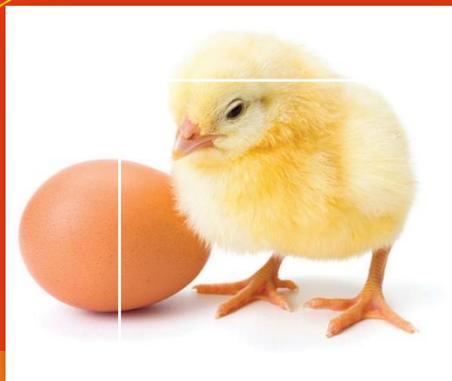




Kingdom of the Netherlands

# Poultry Subsector in Tanzania

A Quick Scan



## **Poultry Subsector in Tanzania: A Quick Scan**

Study commissioned by Embassy of the Kingdom of the Netherlands in Dar es Salaam, Tanzania.

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Tanzania

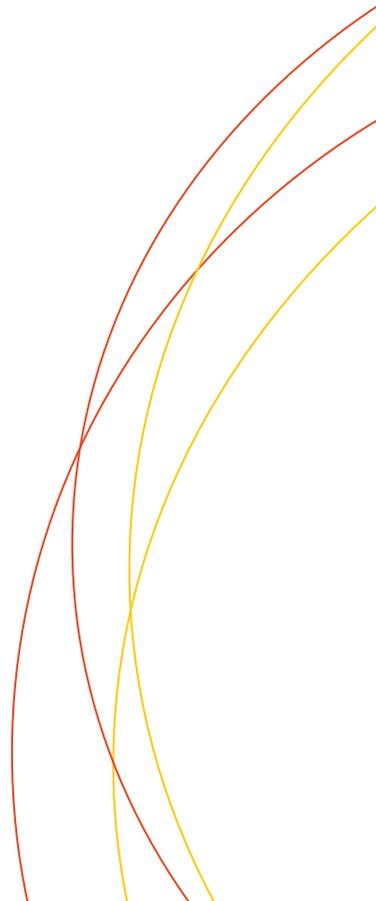
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## EXECUTIVE SUMMARY

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The poultry sector in Tanzania is emerging steadily both in indigenous and exotic (broiler and layers) chicken. Demand for local chickens remains high mainly due to the preferred taste of the chickens among Tanzanians and the generally trusted methods of raising the birds, and the domestic market for exotic chicken and eggs is likely to keep growing, as eating habits are changing, especially in urban areas, and the economy is growing.

The current population of chickens is estimated at 72 million, of which 40 million are indigenous chicken and the remaining 32 million are exotic poultry, which include 24 million broilers and 8 million layers. Among the existing 4.7 million agricultural households in Tanzania, 3.7 million households keep chicken.



Source Interchick

Despite availability of ample land for growing grains and soya to provide enough raw materials for chicken feeds, the commercialisation of the poultry sector is lagging behind due to unorganised markets for poultry and poultry products, unreliable supply of day-old chicks (DOCs), lack of reliable supply of quality poultry feeds, high veterinary and poultry feed costs and lack of poultry processing industries. The poultry sector is also suffering from chaotic and unorganised distribution system and lack of third-party logistics cold chain for poultry and poultry products' movements from farm to consumers.



Due to underdeveloped production (hatchery technologies) and processing equipment and technologies such as modern abattoirs and slaughterhouses, Tanzania has remained net importer of poultry parent stock (fertilised eggs and DOCs) and significant volume of processed poultry products. Tanzania also imports soymeal and other key additives for poultry feed, poultry production and processing equipment, and veterinary products. Tanzania imports parent stock and fertilised eggs mainly from the Netherlands, Kenya, France, Zambia, Great Britain, and India. Due to limited, consistent supply of quality poultry products, Tanzania institutional consumers (mining), food service (tourist/safari hotels) and retailers (supermarkets) import processed poultry products from mainly from the USA, Brazil, the UAE, and Russia.

The potential of poultry sector in Tanzania therefore has remained untapped which opens opportunities for investments to revamp the sector and related industries. The emerging investment opportunities along the poultry value chain and related industries are highlighted in Table 1. Priority is based on analysis of all factors and input from key stakeholders.

Table 1: Key areas for investment in the poultry sector of Tanzania

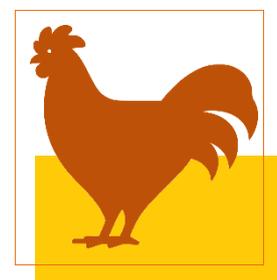
Investment area	Description	Priority
Animal Feed	▸ Animal feed technologies (pelleting technologies, extrusion of soybeans, other efficient feed processing technologies)	HIGH
	▸ Warehousing and grain silos management	HIGH
Breeder Farms	▸ Breeding – crossbreed chicken ▸ Building on the on-going R&D by ACGG ▸ Producing parent and grandparent stock	MEDIUM
Hatchery Farms	▸ Importing parent stock, grandparent stock, and at times fertilised eggs ▸ Producing and distributing day-old chicks (DOCs)	MEDIUM
Integrated Poultry Farms (including, hatchery, production & processing)	▸ Importing parent stock, grandparent stock, and fertilised eggs ▸ Producing and distribution of day-old chicks (DOCs) ▸ Production of broilers and layers ▸ Processing of poultry products ▸ Distribution of poultry products	MEDIUM
Third-Party logistics (3PL) cold chain	▸ Cold transportation and storage along the poultry food chain ▸ This may include a high care food grade processing facility ▸ Transportation management and trucking software	HIGH
Processing facility	▸ High care slaughterhouse designated for poultry ▸ This should include cold storage facility	HIGH
Supply of poultry equipment and technologies	▸ Farm infrastructure including automated feeding and innovative waste management ▸ Animal feed processing technologies and equipment ▸ Transportation and storing equipment	HIGH

Emerging areas for capacity building include *biosecurity enhancement* and *sector coordination*.

*Biosecurity enhancement* among small- and medium-scale poultry farmers and producers includes: farm management – quality control, quality feeds, etc; record keeping; availability and affordability of veterinary services; pilot contract farming arrangements building on the KUKU Deal model.

*Sector coordination* includes advocacy and governance: liaising with key sector players MLFD, MIT, ACT, TPSF and TMB; building on other poultry forums such as ACGG National Chicken Genetic Gains Innovative Platform; and consolidating fragmented poultry sector organisations including animal feed sector associations.

The Tanzania poultry sector is ripe for investment with opportunities ranging from input supply all the way across the value chain to retailing and exporting.



## 1. INTRODUCTION

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This study is complementary to the Regional Poultry Study<sup>1</sup> that was undertaken earlier this year and intends to undertake the following tasks:

1. A clear map of the poultry industry in Tanzania, including the main areas involved, facts and figures (Broilers & Layers)
2. Bringing out the key highlights of poultry value chain i.e. genetics, hatcheries, breeders, feeds, animal health, value addition, logistics and supply chain, markets, financiers etc.
3. A stakeholder analysis, identifying (and briefly describing) the key active players in the poultry industry in Tanzania (including contact details)
4. A short overview of the role played by government/private sector/association if any
5. Identifying emerging synergies among poultry projects and other initiatives if any
6. In addition to the Regional Poultry Industry a clear overview of current regulations and policies that affect the poultry industry should be outlined
7. Identifying industry main challenges, opportunities & best practices
8. Recommendations highlighting business interventions, which can address the identified challenges and opportunities along the poultry, value chains and related industries in order of priority.

The Embassy of the Kingdom of the Netherlands (EKN) in Tanzania initiated this study aiming at identifying opportunities for the Dutch involvement in poultry sector in Tanzania. The study aims to provide Dutch businesses (who are willing to invest in the Tanzanian poultry sector) with useful insights on the sector, such as facts & figures related to the different production areas in Tanzania, a stakeholder analysis, and actual information on the different subsectors.

The information provided in this report is expected to put forward the prioritised best areas of intervention so that the stakeholders involved can develop a clear roadmap afterwards. Moreover, this report has shed light on where the Dutch can add value and complement investments in the value chain. The Embassy of the Kingdom of the Netherlands in Tanzania envisaged that this study would contribute in the facilitation of the Dutch-Tanzanian partnerships that will offer integrated solutions in the nexus of development of poultry industry.

This report is subdivided into seven sections including these introductory paragraphs. The second section brings up country profile and economic outlook of Tanzania. Section three discusses the poultry subsector in Tanzania including a history and overview, description and mapping of the poultry value chain and narration of key functions, actors and dynamics. Section four describes the policy and regulatory framework, and section five gives a SWOT analysis and emerging opportunities for investments in the sector and related industries. This section puts forward authors' recommendations highlighting business interventions which could address the identified challenges and opportunities along the poultry value chains and related industries with listed priorities. It also analyses risk and gives mitigation strategies. Section six is a summary of references used in the process of developing this report and section seven consolidates useful contacts of key players and stakeholders of the poultry and related industries in Tanzania as well as list of acronyms used in this report.

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<sup>1</sup> Regionalisation in poultry industry in Eastern Africa: A study into interdependency between East African countries in poultry production

## 2. TANZANIA COUNTRY PROFILE AND ECONOMIC OUTLOOK

### 2.1 Geography, Natural Resources, Climate, Population

Tanzania, officially the United Republic of Tanzania, is a country in eastern Africa within the African Great Lakes region. It borders Kenya and Uganda to the north; Rwanda, Burundi and Democratic Republic of the Congo to the west; Zambia, Malawi and Mozambique to the south; and the Indian Ocean to the east. Mount Kilimanjaro, Africa's highest mountain, is in north-eastern Tanzania.

Tanzania is endowed with abundant natural resources and has prioritized protecting its rich biodiversity by placing more than 32% of its land area under protection. However, Tanzania remains one of the world's poorest countries, with the majority of the poor living in rural areas. It is estimated that up to 80% of Tanzania's rural population relies on use of natural resources to sustain a livelihood, which makes stewardship of these resources a fundamental priority for Tanzania's continued stability and growth. The diversity of natural resources ranges from minerals, forestry, wildlife, scenic features, to agricultural land, lake and ocean water, oil and natural gas. Biodiversity, particularly in relation to iconic wild animals such as giraffes, elephants, and lions, is important for the national economy, as wildlife-based tourism comprises approximately 9% of Tanzania's gross domestic product (GDP) and 25% of its foreign exchange earnings. In Tanzania, population growth, environmental mismanagement, commercial agricultural expansion, and climate change also combine to threaten biodiversity and rural livelihoods alike.



Figure 1: Map of Tanzania and neighbouring countries

Recognizing that the drivers of poverty and biodiversity loss are linked, Tanzania is partnering with its people and development partners to improve environmental governance and management at a landscape scale, including building the nation's capacity in water resources management, reducing wildlife trafficking, and developing sustainable tourism and climate-smart agriculture and afforestation. These strategies involve developing and implementing key national environmental policies while supporting community-based conservation initiatives.

Tanzania has sustained relatively high economic growth over the last decade, averaging 6–7% a year. But while the poverty rate in the country has declined, the absolute number of poor has not because of the high population growth rate. The country's overall population is about 55 million (2016). The population distribution in Tanzania is uneven because most people live on the northern border or the eastern coast, with much of the remainder of the country being sparsely populated. Density varies from 12 per square kilometre in Katavi Region to 3,133 per square kilometre in Dar es Salaam Region.

