



# PHILIPPINE POULTRY BROILER INDUSTRY ROADMAP 2022-2040





PHILIPPINE  
**POULTRY  
BROILER  
INDUSTRY**  
ROADMAP 2022-2040



Department of Agriculture  
**BUREAU OF ANIMAL INDUSTRY**

## **The Philippine Poultry Broiler Industry Roadmap (2022-2040)**

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# ACRONYMS AND ABBREVIATIONS

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<b>AMR</b>	Antimicrobial Resistance
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>ASF</b>	African Swine Fever
<b>BAI</b>	Bureau of Animal Industry
<b>CODEX</b>	CODEX Alimentarius
<b>DA NLP</b>	Department of Agriculture National Livestock Program
<b>DA PRDP</b>	Department of Agriculture Philippine Rural Development Project
<b>DOCs</b>	Day-old Chicks
<b>EU</b>	European Union
<b>FAO</b>	Food and Agriculture Organization
<b>FCR</b>	Feed Conversion Ratio
<b>GDP</b>	Gross Domestic Product
<b>GP</b>	Grandparent Stock
<b>HACCP</b>	Hazard Analysis Critical Control Points
<b>HE</b>	Hatching Eggs
<b>HPAI</b>	Highly Pathogenic Avian Influenza
<b>HRI</b>	Hotels, Restaurants, and Institutions
<b>IPPC</b>	International Plant Protection Convention
<b>MDD</b>	Marketing Development Division
<b>MDM</b>	Mechanically Deboned Meat
<b>MMT</b>	Million Metric Tons
<b>NMIS</b>	National Meat Inspection Service
<b>OIE</b>	Office International des Epizooties /World Organisation for Animal Health



<b>PABI</b>	Philippine Association of Broiler Practitioners
<b>PCPP</b>	Philippine College of Poultry Practitioners
<b>PS</b>	Parent Stock
<b>RADDLs</b>	Regional Animal Disease Diagnostic Laboratories
<b>RFLs</b>	Regional Field Laboratories
<b>SME</b>	Small and Medium-sized Enterprises
<b>SMFI</b>	San Miguel Foods, Inc.
<b>SPS</b>	Sanitary and Phytosanitary
<b>TRQ</b>	Tariff rate quota
<b>TWG</b>	Technical Working Group
<b>UBRA</b>	United Broiler Raisers Association
<b>USDA</b>	United States Department of Agriculture
<b>WTO</b>	World Trade Organization



# MESSAGE

My warmest felicitations to the Broiler Roadmap Development Team!

The Broiler industry has been beset with numerous problems lately. The recurrence of the Avian Influenza, the damage caused by Typhoon Odette and the high cost of feeds certainly tried and tested this subsector. Despite these, I am confident that the Broiler subsector, as a mature industry, will be able to pull through.

This industry has been a major contributor in the Agriculture sector. Although the Agriculture Gross Value Added (GVA) growth trends have been declining in the past two decades, the poultry sector has been posting high growth rates (driven by the broiler and egg industries). In the first quarter of this year, poultry production expanded by 12.3 percent, contributing 15.0 percent to the total value of production in agriculture and fisheries. Also, the Growth Rates of Value (GRV) of chicken, at constant 2018 prices, grew by 13.0 percent in the same period this year..

Sustaining this growth is in the interest of both the government and the private sector. Undoubtedly, producers will continue to explore production technologies that help make it economically viable to raise broilers. The government, on the other hand, will continue to facilitate and sustain an enabling environment that supports the growth momentum in the broiler industry with an overarching interest in ensuring food and nutrition security for Filipinos. It is with this in mind that the Department of Agriculture has embarked on the development of a broiler industry roadmap that is inclusive, and stakeholder-crafted.

It is my fervent hope that the direction this roadmap intends for this industry be achieved- that this industry grow and develop as it should for it to realize its vision to be a leader in the ASEAN in the near future.

God bless us all!

A handwritten signature in black ink, appearing to read 'William D. Dar', written over a white rectangular background.

**WILLIAM D. DAR, Ph.D.**

**Secretary  
Department of Agriculture**



# FOREWORD

Meat and poultry are animal-source food that are nearly staple in most households across the world. Over the years, the demand and consumption of meat and poultry have grown exponentially, and is projected to continue trending the same upward trend in the coming years. All the same, it is also undeniable that the consumption and demand for chicken meat gained a steady momentum and popularity throughout.

How else to better illustrate this circumstance but to turn the spotlight to our country's very own chicken broiler industry. In recent years, the Philippines' chicken broiler industry has been a growing enterprise. The industry's volume of production has significantly doubled from around a million metric tons (MMT) in 2000 to almost 2 MMT in 2020. Translating this in terms of earnings and receipts, chicken production reached an astonishing amount of Php 173.94 B and Php 179.21 B, respectively

Indeed, this feat was not attained without struggle, making the chicken broiler industry's achievements remarkable in its own right. The industry had to grapple with several barriers to production such as dependence on imported inputs, poultry health challenges, infrastructure requirements, transport costs and movement management, and market information, access, trends, and support.

Nevertheless, the fervor to maintain the industry's important role in agricultural production brought about the conceptualization of a roadmap that is inclusive and stakeholder crafted. The Broiler Industry roadmap is founded on three key strategies. First, conduct reviews and assessments to surface valuable inputs that can fuel the chicken broiler industry in achieving its maximum potential. Second, identify the key elements that will allow the industry to thrive in a more enabling environment, which becomes the basis for an action plan designed and implemented for medium and long term visions. Lastly, enhance the capacity of the commercial broiler industry towards becoming an important market player, both locally and internationally.

Putting the Broiler Industry roadmap at the helm of the industry's drive to development, we hope to see an economically and sustainably viable industry, and ensure a more food and nutrition secure Philippines.

A handwritten signature in black ink, appearing to read 'W. Medrano'.

**WILLIAM C. MEDRANO, Ph.D.**

**Undersecretary for Livestock  
Department of Agriculture**



# PREFACE

Congratulations to the Broiler Roadmap Team for a job well done within a pandemic context and timeframe set for the task! All the efforts and the time in shaping up this document are sincerely appreciated.

The demand for poultry meat in the country is steadily rising due to a combination of increasing preferences for it as an important source of protein and the increase in household incomes over time. Increasing demand is also helping drive the chicken broiler industry to be the most progressive animal enterprise in the Philippines today. Alongside the progress of the broiler industry is the vital facilitation support of government. And it is especially relevant given the multitude of challenges that include constraints due to dependence on imported inputs, poultry health concerns, infrastructure requirements, transport costs and movement management, and imperfect market information to assess trends and inform policy directions. Overall, the engagement of the private sector and the government must continue to be pursued by building consensus towards the country's aspirations for food and nutrition security as well as livelihoods for Filipinos. Thus, it is recognized by stakeholders that a broiler enterprise that is economically and sustainably viable is extremely important in this context.

This roadmap was conceptualized in response to the current challenges and the need to reinforce the progressive momentum of the chicken broiler industry. It will focus on three key strategies. First, review and assess the commercial broiler industry given the current developments in the poultry industry. Second, identify the requirements for an enabling environment as the basis for an action plan that can be designed and implemented in the medium- and long-term horizon. Lastly, develop a commercial broiler industry strategy that will contribute to agriculture, food, and economic development by aiming to be an important market player locally and internationally.

We fervently hope that this roadmap, which should be a living document that stakeholders can continue to revisit and shape further, will pave the way for a more sustainable and secure chicken broiler industry for the nation's food, livelihood, and development aspirations.

**PROF. GENY F. LAPIÑA**, UPLB College of Economics and Management  
Member and Value Chain Expert  
Broiler Industry Roadmap Development Team







# EXECUTIVE SUMMARY

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Poultry meat (and eggs) are among the animal-source foods most widely eaten across greatly diverse cultures, traditions, and religions. Consumption of poultry meat (and other animal sourced foods) has increased rapidly in the past decades. Growing demand has mostly been driven by population growth, urbanization, changing consumer preference, and rising incomes. Chicken dominates meat consumption since it is generally affordable, low in fat, and faces few religious and cultural restrictions.

While pork has been a staple in many Filipino meals, chicken meat gained significant popularity among consumers because it is relatively cheaper. Broiler chickens have one of the lowest farmgate prices out of all livestock and poultry products reared in commercial farms. An average farmgate price of a broiler chicken does not exceed PhP 100.00 per kilo. Consumers also shifted from pork to chicken due to insufficient supply and high price of pork brought about by the African Swine Fever (ASF) outbreak.

As well, the chicken broiler (and egg production) industry is the most progressive animal enterprise in the Philippines today. In fact, in the past two decades, the volume of production doubled from around a million metric tons (MMT) in 2000 to almost 2MMT in 2020. In 2019, the volume of production was at 1.93 MMT. In the same year, the gross value of chicken production at current prices was PhP 173.94B in earnings and PhP 179.21B in receipts.

However, the broiler industry needs support from the government because of the following barriers to production: dependence on imported inputs; poultry health challenges; infrastructure requirements; transport costs and movement management; and market information, access, trends, and support. Therefore, to ensure food and nutrition security as well as providing livelihoods, a broiler enterprise must continue to be economically and sustainably viable to maintain its important role in agricultural production.

Thus, industry players prepared this current roadmap that intends to provide a strategic direction for an economically viable and sustainable poultry broiler sector. It hinges on opportunities facing the sector and strengths to minimize threats to the industry. It also builds on from the 2016 Broiler Roadmap in cognizance of the changing poultry landscape in the country and within the ASEAN region.

The key guiding principles for the revision of the broiler roadmap are:

- Contributions to the Agriculture Gross Domestic Product;
- Role in food and nutrition security and livelihoods; and
- Industry-led roadmap that recognizes the importance of sector-driven or partnerships among various stakeholders.

# INTRODUCTION

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## Rationale and Objectives

Livestock output has been at the forefront of production growth. Growth in consumption in large demand centers drove the expansion of industries in pork and poultry that include Metro Manila, Cebu, and Davao. Complementing the growth in demand is a progressive private sector engaged in broiler production investments on financial, technology, and human to advance the industry.

Poultry production (as well as pork) has grown nationwide in response to a surge in demand. Large-scale industrialized production grew even faster driven by changing consumer preferences and therefore, meeting the demand. The broiler sector led the industrialization of livestock by importing grandparent stock (GS), medicines, and other technologies, and developing vertically coordinated enterprises in Metro Manila. The latter spans the range from feed ingredient importing to cooked meat retailing in sidewalk booths.

The large broiler companies formed the Philippine Association of Broiler Integrators (PABI) with six members. The integrators engage in breeding and contract growing, processing, and distribution of branded output. They are the main source of day-old chicks (DOCs), even for independent commercial producers whose size of operations is insufficient to maintain breeding operations and who find it unprofitable to import directly with current tariff protection.

The large integrators, thus, have a major influence on the price of DOCs sold to independent commercial producers and smallholders. About feed supply, while small-sized feed mills have their own brands of mixed feeds, the integrators do not only supply their own feeds for internal use, but they also compete with small-scale mills on the commercial market for mixed feeds.

On the other hand, the small and medium scale producers have banded together and formed the United Broiler Raisers Association (UBRA) to collectively raise the effects of market uncertainties created by international trade in meat that threaten their incomes from large fluctuations in live broiler prices. UBRA has a current nationwide membership of 48, mainly small and medium sized poultry operations. UBRA's goal is to promote and advance the Philippine broiler industry. The live broiler market is the main output market for UBRA members. The concerns of PABI, UBRA, and the government's meeting the international obligations require a synergistic effort to ensure the country's achievement for food and nutrition security and livelihood.

This document will describe and analyze factors affecting the poultry broiler sector and support the proposed roadmap for the industry. It aims to create a poultry broiler industry roadmap that is inclusive, and stakeholder crafted. It is primarily focused on the commercial broiler industry for now, but it also recognizes that backyard, especially with native or hybrid chicken are prevalent in rural areas. This type of chicken is important for food and nutrition security as well as livelihoods in the rural areas. In addition, industry stakeholders also recognize the growing demand from food manufacturers for native chicken (especially chicken eggs from free-range).

Specifically, the roadmap seeks to:

- Review and assess the commercial broiler industry given the current developments in the poultry industry;
- Identify the requirements of an enabling environment as basis for an action plan that can be designed and implemented in the medium and long term; and
- Develop a commercial broiler industry strategy that will contribute to agriculture and assume an important market player both locally and internationally.

# Definition of Terms

**Antimicrobial Resistance (AMR)** - the ability of microorganisms to persist or grow in the presence of drugs designed to inhibit or kill them (FAO.org)

**African Swine Fever (ASF)** - highly contagious viral disease of domestic and wild pigs, whose mortality rate can reach 100% (OIE)

**Biogas Digester** - a device or structure in which the digestion of organic waste matter by bacteria takes place (Merriam-Webster.Com)

**CODEX Alimentarius** - or "**Food Code**" is a collection of international standards, guidelines and codes of practice to protect the health of consumers and ensure fair practices in the food trade (FAO.org)

**Day Old Chicks (DOCs)** - all poultry less than 72 hours old (lawinsider.com)

**Farmgate Price** - prices received by farmers for the sale of their crops, livestock, and poultry at the location of farm (PSA)

**Good Animal Husbandry Practices (GAHP)** - a set of principles of good practices and minimum requirements for the commercial/backyard rearing/farming of animals for food use (BAFS)

**Gross Domestic Product (GDP)** - Refers to the value of all goods and services produced domestically (PSA)

**Hazard Analysis Critical Control Points (HACCP)** - a management system in which food safety is addressed through the analysis and control of biological, chemical, and physical hazards from raw material production, procurement and handling, to manufacturing, distribution and consumption of the finished product (FDA)

**Hatching Eggs (HE)** - all poultry eggs that are intended to be hatched (lawinsider)

**Integrators** - refer to poultry companies or production chains that are involved in all production aspects in the poultry value chain right from chicken breeding to feed manufacturing to poultry growing, processing and marketing (poultrymanual.com)

**Mechanically Deboned Meat (MDM)** - also called mechanically separated meat is a paste-like meat product produced by forcing pureed or ground beef, pork, mutton, turkey or chicken, under high pressure through a sieve or similar device to separate the bone from the edible meat tissue (USDA)

**Rendering Plant** - a plant that converts packing house waste, kitchen grease, and livestock carcasses into industrial fats and oils (as tallow for soap) and various other products (as fertilizer) (Merriam-Webster)

**Tariff Rate Quota (TRQ)** - a mechanism that allows a set amount of specific products to be imported at a low or zero rate of duty (international.gc.ca)

## Data Sources

This roadmap builds on the previous roadmap developed by DA NLP in October 2016 and continues the revision started by NMIS with Dr. Carolyn Benigno as writer, in 2020. This version came about in recognition of the changing poultry landscape in the country as well as in the Asian region.

Data for the broiler roadmap were obtained from various sources. Figures for the industry situation and outlook were mostly taken from the Philippine Statistics Authority (PSA). Some came from USDA FAS Report, UBRA website, and from DA AMAS as well as from FAOStat. For the supply and demand, information were taken from BAI, PSA and UA&P estimates. Forecasts were done by BAI and PCPP for the supply and the industry experts for the demand. Value chain maps were taken from DA PRDP, Curibot, 2018 and Gonzales et al., 2012 with the analysis provided by our value chain expert team member, Prof. Geny Lapina. Inputs from stakeholders from various consultations are also included in this roadmap. Other information, such as the definitions were gathered from different sources.

# INDUSTRY SITUATION AND OUTLOOK

## Structure

### Industry Definition (Backyard and Commercial Farms)

Industry stakeholders feel that the current definition of backyard and commercial farm classification as defined by the PSA is no longer accurate and therefore needs updating. Thus, there is a need to work between the PSA and the Department of Agriculture (DA) to update the classifications as it impacts on the preparation of the roadmap as well as policy directions.

However, in this roadmap development, the classification chosen is what the Bureau of Animal Industry (BAI) proposes and informed by industry stakeholders. The industry stakeholders appreciate that contexts do change and as such the classifications may need to adapt accordingly. This is also true with the broiler industry that has observed significant changes in its operations in the last decade alone (i.e., the scale of operation used to be 20,000 per cycle but with the new tunnel vent types of housing, the ideal operation should now be 40,000 per cycle).

Table 1 describes a Broiler Farm Classification as defined by the industry and by different sources (PSA email communication on definitions, November 2020; USDA FAS, 2020, Gonzales, 2012)

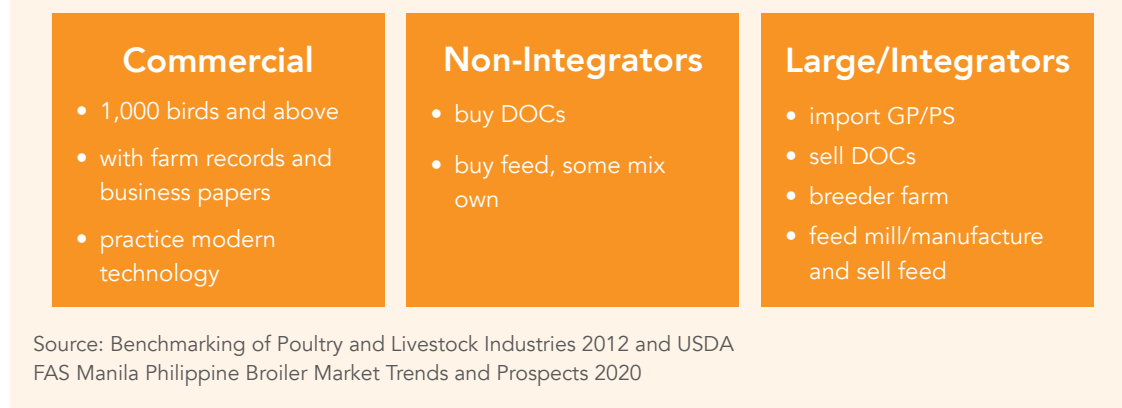
**TABLE 1. BROILER FARM CLASSIFICATION IN THE PHILIPPINES**

	Backyard	Commercial	
Type of Operation	Small	Modern technology (non-integrator)	Modern technology (integrator)
Number of Birds	<1000	20,000/cycle	40,000 birds/cycle
Source of Feeds and DOCs	Buys feeds	Buys DOCs and feeds with some feed mixing	Imports GP/PS (parent stock); with breeder farm and feed mill
Record Keeping	Lacking	Good	Very good
Business Permits	Absent	Present	Present
Type of Operation	Backyard	Modern technology (non-integrator)	Modern technology (integrator)



Commercial farms are further classified as either integrators or non-integrators as presented in Figure 1 (USDA FAS Report on Philippine Broiler Market Trends and Prospects, 2020).

