Analysis poultry sector Ghana 2019
< An update on the opportunities and Challenges

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Table of Contents

1. Introduction 4
2. Business Climate 5
3. Ghana’s Poultry Sector 7
4. Analysis of Bottlenecks in Layer and Broiler Production 16
5. Potential Opportunities for Dutch Private Sector 18
6. Business and Investment Cases 19
7. Possible ways forward 20
1. **Introduction**

The Embassy of the Kingdom of the Netherlands in Accra, Ghana is delighted to present you with this updated sector analysis of the poultry industry in Ghana. This document has taken the 2015 report as its basis since a lot of the structural challenges and opportunities remain the same. This document however has been updated to the reality of 2019.

The poultry sector in Ghana is still viewed as important and strategic by both the Dutch government and the Dutch private sector. Since 2015 big and small investments have been made by the Dutch private sector in Ghana and the embassy, through its agribusiness unit, provides support where ever they can. But still more can be done. With this updated report we also want to keep the momentum going and initiate more activity. RVO support and instruments are instrumental in this.

The Embassy is looking forward to a fruitful cooperation between the Dutch and Ghanaian poultry sector and offers its full support to welcome and promote successful ventures.
2. Business Climate

Ghana’s wealth of resources, democratic political system and dynamic economy makes it undoubtedly one of Africa's leading lights. Gaining the world’s confidence with a peaceful political transition and a grounded and firm commitment to democracy has helped in expediting Ghana’s growth in foreign direct investment (FDI) in recent years.

Ghana has recently embarked on an ambitious but achievable reform programme to improve the investment climate for both local and international investors. These efforts have paid off initially with Ghana being ranked 114 among 190 economies according to the World Bank Group 2019 Doing Business report. The rank of Ghana marginally declined again to 118 moving into 2020.

According to the World Bank, Ghana’s economy accelerated to 8% in 2017, driven by the mining and oil sectors, making it the second-fastest growing African economy, trailing only Ethiopia. In addition to the impact of the oil sector, gold output was high, while cocoa production levels remained stable. In 2018, Ghana’s economy continued to expand rapidly, albeit at a slower pace than the rate in 2017. Quarterly gross domestic product (GDP) growth was estimated at 5.4% in the first quarter of 2018; and 5.4% in the second quarter.

Ghana’s growth target for 2019 is 7.4% mainly to be driven by the industry sector, especially oil, gas and mining. Industry’s growth is expected to improve to 9.7%; the agriculture sector is expected to grow by 7.3% on the back of the government flagship programs in the sector which will enhance performance in the crops and livestock sub-sectors. The service sector growth, however, is projected at 6.1%, slightly below the 2018 projection of 6.2% as the financial sector continues to recover from its recent challenges.

According to a 2018 report by PwC (Doing Business and Investing in Ghana), Ghana is very committed to supporting and protecting private investors in the agriculture sector as reflected in the policies implemented by successive governments. This is evidenced by Ghana’s performance with regards to USAID’s Agriculture Climate, Legal and Institutional Framework. Ghana offers agribusinesses easy access to export markets in Europe at a lower cost than elsewhere in Africa. Agro-processing businesses are given a five-year tax holiday. There are also location-based tax rebates for agribusinesses engaged in manufacturing and custom duty exemptions for agricultural and industrial machinery and equipment imported for investment purposes. Good investment opportunities exist in the areas of agriculture and agro-processing sector, technological and supporting services.

In the agriculture and agro-processing sectors, the specific investment opportunities include: Production of improved seeds and agro-chemicals (fertilizers, pesticides, weedicides); Processing of some agricultural produce; Production of all agricultural products such as cash crops, horticultural crops and livestock for the national, regional and European Union (EU) markets; Production of veterinary drugs, vaccines and chemicals, feed and feed ingredients for the livestock sector; Fish farming; Production of wood and non-timber forest products (NTFP); Establishment of pulp paper and panel industries; Establishment of wood plantations; and Provision of tree seedlings for plantation species such as teak.

In the area of technological and supporting services; Provision of tractors with basic implements, planters and harvesters; Provision of field and laboratory equipment for quality assurance; Companies to produce and install cold-chain equipment; Supply of machinery to establish hatcheries for day-old chicks; Processing machine manufacturers to supply agro-processing and packaging equipment/plants are some of the investment opportunities. Other investment areas are; Suppliers
and financiers of factory building technology; Manufacturers of fishing nets, ropes, netting materials, outboard motors and other fishing inputs to fishers; Development of aquaculture production facilities (cages and earthen ponds); Producers of fish feed; Technological and consulting services; Research and agriculture development services and Inspection and grading according to international standards to make the deliveries acceptable in international markets.