### 2.2 Macro-Economic Indicators

Tanzania's real GDP growth rate slowed in 2017. According to government data, growth for the first three quarters of 2017 stood at 6.8%, down from 7.3% during the same period in 2016. The decline is mainly due slower growth of services from the supply side and slower expansion of consumption and investment from demand side. Tanzania's GDP growth rate was still the highest in the East African Community (EAC) for 2017. The inflation rate has remained stable, aided by low food prices. The current

account deficit narrowed to 2.5% of GDP in 2017, down from 4.2% in 2016, with the decline in imports more than offsetting the decline in exports. The narrowing current account deficit was financed by foreign direct investment (FDI) and long-term loans. Gross official reserves were nearly US\$6 billion by end 2017, equivalent to more than five months of import cover (excluding FDI-related imports). (World Bank, 2018)

The economic outlook is favourable, with downside risks that are largely under government control. The three most significant challenges facing the government to ensure growth momentum include:

- 1) Continuing to implement measures to ensure macroeconomic stability;
- 2) Intensifying efforts to implement its development-oriented budget, and
- 3) Urgently implementing measures to enable and encourage the private sector to play a more significant role in Tanzania's development.

In 2017 many businesses saw a downturn and complications to their operations because of new policies and regulations. One important example is the new natural resources legislation, which forces mining and energy companies to renegotiate their contracts to bring them in line with the new law. (See section 3.6, Table 11 for more information about policies affecting the poultry subsector.)

In general, many uncertainties and challenges remain that reduce the ease of doing business in Tanzania (currently ranked 137 on the index). This is also confirmed in recent economic analyses conducted by the World Bank, the IMF, the United Nations Industrial Development Organization (UNIDO) and the World Economic Forum (WEF). The latter cites access to finance, corruption, inadequate infrastructure, tax rates and inefficient government bureaucracy as the five biggest challenges. In addition to these challenges, the unpredictability of government policies is a major constraint for foreign investors. In March 2018 the country received its first Moody's rating, of B1, which is better than most of its neighbouring countries.

Private sector involvement in the country's development can help finance the government's ambitious investment plans, be a source of finance and innovation, and create jobs for new entrants into the job market. This will require addressing key impediments to higher private investment including low credit growth, high and persistent payment arrears, and the high cost of regulatory compliance and deficiencies in infrastructure services and skills<sup>2</sup>.



Population: 55 million  
Urban Population: 33.8%



Chief of State/Head of Government:  
President John Magufuli



Official Languages: Kiswahili, English



Climate: varies from tropical along the coast to temperate in the highlands



Land Use: 43.7% agricultural land 37.3% forest; 19% other



Natural Resources: hydropower, tin, phosphates, iron ore, coal, diamonds, gemstones, gold, natural gas, nickel

Figure 2: Quick Facts about Tanzania

<sup>2</sup> <http://www.worldbank.org/en/country/tanzania/overview>

## 2.3 Agriculture Sector and Investment Opportunities

Agriculture is the mainstay of the economy, contributing about 30% of GDP and employing 67% of the labour force, with women contributing more than 70% of the labour. It is the main source of food, employment, raw materials for industries and foreign exchange earnings. Since Tanzania has different climatic and geographical zones, farmers grow a variety of annual and permanent crops. Crops grown include: cereals; pulses; root and tubers; fruits and vegetables; and spices. Moreover, farmers practice livestock farming by keeping animals like cattle, goats, sheep, pigs and chicken. They also keep a few numbers of turkeys, ducks, rabbits, donkeys and horses.

Agriculture is among the most promising investment sectors in Tanzania. (Others include telecom & ICT, energy excluding oil & gas, and logistics and warehousing).

Agricultural value chains that have brought attention of domestic and FDIs include dairy, poultry, horticulture, tea, rice, pulses and oil seeds. Investment opportunities range from input supply all the way across the value chain to retailing and exporting.

*Why invest in Tanzania?*  
 Peace & Political Stability  
 Strategic Location  
 Attractive Investment Regime  
 Investment Incentives  
 Investment Guarantees  
 Plenty of Natural Resources  
 High Growth Potential  
 Memberships of Bilateral Trade Agreements  
 Public/Private Partnerships  
 Export Processing and Special Economic Zones  
 Magnificent Business and Leisure Destinations (TIC)

Specifically, for perishable value chains such as dairy, poultry and horticulture, there is a huge opportunity to develop processing facilities and related cold chain infrastructures. Cold chain third-party logistics (3PL) is an essential component of an efficient food supply chain to ensure food safety and quality and reduction of losses. Nevertheless, most Tanzania based commercial farmers do not have cold chain infrastructure from farm to market including export gate and thus most of them compromise significantly on quality and are thus unable to access more sophisticated and export markets. Mainly large companies have own or access to third-party logistics' cold chain infrastructure due to the high

investment cost required. At the present, multinational firms in the transport sector offer bulk of the third-party logistics services in Tanzania. 3PL is still a new concept in Tanzania, which has not been fully embraced by the national and FDI's 3PL firms.

Tanzania is a member of the Southern African Development Community (SADC) and the East African Community (EAC). Through EAC, Tanzania is a member of Tripartite Free Trade Area involving the Common Market for Eastern and Southern Africa (COMESA), SADC and EAC. This provides an enormous market opportunity targeting a population of over 600 million. (TIC, 2018)

## 2.4 Tanzania's Relationship with the Netherlands in the Agriculture Sector

Tanzania exports around \$63 million worth of agricultural products to the Netherlands annually including tobacco, fish, and propagation material, cut flowers and vegetable seed.

Traditionally Dutch horticultural and livestock companies have been located in the northeastern of Tanzania in the Arusha and Kilimanjaro regions and on the slopes of Mt Kilimanjaro. The climate there is very favourable for agriculture and horticultural production; both in protected (greenhouses) and unprotected cultivation. Large Dutch companies in Arusha include Rijk Zwaan, Enza Zaden, Dekker bruins, Dummen Orange, Multi Flower. There are also three interesting PPP (FDOV) projects in Arusha & Kilimanjaro regions.

For some years now, the Embassy of the Kingdom of the Netherlands (EKN) in Tanzania has been exploring the agricultural potential in other parts of the country, specifically the Southern Highlands. The Southern Agricultural Growth Corridor of Tanzania (SAGCOT), an area as big as Italy, is seen as the food basket of East Africa and a focus area of Tanzanian government for agricultural development. The Netherlands is now an official partner in SAGCOT and cooperation is excellent and programs are taking off.

The main focus of the Netherlands in the SAGCOT so far is the **development of the potato value chain** through *Dutch Diamond Approach* where government, researchers, education institutes and private sector team up together. The government-to-government (G2G) project on capacity building on plant health services & seed potato registration started in the end of 2017 and several missions to and from the Netherlands have been organized including Tanzania Agribusiness event in the Hague; three new Dutch (first ever processing) varieties have been registered in Tanzania while nine more Dutch varieties are in the registration process; and there has been an amendment of the Tanzania seed law.

The Netherlands has also started a **Centre for Development of Potato Industry in Tanzania** (CD-PIT) in Mbeya and a local company Stawisha has been established to manage it. MoU between Tanzania and the Netherlands regarding joint effort to develop the potato value chain was signed in August 2018.

In 2017, through the Embassy of the Kingdom of the Netherlands (EKN) in Tanzania, two studies were undertaken; the first one focusing on the potential of marine fishery and business opportunities; and the second one focusing on production of fruit and vegetables in Tanzania. Both studies have been presented at the Tanzania Agribusiness Event to relevant Dutch companies and the way forward was suggested i.e. trade missions as several Dutch companies have already demonstrated an interest in the development of the sectors.

Through EKN in Tanzania, a study on agro-logistics was undertaken earlier this year 2018 aiming at developing a Masterplan for the SAGCOT region showing existing agricultural clusters and activities, potential opportunities and infrastructural gaps. The Netherlands through EKN is geared to promote poultry and dairy value chain development through *Dutch Diamond Approach* that will trigger additional Dutch investments in Tanzania.

Essentially, most of EKN capacity building activities are undertaken in partnership with the Dutch Orange Knowledge Programme (OKP). OKP, formally the Netherlands Fellowship Programme (NFP), has run successfully for over 40 years allowing thousands of Tanzanians to study in the Netherlands, and helped to further strengthen the relationship between the two countries.

In cooperation with the EKN, the Netherlands Enterprise Agency (RVO.nl) offers a range of services and financial arrangements to entrepreneurs who want to do business in Tanzania. The Dutch Good Growth Fund (DGGF) provides finance for SME entrepreneurs who want to invest in emerging markets and developing countries. The investment or export product must have a positive impact on the country's development. The Sustainable Enterprise and Food Security Facility (FDOV) encourages public-private partnerships in the field of food security and private sector development in developing countries and the Sustainable Water Fund (FDW) is a public-private partnership facility that aims to contribute to water safety and water security in developing countries.

### 3. TANZANIA POULTRY SUBSECTOR

#### 3.1 History and Overview

In the 1970s, two government agencies were established: National Poultry Company (NAPOCO) and Tanzania Animal Feed Company (TAFCO). NAPOCO was tasked with establishing and operating breeding and hatchery farms and providing all chicken meat and eggs in the country. TAFCO manufactured animal feeds. However, in the 1990s, these organizations ceased operations. This gave opportunity for the growth of the private sector which has continued to grow, with companies and organizations even recently investing in the poultry value chain.

Tanzania has three major poultry production systems: traditional indigenous, improved family chicken and commercial specialized chicken systems (LMP, 2015; Da Silva *et al.*, 2017). The traditional indigenous family subsystem is an extensive scavenging dual-purpose system, with levels of low egg (50 eggs/ year) and meat (1.5 kg for mature chicken) production and therefore local backyard system (low input – low output) and absence of biosecurity. The improved family chicken subsystem (with improved local/ imported tropical breeds) is a semi-intensive, semi-scavenging moderately high productivity (150 eggs/year; and 1.8 kg live weight at maturity) subsystem and therefore a more intermediate production system (medium input – medium output) based on the use of dual-purpose breeds with some attention to biosecurity. Both subsystems are family-orientated and traditional. The commercial specialized chicken system is an intensive layers and broilers system with high productivity (2 kg live weight at maturity and 270 eggs/year) and therefore (high input – high output) system based on use of hybrid birds from international breeding companies and using professional housing, feeding and veterinary control systems and high attention to biosecurity.

#### 3.1.1 The Indigenous Chicken Subsector

Tanzania's indigenous poultry subsector has had modest growth rate of 2- 3 % over the last few years despite the widely acknowledgement of its potential to provide substantial income for resource poor households and consequently improving their livelihood. NBS, 2018 has estimated that Tanzania had about 40 million indigenous chicken of which 38.6 million (96%) are in Tanzania Mainland and 1.8 million (4%) in Zanzibar. Tabora Region with 2.9 million birds (7.3%) has the highest number of indigenous chickens, followed by Singida (2.5 million (6%) and Shinyanga at around 2.4 million (5.7%). (see Figure 4) Although most rural households rear indigenous chickens, FAO has established that the average consumption of chicken is about 0.7 kg per capita per year (and 13 eggs) in Tanzania, which is relatively low in comparison to other African countries and the rest of the world.



Source [fipsafrica.org](http://fipsafrica.org)

Despite contributing over 60% of the total chicken population in Tanzania and supplying nearly all poultry meat and eggs consumed in rural areas and about 20% in urban areas, the potential of the indigenous poultry industry remains largely untapped. Production scales are extremely low with only 3% of the indigenous poultry-keeping households raising more than 40 birds each. The majority of the households produce between 5-10 chickens only, some for over a period of 12-18 months. However, demand for local chickens remains high mainly due to the preferred taste of the chickens among Tanzanians and the generally trusted methods of raising the birds.