**FIGURE 1. TYPE OF BROILER FARMS**



- Integrators are those that have at least 20,000 birds per harvest at 5-6 cycles per year. Their operations are integrated from production to marketing of broilers, which include importation of Grandparent Stocks and Parent Stocks, and the manufacturing of commercial mixed feeds and breeder stocks, for their own use and selling to other broiler producers. However, breeding PS and dressing operations are sometimes outsourced (USDA FAS, 2020).
- Non-integrators also own at least 20,000 birds per harvest at 5-6 cycles per year, but they usually buy DOCs and feeds.
- With the current set-up, according to industry players, 20,000 birds per harvest at 5-6 cycles is too small for an integrator. As was previously mentioned, one tunnel ventilated housing has a capacity of around 40,000 birds. Most integrators have multiple PS houses so the output is much larger. Additionally, integrators operate grow out houses either owned and/or through a network of contract growers or both. Integrators also have processing facilities that are either owned or outsourced.

The poultry industry is undergoing structural changes, moving towards contract farming in the rearing phase of broiler production, allowing farmers with medium-sized flocks to gain access to advanced technology with a relatively low initial investment. The primary role is to supply cheap and safe food to populations distant from the source of supply.

Traditional small-scale, rural, family-based poultry systems will continue to play a crucial role in sustaining livelihoods and supplying poultry products in rural areas. Small-scale poultry production will continue to offer opportunities for income generation and quality animal-source food as long as there is rural poverty. The 2018 PSA poverty survey shows a 24.5% poverty incidence in the rural areas. It is even higher for farmers at 31.6% poverty incidence.

## Product Forms

Broiler chickens come in a variety of forms. Below is a table classifying the different broiler chicken forms found in the market today.

**TABLE 2. CLASSIFICATION OF BROILER CHICKENS IN DIFFERENT MARKET FORMS**

Market Form	Definition
Live Birds	Live broiler chicken that reached the ideal market weight. *
Heavy birds	Ideal market live weight is 1.8-2.1 kg, which is sold at the supermarket and wet markets as whole dressed chickens.
Small birds	Ideal market live weight is 1.4-1.5 kg which is intended for Lechon manok or rotisserie.
Whole dressed chicken	Poultry carcass from which the feathers, hair, head, the feet at the tarsal joints and uropygial glands have been removed and the carcass has been eviscerated.
Choice cuts	The term 8-cut chicken is used to describe a chicken segmented into two drumsticks, two thighs, and both breasts split in half across the rib bone (one half may contain the wing). This procedure is always done with the bone in. These segments can be processed further to boneless skinless cuts if desired.
Value- Added Chicken	These are marinated chicken cuts with flavors or fully cooked chicken products

The ideal market live weight of chicken differs per region. Visayas prefers small birds that weigh 1.4-1.5 kg live weight while Luzon goes for birds that weigh at 1.5 to 1.8 kg. The viajeros prefer the heavier birds. UBRA also has a different classification (Table 3).

**TABLE 3. UBRA LIVE WEIGHT CLASSIFICATION.**

Size	Live weight (kg)
Off size	1.30-1.49kg
Regular size	1.50-1.69kg
Prime size	1.70kg up

Source of data: UBRA Website

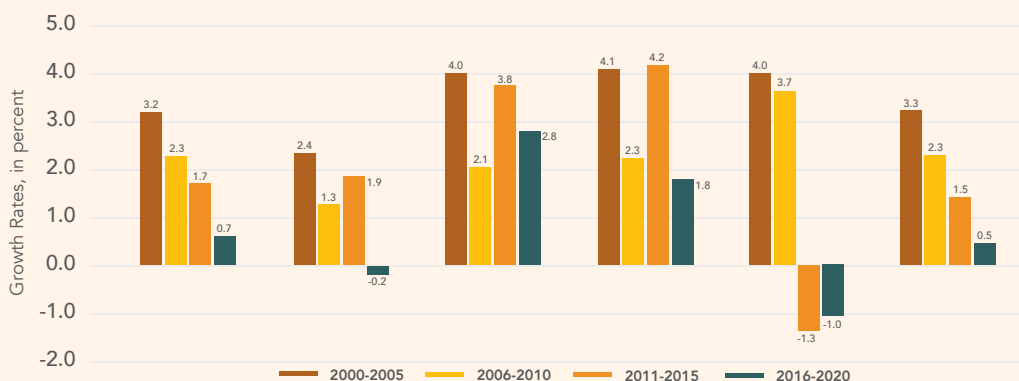
# Industry Performance and Outlook

## Value of Production

In 2020, the gross value of chicken production at current prices was PhP 159.17B or -8.5 percent lower than the PhP 173.94B earnings in 2019. The gross value of chicken at constant prices was PhP 168.35B in 2020. This was -6.1 % lower compared with the PhP 179.21B gross receipts in 2019 (PSA, Chicken Annual Situation Report, 2020)<sup>1</sup>.

Agriculture Gross Value Added (GVA) growth trends have been declining in the past two decades. It was mainly the poultry sector that posted high growth rates (driven by the broiler and egg industry). It was only in the 2005-2008 period due to challenges with bird flu (there was a false alarm regarding Highly Pathogenic Avian Influenza in 2005 that was later confirmed to be of the Low Pathogenic Avian Influenza type) and the 2020-2021 with the onset of the ASF and the pandemic that the broiler sector was hit (Figure 2). Using the latest available data from the PSA for the period of 2021 (January to June), it can be seen in Figure 3 that agriculture growth in value of production shrank by 2.5 percent. The chicken industry was not spared of the challenges due to the series of events that include the Taal Volcano eruption, pandemic, and the indirect impacts of ASF that hit the hog industry. Thus, the chicken industry also contracted by 6.5 percent from 2020 to 2021 (January to June period).

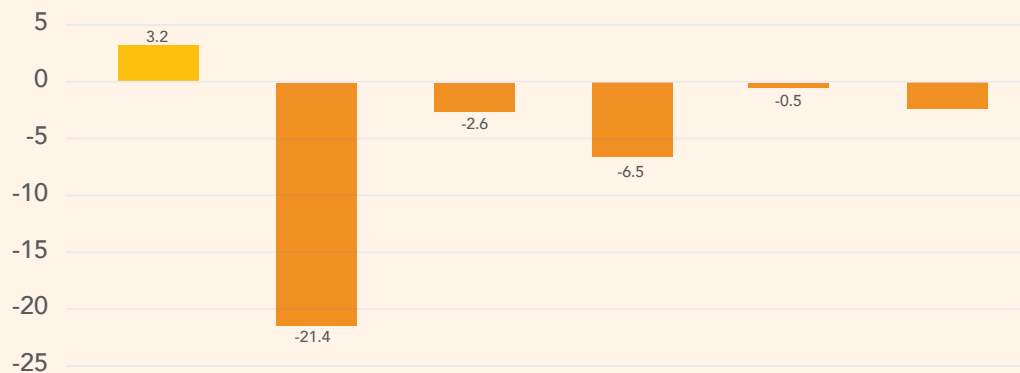
**FIGURE 2. AVERAGE OF GROWTH RATES OF VALUE OF PRODUCTION OF AGRICULTURE AND CHICKEN SECTOR (2018 CONSTANT PRICES) FROM 2000-2020**



Source of data: Philippine Statistics Authority

<sup>1</sup> See CHICKEN SITUATION REPORT for January to December 2020 from PSA

**FIGURE 3. GROWTH RATES IN VALUE OF AGRICULTURAL PRODUCTION AT 2008 CONSTANT PRICES, 2020-2021 (JANUARY TO JUNE PERIOD ONLY)**



Source of data: Philippine Statistics Authority

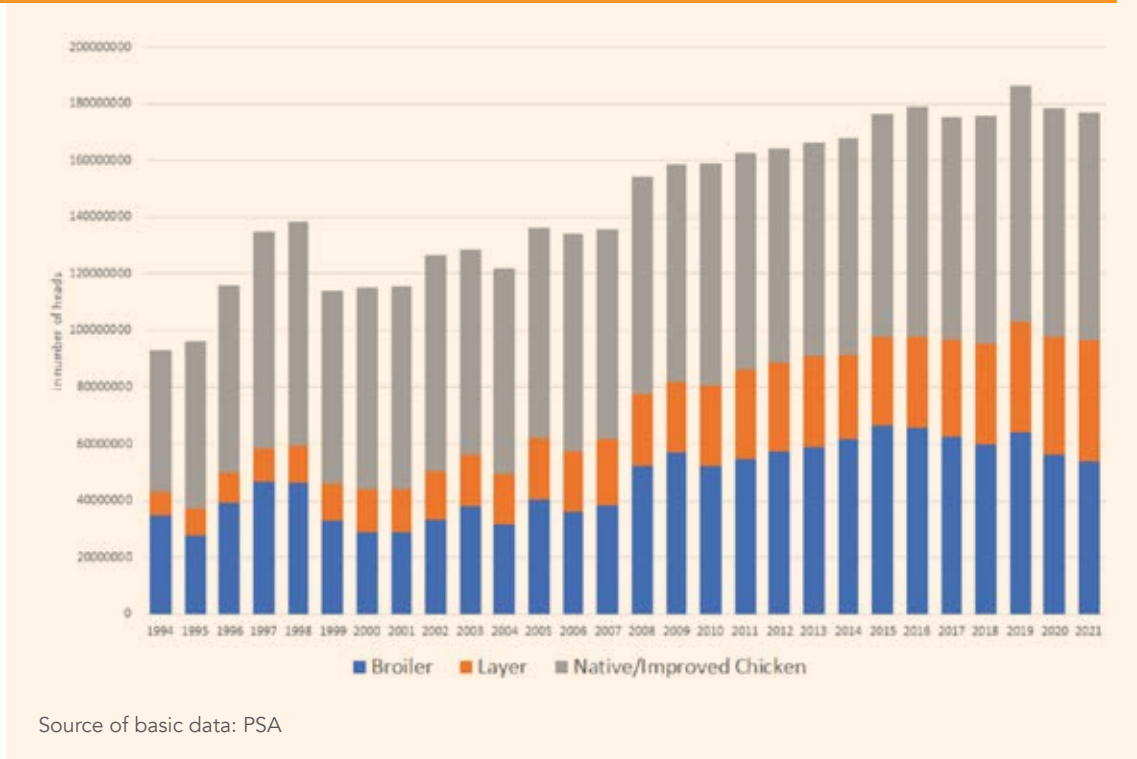
The broiler industry has evolved significantly from the 1980s when harvest recovery time was at 56 days with an average live weight of 1.4 to 1.6 kg to the present where it is around 34 – 35 days with an average liveweight at 2 kg. Factors such as genetic improvement, better nutrition, and management played a critical role in the growth of the poultry broiler industry. This commendable growth was largely driven by the private sector's investments.

Sustaining this growth is in the interest of both the government and the private sector. Undoubtedly, producers will continue to explore production technologies that help make it economically viable to raise broilers. The government, on the other hand, is important in facilitating an enabling environment that supports the growth momentum in the broiler industry with an overarching interest in ensuring food and nutrition security for Filipinos.

## Chicken Inventory

It is evident that the broiler chicken inventory had steadily increased from 1990 to 2019. Some decline is observable from 2016 to 2021 with initial feedback by industry players stating that a key challenge is sourcing DOCs along with the high costs of production, particularly of inputs and energy costs (KIIs, 2021) (Figure 4). Observable also in the trends of chicken inventory is the increase in chicken layer. This is something that the industry players confirm. This discussion on layer inventory is tackled further in the layer industry roadmap.

**FIGURE 4. CHICKEN INVENTORY BY TYPE (BROILER, LAYER, NATIVE/IMPROVED) IN THE PHILIPPINES, 1994-2021**

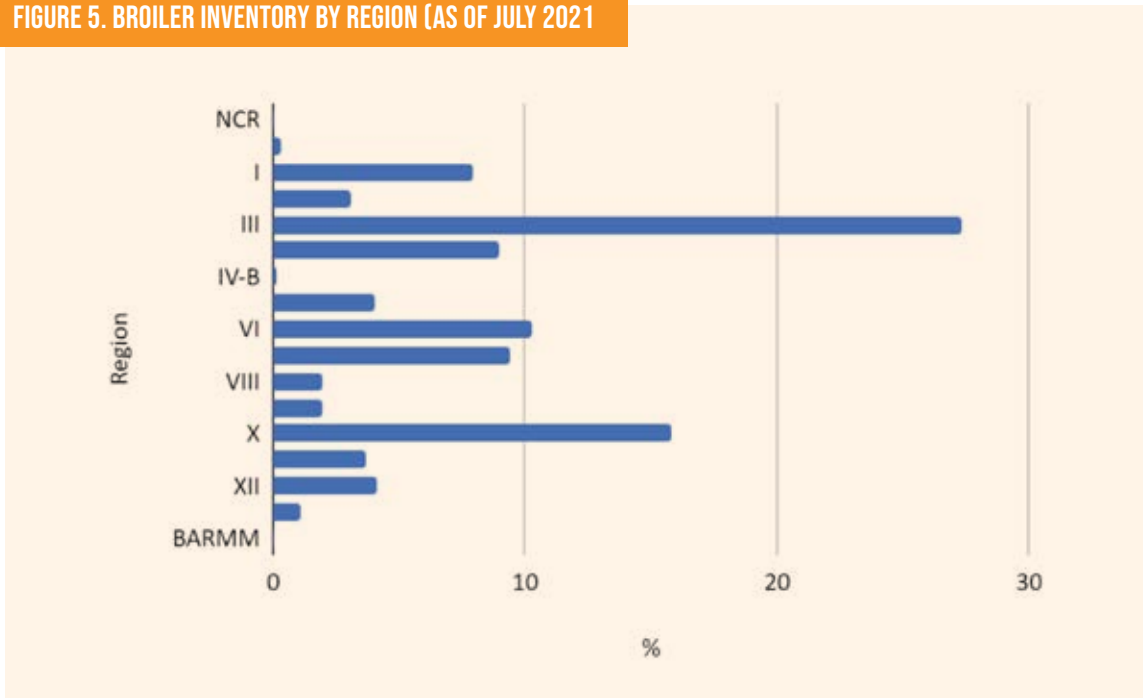


As of July 1, 2021, the total inventory for chicken was recorded at 183.99 M birds, higher by -1.3 percent than the 186.49 M birds recorded in the same period of the previous year. Stocks of native/improved and broiler chicken decreased by 2.7 percent and 6.7 percent, respectively, while layer chicken increased 10 percent (PSA, 2021). Broiler chicken is at 57.18 M which is about 31 percent of the above total chicken inventory. The highest number of birds is in Central Luzon at 15.63 M.

Industry players point out that the native/improved chicken needs to be further verified on what is included. Another key concern among stakeholders is that broiler's inventory tends to be downplayed. The above inventory from PSA is on a quarterly basis. This might provide a misconception as to the true population distribution of poultry in the Philippines since broilers have a short production lifespan of 28-35 days as compared to layer chickens (100 weeks) and native chickens (150-180 days). On a monthly basis, inventory is only at 31% but on an annual basis, figures are much higher. This data may mislead policymakers when drafting important decisions and legislations.

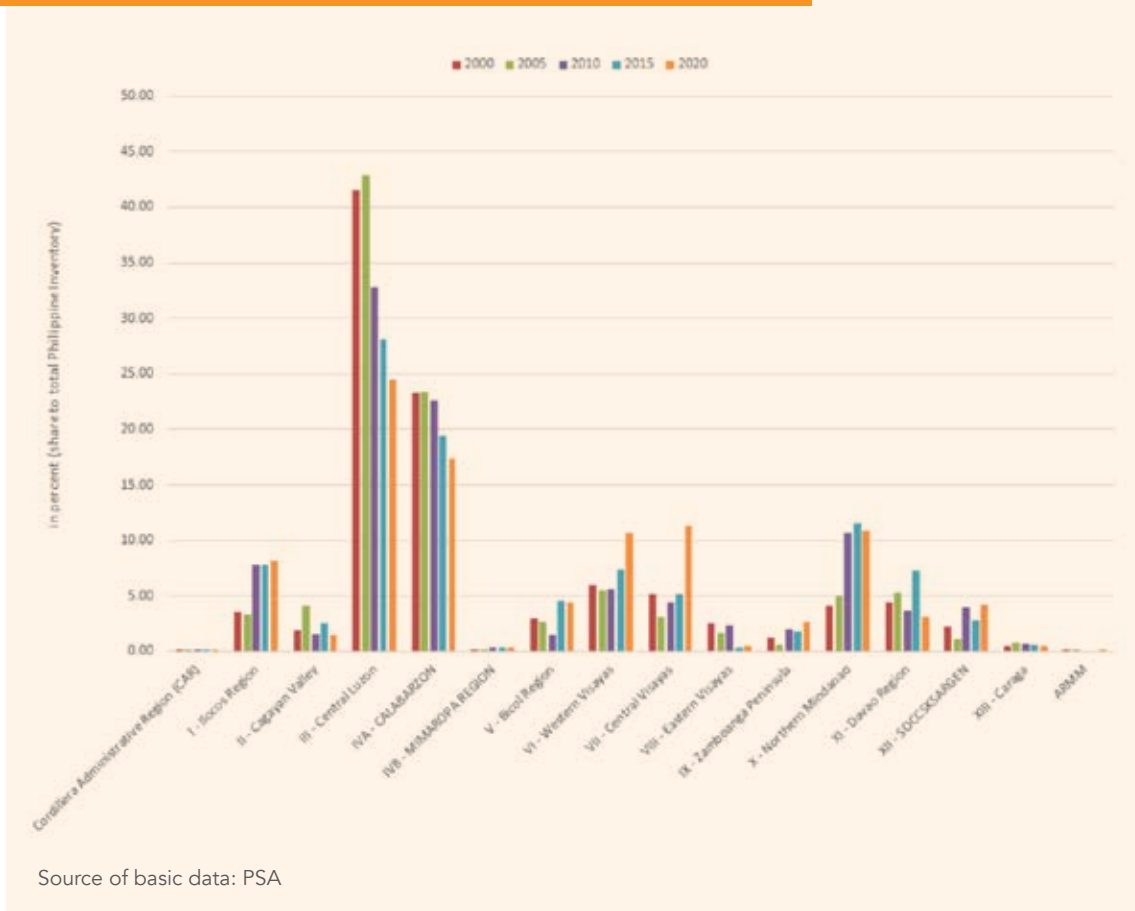
The top 3 producing regions as of 2021 are the following: Region 3 with 27 percent of the total inventory share, followed by Region X at 16 percent and Region VI at 10 percent. The top 3 regions comprise around half of the total inventory at 53 percent share (Figure 5).