These investment opportunities in Ghana continue to attract trade and investment from The Netherlands and the Embassy in Ghana is ready to support Dutch companies interested in investing in Ghana as part of its Trade and Investment promotion activities.
3 Ghana’s Poultry Sector

3.1 Sector overview

Commercial poultry production in Ghana can be categorized into large-scale (over 50,000 birds), medium-scale (10,000 – 50,000 birds) and small-scale (less than 10,000 birds) enterprises. Domestic commercial farms are privately owned by individuals or a family. According to the Ghana Poultry Project (GPP) there are 29 large scale commercial poultry farms currently in Ghana and mostly found in the Ashanti region (13), Brong Ahafo (12) and Greater Accra region (4). These form about 20 per cent of the total poultry sector, producing mainly eggs. Most operate their own feed-mills. Some maintain a hatchery and parent stock. The level of biosecurity practice is high in the large-scale category. The medium-scale and the small-scale categories comprise 80 per cent of the poultry sector and rely on hatcheries for their day-old chicks and feed mills for their feed. The medium-scale category also produces primarily eggs. Included in the small-scale category are backyard poultry producers who mainly produce broiler birds. The medium and small-scale operators practice minimal biosecurity. This sometimes allows free-range and wild birds to gain access to these poultry houses, predisposing these operations to disease out-breaks such as Avian Influenza. Some of the commercial poultry farmers produce broiler birds for sale only during the festive seasons (Christmas, Easter, Eid ul Fitr, Eid ul Adha), when Ghanaians buy live chickens. Most of the poultry producers also sell off spent layer chickens at these times.

Even though there are local hatcheries that produce day-old chicks, the quality is generally low, so most poultry farmers prefer to buy imported day-old chicks, especially layer day-old chicks. In 2018, Ghana imported 511,960 broiler day-old chicks and 7,130,999 layer day-old chicks (source GPP). Currently, there is limited regulation on local hatcheries. The Government of Ghana is yet to pass into law a hatchery bill, which will ensure that quality day-old chicks are produced from domestic hatcheries. Currently, day-old chicks for commercial production are primarily produced by 15 local hatcheries and 8 importers according to the Ghana Poultry Project survey carried out in 2017. The importers mostly import the day-old chicks from the Netherlands and Belgium. Demand for day-old chicks exceeds supply by both local hatcheries and imports.

Broiler and layer birds are kept exclusively indoors on deep litter and/or in battery cages and fed on well formulated diets. The broiler birds attain 2.0-2.25 kg live weight at six to seven weeks and are ready for the market. Layer birds reach 16 weeks before pullets start laying eggs. Average industry egg production is 230 to 250 eggs per layer per year. The average cost per kg of producing broilers in Ghana is estimated at GH15 (USD 2.7) for large-scale producers and higher for small-scale producers.

Feed production

Ghana’s poultry feed industry has shifted to producing layer feed due to the drop off in domestic broiler production. About 80 per cent of feed produced by commercial feed millers is layer feed. Broiler feed is primarily purchased by small-scale backyard poultry producers. However, there is a seasonal feed demand from the larger producers who raise birds for the festive seasons. Poultry feed accounts for about 70 per cent of total animal feed produced in Ghana.

Feed manufacturers in Ghana can be categorized into commercial feed millers and on-farm self-millers. Ghana has about 17 commercial feed mills with a total installed operating capacity of 1,000 metric tons (MT) per day. However, most feed millers are only producing at about 40 to 50 per cent
of their capacity due to low demand from the local poultry industry. The average amount of compound feed produced in Ghana is about 10,000MT annually in the past few years.

Commercial feed millers supply poultry feed mostly to medium- and small-scale poultry producers because large-scale poultry producers mostly make their own feed. These commercial feed millers produce mainly mash feed, a few produce high feed concentrates, and one feed mill pellets feed. Most small- and medium-scale poultry producers prefer feed concentrates because it is cheap, convenient and less bulky for transportation.