The majority of smallholder producers in rural areas keep traditional indigenous chickens. Productivity indices for the local chicken in the various production corridors in Tanzania in terms of mortality rates especially for young chicks, hatchability, eggs per clutch, clutch per year, and eggs set per hen are quite

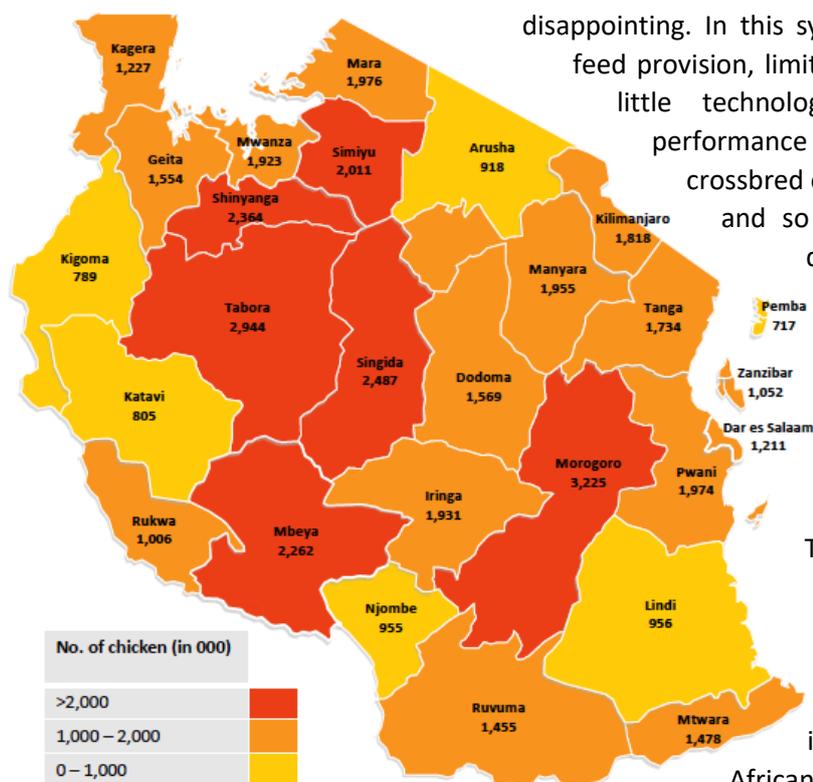


Figure 4: Number of chickens by region in Tanzania

disappointing. In this system, there is little management and feed provision, limited or sporadic use of health care, and little technology used (FAO SHFS, 2015). The performance naturally differs between local and crossbred chicken, the production system adopted and so is the hen to cock ratio. Generally, despite increased awareness on the importance of chicken rearing in the household asset building and income opportunity, the good practice in husbandry is not yet taken by majority of smallholder producers as business but rather as a tradition.

Thus, production and productivity indices and performance are much below good practices (see Table 2) and this has been confirmed through different studies carried out in different parts of Tanzania. The

African Chicken Genetic Gains (ACGG) baseline survey<sup>3</sup> conducted in 2015-2016, showed the mean chicken flock size per household to be 27 chickens,

with ninety-four per cent (94%) of households having experience of providing supplementary feeding (i.e. any feed that was not scavenged) to their chickens at any time of the year. However, chickens are often left to find their own sustenance through scavenging for food and they have regular contact with the common paths along which infectious diseases are transmitted: impure water, rodents, wild animals, free-flying birds, insects, and contaminated feed. (FAO SHFS, 2015)

Among the challenges are demands and supply mismatch, low-yielding genetic composition, poor animal health services, feed shortages and limited access to relevant financial services, and inadequate market development systems and absence of competitive value chains. In Tanzania, as in many African countries, small stock (i.e. poultry, sheep, goats) is considered women’s animals and so women are generally the owners and caretakers of chicken, although they do not always have decision-making authority on the use of income from sales of chickens and eggs. (MMA, 2017) Aggregation and marketing of indigenous chickens is quite complex and there is absence of clear supply chain simply because indigenous chicken farmers are fragmented and quite unorganized (see Figure 5).

Table 2: Local chicken productivity indices - Tanzania

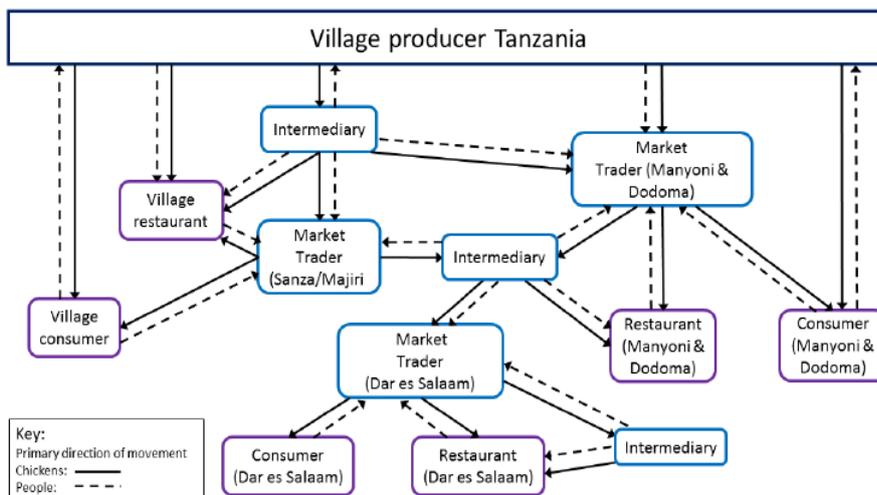
Trait	Average Performance of Mostly Local Breed	Good Practices
Mortality % (0-8 weeks)	55%	10%
Hatchability %	75%	95%
Eggs per clutch	10	15
Clutch per year	3	4
Eggs set per hen	10	12
Average adult body weight (Kg)	0.5 – 1	Over 2

Source: MMA, 2013

Aggregation and marketing are done on two levels. On the first level, some entrepreneurial farmers themselves and village traders do the aggregation and bulking of indigenous chicken. Village traders have

<sup>3</sup> <https://africacgg.net/2018/09/11/tanzania-baseline-report/>

special relationships and understanding with urban based traders. Urban traders in most cases give cash advance to their agents (village traders), who are based in the villages. The village traders roam the village, moving from farmer to farmer to collect chicken. Once a critical mass is attained, the village trader informs the urban trader, who then travels to the village and collects the consignment of chicken or the village trader could use bicycle or motorbike to take the stock to urban centre. Occasionally, the village traders also buy chicken by themselves and they sell to the urban traders.



In the second level, urban traders visit specific livestock, primary and secondary markets, which takes place on specific days of the week. In such markets, the urban trader sits in a strategic place in the market and buys chicken, one at a time, from farmers until a critical number is attained, or until money for buying chicken is exhausted. It should be noted that, the village trader also bulks for the urban trader at such markets as well. Village and urban traders played distinct roles in marketing of indigenous chickens in Tanzania, although there was some overlap at the rural level between producers and traders as some producers undertake marketing function as well (Queenan, K *et al.*, 2016).

There are significant number of small and medium scale poultry farms in urban and peri-urban areas that keep indigenous chicken with improved management practice as well as exotic chicken. However, these SME family businesses lack investment to increase and modernize production and add value. This improved family chicken production system is attracting interest of several stakeholders who wish to develop this system such as AKM Glitters, Kuku Deal, and Nzua Enterprises. (ACGG, 2018) These emerging initiatives and farms are described further in subsections 3.3.5 and 3.5.5.

Figure 5: Market channels of indigenous chickens in Tanzania

### 3.1.2 The Exotic Chicken (Broilers and Layers) Subsector

There are various contradicting data about the population of exotic chicken in Tanzania. Some authors estimated that there are 24 million broilers and 6 million layers in Tanzania (Meijer-Willems, et al., 2018) whereas others estimate that Tanzania has an estimated chicken population of 32 million commercially bred birds — 24 million broilers and eight million layers<sup>4</sup>.

Nevertheless, the exotic chicken has a huge potential for further commercialization in Tanzania throughout the poultry value chain. Section 3.6 and 3.7 give an overview of the broiler and layer industries in Tanzania.

## 3.2 Production

### 3.2.1 Breeding, Multiplication and Hatcheries

About 70% of the chicken breeds in Tanzania are low yielding, both in terms of egg and meat production. An indigenous hen produces less than 50 eggs a year and wastes a lot of time brooding chicks, and the weight of a mature chicken only reaches a maximum of 1.5 kg. There is a lack of public investment in research and extension in improving the productivity of indigenous chickens, either through selection or crossbreeding.

<sup>4</sup> <http://www.theeastafrican.co.ke/business/Tanzania-chicken-imports-ban-coming-home-to-roost-/2560-4783734-12pqm1o/index.html>

Moreover, the lack of private investment in the establishment of grandparent, parent and day-old-chick production facilities hinders the expansion of the commercial sector (Da Silva *et al.*, 2017; LMP, 2015). Tanzania is still a net importer of parent stock; with only a slow growth in local parent stock farms and hatcheries. High start-up costs and inputs have also hampered growth (NBS 2012).

Most hatcheries and poultry breeder farms operate within residential areas without standard operating procedures. Unregistered themselves, they rarely avail of services of registered veterinarians. Unsurprisingly, many farmers complain that the high mortality rate among chicks in some hatcheries are due to salmonellosis and emergence of Mark's disease in pullets (layers).

Table 3: Short profiles of selected poultry hatcheries and breeder farms in Tanzania

Large	Silverlands Iringa	<ul style="list-style-type: none"> <li>Began day-old-chick and poultry feed production in 2014 for commercial and small-scale chicken farmers in Tanzania</li> <li>Produce three DOC varieties with imported breeder stock</li> <li>Exclusive rights in Tanzania for the SASSO bird</li> <li>Provide improved genetics to small-scale rural farmer, technical assistance, training, and access to markets through African Poultry Multiplication Initiative programme</li> </ul>
Large	Organia Dar es Salaam	<ul style="list-style-type: none"> <li>Taher Overseas Ltd</li> <li>well-established poultry farm</li> <li>quality control feed sampling, sterilised vehicles, perimeter protection, automated feeding systems, filtered air climate control system</li> <li>also has Lark Distribution - a fleet of vehicles, intelligent automated warehousing</li> </ul>
Medium	Nzua Enterprises Dar es Salaam	<ul style="list-style-type: none"> <li>Growing and hatching Kuroiler and local chicken, turkeys, guinea fowls, rabbits and ducks</li> </ul>
Medium	Kilacha Moshi	<ul style="list-style-type: none"> <li>Kilacha Production and Training Center</li> <li>Production of farm and livestock products</li> <li>Kilimanjaro region</li> </ul>
Medium	AKM Glitters Dar es Salaam	<ul style="list-style-type: none"> <li>Parent stock breeder farm</li> <li>Poultry hatchery plant</li> </ul>