**FIGURE 5. BROILER INVENTORY BY REGION (AS OF JULY 2021)**



Using the share of each region to total broiler inventory only as of January 1 from 2000 to 2020 shows that Central Luzon and CALABARZON had been declining in the last two decades. However, this has been going up in other regions, namely, Ilocos, Bicol, Western Visayas, Central Visayas, Northern Mindanao, and SOCCSKSARGEN. The largest increases in broiler inventory from 2000 to 2020 can be seen in Western Visayas, Central Visayas, and Northern Mindanao. This reflects an expansion of broiler production in these areas (Figure 6).

**FIGURE 6. BROILER INVENTORY SHARE BY REGION FROM 2000 TO 2020, ANNUAL**



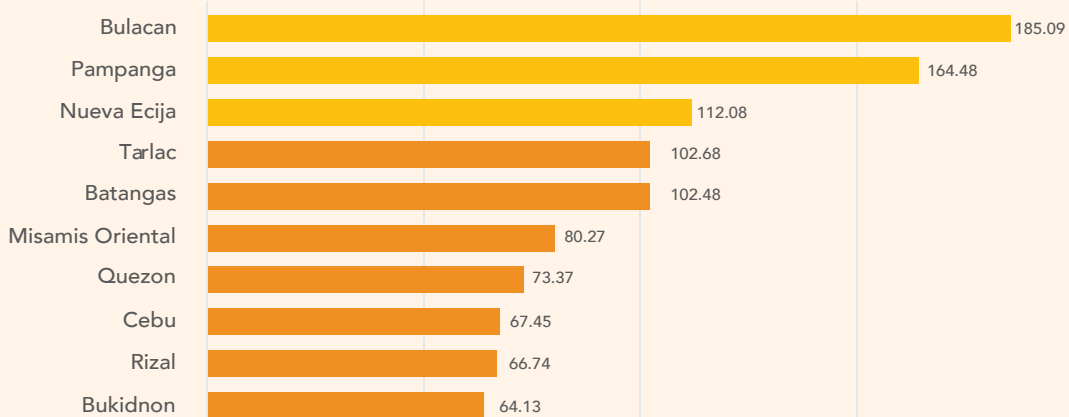
# Volume of Meat Production

## Volume of Chicken Production

As of the 2nd quarter of 2021, total chicken production is at 433,110,290 kg. Total chicken production in 2020 was 1.81 B kg, which is 6.1 percent lower than the previous year's output of 1.93 B kg., live weight. Industry players cited that the shift of hog producers to broiler and layer production had resulted in difficulty sourcing DOCs. This in turn affected total chicken production.

The top 3 provincial chicken producers in 2020 were the following: Bulacan with 185.09 M kg, live weight, followed by Pampanga with 164.48 M kg., liveweight and Nueva Ecija with 112.08 M kg., live weight. Completing the top 10 producing provinces include Tarlac, Batangas, Misamis Oriental, Quezon, Cebu, Rizal, and Bukidnon. The combined outputs of these 10 provinces make up 56.3 percent of the country's total chicken production. Four of the top 10 producing provinces are from Central Luzon, three from CALABARZON, two from Northern Mindanao, and one from Central Visayas (Figure 7). This implies that production is very much concentrated in areas close to urban demand centers. Another important implication is that rural areas where there is still a significant population<sup>1</sup> would need to rely on native chickens as a source of proteins and livelihoods.

**FIGURE 7. CHICKEN PRODUCTION (LIVEWEIGHT) OF TOP 10 PROVINCES, 2020, IN MILLION KG, LIVEWEIGHT**



Source of basic data: PSA 2020

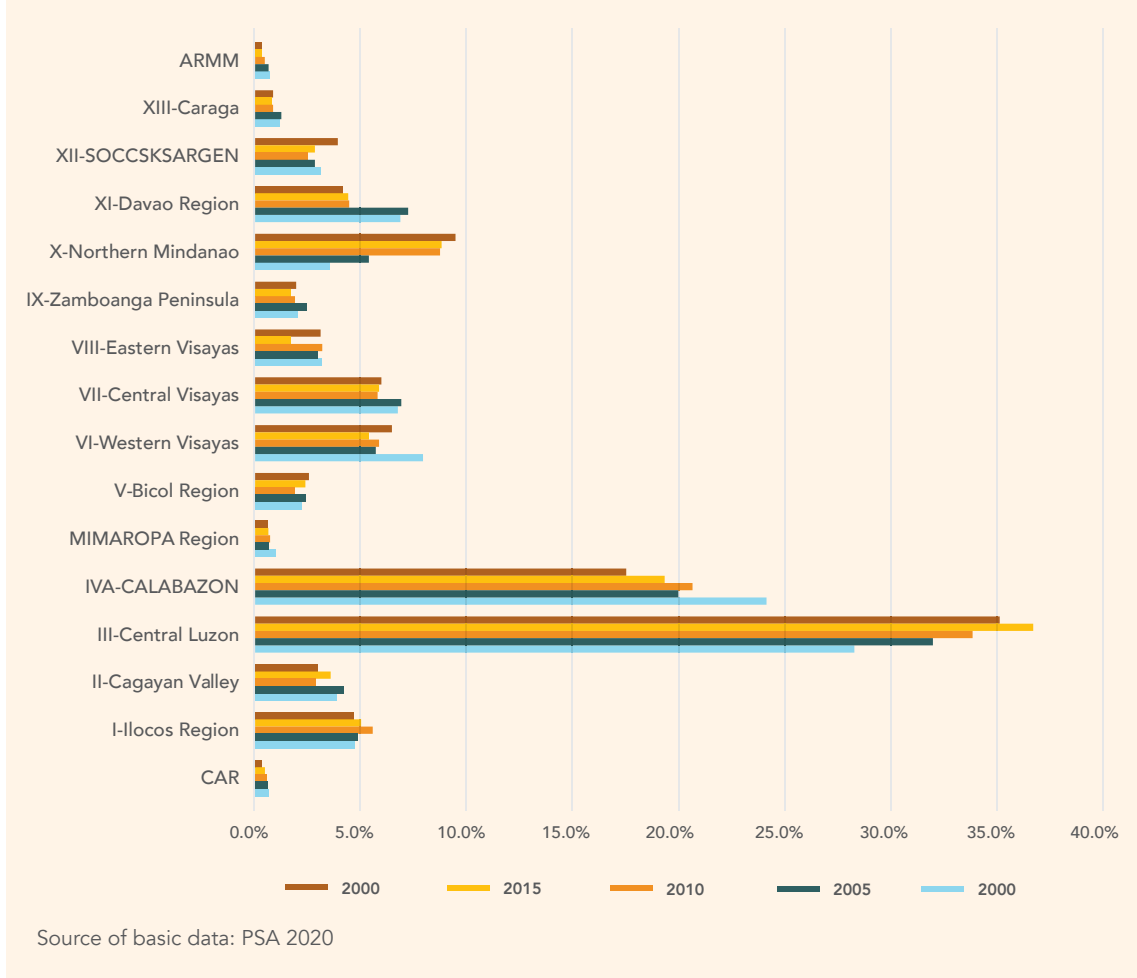
<sup>1</sup> The World Bank published data that show close to 53% of the Philippine population are in rural areas in 2020. See <https://data.worldbank.org/indicator/SP.RUR.TOTL.ZS?locations=PH>



Based on PSA information, Central Luzon was the top producer of chicken with 140.40 M kg., live weight, followed by CALABARZON with 87.90 M kg., and Northern Mindanao producing 36.93 M kg., live weight. The top 3 regions contributed 61.2 percent to the country's total chicken production.

Central Luzon and CALABARZON where most chicken production is concentrated, has a combined share of more than 50 percent of total chicken produced in the country (in liveweight). All the other regions are all below 10 percent of total volume of production. Moving forward, it would be good for the industry to consider the possibility of expanding production in other regions - with potentially other regional shares to the total volume of chicken produced increasing in the long term. This will help contribute to both food security and development goals in the country (Figure 8).

**FIGURE 8. BROILER INVENTORY BY REGION FROM 2000 TO 2020, ANNUAL**



From 2000 to 2020, broiler chicken production doubled from around 0.99 B kg liveweight in 2000, to around 1.8 B kg in 2020 (PSA). This was observed by the industry as a rather “slow” rate of increase in production. Figure 9 shows the volume of broiler production in the Philippines in the said period.

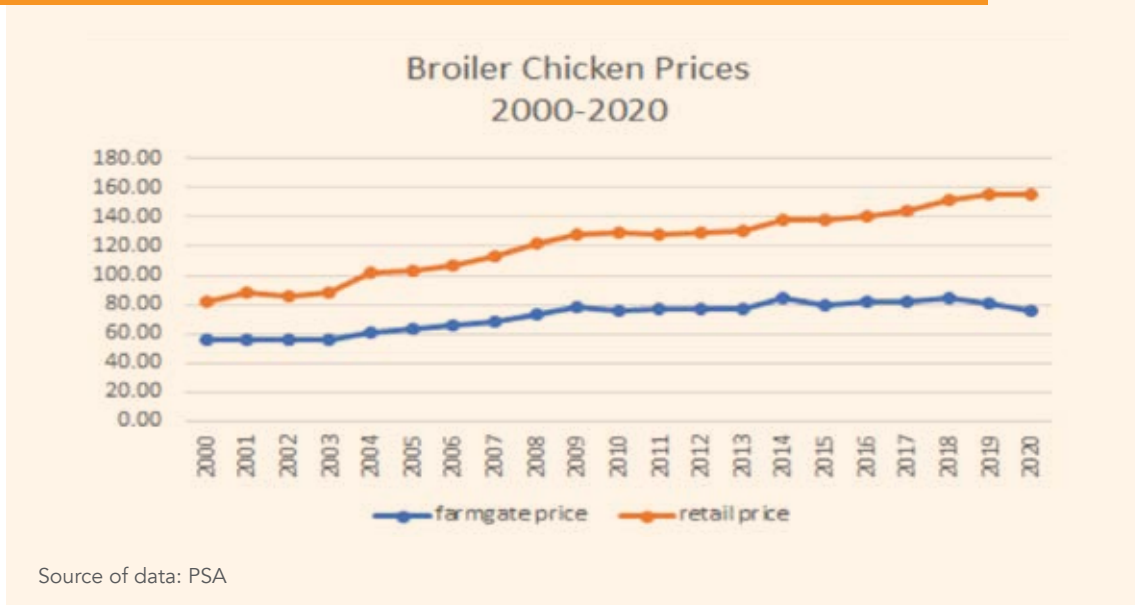
**FIGURE 9. VOLUME OF PRODUCTION, FROM 2000-2020, IN KG.**



# Domestic Prices

In the second quarter of 2021, the average farmgate price of broiler in commercial farms was PhP 100.69 per kg, live weight which is 17.9 percent higher than 2020's same quarter average price of PhP 85.39 per kg. During this period, the highest farmgate price was recorded in April at PhP 101.95 per kg live weight while the lowest was quoted at PhP 98.43 per kg in June. In 2020, the annual average farmgate price of broiler chicken in commercial farms was PhP 75.91 per kg live weight which was -6.1 percent lower than the previous year's average farmgate price of PhP 80.80 per kg. The highest average farmgate price was recorded in December at PhP 93.82 per kg liveweight, while the lowest was seen in April at PhP 61.37 per kg (Figure 10).

**FIGURE 10. ANNUAL AVERAGE FARMGATE PRICE OF COMMERCIAL BROILER CHICKEN IN 2 DECADES**



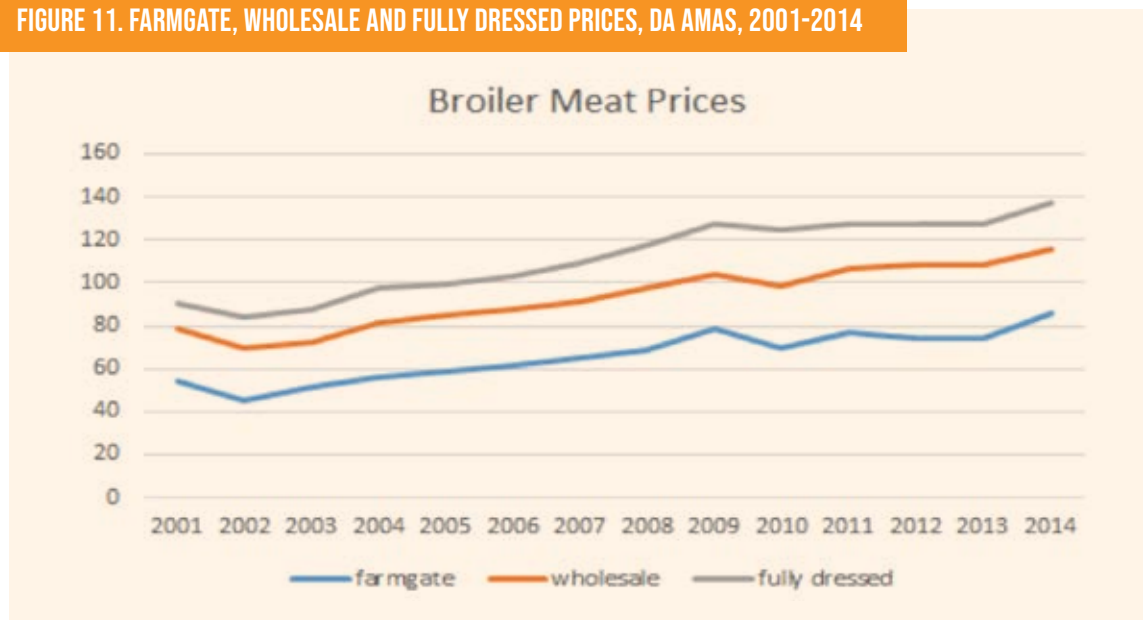
## Farmgate Price

Farmgate price of broiler chicken was steady from 2000 to 2003, starting at PhP 55.28. There was a sharp increase in 2004 continuing up to where price reached up to PhP 78.71 in 2009. From 2010 to 2020, the prices became erratic where it peaked at its highest price of PhP 84.89 in 2014 until it fell back to PhP 75.91 in 2020.

## Retail Price

The annual average retail price of fully dressed broiler chicken in 2020 was PhP 155.71 per kg. This was 0.2 percent higher compared with the average retail price of PhP 155.35 per kg in 2019. The highest average retail price was recorded in January at PhP 164.54 per kg, while the lowest was quoted in September at PhP 15.87 per kg. Retail price of fully dressed broiler chicken saw a steady increase during the two decade period from PhP 81.55 in 2000 to PhP 155.49 in 2020 (Figure 11).

**FIGURE 11. FARMGATE, WHOLESALE AND FULLY DRESSED PRICES, DA AMAS, 2001-2014**



The above graph shows the farmgate, integrator/wholesale price of branded and fully dressed prices of chicken, as gathered by DA BAI, Marketing Development Division (MDD) in 24 public/private wet markets in Metro Manila from 2000 to 2014. Farmgate price is quoted from UBRA.

Based on those statistics, farmgate and retail prices of chicken seem to show an increasing gross margin between the two prices. What this may imply is that demand for chicken in the retail market could be becoming more segmented (meaning different chicken parts demanded). It is then possible that there is higher retail price growth because of the increase in demand for various chicken parts. There is currently no available market research on chicken demand to help evidence these changes. On the

other hand, farmgate prices have remained relatively lower. An implication is that farm productivity must keep pace with the changing demand structure in the country. This demand will likely change over time with economic growth and demographic changes. It will be important for the government to track these price data which can help signal to the industry the on-going changes in the market for chicken. Further research should also be explored to evidence such changes in partnership with research and academic institutions.

As explained by an industry expert, in comparing farmgate price from retail price, it should be noted that broiler farmgate price is in pesos/kg liveweight and retail price is in Pesos/Kg Dressed. If farmgate price is at PhP 80/kg live, a straight conversion would be P100/kg dressed since about 20% of the live weight is discarded during the dressing process (feathers, blood, head, feet, offals, etc.). This does not yet include any processing and transport cost nor markup, just a simple conversion. If processing cost and retail markup are added, a reasonable retail price would be P125-130.

## Supply and Demand

Chicken demand increased faster than other meats due to its affordability, lower fat content, and cultural and religious acceptability as a preferred meat in fast food outlets, which is a quickly expanding sector throughout the Philippines. Dressed chicken gross supply is composed of production (85%) and imports (15%). Supply rose by five percent per year from 1.1 MMT in 2009 to 1.7 MMT in 2018. By 2019, supply was estimated to be at 1.93 MMT, which is higher by 4.9 percent than the 2018 supply (PSA, 2020). Using PSA's net food disposable data for dressed chicken as equivalent to the quantity of food available for human consumption, aggregate consumption reflected a four percent per year increase from 1.1 MMT in 2009 to 1.7 MMT in 2018.

Per capita consumption rose by four percent per year from 11.6 kg in 2009 to 15.6 kg in 2018. Consumption averaged 13.4 kg per person per year over the past decade. The 10 percent decline in consumption in 2017 is explained by the bird flu outbreak in Central Luzon. The average annual per capita consumption was 13.4 kg for the past decade. The demand projection by 2023 is 1.8M tons of chicken meat for the whole country.

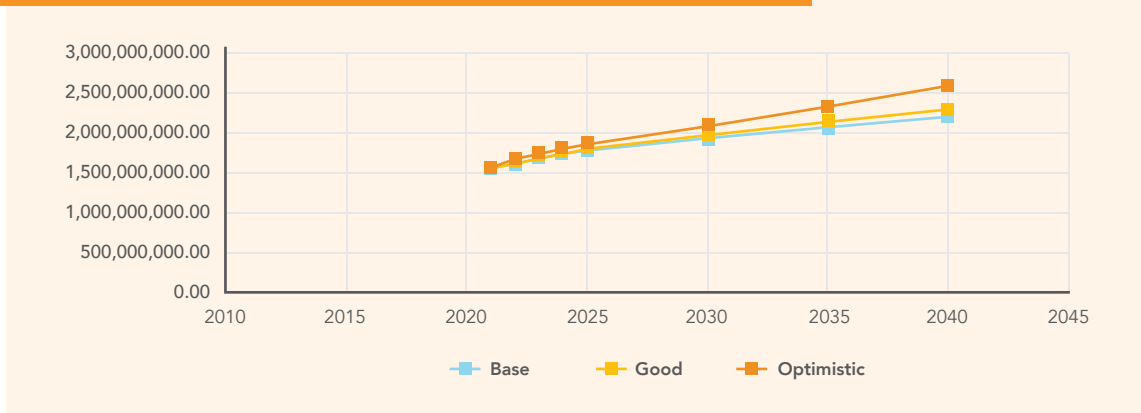
This projection, however, does not consider the effects of the Covid-19 pandemic to the demand. Figure 12 shows how demand projection is foreseen in the major regions of the country.