The main ingredients for compound feed are locally produced maize or imported yellow maize and wheat bran. Maize typically forms about 60 per cent of total feed formulation according to IFPRI Discussion paper (2017), “A Chicken and Maize Situation: The Poultry Feed Sector in Ghana”. The poultry industry consumes nearly 30 per cent of all maize produced in Ghana. Feed prices in Ghana have been increasing primarily due to the rising cost of maize. The GOG flagship program “Planting for Food and Jobs” is expected to cause a reduction in maize prices. Soybean meal inclusion in poultry feed is low due to its high cost. The inclusion level of soybean meal ranges from 10 to 18 per cent of the feed ration for layers and 15 to 25 per cent for broilers. Controlling animal feed costs is critical in this industry since it represents approximately 60 -70 per cent of total production cost (industry source). For this reason, feed manufacturers are switching to low-cost substitutes such as palm-kernel cake, groundnut cake and fish meal, by-products of agro-processing.

Currently there is a big feed mill of Koudijs – De Heus under construction in Tema and there is talk about a big African Development Bank project in the Savanna zone to produce more raw material for the feed sector. Details on this program are not available yet.

![Feed sector: High production costs](image)

- What makes feed production so expensive?
- Costs driven by: Maize, followed by soybean and fishmeal
- Input costs are 7 times the cost of labour and 4-5 times cost of utilities and transport

**Consumption**
Consumption patterns of households in urban areas in Ghana are heavily weighted towards imported frozen poultry products. The reasons for this trend are that it is cheaper than locally...
produced poultry and it is already pre-cut, such as leg quarters and wings, and processed whole chicken and gizzards. As such, the convenience of a ready-to-use chicken product has boosted consumer demand. Furthermore, the rapid growth in the restaurant, hotel and fast food sector has increased demand for frozen poultry products in the past few years. Local poultry processors in Ghana lack the infrastructure and equipment to produce chicken cuts that are preferred by most consumers. In Ghana, poultry meat consumption is dominated by chicken meat, but other poultry products consumed are guinea fowls, ducks, turkeys and ostrich. According to official sources, meat (both livestock and poultry) contributes only 40 percent of the national animal protein supply, with the rest coming from fish according to the 2017 USDA GAIN Annual Ghana Poultry report.

...with similar trends across demographic profiles for poultry consumers...

| Factors Considered When Buying Poultry | Total | Greater Accra | Ashanti | Brong Ahafo | Eastern | Northern | Upper | Volta | Western | Greater Accra | Ashanti | Brong Ahafo | Eastern | Northern | Upper | Volta | Western |
|---------------------------------------|-------|---------------|---------|-------------|---------|----------|-------|-------|---------|---------------|---------|-------------|---------|----------|-------|-------|-------|-------|
| Price                                 | 55    | 54            | 62      | 61          | 56      | 55       | 61    | 62    | 62      | 53            | 52      | 60          | 63      | 57       | 62    | 53    | 63    |
| Taste                                 | 52    | 37            | 76      | 51          | 46      | 52       | 51    | 46    | 51      | 37            | 32      | 76          | 51      | 52       | 46    | 32    | 76    |
| Nutritional benefits                  | 41    | 45            | 41      | 54          | 54      | 54       | 54    | 54    | 54      | 42            | 45      | 54          | 54      | 54       | 54    | 42    | 54    |
| Cleanliness / Hygiene                 | 36    | 41            | 36      | 13          | 24      | 24       | 38    | 33    | 38      | 35            | 36      | 35          | 36      | 36       | 36    | 35    | 36    |
| Availability                          | 35    | 24            | 43      | 12          | 37      | 37       | 37    | 37    | 37      | 33            | 34      | 37          | 36      | 36       | 36    | 34    | 37    |
| Freshness                             | 30    | 43            | 28      | 16          | 23      | 35       | 31    | 28    | 31      | 36            | 27      | 26          | 36      | 36       | 26    | 36    | 26    |
| Quality of Meat                       | 21    | 31            | 38      | 19          | 20      | 22       | 21    | 21    | 21      | 31            | 21      | 31          | 22      | 22       | 21    | 21    | 31    |
| Colour of meat                        | 17    | 35            | 12      | 9           | 13      | 24       | 27    | 27    | 27      | 19            | 16      | 33          | 31      | 31       | 27    | 27    | 31    |
| Packaging                             | 14    | 13            | 17      | 2           | 15      | 14       | 13    | 16    | 15      | 12            | 10      | 10          | 12      | 10       | 12    | 10    | 12    |
| Availability of various cuts (leg, breast, thighs) | 7    | 7             | 9       | 10          | 9       | 7        | 4     | 7     | 4       | 7             | 4       | 7           | 4       | 7        | 4     | 7     | 4     |
| Brand Name                            | 5     | 5             | 6       | 0           | 6       | 4        | 5     | 5     | 5       | 4             | 5       | 5           | 5       | 5        | 5     | 5     | 5     |