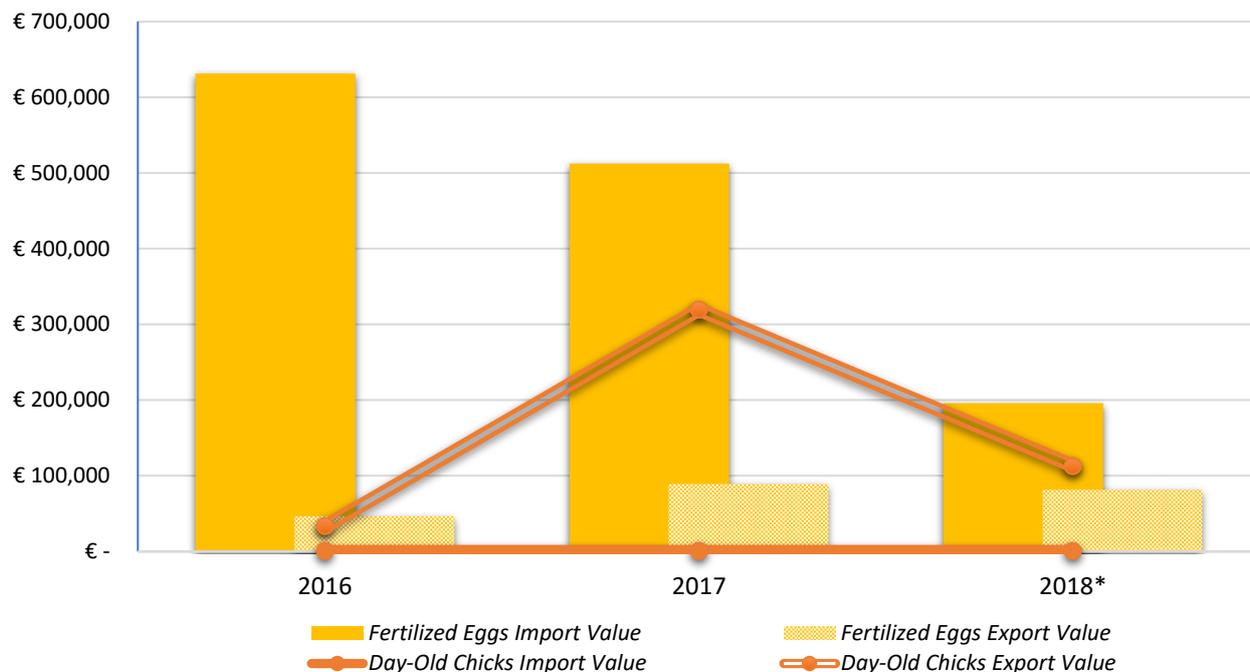
The number of parent stock farms has been moderately increasing but mostly are owned by hatchery facility operators and not specialized breeder farms. Some new projects claim to have grandparent stock as well. This suggests a need for potential investors to invest into poultry breeder farms. Also, investment in hatchery facilities has been moderately increasing, thus, increase in production of DOCs. However, most of the hatcheries are operating at only 45% of their installed capacity. There is, however, large importation of fertile eggs by the large hatcheries. Like elsewhere in East African countries, there is a shortage of DOCs in Tanzania and there is a seasonality both in availability and price that makes it difficult for farmers to plan ahead and manage their costs. It is anticipated that the production of DOC will increase with time, due to new investments in poultry breeding farms and hatcheries.

Table 4: Import and Export of DOC and Eggs by value (2016-2018)

	DOC Import Value	DOC Export Value	Fertilized Eggs Import Value	Fertilized Eggs Export Value
2016	€ 0	€ 32,931	€ 631,302	€ 46,496
2017	€ 0	€ 319,508	€ 512,120	€ 89,036
2018*	€ 0	€ 113,327	€ 195,837	€ 81,466

Source: TRA, September 2018 (\*2018 data through July)

Chart 1: Import and Export Value (EURO) of DOC and Eggs (2016-2018)



Source: TRA, September 2018 (\*2018 data through July)

The poultry industry in Tanzania has continued to record steady growth whereby during the year 2013 about 61 million day-old-chicks (DOC) were produced and in the year 2014 about 63.1 million DOCs were produced (SAPA, 2015). The production of DOC is likely to increase as time goes by, due to new investments in poultry breeding farms and hatcheries. Tanzania has steadily entered the export market for DOCs. Since 2016, Tanzania is exporting DOCs mainly to Comoros, Kenya and Uganda. The export value of DOCs has also increased steadily from €32,931 in 2016 to €113,327 from January to July in 2018. Likewise, the export value of eggs has increased from €46,496 in 2016 to €81,466 in only seven months of 2018 (see Chart 1 and Table 4).

### 3.2.2 Production Systems

Commercial poultry is largely made up of small- to medium-scale producers who own between 200 and 2000 birds and provide housing, balanced feed, and veterinary care (FAO SHFS, 2015). This includes breeder farms, hatcheries, poultry farms (layers and broiler farms), traders and processors (SAPA, 2015). Although there is significant improvement in poultry farming, the increased number of commercial farmers and the improvements made on the availability of inputs for poultry farming there is still room for growth and improvement in the poultry production in Tanzania.

A few private sector businesses have established large-scale poultry production units mostly for the urban markets. These include NAPOCO (Arusha), Mkuza Chicks Ltd (Kibaha), Kenchick, Interchick, Nzua General Enterprises, AKM Glitters Company Limited (Dar es Salaam) and Twiga feeds.

### 3.2.3 Infrastructure and Equipment

The use of technology at all levels is limited and very little new technology is generated for use in the Tanzania poultry industry (FAO SHFS, 2015).

#### The Current Situation

- Incubators: Small and medium scale incubators with varied technologies and varied performance

- Feed: Primarily in mash form, slowly some feed manufacturers are moving to pellet and other more efficient feed processing technologies
- Equipment: Few reliable importers, distributors, and service providers of modern equipment
- Slaughter: Simple and unhygienic public slaughter slabs across the country located at the market places; no designated poultry slaughterhouses
- Transport: Few poultry farms own cold chains; various standards for existing cold chains; other farms use ordinary trucks and vans

*Notable Opportunities for Improvement and/or Investment*

- Automated public access control system
- Animal feed technologies to promote efficiency in feed aspects: pelleting technologies; extrusion of soybeans; chain-feeder technology
- Flicker-free LED advanced lighting systems
- Air quality monitors
- Water systems designed to keep water uncontaminated by preventing dirt, faeces and other pollutants from entering the automatic drinking system
- Innovative waste management methods: manure belt systems in egg production; palletisation of dried manure to further stabilize the material and to reduce dust; black soldier fly (BSF) larvae as an alternative system for manure treatment
- Remote access livestock monitoring
- High care abattoirs dedicated for poultry dressing and processing
- Cold chain third-party logistics (3PL) companies

### *3.2.4 Feeds, Feeding Regime and Local Raw Material; Raw Material Quality*

Most of chicken feeds available are of low quality and lacking in nutritional content (energy, protein, mineral and amino acid and crude fibre). Unfortunately, there is no strategy to produce maize and soya beans for feed formulation and there is limited institutional capacity to control the quality of chicken feed produced and processed. The growth of the animal feed industry and hence the poultry industry will largely depend on two key factors: (1) Supply of Day-old chicks and (2) Supply of maize and soya beans.

Soybean is an alternative source of protein for animal feeds. Soybean has not been a priority crop in Tanzania for a long time; hence soya meal inclusion in livestock feeds has depended on soybean meal imported from India, Zambia and Uganda. The use of soybean produced locally would create market for the smallholder soybean farmers and increase their income. In addition, the cost of feeds would be reduced enabling poultry farmers to increase their incomes. However, soybean cannot be used raw for feed mill production because they contain anti-trypsin factor. The lack of processing facilities for soybean in Tanzania has hindered the promotion of soy meal, denying soybean farmers of the huge livestock/poultry demand of soybean. The potential demand of soybean for the livestock industry is over 150,000 MT per year. The use of soybean will reduce the cost of poultry production and making poultry products more affordable.

Unlike soybean, maize is widely available in Tanzania because it's a staple food. Over 90 % of production is locally consumed. In 2010 production was 4.7 million MT, increasing to 6 million MT in 2015, an increase of 28%. The National Food Reserve Agency (NFRA) is responsible for maintaining national reserves and address shortages during emergency and has installed capacity of 246,000 MT but operates around 150,000 tons. Prices have been stable for the past five years except in 2015/16 when the prices went up due to a drop in production. Since then the prices have stabilized or dropped due to government-imposed export ban.

Major animal feed manufacturers include: Silverlands, International Tanfeeds, Falcon Feeds, Interchick, Hill Animal Feeds, Energy Animal Feeds, CP, Harsho Feeds, Kijenge Animal Products, Brand Animal Feeds, A and H Feeds, Farmers Centre, Kibo Feeds, Kilitan Animal Feeds, Twiga Animal Feeds, Kerege Animal Feeds, Jadide Animal Feeds, A to Z Animal Feeds and Amadori Feeds. (See Table 5)

Table 5: Profiles of selected large animal feed manufacturers in Tanzania

	<ul style="list-style-type: none"> <li>• Incorporated in 2006</li> <li>• Producing poultry, pigs and dairy feeds</li> <li>• Current production capacity 35MT/day</li> <li>• Have own soybean extruder</li> <li>• Salibaba Pellets Company and Hill Packaging Company are part of Hill Group</li> <li>• Wholesaling and retailing</li> <li>• Imports soybean and soymeal also buys locally from traders and from importers</li> </ul>
 <p>International Tanfeeds Ltd, Morogoro</p>	<ul style="list-style-type: none"> <li>• Incorporated in 2008</li> <li>• Producing poultry, rabbits and pigs (at lesser content dairy meal)</li> <li>• Current production capacity 30MT/day</li> <li>• Have own soybean extruder</li> <li>• Producing pellets animal feeds</li> <li>• Wholesaling and retailing</li> <li>• Buys locally from traders and from importers</li> </ul>
	<ul style="list-style-type: none"> <li>• Started poultry feed meal production in 2014</li> <li>• Current production capacity 40MT/hour; Storage facility 48,000MT</li> <li>• Have own soybean extruder</li> <li>• Wholesale and retailing through own distribution centres and agents</li> <li>• Experience in contract farming with producer organisations in Njombe and Songea with support of CRS SnP project</li> <li>• Buys from importers but also imports soybean and soymeal</li> </ul>
	<ul style="list-style-type: none"> <li>• Operational since 1998</li> <li>• Kilimanjaro Region</li> <li>• Manufacturing and distribution of all types of animal feeds (Mash &amp; Pellets)</li> <li>• Supply of all assorted agro-inputs, all stationary accessories</li> <li>• Production/manufacturing and distribution of packaging material including PP woven bags as well as polyethylene</li> </ul>

### 3.2.5 Diseases and Biosecurity; Mortality; Available Laboratories

The poultry sector in Tanzania is characterized by a high prevalence of disease affecting small-scale producers, particularly Newcastle disease, salmonellosis and Marek's disease. Poor handling practices, poor quality medicines and vaccines, the unreliable cold chain supply of vaccines, poor housing and sanitation conditions, and a lack of qualified staff aggravate this situation.

### 3.2.6 Progressive Farms

Table 6 outlines some of the progressive farms operating in Tanzania.

Table 6: Profiles of some of the progressive poultry farms in Tanzania

<p>AKM Glitters Company Limited</p>	<ul style="list-style-type: none"> <li>• A private limited company founded in 2007 active in producing and selling quality chicks of genetically most appropriate chicken breed for smallholder family chick farms; producing and distributing affordable quality chicken feed; facilitating access to affordable quality veterinary medicines and vaccines; and extending veterinary and extension services to rural smallholder chicken farmers; building the technical and business capacity of rural smallholder chicken farmers through a franchising model.</li> <li>• Vertically integrated company having: Parent Stock Breeder Farm, Poultry Hatchery Plant, Poultry Feed Mill Plant, Outreach Program, Technical Support Unit</li> <li>• Based in Dar es Salaam</li> </ul>
<p>Irvines Tanzania Limited</p>	<ul style="list-style-type: none"> <li>• A private limited company founded in 2007 intends to produce 250,000 broiler chicks per week (Cobb 500 broiler breed chicks from the United States);</li> <li>• US-based Tyson Foods is a partner in the Sh32 billion venture; possibly the 4<sup>th</sup> largest investment in broiler breeding in Africa</li> <li>• Production is set to double to 500,000 chicks a week or two million a month during the second phase of the project implementation</li> <li>• Based in Siha in Kilimanjaro region; however, the hatchery has been established in Bagamoyo because of its proximity to Dar es Salaam, the largest market for poultry products in the country.</li> </ul>