**FIGURE 12. DEMAND PROJECTIONS OF THE BROILER INDUSTRY BY 2023.**



Figure 13 shows the industry demand projections for the period 2021-2040 anchored on the following assumptions: for the base, it is at 2 percent growth in per capita consumption; good at 3 percent and optimistic at 6 percent growth in per capita consumption.

**FIGURE 13. PROJECTED DEMAND FOR BROILER MEAT IN KG FROM 2021 TO 2040**



## Based on Per Capita Consumption

For 2025, the demand at 2% growth rate is expected to be at 1,775,890,943.27 kg, at 3% growth rate to be 1,793,301,638.79 kg., and at 6% growth rate to be at 1,845,533,725.35 kg. For 2040, figures are at 2,187,616,432.54 kg., 2,274,675,179.39 kg., and 2,551,470,472 kg at 2%,3% and 6% growth rates, respectively.

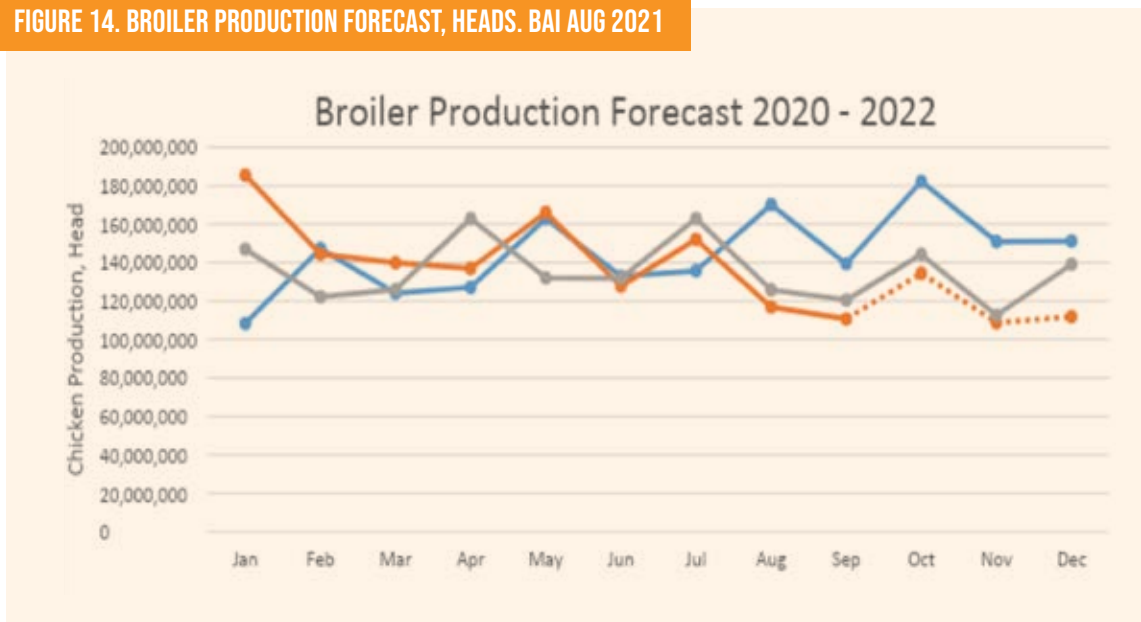
Calculations were based on per capita consumption sourced from statista.com and growth rate from Census of Populations in the Philippines. Additionally, there are population projections from UN estimates (Annex 1).

It was suggested by PAFMI that demand be discussed and reviewed on a per case basis (quarterly, bi-annually, and annually), given that the pandemic drastically changed the buying and consuming patterns.

## Projection of Supply Based on the Life Cycle Model (LCM)

Recently, BAI and the Philippine College of Poultry Practitioners have developed a formula of calculating the projections that are much closer to the actual supply data (Figure 14).

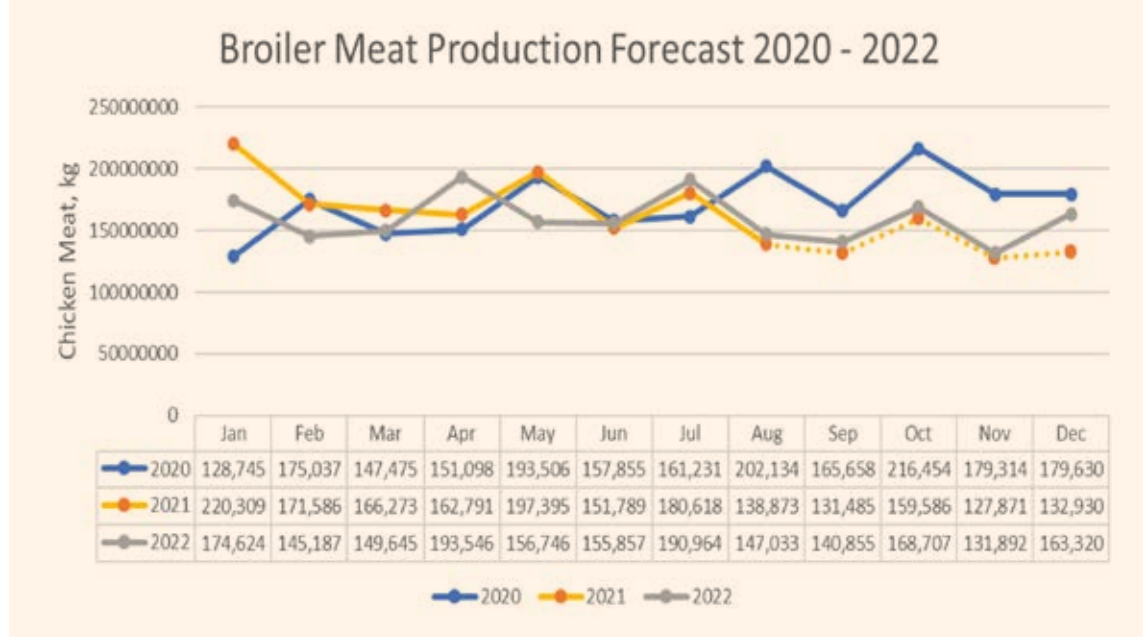
**FIGURE 14. BROILER PRODUCTION FORECAST, HEADS. BAI AUG 2021**



This forecast/projection of number of broiler heads to be produced is based on the actual arrival of breeder (GP, PS, Broiler HE), DOCs and HE as of July 2021 (Figure 15).

Compared to the 2020 data, there was an increase of 23.69% production of marketable broilers in the 1st quarter of 2021 and an increase of 1.89% in the 2nd quarter. There is an expected decrease of 14.75 percent and 26.94 percent production for the 3rd quarter and 4th quarter respectively.

**FIGURE 15. BROILER MEAT PRODUCTION FORECAST IN '000 KG, 2020-2022. BAI AUGUST 2021**



There is a 23% decrease in broiler meat production from July to August 2021 and a 5 % decrease from August to September. However, an increase of 15% production is expected by October.



# Importations

Table 4 shows the latest import data from BAI NVQSD. The country imports the following chicken cuts – chicken leg quarter, deboned, fats, offals, and rind/skin. Total volume of imported meat is 260,881,848.659 kg. Around half of the total volume of imports is deboned chicken meat.

Arrivals for chicken cuts had been relatively the same, and changes in the trend is mostly minimal (NVQSD, Chicken data analysis as of Aug 2021).

**TABLE 4. CHICKEN MEAT IMPORT DATA FROM JAN TO AUG 2021**

Chicken Part	Volume in Kilograms
Chicken Cuts	28, 567,035.56
Chicken Leg Quarter	84, 329,956.985
Deboned	139, 411,951.344
Fats	3,852,860.67
Offals	2,154,686.37
Rind/Skin	2,565,357.73
<b>Total</b>	<b>260, 881,848.659</b>

Source: BAI NVQSD as of August 2021

The top 5 countries which exported chicken meat to the Philippines are the Netherlands, USA, Brazil, Belgium, and Canada. Generally, imported chicken cuts are used by hotels, restaurants, and institutions (HRIs) which have ventured from merely leg cuts to various other chicken cuts due to the increased demand from consumers. On the other hand, mechanically deboned meat (MDM), offals, fats, and rinds comprising processed frozen products such as nuggets and hotdogs (Figure 16).

FIGURE 16. VOLUME OF IMPORTATION OF CHICKEN FROM 2000 TO 2020



Source of Data: PSA

## Export

The Philippines reported outbreaks of Highly Pathogenic Avian Influenza (HPAI) H5N6 in 2017 and its recurrence in March 2020 (OIE, 2020). These outbreaks were all reported to the World Organization for Animal Health (OIE). For transparency, the Philippines initiated a temporary ban of chicken meat for export from the Philippines. Prior to the ban, majority of the exported chicken meat (yakitori sourced from imported meat) goes to Japan and to the United Arab Emirates (locally produced meat).



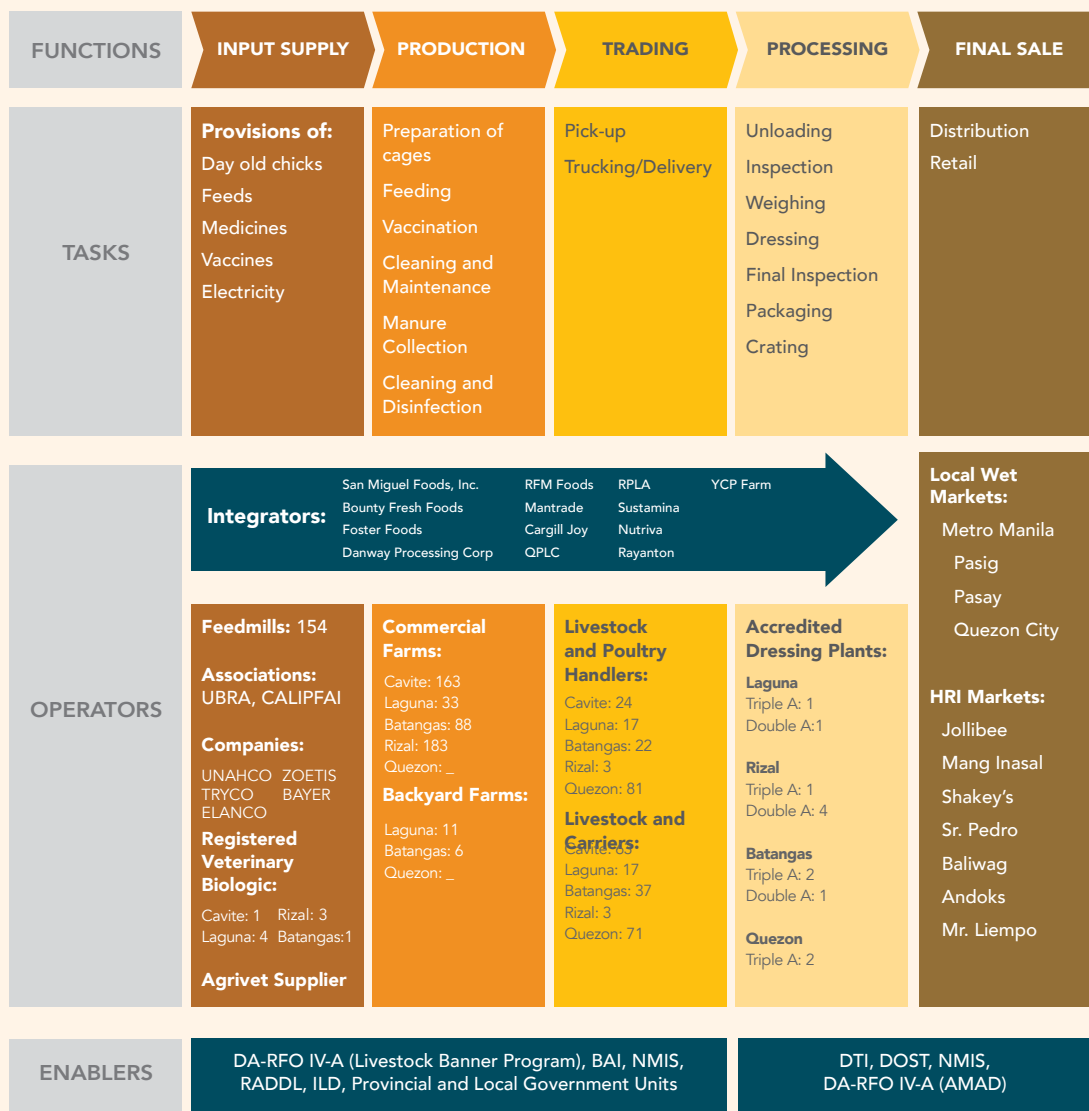
# ANALYSIS OF THE BROILER INDUSTRY

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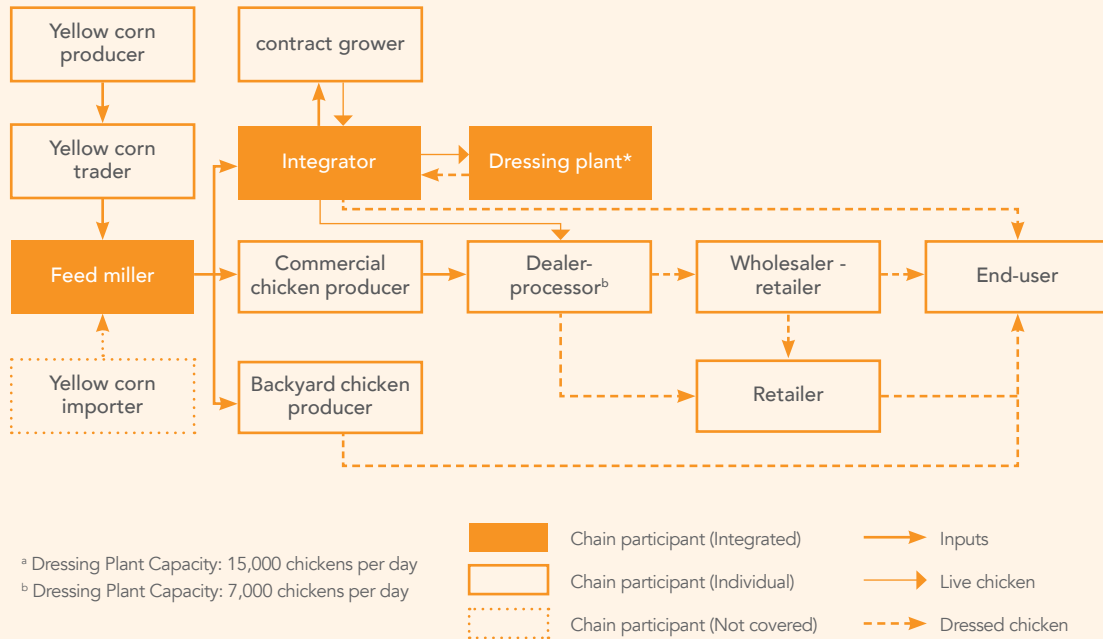
## Philippine Broiler Supply Chain

There is a mature broiler supply chain in the country. Development had been mostly private sector. Figure 17 highlights the broiler supply chain map in CALABARZON (PRDP, 2018). Figure 18, on the other hand, shows the broiler supply chain of case studies in Pampanga (Gordoncillo, et. al., 2019) and published in Curibot et al. (2019). An older study shows the broiler industry value chain in 2009 by Gonzales et al. (2012) (Figure 19). All these studies show an established supply chain with major players engaged in the industry. Since 2009 to the latest studies, the industry remained driven by both integrators and non-integrators with some backyard operations. The succeeding sections briefly discuss by chain from inputs to retail.

**FIGURE 17. VALUE CHAIN MAP OF BROILER CHICKEN IN CALABARZON (DA PRDP, 2018).**



**FIGURE 18. BROILER SUPPLY CHAIN OF CASE STUDIES IN PAMPANGA, 2017.**

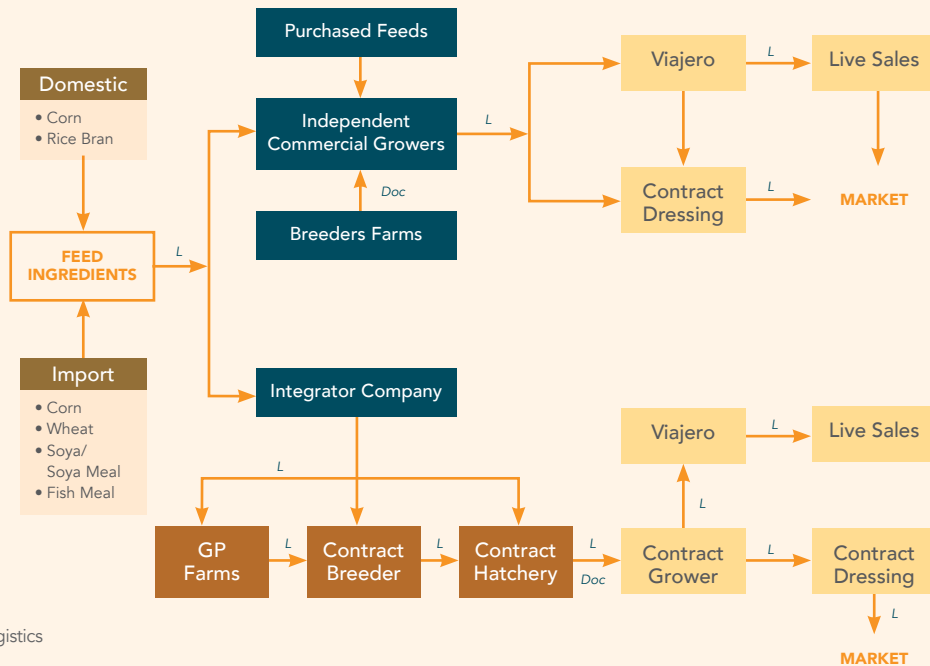


<sup>a</sup> Dressing Plant Capacity: 15,000 chickens per day  
<sup>b</sup> Dressing Plant Capacity: 7,000 chickens per day

Source: Curibot, et al., 2019

\*It is suggested by industry to connect dressing plant to wholesaler/retailer

**FIGURE 19. PHILIPPINE BROILER SUPPLY CHAIN MAP, 2012.**



Source: Gonzales et al., 2012

# Input supply

## Day Old Chicks

A very important input to broiler production are DOCs. Currently, GPSs are imported by the integrators who have distribution rights from global brand owners. Integrators then usually outsource DOCs to contract farms to reduce labor and capital. They provide the feeds and veterinary medicines in addition to DOCs. The biggest supplier of DOCs globally as well as in the Philippines are Cobb and Aviagen.