Source: Ghana Poultry Project

Trade
Poultry imports to Ghana keep increasing due to increasing demand and the decline in domestic commercial poultry meat production. Ghana poultry imports are supplied mainly from the United States, Brazil and the EU. Despite decreasing imports between 2014 and 2016, supplies from the United States capture over 40 percent of market share, while European countries and Brazil have 25 percent each of the market share. Ghana continues to be a destination for U.S. poultry due to the strong relationships between importers and exporters and loyalty to U.S. poultry products.
Institutional Setting
The Animal Production Directorate (APD) and the Veterinary Services Directorate (VSD) of the Ministry of Food and Agriculture (MOFA) has the oversight responsibility of the Poultry sector and other animals/livestock. While APD oversees production issues, VSD takes care of health. Their roles are to ensure effective and efficient implementation of government policies on livestock and poultry. The APD also controls feed quality both from local and imported sources and collect feed samples from commercial feed millers across the country for analysis. The control and eradication of diseases is done by the Veterinary Services Directorate of the Ministry of Food and Agriculture through vaccination and quarantine. Importation of day-old chicks and poultry vaccines to Ghana are also controlled by the Veterinary Services Directorate.

Formal training in livestock production and health is provided by agricultural colleges run by the Human Resources and Manpower Development Directorate of MoFA and the Universities. The agricultural colleges award diplomas in general agriculture except for the Animal Health and Production College which awards diploma in veterinary science. The universities award diploma and undergraduate degrees in agriculture and veterinary medicine, as well as graduate degrees in animal science. Some Polytechnics and newly established universities undertake training in aspects of animal science.

There are several regulatory bodies that have the responsibility for ensuring feed quality control and certification. These are:(i) Ghana Standards Authority (GSA) which provides the standard for animal feeds, feed ingredient, eggs, etc. The Food and Drugs Authority (FDA) sees to food safety issues including the inspection of feed mills and provides certification for the use of feed products and (vi) Environmental Protection Authority (EPA) inspects and assesses the appropriateness of the feed mills and feed additive facilities and provides certification to commence production. The Food and Drugs Authority (FDA) ensures the safety and wholesomeness of foods (including meat and milk and their products) and the safety and efficacy of veterinary drugs. The Animal Products Unit of FDA is responsible for regulation of processing; transport and storage of animal products (including eggs and honey); Inspection and audit of meat processing and cold storage facilities; Training of personnel in the processing, handling and storage of animal products; Consumer education on food safety in relation to animal products. The Feed Safety Unit of FDA sees to a strict adherence to Good Feed
Manufacturing Practices by industry to assure the safety and quality of animal feed (imported and locally manufactured).

The Ghana Veterinary Medical Association was formed in 1974 with the broad objective of helping in the development of a viable and vigorous poultry and livestock industry so as to increase supply of meat and other livestock products, to protect public health by the control of zoonotic diseases and to alleviate pain and suffering in animals.

Government Policy/Programs

To support the local poultry industry, in 2013 the Government of Ghana removed customs duties on poultry inputs such as feed, additives, drugs and vaccines and has facilitated improved access to veterinary services. Moreover, on the 15th of July 2014, the Broiler Revitalization Project was launched aiming to stimulate local broiler production. As part of the project, a new poultry and livestock import policy was designed to cut down the country’s importation of chicken meat. The policy limits imports to 60 percent, meaning that importers must buy 40 percent of their produce from local sources. Even though this project has not significantly impacted the sector, there was a reduction in imported chicken meat in 2015 and 2016. The overall objective of achieving 40% local broiler sourcing and 60% imported broiler meat has not been achieved (see Table 1). In 2017, the Government of Ghana also launched a flagship program, “Planting for Food and Jobs (PFJ)”, aimed at creating food security and produce raw material to feed the agro-processing industries while creating jobs in the process. According to the Ashanti regional director of the Ministry of Food and Agriculture, the introduction of this program helped the poultry sector to cut down cost and decreased the number of imported feeds in the country (Daily Graphic, July 25, 2019).

On 25th of June, 2019, the President of Ghana launched the “Rearing for Food and Jobs” campaign aimed at developing a competitive and more efficient livestock industry, that will increase domestic production, reduce importation of livestock products, contribute to employment creation, and improve livelihoods of livestock value chain actors. The government has set an ambitious target to invest in the poultry component of the program as a major step to stop the importation of chicken into the country. According to the Minister of Food and Agriculture, Dr. Owusu Afriyie Akoto, the poultry component of “Rearing for Food and Jobs” is key to the government of Ghana because Ghana cannot continue to import USD 380 million of poultry meat every year when 20 years ago the country exported chicken to her neighbor (Daily Graphic, July 25, 2019). The focus is on building the appropriate infrastructure to boost local production. Farmers will be supplied with required inputs to produce about 20 tonnes of soya beans this year as a measure to get more feed for the poultry industry.

