainty brgy} \end{cases}$$

$$w_{2ij} = \begin{cases} \frac{N_i}{n_i} \text{ , if household has at most 3 operators} \\ \frac{N_i}{n_i} \times \frac{M_{ij}}{m_{ij}} \text{ , if household has greater than 3 operators} \end{cases}$$

$$w_{ij} = w_{1i} \times w_{2ij}$$

Where:

 $w_{ij}$  = base weight of household j in barangay i

 $w_{1i} = 1^{st}$  stage weight

 $w_{2ii} = 2^{\text{nd}}$  stage weight

A =total number of barangays in the domain

a =barangay sample size in the domain

a' = non-certainty barangay sample size in the domain; equal to a if there are no certainty barangays

 $X_{certain} =$ total animal inventory of all certainty barangays

 $X_i$  = size measure of barangay i

 $N_i$  = total number of households in barangay i

 $n_i$  = number of sample households in barangay i

 $M_{ij}$  = total number of operators in household j in barangay i

 $m_{ij}=$  number of sample operators in household j in barangay i

i =subscript for barangay

j =subscript for household

## a.2. Adjustment Factor

The adjustment factor formula is given as follows:

$$A_p = \frac{\sum_{i=1}^{a} \sum_{j=1}^{n_i} w_{ij} X_{1ij}}{\sum_{i=1}^{a} \sum_{j=1}^{n_i} w_{ij} X_{2ij}}$$

Where:

 $A_n$  = adjustment factor for domain p

 $X_{1ij}$  = eligible status of household j in barangay i (1 if eligible, 0 otherwise)

 $X_{2ij}$  = responding status of household j in barangay i (1 if eligible, 0 otherwise)

Eligible households are the following:

- Interview completed;
- Refused to be interviewed without replacement;
- Temporarily away/Not at home without replacement; and
- HH temporarily not accessible without replacement.

Ineligible households are the following:

- Resides outside the barangay;
- Unknown in the locality; and
- Deceased (No other livestock and poultry operator in the household).

#### a.3. Final Weights

The final weights formula is given as follows:

$$w'_{ij} = w_{ij} \times A_p$$

Where:

 $w'_{ij}$  = final weights for domain p

 $w_{ij}$  = base weight of household j in barangay i

 $A_p$  = adjustment factor for domain p

## b. Estimation of Total

#### b.1. Estimation of Provincial Total

Estimation of domain total is done per animal type and the formula is given as follows:

$$\hat{Y}_{qp} = \sum_{i=1}^{a} \sum_{j=1}^{n_i} w'_{ij} y_{ij}$$

Where:

 $\widehat{Y}_{qp} = \mbox{ estimated total for domain p at quarter q}$ 

 $y_{ij}$  = survey data (inventory, production, etc.) for household j in barangay i

## b.2. Estimation of Regional and National Total

The regional estimates are obtained by aggregating the estimates of the provinces within the region, while the national estimate is derived by adding all the regional estimates.

## **B. Commercial Livestock and Poultry Survey**

## 1. Sampling Frame

The CLPS frame is based on the results of the 2021 Updating of the List of Establishments (ULE). It is updated quarterly based on the results of visit of the sample farms/establishments using the FMF.

## 2. Sample Selection Procedure

The CLPS uses a stratified sampling design with the maximum farm/housing capacity as stratification variable. Stratum boundaries are obtained using Dalenius-Hodges method. Sample size is determined using Neyman procedure with a target coefficient of variation of five percent (5%). A minimum of five (5) samples are taken when the population for the stratum is greater than or equal to five (5). For stratum with population less than five (5), all farms will be enumerated. The number of strata per province ranges from two (2) to four (4) depending on the homogeneity of the stratification variable.

Complete Enumeration (CE) is applied for provinces with less than 25 commercial farms/establishments, otherwise, stratified sampling design is used.

#### 3. Estimation Procedure

#### a. Sampling weights

#### a.1. Base Weights

The base weights for CLPS is computed by animal type and province. The formula for base weights is given as follows:

$$w_h = w_{hi} = \left(\frac{N_h}{n_h}\right)$$

Where:

 $w_{hi}$  = weight of commercial farm/establishment i in stratum h

 $N_h$  = total number of establishments in stratum h

 $n_h$  = number of sample establishments in stratum h

## a.2. Adjustment Factor

The adjustment factor is given as follows:

$$A_h = \frac{\sum_{i=1}^{n_h} w_{hi} X_{1hi}}{\sum_{i=1}^{n_h} w_{hi} X_{2hi}}$$

Where:

 $A_h$  = adjustment factor at stratum h

 $w_{hi}$  = base weight of establishment i at stratum h

 $n_h$  = number of sample establishments in stratum h

 $X_{1hi}$  = eligible status of sample establishment i at stratum h

(1 if eligible, 0 otherwise)

 $X_{2hi}$  = responding status of sample establishment i at stratum h (1 if responding, 0 otherwise)

Eligible establishments are the following:

- Operational
- Refusal
- Cannot be contacted/Not accessible/Temporarily away

Ineligible establishments are the following:

- Temporarily Stopped Operation
- Permanently Closed/Stopped Operation
- Shifted farm operation
- Cannot Be Located
- Not yet in operation
- Duplicate
- Out-of-scope Recreation
- Out-of-scope Change Sector
- Out-of-scope Main Office/Ancillary Unit

## a.3. Final Weights

The final weight formula is given as follows:

$$w'_{hi} = w_{hi} \times A_h$$

Where:

 $w'_{hi}$  = final weight of establishment i at stratum h  $w_{hi}$  = base weight of establishment i at stratum h  $A_h$  = Adjustment factor

#### b. Estimation

#### b.1. Estimation by Stratum

Each stratum yields an independent estimate. The formula to be used is given as follows:

$$\widehat{Y}_h = \sum_{i=1}^{n_h} w'_{hi} y_{hi}$$

Where:

 $\widehat{Y}_h$  = estimated total for stratum h of the province  $w'_{hi}$  = final weight of establishments i at stratum h  $n_h$  = no. of sample establishments in stratum h  $y_{hi}$  = survey data (inventory, production, etc.) for establishment i in stratum h

#### b.2. Estimation of Provincial Total

The total estimate for the province is obtained by simply aggregating all the expanded stratum estimates in the province. Hence, the statement of the total for the p<sup>th</sup> province is given by:

$$\hat{Y} = \sum_{h=1}^{L} \hat{Y}_h$$

Where:

 $\hat{Y}$  = estimated total for the province

 $\widehat{Y}_h$  = estimated total for stratum h of the province

L = total number of strata

## b.3. Estimation of Regional and National Total

The regional estimates are obtained by aggregating the estimates of the provinces within the region, while the national estimate is derived by adding all the regional estimates.

## IV. Concepts and Definitions of Terms

**Farmgate price** refers to the price received by raisers for their produce at the location of farm. Thus, marketing costs, such as transport and other marketing cost (if any) incurred in selling the produce, are not included in the farmgate prices.

**Inventory** refers to the actual number of chicken present in the farm as of a specific reference date.

**Volume of production** refers to the number of tended/raised chicken disposed for dressing including those which were shipped out for dressing. This is expressed in metric tons, liveweight.

## V. Farm Classification

The following are the new farm classifications and definitions of chicken type based on the approved <u>PSA Board Resolution No. 04</u>, series of 2022:

Animal Type/ Classification	Definition
Broiler Chicken	
Smallhold	Raising 500 birds and below
Semi-commercial	Raising 501- 10,000 birds
Commercial	Raising 10,001 birds and above
Layer Chicken and Native/Improv	ved Chicken
Smallhold	Raising 250 birds and below
Semi-commercial	Raising 251- 5,000 birds
Commercial	Raising 5,001 birds and above

The data on the inventory of chicken based on the definitions indicated above can be the OpenSTAT website of accessed in PSA with the https://openstat.psa.gov.ph/PXWeb/pxweb/en/DB/DB 2E LP/?tablelist=true&rxid <u>=bdf9d8da-96f1-4100-ae09-18cb3eaeb313.</u> Similarly, data on inventory of chicken by farm type (i.e., backyard and commercial) can still be accessed in the OpenSTAT website with the link: https://openstat.psa.gov.ph/PXWeb/pxweb/en/DB/DB 2E LP/0072E4FINC0.px/?r xid=bdf9d8da-96f1-4100-ae09-18cb3eaeb313.

## VI. Dissemination of Results and Revision

The PSA disseminates the Chicken Situation Report quarterly and is uploaded in the PSA Website.

The livestock and poultry statistics follows the revision policy as stipulated in the PSA Board Resolution No. 1, Series of 2017-119 approving the revision of quarterly estimates on agricultural production, prices, and related statistics to be limited to the immediately preceding quarter and for the past three years with quarterly breakdown to be done only during May of the current year.

#### VII. Citation

This presents how the Technical Notes will be cited by users in their research works. It contains the following information:

- 1. Philippine Statistics Authority
- 2. Date of Publication/Release of the Technical Note
- 3. Title of the Technical Notes
- 4. Link to the Technical Notes

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