## Feeds

Feed ingredients are another important component for broiler production. Many of the integrators operate their own feed milling operations for supply and quality assurance of their feeds. This permits them to modify feed formulations and adapt with fluctuations in price and supply of feed ingredients. The integrators obtain their feed ingredients either locally (e.g., corn, copra meal, rice, among others) or from foreign countries (e.g., soybean, wheat, corn, fish meal, etc.). Major feed miller companies in the Philippines include the following: San Miguel Foods; Cargill Philippines; Swift Foods, General Milling Corporation; Vitarich Corporation; Bounty Agro Ventures, Inc (formerly Tyson AgroVentures); Sun Jin Philippines; Foremost Farms; Universal Robina Corporation; and the Grain Handlers. These companies together with other commercial feed millers and suppliers formed an association known as PAFMI.

Using costs and returns for broiler production of selected farms in Pampanga by a recent study (Gordoncillo et al., 2020), commissioned by the Philippine Competition Commission, shows that feed costs account for roughly 52 percent (backyard scale) to 64 percent (commercial scale of operation). Similarly, a Philippine Rural Development Project study in 2018 of the CALABARZON broiler supply chain, shows feed costs to be roughly 52 percent (based on the calculated 5,000 birds per cycle information from the report). A past study by Gonzales et al. (2012), also shows similar values of feed costs as a percent of total farm costs. This was about 61 percent of total farm costs for non-integrators and 58 percent for integrators. It is clear with all these studies that feed remains an important

cost component. Among the ingredients, yellow corn is an important ingredient.

## **Yellow Corn**

Industry players have a strong preference for yellow corn as a source of energy for their chickens. Using alternative sources are an option but would require adding supplements to complement nutrient losses that yellow corn offers. A key concern among broiler industry stakeholders hopes that there would be more consistent quality supply of yellow corn and prices were more stable and fairer for both yellow corn farmers and other users, including the feed milling sector and broiler producers in the supply chain. Lack of post harvest facilities for corn is also a challenge.

### Production

Poultry production is becoming more intensive, geographically concentrated, vertically integrated, and linked with global and national supply chains. Commercial broiler production is characterized by the contract growing system. Contract growing provides employment and income opportunities for smaller poultry producers.

On the other hand, small to medium family poultry flocks still represent a vital source of income for poor rural households as well as for independent commercial growers. For the rural households, poultry production is generally considered as supplementary to other livelihood activities, but poultry is a form of saving and insurance and contributes to income diversification. For independent medium scale commercial growers, poultry is a main source of income. Whatever the poultry enterprise size is, all kinds of undertakings are geared towards supporting livelihoods and supplying local or niche markets to large-scale industrialized enterprises.

## **Business Models**

There are two dominant business models for broiler production. These are integrators and non-integrators. Studies by Gonzales et al,(2012), PRDP (2018), and Gordoncillo (2020), all show these two models of operation that still exist. There seems to be smaller scale operations that can be classified as backyard. However, there is no available study yet to ascertain this but an initial view from industry stakeholders is that these could be catering



to wet markets in their area and possibly traders that sell to retailers for “*inihaw*” chicken.

Various broiler integrators in the Philippines include San Miguel Food and Beverage, Inc. (SMFB) using the Magnolia brand and Bounty Fresh Group - Bounty Fresh Foods, Inc. and Bounty Agro Ventures, Inc. (BFFI/BAVI) using the Bounty Fresh brand, Cobb-Vantress Philippines, Inc., Charoen Pokphand Foods Philippines Corporation (CPF), Foster Foods, Inc., and Vitarich Corporation (Cook’s), among others.

There are also commercial growers that operate only at the provincial/regional level or solely within a particular segment of the supply value chain, like Nutriva Agri Ventures, Danway Contract Growing, Gama Foods Corporation, RDF Feed, Livestock & Foods Inc. (Fresh Options Meatshop), Anak Ciano, Inc. (Ang Manok ni Sr. Pedro), Vista del Rio Farm (Fresh Choice), Cal’s Poultry, Quezon Poultry & Livestock Corporation (QPLC), Poultrymax Omnis Inc. (KFC), Marcela Farms, Inc. (MFI), Ana’s Breeders Farms Inc. (Suy Foods); and Chicken Essentials Philippines Inc. (Essential Chicken).

The scale of operations for broiler production ranges from about 500 birds per cycle to as high as 70,000 birds per cycle, with potential for higher operations (industry consultation). A larger population is recommended now given the advancements in housing such as the use of tunnel ventilated houses.

## **Technical Parameters for Broiler Production**

A 2012 study by Gonzales et al. shows that the Philippines can compete with respect to the technical parameters of broiler production with our ASEAN neighbors (Thailand, Malaysia, and Indonesia). These are shown in Table 6. A more recent study is being done by Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) and Philippine Institute for Development Studies (PIDS), but results are not yet published. An important conclusion with these parameters which industry players agree is that the Philippines is competitive technically. It has some of the best nutrition experts as one feedback shared by industry players. These figures on technical parameters have improved further. For example, the average growing cycle now can go as low as 28 to 32 days. The liveweight can be higher (i.e., 2 kg and above) and seen as more efficient but local demand still prefer the current ranges.

**TABLE 5. BROILER TECHNICAL PARAMETERS, 2009.**

ITEM	PHILIPPINES		THAILAND		MALAYSIA		INDONESIA	
	Integrator	Non-Integrator	Integrator	Non-Integrator	Integrator	Non-Integrator	Integrator	Non-Integrator
Feed conversion ratio	1.6-1.8	1.7-1.9	1.8	2	1.75	1.8	1.35-1.4	1.5-1.5
Ave. Liveweight per bird	1.5-1.65	1.7-1.8	2.3-2.5	2.2	2.2	1.8	1.5-1.6	1.5
Livability (%)	95-96	95	96	95	97	95	95.5	94
Average growing cycle (days)	30-36	36-40	38-40	38-40	38	42	35-42	30-35

Source: Gonzales et. al., 2012

## Costs of Production

### Cross-country comparisons (2009)

There are a few published studies that estimated the costs of broiler production one of which is a past study (that needs updating) of cross-country comparisons done almost two decades ago. While it is an old study, the conclusions seems to be still the same when these are shown to industry players. Domestic costs of feed, DOCs, and labor are higher than most of ASEAN neighbors (especially the major producers like Thailand and Malaysia). These observations were also already mentioned in Chang (2007), where high input costs need to be addressed especially as cheaper imports potentially enters the country. While technical advancements have progressed and the country is able to compete in this area, there is a need to ensure that a more sustainable solution is found to help address the high input costs affecting the industry – even after two decades – importantly feed costs. Industry players and recent studies by PRDP (2018) and Gordoncillo (2020) also confirm such observations.

TABLE 6. CROSS-COUNTRY COMPARISON OF BROILER PRODUCTION IN SELECTED ASEAN COUNTRIES, 2009.

ITEM	PHILIPPINES		THAILAND		MALAYSIA		INDONESIA		INDONESIA	
	Integrator	Non-Integrator	Integrator	Non-Integrator	Integrator	Non-Integrator	Integrator	Non-Integrator	Integrator	Non-Integrator
Operation and Maintenance										
Cost of Feeds	0.72	0.78	0.75	0.81	0.77	0.77	0.67	0.73	0.79	1.05
Cost of Day Old Chicks	0.23	0.32	0.17	0.2	0.19	0.19	0.18	0.2	0.35	0.16
Labor	0.21	0.33	0.02	0.02	0.05	0.09	0.06	0.06	0.03	0.01
Overhead	0.01	0.01	0.04	0.03	0.06	0.06	0.05	0.05	0.06	0.12
Total Farm Cost per kg	1.18	1.35	1.01	1.09	1.10	1.11	0.96	1.04	1.23	1.38
Percent share to total farm costs										
Cost of Feeds	61%	58%	74%	74%	70%	69%	70%	70%	64%	76%
Cost of Day Old Chicks	19%	24%	17%	18%	17%	17%	19%	19%	28%	12%
Labor	18%	24%	2%	2%	5%	8%	6%	6%	2%	1%
Overhead	1%	1%	4%	3%	3%	5%	5%	5%	5%	9%

Source: Gonzales et al., 2012

## Post-production (trading and processing) and markets

Traders or 'viajeros' buy broilers from independent commercial growers or contract growers. They then sell chickens as live birds to the wet markets. The more prevalent model of contract growing in the Philippines, though, is that the integrators retain ownership of the birds so contract growers are not allowed to sell to viajeros and the integrators harvest the birds at the end of the cycle. Poultry broilers from contract growers are transported to dressing plants for toll dressing, although there are integrators who have their own dressing plants. Processing of chicken is either owned or contracted by integrators to provide value-added products for retail markets.

Processed or dressed broilers or cut-ups are then brought by the traders or integrators to various outlets such as meat stalls in public markets or in grocery stores before they can reach the final consumers. Broilers can be brought to where meat is sold as whole chicken or as cut-ups, either in wet markets or supermarkets.

Wet markets are still a dominant market in chicken retail and are the primary source of fresh chicken among household buyers for home consumption. Despite the proliferation of supermarket chains, wet markets are the most prevalent source of fresh chicken in the Philippines. Wet markets are associated with wet floors and humid temperatures. In wet markets, retailers constantly use water to wash down floors to keep them clean.

Supermarkets allow customers to walk through display chillers and pick up their preferred chicken whether whole or cut of their choice brand, packaging, and size. In the fresh markets section, chicken meats are sold in the open display section where customers are allowed to select their preferred chicken parts for weighing and packing. People are available behind the counter to attend to customers. The open display section allows the customers to pick up the chicken parts, size, and quantity they require. Brand choices (Magnolia or Bounty), house brand, and unbranded chickens are available in the open display section.

## SWOT Analysis (per VC segment)

Table 7 below shows a summary of the SWOT analysis along the value chain of the broiler industry. As stated earlier, the industry is relatively mature domestically. The key strengths are that there is a strong demand for chicken in the country, the broiler industry has strong technical parameters (i.e., FCRs, livability, liveweight) that can compete among peers in the region, and the availability of local yellow corn – which is still a preferred source of energy. The key weaknesses are the lack of consistent quality (high rejection rate especially during the wet harvest) and stable prices for yellow corn. On the other hand, for opportunities, there are niche markets for exports (i.e., Yakitori) and there is growing and strong demand for fresh chicken in the country. Lastly, in terms of threats, these are mainly the high costs of inputs, particularly DOCs and feed ingredients; diseases such as avian influenza; and the influx of cheap imports – which industry players point out as subsidized by other countries.

**TABLE 7. SUMMARY OF SWOT ANALYSIS FOR BROILER VALUE CHAIN.**

Value Chain	Strengths	Weaknesses	Opportunities	Threats
Inputs	Yellow corn is available	Inconsistent quality and unstable prices of feed ingredients that includes yellow corn	Substitutes available but with added costs	High cost of DOCs and the reduced supply of inputs, including soybeans in the future if major country producers will have less due to shift in consumption patterns; frequent typhoons and climate change affecting all raw feed ingredients
Production	Technical parameters at par with competitors in the region	High input costs, DOCs, and feed costs	Niche market exports, yakitori to Japan and Korea	Diseases, such as avian influenza
Post-production		Quality and standards of dressing plants in other regions		
Retail	Strong demand for chicken	Poor/unfavorable wet market environment	Demand for fresh chicken still strong	Imported chicken that are cheaper

# SWOT Analysis (Industry Level)

## Strengths

- Technical expertise at par with international standards - even this is threatened as veterinary professionals migrate from poultry practice to small animal practice
- High self sufficiency level and the ability to quickly expand production through importation of hatching eggs (HE) as needed

## Weaknesses

The poultry sector continues to grow and industrialize in many parts of the world. An increasing population, greater purchasing power and urbanization have been strong drivers of growth. The Philippine broiler industry must be part of this growth considering that the human population has increased, and that poultry is a cheap source of protein.

The data and background on the Philippine broiler industry have grown modestly but have still not gone into exports due to market policies and animal health challenges that beset the industry.

The succeeding summary statements are the result of the assessment of what really ails the broiler industry to take off:

1. Dependence on imported inputs
  - The industry remains dependent on imported inputs like the breeding stocks, feeds, veterinary supplies, among others. Due to insufficient local supply of corn and other feed ingredients, there is a need to source additional supply outside the country.
  - It also relies heavily on imported wheat as an alternative to local corn due to its consistent quality and reliable crop data monitoring.
2. Poultry health challenges
  - The implementation of veterinary policy on the use of banned drugs and compliance to withdrawal periods is weak due to lack of understanding and appreciation on the effects of non-compliance.
  - The introduction of avian influenza in 2017 (and the recurrence in 2020) disrupted

production and movement of poultry.

- There is also a need to monitor the quality of feeds (Aflatoxin) as this has detrimental effects to the flock.
- Disease surveillance in the country is inadequate, especially the reporting and feedback mechanism.

### 3. Post- harvest requirements

- The unavailability or limited number of accredited poultry dressing plants in the region forces producers to dress chickens in the backyard; hence, putting in question if sanitary slaughter measures were observed.
- There is a proliferation of locally registered dressing plants (LRDPs) that are not accredited by the National Meat Inspection Service (NMIS); hence, compromising the standards of slaughter and inspection.

### 4. Transport costs and movement management

- The Philippines has the highest shipping charges among the competitor countries in the region averaging PhP 27, 159.00 per 20 feet container van (Magkilat, 2015). This lowers the profit margin of sellers, affecting the competitiveness of the local producers.
- Interisland logistics remain one of the financially demanding aspects of the local feed and food value chains.
- Zoning regulations and ordinance that aim to promote movement of livestock production to remote areas is seen as a hurdle for the further development of the poultry industry in the Philippines.

### 5. Market information

- There is lack of market information access for backyard raisers causing a disconnect between farmgate price and retail price.
- The DA has no trade data system that it can use to address smuggling and unfair trade practices under WTO rules.
- Data from the PSA lumps up MDM together with "good meat" leading to conclusions of shortage, which cause serious financing and investment errors.

- No data about importations under the Customs Bonded Warehouse and the corresponding exports.
- Supply data vs demand projection data definition must be precised and must be monitored to ensure that there is the right importation volume.

*For instance, 2023 demand projection of 1.8MMT and we assume that 15 percent of these will be imports, then importation should be 270,000 MT.*

*If we consider whole chicken to mean only chicken cuts, leg quarters, whole chicken, the total importation for 2018: 161MMT which is not consistent with the 2018 supply data of 1.7MMT and very much more than the demand projections of 1.8MMT and this is not 2023 yet. Note that these figures also exceed the 15% importation.*

- There is a need to review and improve data gathering.

#### 6. Market access, market trends, market support

- Competition among major exporters especially the US, Netherlands, and Brazil leads to low import prices thereby making it more economical to import than produce.
- Importers have exploded in numbers (based on reasons above).
- The demand by HRIs has decreased and there is now a rise of reselling and online selling. This may result in a probable permanent reconfiguration of the local market where imports will involuntarily shift from HRI to households. This results in local production retreating from the onslaught of cheap subsidized imported chicken.
- Local industry has not adapted to changing market trends (specific weight requirements by the processing sector) and consumer preferences (preference for cut-ups instead of whole chicken).
- Developed countries provide export subsidies including credit and insurance making the local industry non-competitive and unable to enter the export market.

#### 7. Waste management



- Disposal of waste is a challenge in poultry productions both in backyards and especially in intensive production systems.
  - The odor emitted by poultry manure is both a nuisance and a health concern as flies and rodents attracted to the smell, are also vectors of diseases.
  - The environment is also affected as areas for dumping manure are limited. Others indiscriminately dump on creeks, others bury them underground thereby contaminating groundwater (Gerber, et al, 2007).
  - In the Philippines, manure is commonly sold to buyers especially to vegetable farmers to be used as organic fertilizers (Magpantay et. al., 2020).
  - It would be good to have a manure processing facility as well as to link poultry raisers to vegetable growers.
  - There is also a proposal to process manure to become fertilizer specifically for corn production as this will lessen the cost of production inputs of both corn and poultry.
  - There is also a suggestion to have a Biogas Digester per region as alternative energy source.
8. Disconnect between the regulatory inspection on chicken meat and processed chicken.
- The regulation of processed meat is now a function of the FDA pursuant to RA 10611 or the Food Safety Act of 2013.
9. Lack of innovation from the government to encourage local sector to use local materials and inputs .

Said assessment really paves the way to rethink the strategy and hopefully provide a roadmap for the broiler industry.

## **Opportunities**

1. Rise in demand for chicken meat
  - The rise in demand for chicken meat due to continuing growth in population and household incomes in the country, add to that the pork supply insufficiency (brought about by ASF), present a positive outlook for the broiler industry.

2. Low per capita meat consumption
  - In 2019, chicken overtook pork, for the first time in per capita consumption. Pork had traditionally been the main source of protein for Filipinos (Berkhout, 2020).
  - With the insufficiency and high price of pork, the industry must seize this opportunity to boost chicken meat per capita consumption from 13 kg to a much higher figure.
3. Growing domestic and export market
  - The recent recognition of Japan for the Philippines as a country with confirmed HACCP certified meat establishments and the lifting of the temporary ban to export chicken meat and birds to Korea are seen as export opportunities.
  - While the export market is opening for the country, unless the problem of land use and other threats are addressed, this opportunity cannot be realized soon.
4. Changing market preferences - ready to cook, online selling, delivery
  - As urban lives become increasingly hurried and fast paced, the need for ready and easy to cook foods, have become the trend.
5. Niche market opportunities - free range, halal, organically grown poultry
  - There is a move to develop and promote Halal exports. As such, Republic Act 10817 and the Philippine Halal Export Development and Promotion Act were signed into law in 2016 to establish a comprehensive program for this.
  - Muslims make up 10% of our population. Also, more and more Filipinos have become increasingly conscious of their choice of foods and drinks, so that Halal-certified products have become a good alternative.
  - Many Small and Medium-sized Enterprises (SMEs) are now looking at getting HALAL certification due to the growing number of Muslim and non-Muslim consumers in the global market, the increasing demand for Halal certified products, and the potential of the halal industry (Managinip, 2018).
6. Strong linkage of the industry with the academe about:
  - Improvement of corn production

- Non-traditional feedstuff and its impact on performance
- Novel management practices and housing design
- Innovative/modern means to gauge the nutrient and energy profile of feeds  
e.g amino acid profiling, metabolized energy, etc.