The Council for Scientific and Industrial Research - Animal Research Institute ((CSIR-ARI) has also embarked on an eight-week broiler feeding trial using the black soldier fly larvae (insert larvae) as part of efforts to find cheaper sources of protein. The cost of insect meal can be sold at half price the cost of fish meal. This project was part of research project dubbed, “insect feed for West Africa” undertaken by the CSIR-ARI under the auspices of the Centre for Agriculture and Biosciences International (CABI) and the Sustainable Agricultural Intensification Research and Learning in Africa (SAIRLA). All these interventions are aimed at revamping the poultry industry and create opportunities for Dutch entrepreneurs.

Donor interventions in the Poultry Sector

Currently, the only donor supporting the Poultry sector in Ghana is the United States Department of Agriculture through the Ghana Poultry Program (GPP). It is a five-year (2015-2020) project being implemented by ACDI/VOCA and Technoserve to expand local production and processing of poultry meat and eggs in Ghana. The project aims at increasing the competitiveness of the poultry value
chain using inclusive system approach. The target beneficiaries of the project include processors, input suppliers, financial institutions, business service advisors and buyers. The project’s interventions are in four areas; capacity building, financial services, training and market access.

**General Bottlenecks**
The sector is faced with many challenges including the quality of vaccines, a nascent hatchery sector, inability of local feed mills to meet local demand due to inadequate maize and soybean production locally. At the production level, the major challenges include; inadequate bio-security systems, low-quality day-old chicks due to poor quality local hatcheries and lack of regulations to regulate the hatcheries, self-on-farm feed production, inefficient production systems, especially in feed wastage, abuse of antibiotics and poor linkages between input suppliers and marketers. Limited processing and cold chain facilities, high cost of local poultry production and inability to meet consumer preference and competition from imported poultry products are some of the challenges at the processing and marketing level.

**Opportunities**
The increasing local demand for chicken and chicken products and the challenges faced by the sector currently present a lot of opportunities for investment. At the input level, there is high demand for poultry vaccines and feed. Poultry vaccines are not produced locally except the ND 12 vaccine produced to combat New Castle Disease; the rest are all imported to Ghana. This presents an opportunity for investment in poultry vaccines. The over 70 million birds in Ghana provides a huge opportunity to invest in poultry vaccines production locally. There is also a need for huge investment opportunity in hatcheries and collaborations with existing hatcheries with technical support. The quality of day-old chicks hatched in Ghana is perceived to be low, so most poultry farmers prefer to buy imported day-old chicks, especially layer day-old chicks. In 2018, Ghana imported 511,960 broiler day-old chicks and 7,130,999 layer day-old chicks. Currently, there is limited regulation of local hatcheries. There are also inadequate testing facilities for feed making it difficult for farmers to test locally produced feed. There is also the need for investment in testing facilities for carcass and water due to the low density for such facilities.

At the production level, farmers have very limited knowledge in feed formulation making it difficult to optimize their formulations. More than 80% of poultry farmers in Ghana produce their own feed because of the cost of feed on the market. Feed cost constitutes about 60%-70% of total cost of production, making the unit cost per live bird very high. Partnerships with local training institutions to run short courses for poultry farmers in the areas of bio-security systems, feed formulation, use of veterinary medicines, administering of vaccines, etc. can be explored. Opportunities also exist in large scale quality feed production. At the processing and marketing level, opportunity exists for processing facilities, value addition to poultry meat, packaging materials, cold chain facilities (transport, storage, etc.). Farmers also have huge installed capacity for bird production, but are constrained by inadequate working capital making them good candidates for outgrowers for either for broiler or layer production.