Organia	<ul style="list-style-type: none"> <li>• Organia, part of Taher Overseas, is a well-established poultry operation that focuses on bio-safety and ethical breeding</li> <li>• A brand-new facility that replaces Kibaha Education Centre with a new breeder and broiler sites, a feed mill, processing and a new hatchery, designed by Pas Reform.</li> <li>• Targets to have a 16% share of Tanzania’s poultry market with the production of 16 million chicks per year by 2021.</li> <li>• Phase 1: capacity of 153,000 eggs per week (10.5 million chickens a year); Phase 2: will be 230,000 per week</li> <li>• Based in Kibaha Pwani region.</li> </ul>
Kingchick	<ul style="list-style-type: none"> <li>• A private limited company that was humbly founded in 2010 initially rearing 200 broilers per cycle</li> <li>• Today Kingchick produces over 130,000 broilers per year</li> <li>• AgDevCo, a social impact agribusiness investor gave Kingchick USD225,000 debt investment in 2017 to support the business to grow its production in the coming years through the modernisation and expansion of its facilities, as well as provide additional support to the governance and management of the business.</li> </ul>
Misenani Agri Services	<ul style="list-style-type: none"> <li>• Private company founded in 2000</li> <li>• Primary objective of commercial broiler production</li> <li>• Chicks imported from Kenya initially, began producing DOC in 2005</li> <li>• Produces layers and broilers using incubators from Italy</li> <li>• 120,000 egg capacity since 2013, modern feeding and watering facilities</li> <li>• Sells to regions around Lake Victoria, central corridor, Shinyanga, Singida, Dodoma, Dar es Salaam, Babati and Arusha; Zanzibar and The Comoros</li> </ul>

### 3.3 Poultry Value Chains

#### 3.3.1 Broiler Value Chain

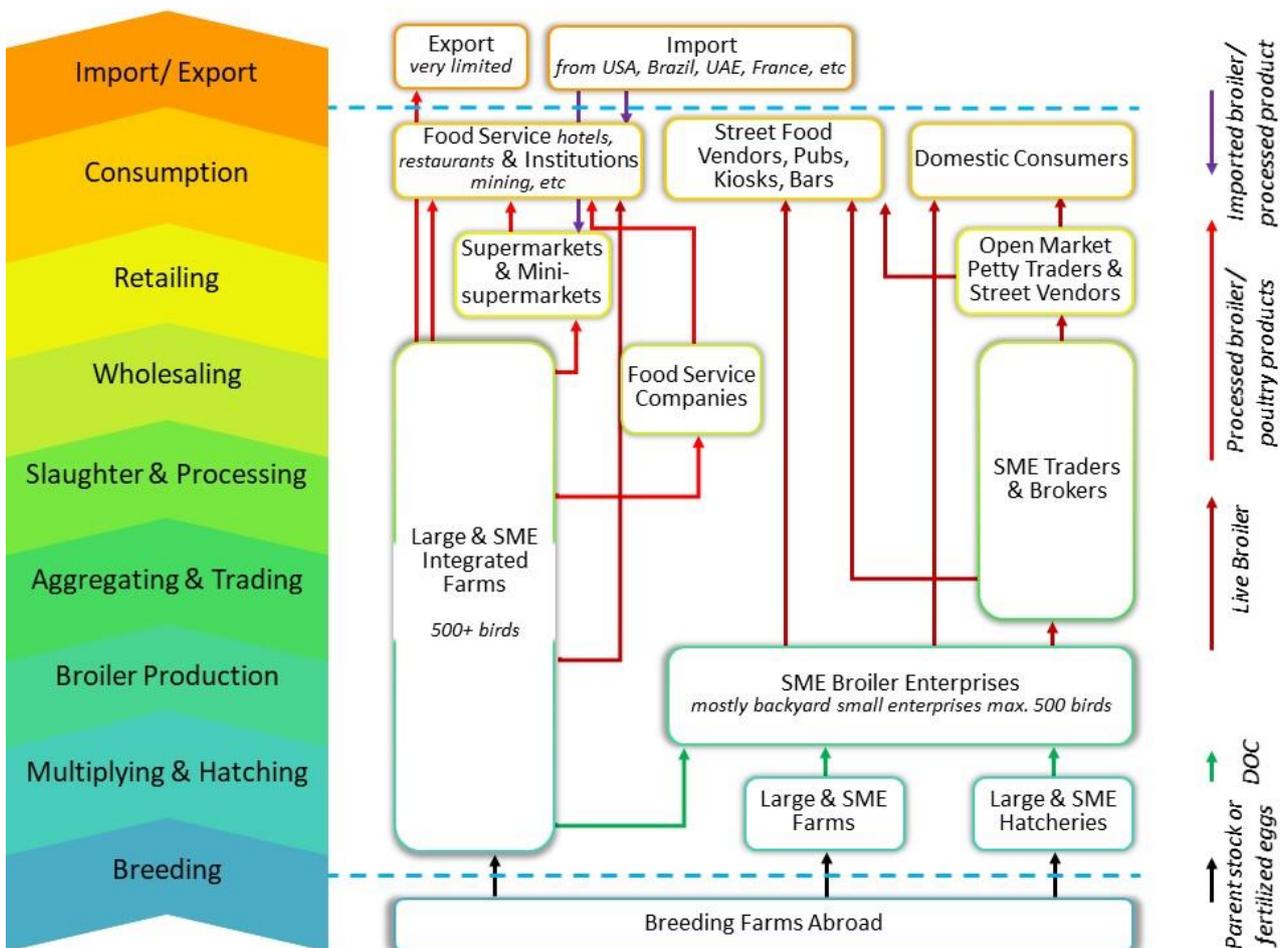


Figure 6: Broiler Value Chain in Tanzania

### 3.3.2 Layer Value Chain

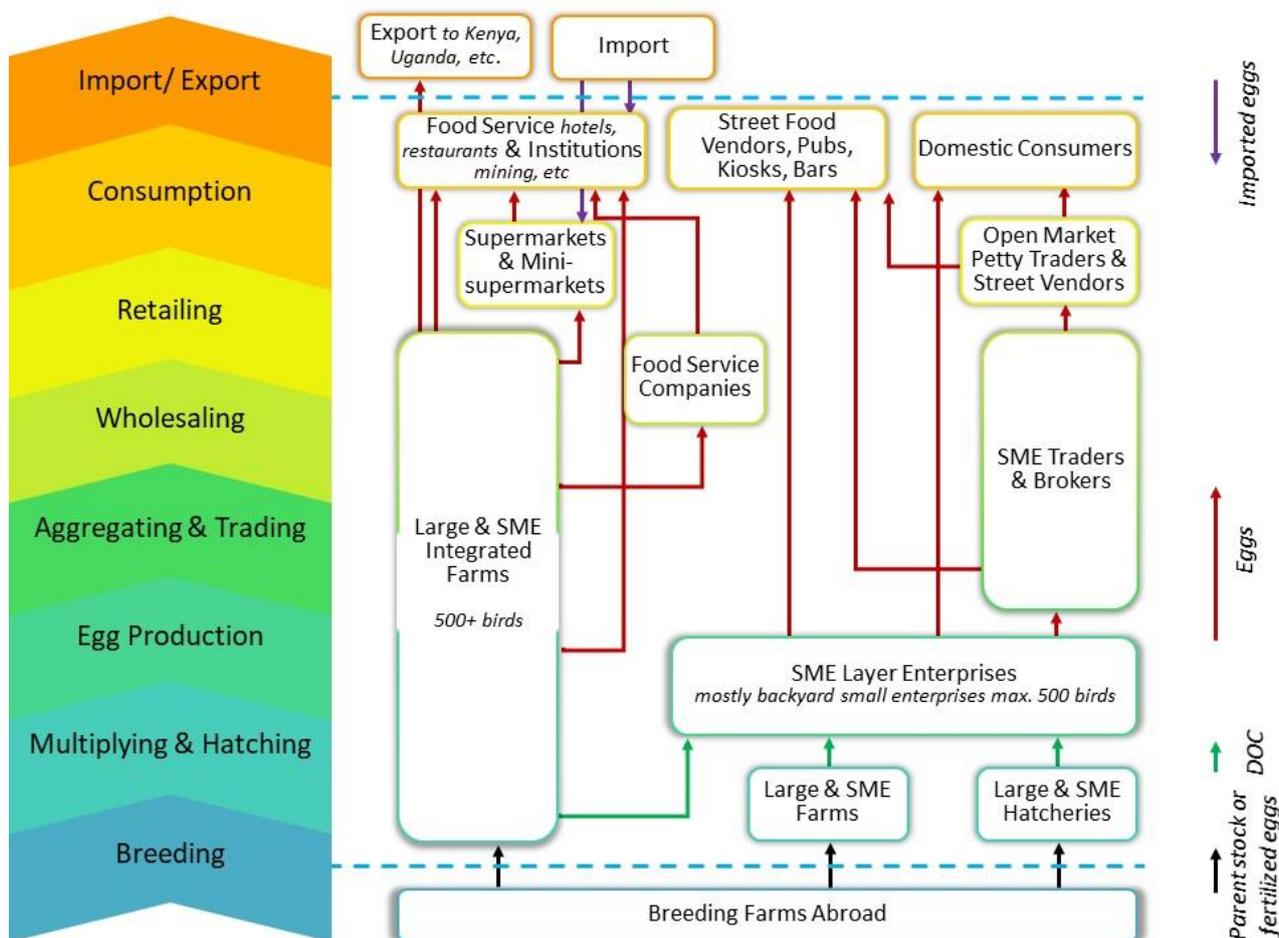


Figure 7: Layer Value Chain in Tanzania

Table 7: Functions and dynamics along the Broiler and Layers Value Chains in Tanzania

	Key dynamics
Breeding	<ul style="list-style-type: none"> <li>Most breeding of broiler is undertaken outside the country</li> <li>Breeding companies and traders import parent stock and/or fertilised eggs</li> <li>Parent stock is imported by air from Europe and US or by road/rail from neighbouring countries</li> </ul>
Multiplying and hatching	<ul style="list-style-type: none"> <li>Small, medium and large poultry farms undertake hatchery and multiplication</li> <li>Most of them import parent stock or fertilised eggs; others produced own parent stock and multiply and sell day-old chicks (DOC)</li> </ul>
	<p><u>Key dynamics</u></p> <ul style="list-style-type: none"> <li>Tanzania imports parent stock and fertilised eggs mainly from the Netherlands, Kenya, France, Zambia, Great Britain, and India. Other countries include the USA, South Africa, and neighbouring countries including Malawi, Mauritius and Uganda</li> <li>Tanzania has imposed an import ban for DOC and there was an occasion where illegally imported DOC were destroyed in the recent past.</li> </ul> <p><u>Key dynamics</u></p> <ul style="list-style-type: none"> <li>Tanzania imports but also export DOC. The main destinations of Tanzania exported DOC are mainly Comoros, Kenya, Rwanda and occasionally Turkey.</li> <li>Most small and medium enterprises use small incubators and have not been able to access modern production technologies and equipment due to limited capital base and access to credit</li> <li>Large farms have biosecurity systems in place; however, most of small and medium producers compromise a lot on biosecurity partly because of ignorance and partly because of unavailability and affordability of technologies and equipment</li> </ul>