## Threats

1. Land Use - Local Government Unit (LGU) zoning policies
  - The different LGU zoning policies and urbanization of agricultural lands are the lament of those engaged in poultry and livestock raising.
  - As agricultural lands become surrounded by residential areas, poultry farms are being threatened to stop operations and are eventually evicted from the area.
  - Encroachment of agricultural lands by informal settlers is also a concern.
  - Production expansion geared towards importation cannot be achieved unless this problem is addressed.
  - Full implementation of the Republic Act 8435 or the Agriculture and Fisheries Modernization Act of 1997 (AFMA) or a passage of law regarding zoning must be given priority.
2. Influx of cheap imports
  - The broiler industry is threatened by cheaper imports. This is due to high production cost and less efficient marketing system.
  - In other countries, chickens are generally cheaper to produce due to subsidies from the government.
  - Imported chicken cuts especially chicken leg quarters (CLQs) are comparatively much cheaper than our locally produced counterpart.
  - MDM, which previously just went to processors, has now managed to find its way in the market and is now competing with chicken meat.
  - Its regulation must be looked at.
3. Bird Flu/Avian Influenza (AI) and other diseases of economic importance
  - As of January 2021, the Philippines is declared as AI-free (OIE certified)

- Continuous monitoring of this disease is paramount to maintain our AI free status.

#### 4. Online selling - food safety issue

- The pandemic has significantly changed the purchasing behavior of people. An increase of 67 percent purchased more online and 53 percent shopped for groceries online (UNCTAD, Oct 2020).
- According to the e-commerce monitor, the Philippines, among the South East Asian countries, experienced the highest increase in terms of shopping app utilization (53 %), as well as online spending (57%) (Ledesma, 2020).
- Food delivery has quickly become the preferred mode as more and more Filipinos opted to stay home for safety and for convenience.
- Also, the loss of jobs and the search for additional sources of income saw the proliferation of online selling.
- While this may be better for the economy, this poses food safety issues as online selling is challenging to regulate.

#### 5. Changing consumer preferences

- a. Demand for a healthier and eco-friendly alternative chicken meat (slow-growing, free-range, organic production systems) is on the rise
  - In the Philippines, the organic poultry movement started in the late 1990s and has gathered momentum as the demand for this type of chicken is driven by health and eco-conscious consumers (Yan, 2019).
  - Slow growing birds take longer time to reach desired live weight.
  - This means longer production periods/ lesser cycles per year and will require more expenditure on feed (Haddad, 2020)
  - Is the industry prepared? It requires investments and a well-thought-out business plan.
  - Will the consumers be able to afford it? It is a premium meat and is much more expensive than the traditional chicken product.
  - Organic, free range chickens retail for much more – up to 400 pesos
  - Alternative meat - shift to plant-based food, laboratory meats

b. Plant based food is also gaining popularity.

- These are considered to have less impact on our health and the environment as compared to traditional animal farming since plants make use of less land and energy and emit a lower amount of greenhouse gases.
- These do not have antibiotics and are cruelty free alternatives (Yupangco, 2020)
- In 2020, following the global trend, Philippine restaurants started offering plant-based products. Starbucks started offering vegetarian-friendly and vegan-friendly meals, Burger King now has its plant-based Whopper, and Shakey's pizza has diversified its products to include Good burger. All meat-free products (Rappler, 2021).
- These trends would compete with the demand for broiler meat.

3. Climate change and changing weather patterns

4. Increase in prices of raw materials and feeds

5. Supply chain disruptors - pandemic

6. Shift of Veterinary Poultry professionals to companion animal practice

## Cost Analysis (production, post-production, and marketing)

Table 8 shows BAI's calculations for production, post-production, and retail based on the latest available data. Based on the table of production costs, it is DOCs and feeds that are costs drivers. The two account for about 81 percent of total cost (with DOCs 21% of total production costs while feeds account for 60% of total production costs). For post-production (Table 9) the major cost is primarily on the purchase of the live birds. In terms of post-production operation itself, the losses are the highest cost driver with 14 percent to total costs (post-production only). This is followed by the dressing costs at PhP 7 per kg (roughly 5% of total post-production costs). Lastly, for the retailers' operations (Table 10), it was estimated that the cost driver was mainly the purchase of fully dressed chicken. In terms of their retail operation, the major cost components are labor at PhP 2/kg and shrinkage at PhP 1.78/kg.

**TABLE 8. BROILER PRODUCTION COSTS ESTIMATES, 2021**

PRODUCTION COST	MW of 1.65 & 84.00 Farmgate Price	
	P/Bd	P/kg
Cost of stock/DOC (market weight of 1.65 kg)	27.00	16.36
Land Rental	3.00	1.82
Feeds (FCR/kg of 1.78) (feed consumption of 2.93kg/hd. for 30 days)	78.76	47.73
Biologics (5% of feed cost)	3.94	2.39
Labor (no. of working days/cycle =49) (no. of bird /cycle=6000)	1.43	0.87
Brooding Expenses	0.75	0.45
Overhead Cost (water, fuel, cost and repair/maintenance)	5.46	3.31
Depreciation (AD = AC - SV/LS)	1.29	0.78
Mortality Cost (5% MW)	6.93	4.20
Sub-Total	128.55	77.91
Cost of Money	2.46	1.27
<b>TOTAL COST</b>	<b>130.65</b>	<b>79.18</b>

Source: BAI, September 22, 2021

**TABLE 9. POST-PRODUCTION COSTS OF BROILER OPERATION, 2021**

PRODUCTION COST	MW of 1.65 & 84.00 Farmgate Price	
	P/Bd	P/kg
Purchases/Farm Price	138.60	84.00
Land Transport and Handling	1.50	1.26
Incidental Expenses (P/trip = 200.00) (no. of birds/trip = 1,800.00)	0.11	0.09
Dressing Losses (DP (77%); kg = 1.27 DL (23%); kg = 0.38)	26.81	22.57
Dressing Cost (Dressing fee; P/bd. = 10.00) Quality Control-DW; P/kg = 0.10	10.17	8.56
Delivery Cost (Hired Van; P/trip = 1,200.00) Total Capacity-DW; kg = 1,800.00	1.10	0.93
Marketing and Admin. Cost	2.55	2.15
Shrinkage (6% LW) Wt. in kg = 0.099	8.32	7.00
Other Cost	0.41	0.35
Sub-Total	189.56	126.90
Cost of Money	1.90	1.60
<b>TOTAL COST (FULLY DRESSED)</b>	<b>191.46</b>	<b>128.50</b>

inspection fees Php 0.40, PM P/kg = 0.25; AM P/hd = 0.15

**TABLE 10. RETAIL COSTS FOR SELLING CHICKEN, 2021**

PRODUCTION COST	MW of 1.65 & Php 100.00 Farmgate Price	
	P/Bd	P/kg
Purchases/Fully dressed Price	214.50	130.00
Stall Rental Rent/day = 150.0 No. of dressed chicken = 100	1.50	1.26
Labor/Vendor P/day = 200.00 No. of dressed chicken = 100	2.00	1.68
Market Fee P/day = 20.00 No. of dressed chicken = 100	0.20	0.17
Shrinkage (1 or 6% DW) Wt. in kg. = 0.013	1.78	1.50
Other Cost	0.83	0.69
Sub-Total	220.81	135.31
Cost of Money	2.21	0.32
<b>TOTAL MARKETING COST</b>	<b>223.02</b>	<b>135.63</b>

## Income Analysis of Broiler Operations

In the 2018 DA PRDP Value Chain study, the following figures were recorded: the growers acquire the highest profit share of 65 percent, with the note that the selling/farmgate price used is Php85/kg of 1.7kg market weight and the cost to produce was at Php 64.18kg. It is then followed by the trader and retailer, which have a profit share of 22 percent and 13 percent, respectively. The analysis on relative financial position showed that 63 percent of the profit share goes to the growers. The profit share of the traders is 22 percent daily, and the retailers get the lowest chunk of profit share with 13 percent. The realized profits for traders are daily while for growers it is only every after 32-35 days.

For the 2021 data, (Tables 7 to 8), the average profit for farmers is roughly at 10 pesos per bird and is only around 34.21 percent of the whole value chain instead of the 65 percent in the PRDP study.

Table 13 presents data showing input costs from the grower, trader, and retailer.

**TABLE 11. RETAIL COSTS FOR SELLING CHICKEN, 2021**

Key Players	Growers	Traders	Retailers
Sales/head (Php)	144.50	165.24	179.60
Production Cost/head (Php)	109.11	153.35	167.77
Profit/head (Php)	35.39	11.89	7.13
% Profit Share*	65%	22%	13%
Realization Profit	32-35 days	Everyday	Everyday

Source: PRDP, 2018

\*Estimated by summing up all the profit in the chain (growers, traders, retailerrs) and dividing each player's share to that total profit.

## Key Interest Groups and their Respective Business Models

There are two major organizations in the broiler sector: PABI and UBRA. Companies use these associations to make their voices heard and advocate for their common goals, interests, policies, and legislative agenda to the national government agencies, local government units, Congress, and other institutions.

PABI has two active members: San Miguel and Bounty. These are the integrators where all the segments of the value chain from egg through the hatching, rearing, harvesting, dressing and to the markets are under the “control” of a single company. These companies are also into contract growing schemes and into bulk supplying of chicken in main urban centers. Some of the integrators also produce feeds, processed chicken, and other products. San Miguel and Bounty comprise about  $\frac{3}{4}$  of the PABI’s output (Gonzales, et. al., 2012).

On the other hand, UBRA is a non-stock, non-profit association of mainly small and medium scale poultry producers formally established and registered with the Securities and Exchange Commission in July 2000. It was initially composed of a small group of producers that hastily gathered during an immense crisis in late 1999 up to the 1st semester of 2000. UBRA’s goal is the promotion and advancement of the Philippine broiler industry (<http://ubra.com.ph/about/>).



Most companies have several segments in their production and follow different business models (Table 12).

**TABLE 12. BUSINESS OPERATIONS AND ARRANGEMENTS OF KEY COMMERCIAL PLAYERS.**

Business Operations	Facilities	Business Arrangement	SMFB	BOUNTY	CPF	VITA	GAMA	CJOY	FOSTER
Breeding	GP Farm	Contract breeding	✓	✓		✓	✓		
	PS Farm	Contract breeding	✓	✓	✓	✓	✓	✓	✓
		Company owned	✓	✓	✓			✓	
Hatching	Hatchery	Company owned	✓	✓	✓				
		Toll hatching	✓	✓	✓	✓	✓	✓	✓
Growing	Broiler Farm	Contract growing	✓	✓	✓	✓	✓	✓	✓
		Company owned	✓	✓	✓		✓		✓
Primary Processing and Logistics	Dressing Plant	Company owned	✓			✓		✓	
		Toll dressing	✓	✓	✓	✓	✓		✓
	Cold Storage	Rent	✓	✓	✓	✓	✓	✓	✓
	Trucking	Trucking service	✓	✓	✓	✓	✓	✓	✓
Marketing	Manpower	Sales	✓	✓	✓	✓	✓	✓	

Source: BAI, September 22, 2021

✓ As informed by San Miguel, over the last few years, their company has put up more company owned facilities, so, all the spaces for company owned are now filled up.

**TABLE 13. BUSINESS PROFILE OF SMFB, BAVI/BFFI, AND CPF.**

Parameters	SMFB- San Miguel	BAVI/BFFI-Bounty	CPF
Business model	Vertically integrated business model built on sustainable partnerships through outsourcing and franchising	Vertically integrated	Vertically integrated
Businesses	<ul style="list-style-type: none"> <li>-Contract breeding, contract growing, processing, and marketing of basic meats</li> <li>-Manufacturing of refrigerated canned, and ready-to-cook meat products</li> <li>-500 Magnolia chicken stations</li> <li>-Retail of roast chicken</li> </ul>	<ul style="list-style-type: none"> <li>-Contract breeding, contract growing, toll hatching, toll feed milling, toll dressing</li> <li>-Manufacturing of ready-to-cook processed chicken</li> <li>-Retail of roasted chicken and liempo ("Chooks")</li> </ul>	<ul style="list-style-type: none"> <li>Animal breeding, commercial production, contract growing and preliminary processing</li> </ul>
Facilities	<ul style="list-style-type: none"> <li>-Over 100 Breeder farms (GP/PS)</li> <li>-21 hatcheries</li> <li>-Feed mills</li> <li>-Over 1,400 contract broiler farms</li> <li>-Over 4 poultry processing plants</li> <li>-Warehouses, distributions</li> </ul>	<ul style="list-style-type: none"> <li>-Breeder farms (GP/PS)</li> <li>-15 hatcheries</li> <li>-9 feed mills</li> <li>-358 broiler contract farms</li> <li>-19 processing plants</li> <li>-2 processed meat plants</li> <li>-80 distributors</li> <li>-Over 2,500 roasted chicken chains</li> <li>-25 business centers</li> </ul>	<ul style="list-style-type: none"> <li>-5 chicken farms (GP/PS)</li> <li>-Feed mills (chicken, swine, duck)</li> <li>-Meat Store and Chicken Star distribution outlets</li> </ul>
Technology	Tunnel ventilated facilities	Controlled environment systems or tunnel ventilated houses	Fully enclosed animal housing with Evaporative Cooling System
Products	<ul style="list-style-type: none"> <li>Poultry and fresh meats</li> <li>-Chicken (3-way, whole, cuts, timplados)</li> <li>-Range chicken -Processed meats (chicken nuggets, hotdogs, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>-Fresh chicken (whole, cutups)</li> <li>-Ready-to-cook chicken, roasted chicken, began chicken, Range chicken</li> </ul>	<ul style="list-style-type: none"> <li>Chicken (roasted, fried, marinated)</li> </ul>
Brands	Magnolia, Purefoods, and *Hungry Juan	Bounty Fresh, Chooks, Uling Roasters, Reyal, and Snok	Chicken Star

Source: USDA FAS, 2020

\*Hungry Juan - no longer in operation

# Benchmark Analysis (Compared to ASEAN Neighbors)

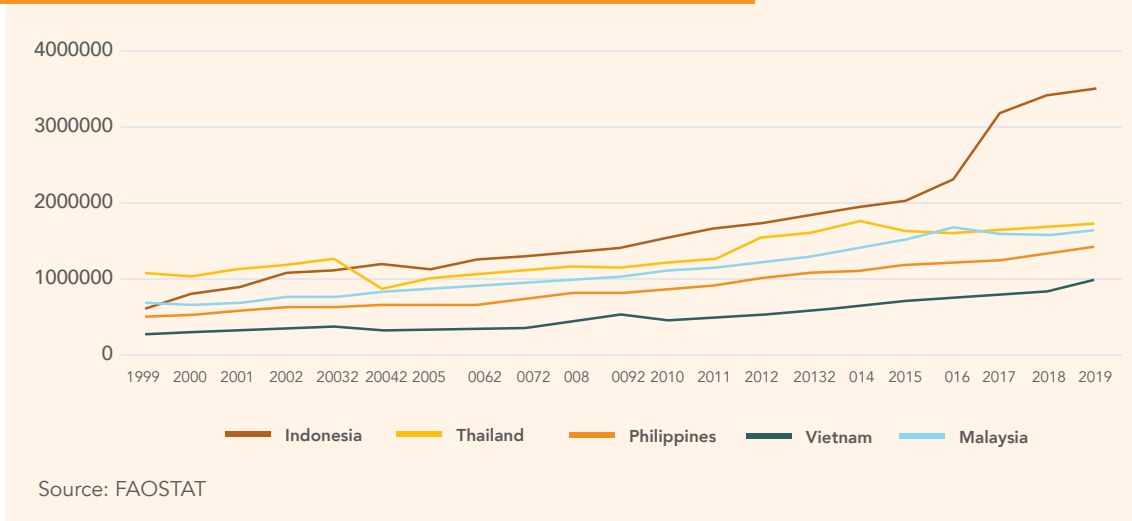
## Industry Performance

### Production

In 2019, the Philippines is second to the lowest producer of chicken meat among the 5 ASEAN countries with a production of 1,430,878 tons (1.43B kg) Indonesia, which is the top producer among the 5 countries, recorded 3,495,091 tons (3.5B kg) of chicken meat produced. Malaysia produced 1,648,036 tons (1.65B kg) while Thailand produced 1,718,865 tons (1.72B kg) of meat. Vietnam is the lowest producer at 990,379 tons (990M kg).

Figure 20 shows the comparison of the 5 ASEAN countries in terms of production.

**FIGURE 20. CHICKEN MEAT PRODUCTION BY COUNTRY, 1999-2019 (TONS).**



### Trade

Integrator farms comply with the standards of their respective companies where they source their GP stocks. This is cascaded down to contract growing farms. Local farm

standards when it comes to achieving good animal husbandry practices are generally based on Good Animal Health Practice (GAHP) set by the ASEAN. HACCP accreditation both locally and from other importers follow the 7 HACCP principles. Locally, annual surveillance audits are done on HACCP - accredited meat establishments and recertification is done every three years. International standards for imported meat must comply with the Sanitary and Phytosanitary Measure, also known as the SPS Agreement, a collaboration between OIE, World Trade Organization (WTO) CODEX, and International Plant Protection Convention (IPPC) to ensure safe trading.

## **Competitive Analysis**

Local broiler production is robust with relatively competitive production efficiency and competent technical experts at par with importers. Meat processors and associations of broiler producers are actively involved in the progress of the poultry and livestock industry, in general. The biggest advantage of the local broiler industry, however, is geographic, which makes it possible to deliver fresh meat. Another edge of the local broiler industry against imported goods is on the exchange rate, since imported meat and meat product prices are dependent on the exchange rate.