### 3.2 National Poultry Stock
There has been a steady growth in the production of chicken locally since the year 2000. The production of chicken increased from 20.5 million in 2000 to 74.5 million in 2017 as shown in figure 1 below. There was, however, a decrease in production of 3.8% in 2005, from 29.5 million in 2004 to 28.4 million in 2005. There was no change in chicken production in 2015 and 2016. From the year 2008 to 2017, a period of 10 years, chicken production in Ghana grew from 39.8 million to 74.5 million, showing an average annual growth of 8.7%.
Figure 1: National Poultry Stock

3.3 National Poultry Production

For the period 2000 to 2017, poultry production in Ghana saw significant growth. Figure 2 shows increase in national hen egg and chicken meat production from 2000 to 2008. There was a decline in both eggs and chicken meat production in 2009 and 2010 and thereafter, increased steadily from 50,895 tonnes in 2011 to 59,653 tonnes in 2017, an increase of 17% within 7 years.

Source FAO Stat, 2017
3.4 Supply of Chicken meat

Demand for broiler meat in Ghana is ever increasing. Meanwhile, domestic supply remains mostly stagnant, allowing imports to fill the gap. Ghana’s frozen chicken imports jumped from 13,865 tonnes in 2000 to over 168,000 tonnes in 2013 according to FAO Statistics shown on table 1. The total chicken meat supply on the Ghanaian market increased from 33,365 tonnes in 2000 to a record high of over 168,000 tonnes in 2013 with a value of over 197 million USD as shown on table 1 below. Imported chicken has since 2002 filled the local demand gap, contributing more than 50% of local demand annually. In the 2019 budget presentation, the Finance Minister, Mr Ken Ofori-Atta, revealed that the country spent $374 million to import poultry meat every year. This is as a result of increasing demand for less expensive frozen poultry and the deficit created by the low domestic poultry (broiler) meat production. According to poultry producers, broiler production is not profitable. Feed costs represent about 70 percent of overall production costs. Despite rising feed costs, producers are unable to dispose broiler birds at six weeks and must continue to feed their birds over 10 weeks, which further increases feed and medication costs. High energy cost also affects overall production. With high production and energy costs, producing domestic broiler birds is becoming more uncompetitive compared to imported poultry products (USDA 2017 Report).
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Source: FAO data, 2016
4.0 Analysis of Bottlenecks in Layer and Broiler production

The poultry sector in Ghana is presented with serious challenges, hence, the poor performance of the sector. Inputs quality, e.g. feed, day-old chicks, veterinary inputs are all outside the control of the farmer.

High input costs, consistent contamination of the production environment and weak public policy support are some of the factors detrimental to efficient performance of the poultry industry in Ghana. The poultry value chain constitutes actors who largely are ‘standalone’ business entities and having weak relationships with other industry actors.

4.1 Animal health disease and veterinary services

Most poultry producers fall into the small-to-medium scale group. Small-scale businesses mainly produce broiler birds, whereas the medium-scale category mainly produces eggs. Both groups practice limited bio-security, making these operations vulnerable to disease outbreaks such as Avian Influenza.

There are concerns about contamination of the production environment, hence the sporadic outbreak of diseases recorded across poultry production enclaves across Ghana. Several farmers have regularly complained about lack of access to veterinary services. Veterinary services providers have also expressed concern about lack of appropriate tools to deliver good services to clients. Besides this, there are currently only a handful of veterinary experts available and fewer field officers, which means some localities do not have veterinary personnel. Lack of available and standard laboratories limits the extent of investigating into disease causal agents or factors.

4.2 Breeding, feed, hatchery & farm production systems

Breeding

The major breeding challenge for broiler and layer production is limited availability of parent stock. According to the Veterinary Services Directorate of the Ministry of Food and Agriculture in the 2018 Agriculture Facts and Figures, the importation of parent stock for layers, broilers and turkey increased from 58,822 in 2009 to 101,871 in 2018. Within the same period, imported day-old broiler chicks increased from 454,640 in 2009 to 511,960 in 2018. That for layer increased from 1,036,872 in 2009 to 7,130,999 in 2018. However, the required transport facilities to transport day-old chicks from the airport to the final destination are nonexistent.

Very few companies have parent stock with the main breeds being Bovans Black, but primarily Lohman Brown. In 2009, the Animal Research Institute (ARI) of the Council for Scientific and Industrial Research (CSIR) introduced a broiler breed, Aribo broilers to produce day-old chicks for broilers in the country. However, due to the low quality of day-old chicks from local hatcheries, most farmers prefer imported day-old chicks to locally produced day-old chicks.

Feed

The biggest challenge in Ghana’s poultry sector is the high cost of feed. Poultry feed accounts for about 70 per cent of the total cost of producing a layer or broiler in Ghana because the cost of the major feed component, maize is expensive due to competing needs and inadequate production. The main imported feed ingredients are yellow corn, soybean meal, fish meal and vitamin-mineral premixes. The locally available feed ingredients are corn (white or yellow), soybean cake, cotton-seed cake, kernel cake, copra cake, fish meal and oyster shell.