Broiler and eggs production Aggregation & Trading	<ul style="list-style-type: none"> <li>There are large commercial farms (500+ birds) and SME farms (less than 500 birds). The large known farms include but are not limited to Interchick, Kuku Poa, Organia, Kingchick, AKM Glitters.</li> </ul>	<u>Key dynamics</u>	<ul style="list-style-type: none"> <li>Supply of DOC is a challenge and there are numerous occasions when the demand is much higher than supply due to ban of importation or undersupply of local multiplication farms</li> <li>Large farms have biosecurity systems in place; however, most of small and medium producers compromise a lot on biosecurity partly because of ignorance and partly because of unavailability and affordability of technologies and equipment</li> <li>There is absence of transport and logistic system for distribution of poultry from farm to retailers and food service. There is no designated third-party logistics (3PL) cold chain to manage hygienic distribution of poultry from farm to fork.</li> </ul>
Slaughtering, dressing, Wholesaling & Retailing	<ul style="list-style-type: none"> <li>Wholesaling in urban market centres is popular for home consumers; otherwise traders and large farms sale directly to food service (hotels, restaurants, pubs, etc.) and institutions</li> <li>Supermarkets and some hotels prefer to buy dressed chicken, and these are supplied mostly by large farms and medium scale producers who are able to undertake slaughtering at public or own slaughter house.</li> </ul>	<u>Key dynamics</u>	<ul style="list-style-type: none"> <li>The processing of chicken is generally very unhygienic even at urban markets designated slaughtering place. Consequently, some hotels prefer to buy from dedicated commercial farms and during scarcity importing processed chicken from abroad.</li> <li>Large farms have own abattoirs and are able to process their products in good hygienic standards.</li> </ul>
Consumption Importing & Exporting	<ul style="list-style-type: none"> <li>Most Tanzanians consume indigenous chicken although low income urban population would consume broiler if the market price is cheaper compared to indigenous chicken</li> <li>Food service and affluent population and foreigners prefer broiler and buy the chicken meat from supermarket</li> </ul>	<u>Key dynamics</u>	<ul style="list-style-type: none"> <li>Due to limited supply of quality poultry products consistently, Tanzania institutional consumers (mining), food service (tourist/safari hotels) and retailers (supermarkets) import processed poultry products from mainly USA, Brazil, the UAE, and Russia. Other countries include France, Turkey, and Poland.</li> <li>Tanzania hardly exports processed poultry products, except eggs which are exported mainly to Kenya, Uganda, Comoros, Ethiopia, DRC and occasionally to Nigeria.</li> </ul>

### 3.4 Distribution and Marketing

#### 3.4.1 Distribution and Marketing Channels

The distribution systems of poultry along the supply chain are quite chaotic and unorganized. Some integrated farms have their own system of transport including trucks, however live birds and eggs are often transported via bicycle or other informal means.

There is unmet demand for quality poultry including indigenous chicken meat in both urban and rural areas as well as in the surrounding countries. Indigenous chicken meat is a niche product preferred by local Tanzanians in comparison to exotic chicken or beef. The current supply estimates don't meet the market demand (MMA – AMDT, 2016). Hence, the country is importing significant volumes of processed chicken products (frozen chicken meat, eggs, hatchery (fertilised) eggs, etc.) primarily from the USA, Brazil, the UAE, and Russia and also from France, Turkey, Poland, and until 2018, China. (see Tables 8 and 9 on the next page). The domestic market for chicken meat and eggs is likely to keep growing, as eating habits especially in urban area are changing and the economy is growing, hence increases in disposable income.



The demand for indigenous chicken in Tanzania has been increasing, leading to an increase in the number of hatcheries for local chicken from 14 in 2011 to 26 in 2015 (MMA – AMDT, 2016).

Table 8: Top countries from which Tanzania imports processed poultry products (2016-2018)

Country	Value of Imported Processed Poultry Products (EURO)
USA	€ 1,768,809
Brazil	€ 212,273
UAE	€ 172,028
Russia	€ 88,980
France	€ 33,931
Turkey	€ 32,477
Poland	€ 12,664
China	€ 11,370
Others	€ 1,314

Source: TRA, September 2018 (\*2018 data through July)

**The Consumer:** Most farmer marketing organizations involve small groups of farmers with weak decision-making platforms and tend to be concentrated in urban areas, particularly Dar es Salaam, failing to cover the rural majority of the country. Commercial producers have more structured marketing system, however, when given a choice, most Tanzanian consumers prefer indigenous poultry meat and eggs because there is belief that exotic chickens are prone to diseases and thus are fed a lot of medicines even days before they are slaughtered for marketing. The affluent and middle-class Tanzanians could afford indigenous poultry; however, low income consumers' choices

are influenced by price and thus they switch between indigenous and exotic based on what is cheaper. The European consumers prefer exotic because of tenderness. Consumption of poultry and poultry products is lower in Tanzania compared to many African countries with average consumption of about 0.7 kg chicken meat per capita in 2010 compared with the world average of 6.8 kg per capita (PASS, 2013). Tanzania's per capita consumption of eggs has been increasing due in part to a growing middle class, mining, and the tourism industry. Egg consumption rose from 75 to 106 eggs per capita from 2014 to 2015 (MMA – AMDT 2016).

Table 9: Import value of processed poultry products (2016-2018)

Year	Import Value of Processed Poultry Products (EURO)
2016	€ 990,588
2017	€ 1,144,374
2018*	€ 198,881

Source: TRA, September 2018 (\*2018 data through July)

An ILRI study established that chicken and egg consumption patterns at household levels are quite low and varied in Tanzania with the highest in the lake zone (4.3 birds per three months per household) and lowest in the southern highlands subnational zones (2.0 birds per three months). Central semi-arid rates second highest in chicken consumption where on average, households

consumed 3.3 birds per three months. The average across the subnational zones is 3.0 birds per three months. Household egg consumption is high in the southern highlands, 19.2 eggs per three months, and low in the lake zone, at 8 eggs per three months. Across the subnational zones, the average egg consumption is 14.6 eggs per three months (Alemayehu *et al.*, 2018)

### 3.4.2 Bottlenecks

**Informality:** The market chain for poultry is largely informal, aside from the small segment that deals with broilers. Regulations are complicated and often unenforced with a general laissez faire attitude at all levels of the chain (FAO SHFS, 2015).

**Lack of Competition:** There is a lack of real competition among buyers. Farmgate prices are similar throughout the country, except in larger urban areas, and sellers seem generally to accept these without too much complaint (FAO SHFS, 2015), although a low market price leads to a lower incentive for chicken keeping at the household level (MMA, 2017).

**Slaughter:** Slaughter of poultry is often uncontrolled. Except for the few facilities owned by the larger integrated enterprises the other marketplaces across cities in Tanzania do not have proper slaughter facilities for poultry, leading to food safety and animal welfare concerns.

**Processed Goods and Preferences:** Processed products are limited in quality and quantity and processing of diversified meat products are aimed only at a small market segment. Potentially valuable by-products (heads, feet, feathers, blood, glands, etc.) are not fully valorised. There is little interest from most domestic customers in terms of quality or value-added products (FAO SHFS, 2015). Moreover, as previously stated, when given a choice, consumers prefer less productive indigenous poultry meat and eggs to more productive exotic products.

**Training/Skills:** Value chain actors throughout the processing and marketing links are often untrained and unskilled (FAO SHFS, 2015). Training offered by academic institutions have entry barrier due to qualifications requirements; and the short (practical) courses offered by public and private training providers are of varied quality and not accredited by either a vocational skills accreditation agency (VETA) or by a technical skills accreditation agency (NACTE)

**Equipment/Technology:** Processing and marketing are done with a lack of (or inadequate) equipment and tools (FAO SHFS, 2015). Despite developments in science and technology in poultry production and processing; there is limited investment in modern technology in the industry in Tanzania.

**Marketing:** Normally, due to their small-scale nature of operation, the traditional indigenous farmer targets only the local markets. Low and intermittent farm production of indigenous chicken leads to limited opportunity for market linkages or ad hoc marketing, and limited organizational capacity leads to inefficient marketing strategies. There is a limited flow of market information especially in rural areas, coupled with limited marketing skills done mainly through traders with limited access to correct information, leads to farmers receiving a comparatively smaller portion of the end market price. Low organizational capacity also leads to a lack of effective bargaining power (MMA, 2017).

### 3.5 Critical Services and On-Going Initiatives

#### 3.5.1 Technical Services

**Vaccinations and Biosecurity:** The smallholder and medium scale poultry producers are exposed to various veterinary medicines related to the common prevalent poultry diseases. Shortage or lack of veterinary personnel and easy access to drug vendors and illegal drugs at cheap prices has encouraged the producers to buy and administer these drugs themselves. The most frequently reported administration of such drugs for poultry are vaccinations for Newcastle disease. Apart from the quality issue associated with unregulated drug vendors and illegal drugs, unprofessional administration of such vaccinations may have negative consequences including high mortality rates and development of pathogenic strains resistant to the respective vaccinations. This is one of the reasons many Tanzanians shy away from consuming broilers because they are more susceptible to diseases than indigenous chicken and consequently producers use various drugs extensively and uncontrollably.

**Genetics:** The importance of native breeds of poultry birds for rural economy in Tanzania is very high, as is the case in most countries in Asia and Africa. They are part of balanced farming system that have vital roles in the rural households as a source of high-quality animal protein and emergency cash income and play a significant role in the sociocultural life of the rural community and woman empowerment. One of the most important positive characters of native chicken is their hardiness. The native breed chickens are the reservoir of genomes and major genes for improvement of high yielding exotic germplasm for tropical adaptability and disease resistance. The low production performance of native breeds of chickens may be improved

through improvement in husbandry practices, better healthcare, and supplementary feeds during lean season and through selection and crossbreeding. There is an ongoing ILRI initiative in partnership with BMGF and others to make available high-producing, farmer-preferred genotypes that increase smallholder chicken productivity. The initiative, African Chicken Genetic Gains (ACGG), started in November 2014 and is data-driven to understand the breeds and specific traits that poor smallholder farmers, especially women, prefer. In Tanzania, ACGG is currently testing five strains: Black Australorp, Koekoek, Kuroiler, Sasso and local strains.

**Breeding:** Section 3.9 of The National Livestock Policy of 2006 acknowledges the role that cross breeding plays to improve the genetic potential and productivity of local breeds. The policy also acknowledges that animal breeding is constrained by inadequate expertise. The policy states that a livestock identification, registration and traceability system is constrained by lack of infrastructure and facilities, insufficient expertise and low awareness on the issue in question amongst the stakeholders.

There is no separate policy on breeding and there is no clear legislation that outlaws breeding. Section 56 and 58 of the Animal Disease Act of 2003, which restricts all activities related to collection, use and sale of embryos and ova, is the closest the government has come to restricting breeding. There are also statements in the 2006 National Livestock Policy and the Livestock Sector Development Strategy of November 2010.

In the absence of the law regulating breeding, the concerns that when breeding is done haphazardly, the local breeds with desirable genetic characteristics may be wiped out and (or) genetic alteration may occur; have remained at best, mere concerns.

To protect the local breeds with desirable genetic characteristics, and also since breeding lacks expertise, cross breeding needs to be guided. Therefore, commercial breeding for a breeder's own use is accepted but a breeder needs to seek permission from the rightful authorities at the Ministry of Livestock and Fisheries Development. Cross breeding chicken to sell to other farmers, as it is currently being done in some hatcheries, is in principal not allowed, but is not illegal either.

### **3.5.2 Logistics and Supply Chain Management**

**Hatcheries:** Production of Day-Old Chicks is carried out in hatcheries most of which are located in Dar es Salaam, Arusha, Iringa, Mbeya, Morogoro, Kilimanjaro and Mwanza (MMA- AMDT 2016). National Poultry Company (NAPOCO), Interchick, Euro Chicks, Silverlands and Kenchick are active large companies involved in the production of DOC in Tanzania. Production of DOC increased from about 61 million in 2013 to 63.1 million in 2014 and is likely to increase as time goes by, due to new investments in poultry breeding farms and hatcheries. Silverlands in Iringa has capacity of around 10,000 DOC per week. Tanzania has been receiving a good number of new investors who are interested in establishing breeding farms and hatcheries. Currently, a major investment is near completion with a capacity to produce 15 million DOCs (broiler and layers) annually.

The demand for indigenous chicken in Tanzania has been increasing, leading to an increase in the number of hatcheries for local chicken from 14 in 2011 to 26 in 2015. Through Research Into Use (RIU), 13 hatcheries and breeder farms for indigenous chicken were established and supported to increase their production capacity from 500 – 2000 chicks per week to 6,500 – 10,000 chicks per week. The current capacity of businesses supported by RIU is 250,000 chicks per week (MMA, 2017).