### Imports

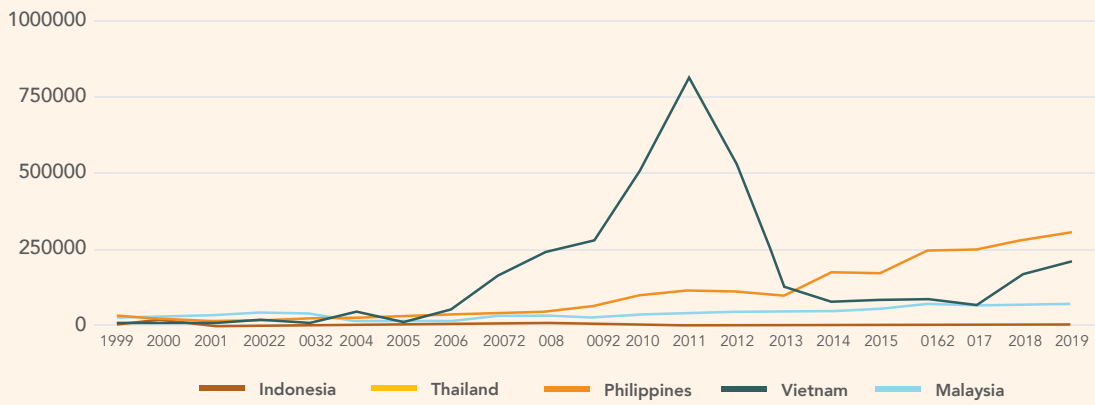
Broiler imports grew significantly over the past years. From 2014 to 2019, the Philippines is the highest importer of chicken meat among the 5 countries. Figure 21 shows meat importation volumes of 5 ASEAN countries for the past 20 years.

### Exports

Chicken meat export is almost the same for the ASEAN countries, except for Thailand (Figure 21).

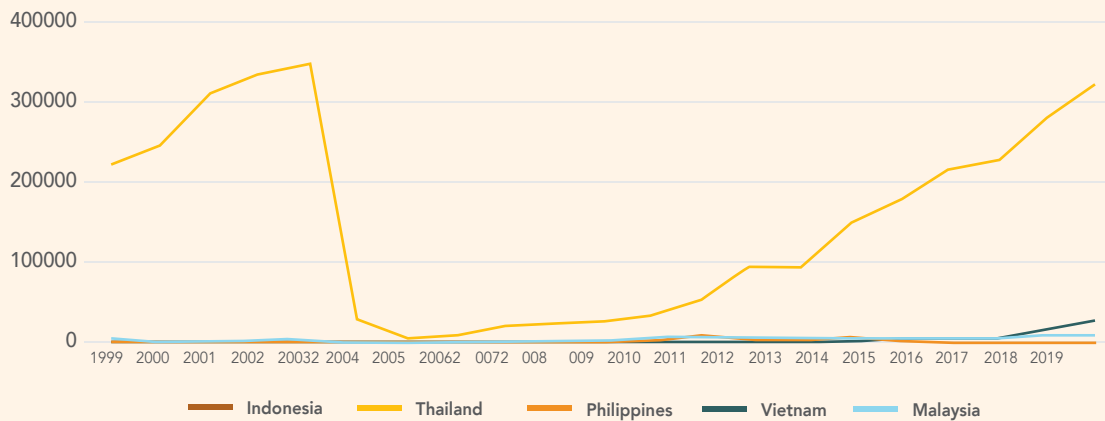
Thailand is the only major and consistent exporter of processed broiler meat (mainly cooked chicken meat and salted poultry meat) among the 5 countries, with its exports increasing almost every year (Figure 22). It exports to major markets in the European Union (EU) and Japan. Thailand also has the most sophisticated biosecurity process in terms of traceability of its chicken meat exports (Gonzales, et. al., 2012).

**FIGURE 21. CHICKEN MEAT IMPORTATION BY COUNTRY, 1999-2019 (TONS).**



Source: FAOSTAT

**FIGURE 22. CHICKEN MEAT EXPORT, TONS.**



Source: FAOSTAT

# Market Trends and Prospects

## Key Demand Drivers

The fastest growing cities in terms of population growth are Sto. Tomas and Lipa (Batangas), Imus and Gen. Trias, (Cavite) San Jose, del Monte (Bulacan), Angeles (Pampanga), Sta. Rosa, Biñan, Lipa, Calamba (Laguna), and Lapu-Lapu (Cebu) (PSA, as cited by United States Department of Agriculture [USDA], 2020). As urbanized areas increase, a growing domestic demand will ensue, and consumer preference will also change to suit their hectic lifestyles and increasing incomes. Poultry is a meat that can easily be cooked in various ways; hence, per capita consumption is expected to increase.

The current trends of online grocery delivery will be a common occurrence; hence, the broiler sector needs to consider these changes. Market trends will continue to evolve depending on the trigger at a particular time. In 2020, the market and purchase practices changed due to the COVID-19 pandemic.

There is also an increasing demand for Halal meat and meat products. The Philippines should take advantage of this and explore markets internationally.

## Market Prospects (Local/International)

In Southeast Asia, there are five emerging markets: Indonesia, Malaysia, the Philippines, Thailand, and Vietnam. The region's rising incomes, growing population, and increasing urbanization have contributed to growth in livestock production and meat consumption, particularly poultry and pork. According to USDA's International Long-Term Projections to 2028, the region will become the world's fastest-growing importer of soybean meal—a key ingredient in animal feed—over the next decade and will overtake the EU as the largest soybean meal importer by 2022.

The region's feed grain demand and imports are also rapidly increasing. Indonesia, Vietnam, and Malaysia are among the region's fastest growing corn-importing countries. To support their domestic corn producers, however, Indonesia has limited corn import permits, and the Philippines has imposed a tariff-rate quota (TRQ) on corn imports. Said

countries with corn-import restrictions have expanded imports of feed-quality wheat. Whether this move is counterproductive to corn farmers is something that needs to be studied.

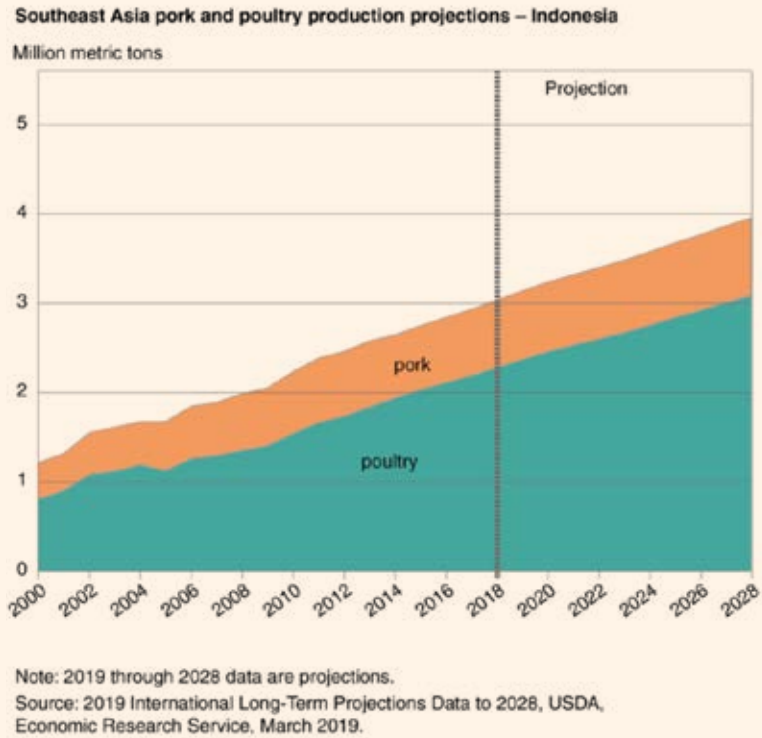
According to the United Nations' Food and Agriculture Organization (FAO) data on urban and rural population, Southeast Asia has exhibited strong growth in urbanization. In 2000, rural and urban population were 62 percent and 38 percent, respectively. By 2017, rural population declined to 51 percent, and urban population is now 49 percent of the total population. This means increasing demand to feed the urban population.

As the region's incomes rise, meat consumption also increases. Every Southeast Asian country has different meat preferences, as reflected by their levels of consumption and production. Some countries, such as Indonesia, Malaysia, and Thailand prefer poultry. The Philippines prefers both poultry and pork. Vietnam is the second-largest producer and consumer of pork in Asia after China and the sixth largest producer of pork in the world.

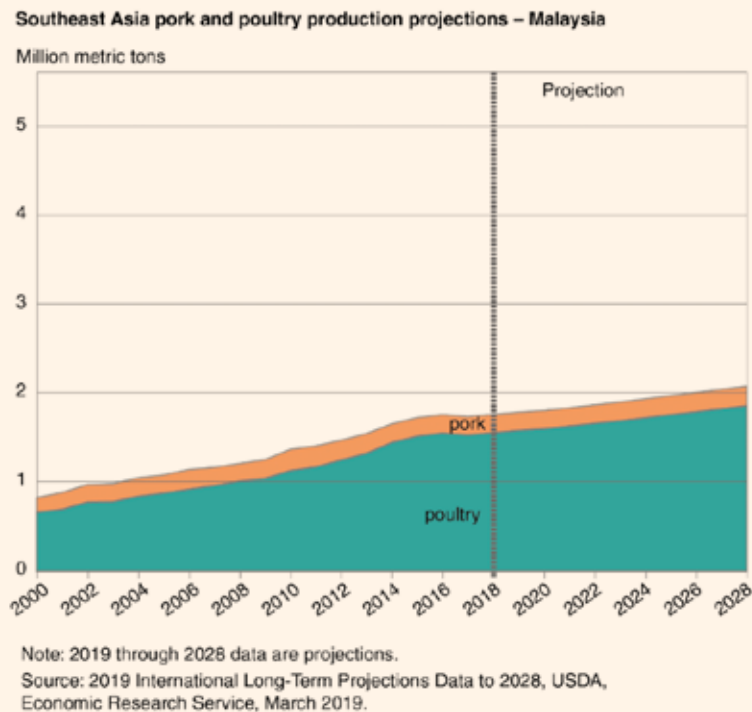
Figures 23-27 show poultry and pork production projections in the five emerging markets. Southeast Asia's poultry production expanded by 56 percent in the last decade, growing from 5.9 MMT to 9.2 MMT in 2018, and is expected to reach 12.3 MMT by 2028.

Thailand is the world's fourth largest poultry exporter behind Brazil, the United States, and the EU. With improved production facilities and food safety practices, exports are expanding. Roughly 70 percent of poultry it exports is in the form of cooked products. Major export markets include Japan, the EU, and Korea. Thailand's poultry exports are projected to rise by 59 percent from 2018 to reach 1.35 M tons by 2028.

**FIGURE 23. INDONESIA'S PORK AND POULTRY PRODUCTION PROJECTIONS.**

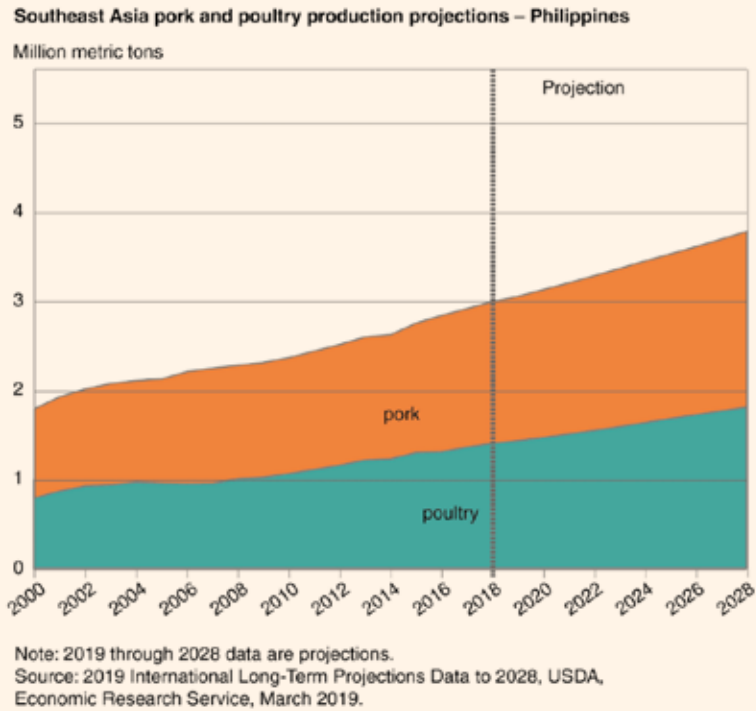


**FIGURE 24. MALAYSIA'S PORK AND POULTRY PRODUCTION PROJECTIONS.**

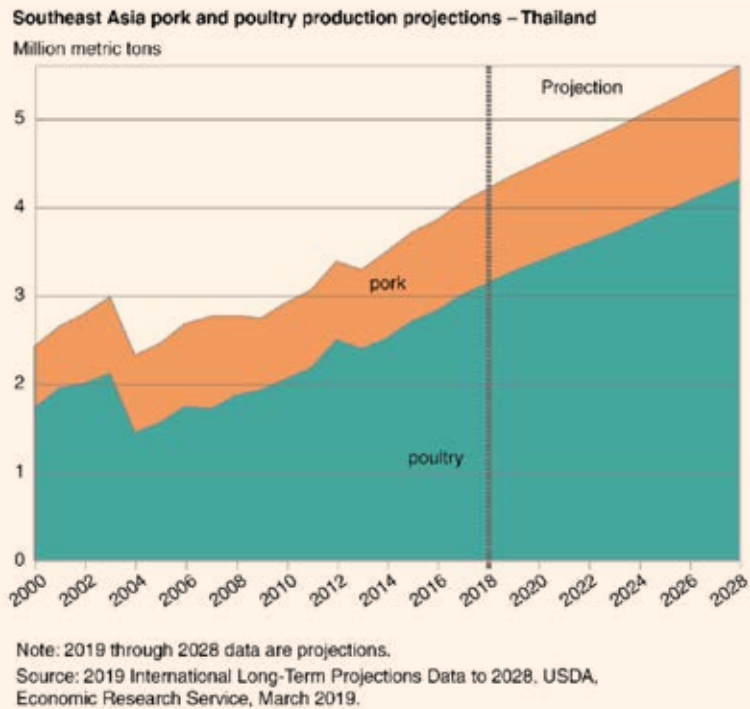




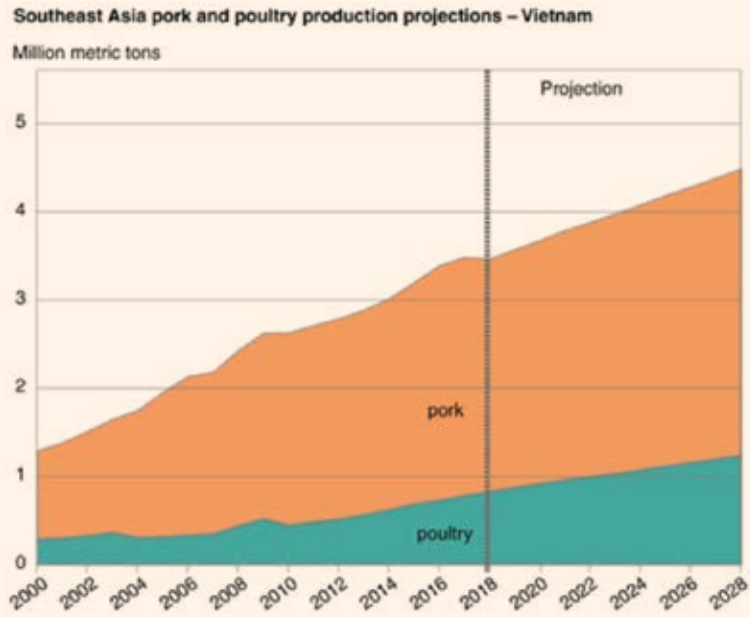
**FIGURE 25. PHILIPPINES' PORK AND POULTRY PRODUCTION PROJECTIONS.**



**FIGURE 26. THAILAND'S PORK AND POULTRY PRODUCTION PROJECTIONS.**



**FIGURE 27. VIETNAM'S PORK AND POULTRY PRODUCTION PROJECTIONS.**



Note: 2019 through 2028 data are projections.  
Source: 2019 International Long-Term Projections Data to 2028, USDA, Economic Research Service, March 2019.

# THE BROILER INDUSTRY ROADMAP - WAY FORWARD

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## TARGET SETTING

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### Broiler Industry Strategy

The production system in the Philippines is characterized by a mix of smallholder, semi-intensive and large-scale livestock and poultry enterprises located around urban centers (Escandor et al., OIE Scientific Technical Review, 2020). As more urban centers are designated, more people will gravitate towards these since these are the foci of business activities. This means that food demands would increase as well as consumer preferences. The poultry industry, particularly the broiler production, is scaling up to meet such food demands. However, one issue of urbanization is the relocation of broiler farms outside the urban centers. Areas for production are getting smaller, and as mentioned in the earlier sections, there are a myriad of issues that are impacting the broiler industry today. Indeed, there is a critical need to direct the path of the broiler industry if it is to be sustained as an economic enterprise that can provide the all-important protein to the human population.

# Guiding principles for the Poultry Broiler Roadmap

The key guiding principles for the revision of the broiler roadmap include:

- Recognition of the contribution of the poultry sector to Agriculture GDP
- Acknowledgement of the role of poultry in food and nutrition security and livelihoods
- Identification of the requirements to put in place an enabling environment for which to operate and be a sustainable and viable economic enterprise
- Awareness of current trends on poultry production, health challenges, marketing, product development, and consumer preferences and the willingness to adapt to current trends.

**Vision:** The Philippines is a leader and important player in the poultry industry in ASEAN by 2025.

**Mission:** This roadmap has two major thrusts.

The first is to support the local broiler sector in achieving an enabling environment for which to operate as a sustainable and economically viable enterprise. This involves addressing further improving broiler production and efficiencies through upgrading production facilities, compliance with relevant legislation, and proposing the same.

The second is to scan the environment and anticipate the future trends in poultry production, marketing, and consumer preferences.

**Goal:** To enhance and sustain the broiler business by putting in place an enabling environment for poultry production and trade.

# RECOMMENDATIONS FOR POLICIES, STRATEGIES, AND PROGRAMS

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## The Strategic Components and Objectives

The strategic components are listed separately with a defined objective per component, but all works complement in with each other.

These are aligned to the One DA Agenda of Consolidation in the form of credit support, modernization by way of food safety and regulations, Industrialization by the establishment of post harvest facilities, and Professionalization through ease of doing business and education and training.

### **Technical Component**

Assess and revise current technical options of the whole value chain (production to consumer) given the current working environment.

### **Research**

Identify strategic research initiatives relevant to the industry and facilitate the engagement of institutions to implement and apply the research undertakings.

### **Advocacy**

Advocate for policy and infrastructure support to optimize the contribution of the poultry industry to agriculture.

## Coordination and Collaboration

Coordinate with all poultry groups, allied poultry industry groups, and relevant government agencies to achieve a whole nation approach to addressing poultry production and market issues

## Capacity Building

Ensure that capacities for animal health, production, economics, and management approaches are in place and strengthened.