The cost of feed adds to a myriad of challenges that increase the cost of chicken production for local poultry farmers. Even though the yellow maize is said to be highly nutritious and good for poultry
feed production, its cultivation is very low because farmers prefer to cultivate white maize for human consumption and easy market accessibility. Only few farmers cultivate the yellow maize. Farmers are not producing for the poultry market but for the whole country. The price of maize has direct impact on the cost of poultry feed. Until the issue of cost and availability of the main feed ingredients is improved, the poultry sector would not be competitive. This challenge is worse for broiler production when broiler producers are not able to dispose of their birds after 6 weeks due to unavailability of ready market.

Ghana’s poultry feed industry is mostly focused on layer feed due to the increase of layer bird production. About 80 percent of feed produced by commercial feed millers is layer feed. However, there is a seasonal broiler feed demand by poultry producers who raise broiler birds for the festive seasons (Christmas, Easter and Ramadan).

Only the small-scale poultry farmers buy feed from the local market. Over 70% of poultry farmers produce their own feed because they cannot guarantee the quality of feed on the local market. There are limited accredited laboratories to check feed quality. There is also limited knowledge in feed formulation which makes it difficult to assure users of quality of the locally produced feed. Most of these feed mills are producing at about 40% to 50% capacity.

**Hatchery**
Common challenges that local hatcheries encounter are different batches of eggs in the same incubator at the same time, poor functioning hatchery equipment, day-old chicks not vaccinated with mareks vaccine, lack of proper functioning standby power source to keep the incubator functioning during power surges or outages. Poor quality day-old chicks lead to poor functioning flocks.

**Farm production systems**
Broiler and layer birds are kept exclusively indoors on deep litter and/or in battery cages. Most of the poultry farms use deep litter production systems. Battery cages are not fabricated in Ghana even though it is now catching up. The major challenges include wrongful siting of poultry farms, inappropriate housing for the birds, poor bio-security systems, feed wastage, abuse of antibiotics and limited knowledge in improved production techniques.

**Slaughtering and processing facilities**
Slaughtering and processing facilities for poultry in Ghana are limited. Much of the slaughtering of live birds takes place at the household level or in live bird markets. There are very few abattoirs in the country, but the services are for cows, goats, pigs and sheep. Some of the large commercial farmers do have their own processing facilities but lack modern equipment. Currently, there are only 2 modern certified poultry processing facilities in Ghana.

**Value Addition**
Value addition to poultry meat is nascent. Some processors have begun converting broiler meat into nuggets, sausages, frankfurters and marinated chicken. Spent layers are mostly sold live on the markets. The challenges in relation to value addition activities mainly have to do knowledge, equipment and technology.

**Food safety and product quality**
The main food safety issue is the perceived abuse of antibiotics due to limited knowledge in efficient production systems. The other challenge is the non-enforcement of the Food Safety standards by the Ghana Standards Authority and the Food and Drugs Authority.
5.0 Potential Opportunities for the Dutch Private Sector

The increasing local demand for chicken and chicken products coupled with the challenges identified in previous chapters presents vast trade and investment opportunities between Ghana and the Netherlands.

The uncompetitiveness of the poultry sector against imported poultry products is mainly due to the high cost of production. The depreciating local currency against major trading currencies, the Euro and the US Dollar contributes to the high cost of production since the key inputs for poultry production (day-old chicks and vaccines) are imported. Another key contributing factor to high cost of production is feed due to inadequate production of maize, the main ingredient for feed production as well as feed wastage as a result of inefficient feeding systems.

The competitiveness of the poultry sector depends on the coordination of production, investment through the various levels of the value chain, economies of scale and the ability to acquire the key raw materials at a reasonable price.

This creates an opportunity for Dutch private sector to either invest in the poultry sector directly in the area of commercial yellow maize and soybean production through outgrower schemes, invest in efficient mills or provide technical expertise in the area of feed production and improved feeding methods. As part of minimizing exchange rate losses, Dutch companies can invest in production of day-old chicks locally since quality of day-old chicks currently produced by local hatcheries is poor. Alternatively, they can also transfer knowledge or provide technical expertise to local hatcheries in modern hatchery techniques.

Poultry vaccines are not produced locally except the ND-I2 vaccine produced to combat New Castle Disease. This presents an opportunity for Dutch companies to invest in manufacturing of poultry vaccines locally. The over 70 million birds in Ghana provides a huge opportunity to invest in poultry vaccines production locally. This can be done by partnering local pharmaceutical companies.