The Ministry of Livestock and Fisheries Development has registered most of commercial hatcheries in Tanzania to monitor their dangers in transmitting diseases, especially salmonellosis. However, most of SME hatcheries are not registered with the rightful authorities at the Ministry.

There is no specific legislation or regulation for hatcheries. However, hatcheries are regulated under the Animal Disease Act of 2003. According to this regulation, owning hatcheries without registering it is illegal.

Hatcheries must be registered in order for spread of disease through the hatcheries to be controlled. According to section 38 (1) of the act;

*“38. - (1) An Inspector shall have the duty to ensure that, regulations and appropriate measures to limit the spread of disease are applied in hatcheries and artificial insemination centres within his area of jurisdiction”.*

And also section 38 (2) and of the animal disease act states that;

*“(2) No person, group of persons or company may keep or use premises for hatching an egg for sale of a chicken unless the person, group of persons or company holds a license issued by the Minister in respect of the premises for that purpose”*

**Slaughter facilities:** In general, there is a lack of public poultry slaughtering and processing facilities, with available facilities characterized by weak biosafety and hazard analysis critical control point (HACCP) procedures. Most indigenous poultry are slaughtered “informally” or by the consumer for home consumption. The process simply consists of cutting the bird’s throat and holding it (or hanging it) head down for the blood to drain away. A small portion of indigenous birds pass through urban markets and these may be subject to a more formal slaughtering process. (FAO SHFS, 2015)

Birds from the SME poultry farmers (broiler) targeting wholesale markets are usually taken to a central market (though they may also be sold as live birds) in smaller or larger lots at the same market by seller or buyers who bought live birds (e.g. supermarkets or hotels) and slaughtered in a facility provided by the local authority in some urban centres. Such facilities might have been registered with the municipality, the TBS and the TFDA; however, the slaughtering is carried out in primitive and crowded conditions that are conducive neither to animal welfare nor food safety, and consists of cutting the throat, scalding in boiling water, de-feathering, giving a cursory health inspection to some birds, removing the head and feet and dressing roughly. The feathers are taken away for disposal by the municipality; women traders buy the heads and feet for further processing.

More formal slaughtering of poultry is done at those integrated large poultry enterprises which include processing as part of their operations. Birds are first electrically stunned and then have their throats cut. De-feathering is carried out mechanically and birds are inspected for disease and health hazards. Further processing into specialized value-added components is then carried out in an organized line. (FAO SHFS, 2015)

### **3.5.3 Agricultural Finance in Tanzania**

Agricultural finance in Tanzania has traditionally been limited to providing credit to large agricultural producers and processors. Little emphasis has been to small-scale farmers particularly in the provision of credit, insurance and payments facilities. Low returns to economic activity in rural areas, the small-scale nature of activities and the absence of recognized collateral result in insufficient demand to offer incentives to Financial Intermediaries to develop tailor made products for the subsector.

Sources of finance for poultry producers include: (i) self-financing, (ii) informal financing mainly from moneylenders, (iii) village saving and lending groups (VSLGs), village community banks (VICOBA), and SACCOS, (iv) microfinance institutions (MFI), and (v) community & commercial banks and non-bank financial institutions. VSLGs and MFIs are the major source of finance to smallholder and SME poultry farmers. Local commercial banks support SMEs but mostly large poultry farmers and off takers. There are over twenty (20) active commercial banks in Tanzania with varied product range. (<http://www.banks-tanzania.com>)

Microfinance institutions in Tanzania are typically NGOs providing financial services to low-income customers with relatively small transactions, unsecured loans and limited formality. Poultry farmers who access finance through MFIs in most cases have other enterprises or salaried jobs to service the loans VSLGs

are voluntarily formed by target village members after awareness creation by various initiators and become collateral/ pressure groups ranging between 20-30 members. SACCOS could be a useful source of finance, but most are not performing well in Tanzania for various reasons. Other non-bank financial institutions, some of which are highlighted in Table 9, provide funding for SMEs meeting specific criteria.

Table 10: Description of some non-bank financial institutions offering services to poultry and related industries

	<ul style="list-style-type: none"> <li>EFTA offers loans for equipment only, between TZS 20 million and TZS 220 million and thus smallholder, SMEs and large poultry enterprises can access EFTA facilities especially hatcheries. On a select basis, EFTA can offer larger leases for agricultural loans for agri-businesses or farmers with established track records.</li> <li>AgDevCo has invested USD 5 million in EFTA to provide funding for its next expansion phase. AgDevCo's investment is split between equity, to strengthen EFTA's balance sheet and provide core capital, and debt, which is required to provide EFTA's financial leases. AgDevCo will also look to support EFTA's future growth, which will involve raising further debt finance for the business. (<a href="http://www.efta.co.tz">http://www.efta.co.tz</a>)</li> </ul>
	<ul style="list-style-type: none"> <li>AgDevCo is a social impact investor incorporated in the UK. AgDevCo invests patient capital in the form of debt and equity into early-stage agribusinesses in sub-Saharan Africa with financial support from UKAid. AgDevCo's mission is to reduce poverty and improve food security. In 2017 AgDevCo invested USD225, 000 to a Tanzanian owned poultry enterprise Kingchick and a debt of USD 3.0 million into Uzima Chicken Limited, a Rwandan poultry company. The investments provide Kingchick and Uzima with capital to reach a production capacity of 130,000 broilers and 8-10 million chicks a year respectively. (<a href="https://www.agdevco.com">https://www.agdevco.com</a>)</li> </ul>
	<ul style="list-style-type: none"> <li>Africa Enterprise Challenge Fund (AECF) provides catalytic funding in the form of repayable and non-repayable grants to businesses that would not otherwise have access to adequate financing. The AECF is part of the Alliance for Green Revolution in Africa (AGRA) family and has been supported by governments (Australia, Canada, Denmark, the Netherlands, Sweden and United Kingdom), and international financial institutions (Consultative Group to Assist the Poor and IFAD). AECF targets commercial poultry farmers and not smallholder and SMEs farmers. In Tanzania, for example Misenani Agri Services has benefitted from AECF. Misenani Agri Services Limited is focusing on a layer and broiler breeding farm and hatchery that supplies day old chicks, poultry veterinary medicines and vaccines to the local Tanzanian poultry market. (<a href="https://www.aecfafrica.org">https://www.aecfafrica.org</a>)</li> </ul>
	<ul style="list-style-type: none"> <li>Small Enterprise Assistance Funds (SEAF) began in 1989 as the CARE Small Business Assistance Corporation (CARESBC), a single member NGO owned by CARE. Founded in 2015, the SEAF KASI Agriventures Fund ("KASI") is an investment fund, providing debt and equity to growing businesses and producers in the agricultural sector. SEAF supports investees and other emerging business leaders through its Center for Entrepreneurship and Executive Development (CEED). Their programs serve entrepreneurs in the country's agribusiness sector. SEAF is currently focusing on: animal feed producers and distributors; export-oriented fruit, vegetable, and/or spice processors; equipment leasing finance providers; and non-bank financial institutions serving small, growing agribusinesses.</li> <li>Hill Animal Feeds in Dar es Salaam has received support from KASI; and SEAF Global has supported AKM Glitters Company Limited. (<a href="http://www.seaf-kasi.org">http://www.seaf-kasi.org</a>)</li> </ul>
	<ul style="list-style-type: none"> <li>SME Impact Fund (SIF) Tanzania provides loans, skills and knowledge to small and medium-size enterprises (SMEs) in agricultural value chains. By connecting smallholder farmers and agribusiness SMEs, we strengthen links between small rural entrepreneurs and regional, national and export markets. This way we increase sustainable employment, income and develop a value chain that adds value. SIF Tanzania has a number of maize millers in its portfolio, some of which produce animal feeds. (<a href="http://www.smeimpactfund.com">http://www.smeimpactfund.com</a>) SIF is a product of Match Maker Group.</li> </ul>
	<ul style="list-style-type: none"> <li>EA AgroFund is an Outsourced Corporate VC Fund that helps Agro corporate firms find and invest in agricultural value chain for their corporate strategy alignment.</li> <li>EA AgroFund sources and prepares agri deals, and makes them available for its partnering corporate investors, who can invest through EA AgroFund as a fund manager or invest with EA AgroFund as their investment manager, or investment agent.</li> <li>Corporate Agro firms can invest for growth through acquisition, for testing new products or technology, or as a strategic investor for portfolio diversification.</li> <li>The fund facilitates investments from USD 50,000 and above, across the Agro value chain.</li> <li><a href="http://www.eaefund.co.tz/about/">http://www.eaefund.co.tz/about/</a></li> </ul>

The main access barrier to financial assistance comes from stringent terms and conditions, which are essentially commercial in nature and require critical mass of investment in both management and technical competencies, which most local investors miss (MMA, 2017). IMF reported in its January 2017 Fifth Review under the Policy Support Instrument that the “banking sector is well-capitalized, liquid and profitable on average.” On March 6, 2017, the Bank of Tanzania (BoT) decreased the interest rate, which it charges for lending to other banks from 16 percent to 12 percent to increase access to credit for the private sector. Private sector companies have access to a variety of commercial credit instruments including documentary credits (letters of credit), overdrafts, term loans, and guarantees.

### 3.5.4 Emerging Poultry Associations

The formation of strong poultry associations including the apex Poultry Association of Tanzania, and the Tanzania Smallholder Poultry Forum will play a key role in guiding the poultry industry and strengthening the animal feed industry (Lekule, 2018). (see Figure 8)

<b>Poultry Association of Tanzania</b> Nov 2017	<b>Tanzania Broiler Farmers Association (TABROFA)</b> 2017 - establish a professional society and promote training, research and quality practice of broiler farming
<b>Tanzania Smallholder Poultry Forum</b>	<b>Tanzania Veterinary Paraprofessionals Association (TAVEPA)</b> associated with the Tanzania Veterinary Association
<b>Tanzania Animal Feed Manufacturers Association (TAFMA)</b> 1990, revived in 2013 - provide a common forum for all animal feed manufacturers in Tanzania	<b>Tanzania Commercial Poultry Association (TCPA)</b>
<b>Tanzania Layer Farmers Association (TALFA)</b> Sept 2017 - platform for the Tanzanian Union Layers Farmers; raise issues, discuss, seek solutions with gov't and stakeholders	<b>Mwanza Multipurpose Cooperative Society Limited (MMPCS)</b>
<b>Ushirika wa Wafugaji Kuku Morogoro (UWAFUKUMO)</b>	<b>Veterinary Input Supplies Association of Tanzania (VISAT)</b>
<b>Umoja wa Wafugaji wa Kuku Dar es Salaam (UFUKUDA)</b>	<b>ACGG Tanzania Smallholder Poultry Forum (ACGG TSPF)</b> May 2018 - support resource mobilization, create awareness about matters affecting smallholder poultry, build partnerships and linkages
<b>African Women in Agribusiness Network Company Ltd (AWAN)</b> 2003 - envisions African women in agribusinesses becoming key players in global trade	<b>Tanzania Poultry Breeders Association (TPBA)</b> - produce high quality poultry products for local & international markets
<b>Arusha Poultry Keepers Association (APOKA)</b> - promote, unite and support all poultry keepers	

Figure 8: Poultry Associations in Tanzania

### 3.5.5 Emerging Poultry Development Projects and Initiatives Promoting Poultry Industry

#### African Chicken Genetic Gains (ACGG)

African Chicken Genetic Gains is an Africa-wide collaboration (Tanzania, Ethiopia, Nigeria) led by the International Livestock Research Institute (ILRI). In November 2014, ILRI and partners initiated this new collaboration to provide better chickens to smallholder farmers in Africa. As part of the wider “LiveGene” initiative, ACGG tests and makes available high producing, farmer-preferred genotypes that increase smallholder chicken productivity in Africa. The program will improve chicken genetics and the delivery of adapted chickens to support poverty reduction, productivity growth, increased household animal protein intake, and the empowerment of women farmers in rural communities. ACGG is data driven

understanding of the breeds and specific traits that poor smallholder farmers, especially women, prefer across the various countries and agro-ecologies; currently testing five strains in Tanzania (Black Australorp, Koekoek, Kuroiler, Sasso, Local strains)

#### Nzua and Msigani Joint Venture

To officially introduce the Kuroiler hybrid chicken into Tanzania to improve income generation and food security for smallholders

#### AKM Glitters Company Limited

Supplies brooder or mother units with a package of Day-Old Chicks; Quality inputs - feed, vaccines, drugs; Training in improved chicken farming; Technical assistance and extension services

### Silverlands Tanzania

Partnered with the World Poultry Foundation to implement the African Poultry Multiplication Initiative programme in Tanzania: through the distribution of Sasso day-old chicks, the company will provide improved genetics to the small-scale rural farmer together with technical assistance and training and offer them access to markets that may not have been possible before. This initiative will increase poultry production and productivity, increase rural household income, improve household nutrition and empower women.