## Infrastructure and Facility Support

Establish facilities that support production and post- harvest activities to reduce input costs and to comply with food safety standards

**TABLE 14. RECOMMENDED STRATEGIES**

STRATEGIES	OBJECTIVES BEING ADDRESSED	TIMEFRAME (SHORT, MEDIUM, LONG TERM)	RESPONSIBLE (SUPPORT, LEAD)
Assess and revise current technical options of the whole value chain (production to consumer) given the current working environment.	An agricultural trade data system is developed in coordination with PSA to serve as a quick response tool in the delivery of the DA's services.	Short	private sector, PSA
	A working solution on high dependence on imported inputs is determined.	Medium	DOST-PCAARRD
	Inventory and registration of poultry dressing plants are maintained in the database and classifications are reviewed and upgraded as necessary.	Short	NMIS, LGUs
Technical component			
Identify strategic research initiatives relevant to the industry and facilitate the engagement of institutions to implement and apply the research undertakings	Use of alternative energy source is encouraged as a form of support to reduce production cost	Short	
	Measures to enhance farm efficiencies are studied and applied	Medium	
	Incentives to conduct relevant research are made available.	Short	Academe, DA BAR, PCAARRD
	Strong linkage with academe to ensure relevant research are within reach.	Short	
Research	Alternative feed sources are developed and utilized	Short	

cont'd ►

STRATEGIES	OBJECTIVES BEING ADDRESSED	TIMEFRAME (SHORT, MEDIUM, LONG TERM)	RESPONSIBLE (SUPPORT, LEAD)
Advocate for policy support and infrastructure support to optimize the contribution of the poultry industry to agriculture.  Advocacy	Chicken consumption is promoted to increase per capita consumption to 15.8 kg by 2025.	Short	AMAS
	Existing policies are reviewed, and new enabling policies are proposed and developed to support poultry production and marketing through full implementation of the provisions by AFMA and tariff modification of veterinary medicines and biologics as prescribed by CMTA and covered by National Internal Revenue Code.	Medium	PCAF
	Changing market trends are recognized by poultry players and necessary adjustments are appropriately made	Short	LGUs
	A working solution on high dependence on imported input is determined.	Medium	
	An approach on how to lower transport costs and how zoning regulations can be adjusted to promote movement of livestock production is determined.	Short	
	Zoning and Land Use act for security of farm tenure is implemented	Medium	
	Budget increase for livestock and poultry is promoted	Short	
Ensure that capacities for animal health, production, economics, and management approaches are in place and strengthened.  Capacity building	Government subsidy and financial support incentives for farmers are made available	Medium	
	Field and laboratory surveillance are in place to support trade requirements with other countries.	Medium	
	Diagnostic capacities against diseases, AMR and residues are strengthened and private laboratories are accredited to complement government laboratory services.	Short	BAI
	Implementation and compliance of Philippine national standards on food safety and GAHP to identified priority commodities.	Short	BAI, NMIS
	Domestic support in the form of training, reduced compliance fees, and infrastructures are provided to broiler raisers and processors in complying with the above requirements.	Short	DA-NLP, BAI
	The poultry value chain is regularly reviewed and updated to ensure that no price distortion occurs.	Short	AMAS
	A market intelligence framework and protocol are developed and implemented.	Short	AMAS

cont'd ►

STRATEGIES	OBJECTIVES BEING ADDRESSED	TIMEFRAME (SHORT, MEDIUM, LONG TERM)	RESPONSIBLE (SUPPORT, LEAD)
Coordinate with all poultry groups, allied poultry industry groups, relevant government agencies and other institutions to achieve a whole nation approach to addressing poultry production and market issues	Market profiles both for domestic and international markets are produced to determine preferred poultry products.	Short	PCAF, AMAS
	Export markets are explored and analyzed.	Medium	DA-NLP BAI, NMIS
	SPS measures are reviewed and are complied with during trade negotiations.	Short	
	Credit and loan programs with affordable interest rates and simplified loan requirements are developed	Short	
Coordination and collaboration	Farm to market access is made available	Short, Medium, Long	
Establish facilities that support production and post-harvest activities to reduce input costs and to comply with food safety standards	Compliant and strategically located poultry dressing facilities are made available	Short	NLP, BAI, NMI
	Existing Poultry dressing plants are upgraded (from AA to AAA) to be suitable for exportation	Short	
	Hatcheries are made available	Short	
	Manure Processing/drying facilities/biogas Digesters are established to aid in waste management and to utilize poultry manure as fertilizer as well as to have an alternative energy source	Short	
Infrastructure and Facility Support	Regional laboratory capabilities are strengthened	Short	

cont'd ►



## Expected outputs per component objectives (Key Result Areas)

### **Objective 1: Assess and revise current technical options of the whole value chain (production to consumer) given the current working environment.**

1. Post-production facilities are made available and are compliant with food safety standards.
2. An agricultural trade data system is developed in coordination with PSA to serve as a quick response tool in the delivery of the DA's services.
3. A working solution on high dependence on imported inputs is determined.
4. Inventory and registration of poultry dressing plants are maintained in the database and classifications are reviewed and upgraded as necessary.

### **Objective 2: Identify strategic research initiatives relevant to the industry and facilitate the engagement of institutions to implement and apply the research undertakings.**

1. Measures to enhance farm efficiencies are studied and applied.
2. Incentives to conduct relevant research are made available.
3. Strong linkage with academe to ensure relevant research are within reach.
4. Alternative feed sources are developed and utilized

### **Objective 3: Advocate for policy support and infrastructure support to optimize the contribution of the poultry industry to agriculture.**

1. Chicken consumption is promoted to increase per capita consumption by 15.8 kg in 2025 (This is a conservative estimate, see annex 1)
2. Existing policies are reviewed, and new enabling policies are proposed and developed to support poultry production and marketing through full implementation of the provisions by AFMA and tariff modification of veterinary medicines and biologics as prescribed by CMTA and covered by National Internal Revenue Code.

3. Changing market trends are recognized by poultry players and necessary adjustments are made appropriate.
4. A working solution on high dependence on imported input is determined.
5. An approach on how to lower transport costs and how zoning regulations can be adjusted to promote movement of livestock production is determined.

**Objective 4: Coordinate with all poultry groups, allied poultry industry groups, relevant government agencies and other institutions to achieve a whole nation approach to addressing poultry production and market issues**

1. Market profiles both for domestic and international markets are produced to determine preferred poultry products.
2. Export markets are explored and analyzed.
3. SPS measures are reviewed and are complied with during trade negotiations.

**Objective 5: Ensure that capacities for animal health, production, economics, and management approaches are in place and strengthened.**

1. Field and laboratory surveillance are in place to support trade requirements with other countries.
2. Diagnostic capacities against diseases, AMR and residues and toxin detection are strengthened and private laboratories are accredited to complement government laboratory services.
3. Implementation and compliance of Philippine national standards on food safety and GAHP to identified priority commodities.
4. Domestic support in the form of training, reduced compliance fees, and infrastructures are provided to broiler raisers and processors in complying with the above requirements.
5. The poultry value chain is regularly reviewed and updated to ensure that no price distortion occurs.
6. A market intelligence framework and protocol is developed and implemented.

## **Objective 6: Establish facilities that support production and post-harvest activities to reduce input costs and comply with food safety standards**

1. Compliant and strategically located poultry dressing facilities are made available
2. Existing Poultry dressing plants are upgraded (from AA to AAA) to be suitable for exportation
3. Hatcheries are made available
4. Manure Processing/drying facilities are established to aid in waste management and to utilize poultry manure as fertilizer
5. Regional laboratory capabilities are strengthened

# Implementation Plan

## **Vision**

The Philippines is a leader and important player in the poultry industry in ASEAN by 2025.

## **Mission**

to support the local broiler sector in achieving an enabling environment for which to operate as a sustainable and economically viable enterprise. This involves addressing further improving broiler production and efficiencies through upgrading production facilities, compliance with relevant legislation, and proposing the same.

to scan the environment and anticipate the future trends in poultry production, marketing, and consumer preferences.

## **Goal**

To enhance and sustain the broiler business by putting in place an enabling environment for poultry production and trade.

## Objectives

The major objective of this paper is to develop a poultry broiler industry roadmap that is inclusive, and stakeholder crafted.

The specific objectives are to:

1. Review and assess the broiler industry given the current developments in the poultry industry in general;
2. Identify the requirements to be put in place for an enabling environment to happen for which an action plan can be designed and implemented in the medium and long term; and
3. Develop a broiler industry strategy that contributes to agriculture and that assumes an important market player both locally and internationally

## Targets

The Philippine broiler industry is seen as very capable in terms of productivity; hence the roadmap leaves it to the industry to set its own technical targets. However, for information and reference purposes, this paper has identified six (6) technical parameters namely: feed conversion ratio (FCR), average liveweight per bird (kg), dressed weight (kg), livability (%), average growing cycle (days), and batch/year. Below are the technical targets of the broiler industry from the baseline set in 2016.

**TABLE 15. TECHNICAL TARGETS OF THE PHILIPPINE BROILER INDUSTRY**

Technical Parameters	Baseline	2017-2020	2020 & beyond
Feed Conversion Ratio (FCR)			
Commercial	1.75		
• Small birds		1.60 - 1.65	for the poultry sector to set
• Big birds		1.70 - 1.75	
Integrators	1.69	1.50	
Average Live weight per bird (kg)			
Commercial			
• Small birds	1.45 - 1.50	1.45 - 1.50	
• Big birds	1.70 - up	1.70 - up	
Integrators	1.80 - 2.0	1.80 - 2.0 (we are still market driven)	
Dressed weight (kg)			
Commercial			
• Small birds	1.0 - 1.10		
• Big birds	1.125 - 1.175	1.20 - 1.25	
Integrators			
Livability (%) Commercial	95	95	
Integrators	97	97	
Average Growing Cycle (days) Commercial			
• Big birds	32 - 35	28 - 32	
• Dressing plants	32 - 35	28 - 32	
• Live market	32 - 35	28 - 32	
• Light birds	28 - 30	26 - 30	
Integrators	33	28 - 32	
Batch/year (conventional)			
Commercial *			
Conventional -			
• Small birds -	6.50 - 7.0	7.0 - 7.50	
• Big birds	5.0	5.50	
*CCS -			
• Small birds -	7.0 - 7.5	7.50	
• Big birds	6.0 - 7.0	7.0 - 7.5	
Integrators	-	-	-

**TABLE 16. RESPONSIBILITY MATRIX.**

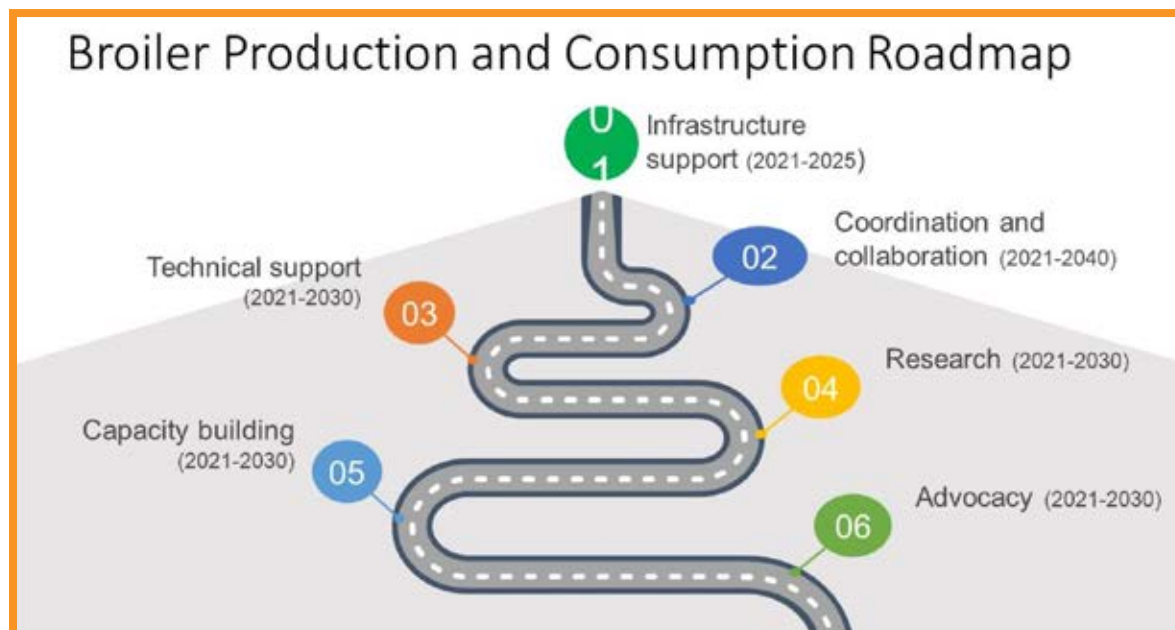
Action/strategy/description	Program/Activity/Project	Physical and financial Targets					TOTAL	Responsible entity
		2021	2022	2023	2024	2025		
Establishment of additional compliant dressing plants/facilities in strategic areas Capacity: 60T birds/day			400M		400M		800M	NLP, NMIS, LGU
Establishment of communal dressing facilities near the public markets *			8M	8M	8M	8M	32M	NLP, NMIS, LGU
Strengthening the Regional laboratory capabilities** (RADDLs)			708.82					BAI
Upgrading of AA to AAA PDPs			50M	50M	50M	50M	200M	NMIS
Establishment of hatcheries***			100 M		100M		200M	NLP
Establishment of a manure processing facility (Biogas Digester/Composter)				100M		100M	200M	NLP, BAI
Establishment of Rendering Plant					60M			NLP, NMIS
Establishment of MDM Facility						50M		NLP, NMIS

Cost estimates were taken from the NLP Broiler Roadmap of 2016 targets for 2020 and 2022

\*to be shouldered by LGUs

\*\*includes upgrading of the Regional Animal Disease Diagnostic Laboratory (RADDLs) and Regional Field Laboratories (RFLs) facilities and capabilities of the laboratory personnel

\*\*\*as suggested by UBRA





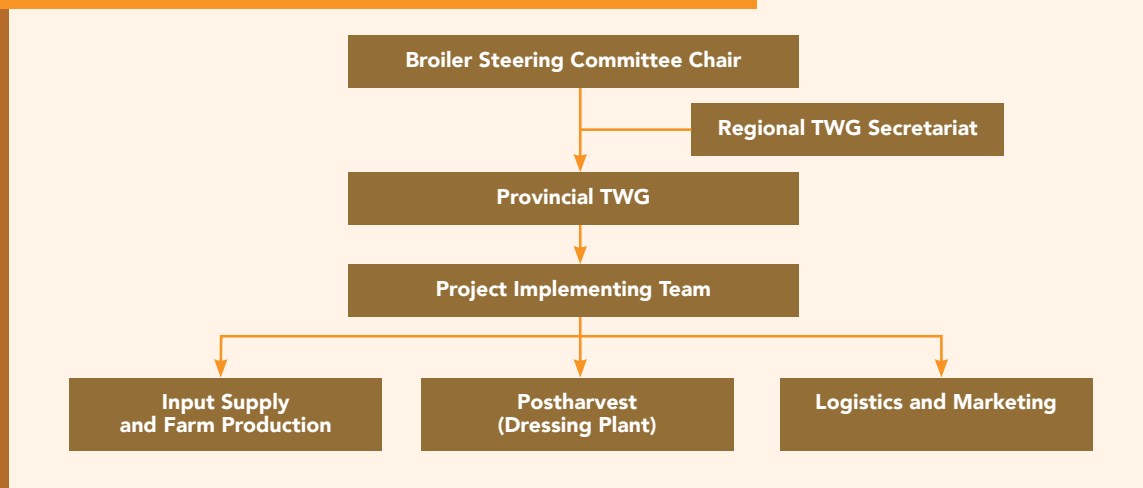
# INDUSTRY CLUSTER GOVERNANCE NETWORK (IMPLEMENTATION TEAM)

The implementation of the Broiler Roadmap will be guided by a Broiler Steering Committee. It will be comprised of six members: Three from the private sector, one representative from PABI), one from UBRA) (one of whom will be Chair), and one from the Philippine College of Poultry Practitioners (PCPP); and three from the government (BAI, NMIS, PCAF) (Figure 28).

The Broiler Steering Committee will be organized as soon as possible for the roadmap implementation to proceed in earnest to detail its mandate. The committee will make sure that the industry roadmap is disseminated closer to the provincial levels with the support of the LGUs, industry associations, and other stakeholders.

The Broiler Steering Committee will meet at least quarterly. The secretariat will be headed by a coordinating officer. Several Project Implementing Teams will be formed. Each Team will be responsible for (a) input supply and farm production; (b) postharvest; and (c) logistics and marketing. The Steering Committee will evaluate the function of the Project Teams when necessary.

**FIGURE 28. PROPOSED BROILER ROADMAP IMPLEMENTATION STRUCTURE**





# Creation of Technical Working Groups (TWGs)

Two Technical Working Groups shall be created. One for provincial and another for regional. The Regional TWG shall act as the secretariat to consolidate specific policies and directives from the Provincial TWG for submission to the Broiler Steering Committee.

The Provincial TWG shall be formed and act as the secretariat of the different Project Implementing Teams to consolidate specific policies and directives from the Broiler Steering Committee for implementation in the province.

Compositions, roles, and responsibilities of the TWGs are as follows:

## **Technical Working Group – Regional**

Composition:

1. Comprised of head of provincial action teams and provincial veterinarian, as determined by the Broiler Steering Committee
2. Should be co-chaired by the public and private sector representatives of the region

Roles and responsibilities:

1. Monitor, facilitate, and connect with the national agencies on broiler investments
2. For backyard raisers: help organize municipal/provincial clusters
3. Facilitate formation of provincial TWGs when necessary

## **Technical Working Group – Provincial**

Composition:

1. Representatives from backyard raisers, cooperatives, processors, traders, exporters, and public sector in the province
2. Should be co-chaired by the public and private sector representatives of the provinces

Roles and responsibilities:

1. Seek LGU support for the broiler enterprises
2. Facilitate financing from LBP and DBP
3. Coordinate with DA-RFU for counterpart support
4. Help package projects for Official Development Assistance (ODA) and investors
5. Assign point person for every key activity
6. Monitor progress of various activities

## Program (Project) Management and Implementation

This whole roadmap can be broken into smaller projects, but for the purposes of this roadmap, a program approach will be adapted following the project management steps. These management and implementation plan can be developed once the strategy or roadmap has been agreed upon. The program management and implementation plan will appear as an Annex.

## Monitoring & Evaluation

There will be a formal process of monitoring the implementation of the roadmap activities. The most current version of the logical framework will be developed. Regular reporting will be applied.

## Closure (Integration Report)

A terminal report of the whole program will be produced as well as individual terminal reports if treated or funded per project.

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