As stated in previous sections, the poultry sector lacks the appropriate infrastructure to support the efficient running of operations. There is lack of appropriate transport facilities with the required temperature to transport day-old chicks from the Kotoka International Airport to the designated poultry farms. The current systems of transporting imported day-old chicks for over 5 hours to the final destination expose the birds to stress which can affect the overall performance of the birds. There is an opportunity for Dutch companies to invest in appropriate logistics for rental to such farmers that may need these facilities. Unavailability of modern processing, cold chain and storage facilities to support commercial broiler production all year round present an equally good opportunity for Dutch companies.

The abuse of antibiotics, low bio-security systems and inefficient poultry production systems also presents an opportunity for Dutch companies to transfer knowledge and modern technology to local poultry farmers as part of efforts to support the growth and development of the sector.
6.0 Concrete Business and Investment Cases for Growth of the Poultry Sector

Given the challenges faced by the poultry sector and the potential contribution to the economy of Ghana in terms of food security, employment, foreign exchange savings and jobs, there is the urgent need for support from government and well established poultry producing countries for the growth and development of the sector. In view of this, some concrete business and investment cases that Dutch companies can invest are summarized below.

Breeding and Hatchery
- Establishment of breeding farms for layers and broilers to meet huge demand
- Exportation of fertilized eggs to Ghana as a short-term measure
- Investment in efficient hatcheries (both equipment and technology) and offer them on hire purchase, leasing, etc. to existing hatcheries
- Knowledge transfer in breeding and hatchery techniques

Business case for layers
- Export of day-old chicks as a short-term measure
- Investment in appropriate transportation facilities to transport day-old chicks
- Raising pullets for sale to farmers
- Raising pullets for farmers for outgrower schemes
- Technology transfer in efficient production systems

Business case for Broilers
- Export of day-old chicks
- Investment in outgrower schemes to produce all year round for processing companies
- Technology transfer in broiler production

Value Addition
- Investment in processing facilities (either for rental or leasing)
- Investment in cold chain, storage and transport (for day-old chicks) facilities
- Processing of poultry products (sausages, nuggets, etc.)

Feed
- Investment in commercial maize and soybean production through outgrower schemes
- Investment in efficient feed mills
- Leasing or rental of small and medium sized feed milling equipment
- Investment in laboratories or test kits to test feed quality
- Partnership with local commercial feed mills to upgrade existing feed mills

Drugs and Vaccines
- Production of poultry vaccines and drugs locally in partnership with local pharmaceutical companies

The Embassy of the Kingdom of the Netherlands warmly welcomes you to Ghana and is looking forward to assisting you further with your business plans. For our contact information, see page 20.
7.0 Possible ways forward

For both the Ghanaian and Dutch private sector to invest in the sector, there is the need for the government of Ghana to create the enabling environment for these companies to operate profitably. The Embassy of the Kingdom of the Netherlands in Ghana together with likeminded partners will keep underlining this point.

**Government of Ghana**

The government of Ghana needs to protect the investment of the private sector by adhering to the implementation of the Legislative Instruments (L.I) aimed at ensuring fair competition for local businesses. Such L.I.s include the Anti-dumping, Customs Valuation, Subsidy Regimes and Safety Measures. There is also the need to revisit the 40-60 poultry meat import policy to motivate local industries. Other policies aimed at revamping the poultry and livestock sector such the ECOWAS Veterinary Pharmaceutical Protocol, the Livestock Policy, the National Meat Inspection regulation, the Animal Production and Veterinary Services, etc. need to be implemented as a matter of urgency.

**The Embassy of the Kingdom of the Netherlands**

The Embassy of the Kingdom of the Netherlands wants to work together with the advanced poultry sector from Netherlands. Through PPP constructions there are real gains to be made to contribute to SDG2 in an economically and ecologically sustainable manner. The embassy team will act as a proactive focal point to facilitate business linkages between Dutch and Ghanaian companies.

Together with the Dutch private sector and supported through RVO instruments there might by opportunities for:

- Funding feasibility studies for the identified opportunities to establish the viability, investment cost, risks, etc. to facilitate matchmaking between Dutch and Ghanaian companies
- Establishment of poultry academies for on-farm knowledge transfer
- Support the establishment of one-stop service centres to service the poultry sector
- Support commercial maize and soybean production through outgrower schemes
- Capacity building for veterinary officers through training, study tours and exchange programmes through Nuffic.
Various

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