### Delta Veterinary Centre

Registered importer and distributor of veterinary pharmaceuticals and animal healthcare products in Tanzania; five-fold focus: (1) Cold Chain: vaccine delivery infrastructure that can span the country, and still retain effective cold chain; (2) Delivery: prompt delivery, nation-wide; (3) Product: sole distributor of Biovac vaccines; (4) Expertise: longstanding relationships with customers and vets across the country and professional knowledge of how to store and distribute vaccines; (5) Fair/Cost: effective Market Price of vaccines

### VICOBA sustainable development agency

To train community members in Muheza village community bank (VICOBA) concepts; establish VICOBA groups in other parts of Tanzania; monitor and evaluate groups; provide training in necessary skills.

### Development projects

Many NGOs ongoing projects are supporting the development of poultry industry and related animal feed industry including enhancing production of soya

beans (Catholic Relief Services, SAGCOT, EAGC, CARE Tanzania, TMEA, etc.)

### COSTECH

Engaged in research and development for enhancing indigenous poultry production for rural development; enhance veterinary extension services in rural areas of Tanzania

### Soya ni Pesa

Soya ni Pesa (Soybean is Money) project is managed by CRS and financed through a donation from the United States Department of Agriculture (USDA), and Foreign Agricultural Service (FAS) of US\$10.5 million. Purpose: increase the competitiveness of soybean production and processing in Tanzania enhancing agricultural productivity and accelerate the commercialization of soybeans from smallholder farmers to supply the emerging demand for poultry feed. SnP project is active in Njombe, Ruvuma and Morogoro regions. SnP project has a component to promote commercialization of poultry.

<http://soyanipesaprojectintanzania.weebly.com>

### Universities and training institutes

agriculture and livestock training institutes conducting non-degree short courses on poultry - Open University of Tanzania (OUT) offers a certificate and diploma course in Poultry Production and Health in collaboration with Sokoine University of Agriculture (SUA). SUA also conducts a short course on chicken enterprise development in Tanzania: A Value Chain Approach (see link) LITAs and MATIs also offer short courses in poultry production and certificate and diploma in animal science.

<https://www.sua.ac.tz/events/short-course-chicken-enterprise-development-tanzania-value-chain-approach>

## 4. POLICIES AND REGULATIONS INFLUENCING PERFORMANCE OF THE SUBSECTOR

The National Livestock Policy of 2006 guides the development of the livestock industry in Tanzania. The instruments for the implementation of this policy touching poultry industry come from the Livestock Sector Development Strategy of 2010, the Livestock Sector Development Programme of 2011, and various regulatory frameworks with respect to: Veterinary Act, 2003, Animal Diseases Act, 2003, the Meat Industry Act, Animal Welfare Act, Livestock Identification, Registration and Traceability Act and the Grazing-lands and Animal Feed Resources Act. (see Table 11)

In the context of the poultry industry the institutional framework most relevant include the Livestock Sector Development Strategy 2010, Livestock Development Sector Programme 2011, Tanzania Livestock Modernization Initiative 2015 and ambitious Livestock Master Plan (LMP). The LMP stresses that successful poultry interventions would allow the subsector to move to improved family poultry with semi-scavenging crossbreds or pure exotic breeds and for substantial increases in the scale and number of specialized layer and broiler operations.

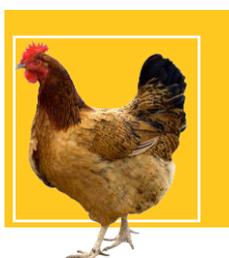
Such a transformation—depending on successful interventions in the areas of breed selection, health services (particularly in treating Newcastle disease), feed, extension, private investment and trade policies — would contribute considerably to: improving food and nutrition security and household incomes; increasing the share of the poultry sector to GDP by 182%, from USD 115 to 323 million; and to closing the production– consumption gap for meat.

Projected annual chicken meat and egg production in Tanzania would rise to 465,600 tonnes and 4.2 billion eggs respectively over the five-year period. This would bring the production-consumption deficit for chicken meat from 130,000 to a surplus of 258,000 tonnes by 2022. The combined interventions would result in increases of 666% and 40% respectively in chicken meat and egg production by 2022.

Table 11: Major legislations and their respective thrust in poultry industry in Tanzania

Tanzania Food, Drugs and Cosmetics Act 2003	<ul style="list-style-type: none"> <li>• Registration of premises</li> <li>• Issuing of wholesale and license.</li> <li>• Issuing of import permit.</li> </ul>
Act No 16 of 2003: The Veterinary Act	<ul style="list-style-type: none"> <li>• Registration of Veterinarians &amp; paraprofessionals</li> <li>• Establishment of Veterinary Council</li> <li>• Registration of Veterinary practice facilities</li> <li>• General principles of veterinary practices and management of complaints</li> </ul>
Act No. 17 of 2003: Animal Diseases Act	<ul style="list-style-type: none"> <li>• Provides provisions for control and prevention of animal diseases</li> <li>• Appointments and administration</li> <li>• Measures for checking livestock diseases and diseases of animals other than livestock</li> <li>• Powers of Inspectors</li> <li>• Disposal of animal carcasses</li> <li>• Compensation</li> </ul>
Act No. 10 of 2006: The Meat Industry Act	<ul style="list-style-type: none"> <li>• Provisions for the restructuring of the Meat Industry</li> <li>• Establishment of the Annual Council</li> <li>• Establishment of the Tanzania Meat Board</li> <li>• Provisions relating to registration of facilities</li> <li>• Offences and penalties</li> </ul>
Act No. 12 of 2010: The Livestock Identification, Registration and Traceability Act	<ul style="list-style-type: none"> <li>• National livestock identification;</li> <li>• Registration and traceability system; and</li> <li>• Livestock recording system</li> </ul>

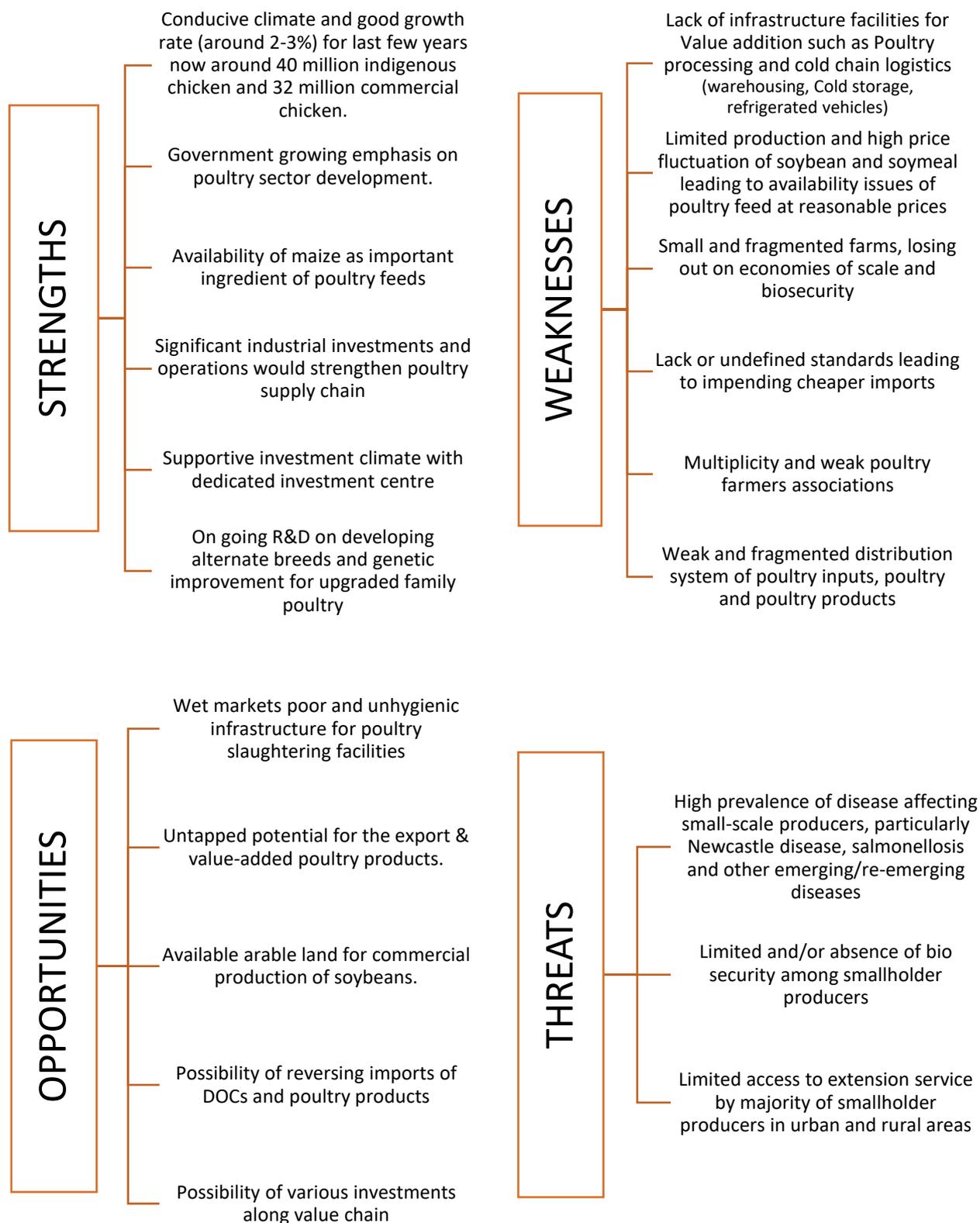
<p>Act No 13 of 2010: Grazing Land and Animal Feed Resources Act</p>	<ul style="list-style-type: none"> <li>• Grazing land development and management</li> <li>• Control, manufacture and composition of animal feed resources</li> <li>• Container, packaging and labelling of animal feed resources</li> <li>• Protection of grazing land</li> <li>• General restrictions of forage seeds</li> </ul>
<p>GN no 38, 39 &amp; 40 of 14/1/2011 Regulations on “The meat Industry”</p>	<ul style="list-style-type: none"> <li>• Regulations on Location, design, construction and operation of livestock markets</li> <li>• Livestock and Carcass Grading</li> <li>• Registration of Meat Industry Stakeholders</li> </ul>
<p>Value Added Tax Act, 2014 &amp; Finance Act, 2018</p>	<ul style="list-style-type: none"> <li>• Imported animal and poultry feeds additives are exempted from VAT from July 2018. Amendments have been made by the Finance Act, 2018 to the Value Added Tax Act, 2014 aiming at reducing the costs incurred by livestock keepers and increase the contribution of the sector to the economy.</li> </ul>
<p>Specific Regulations:</p>	<ul style="list-style-type: none"> <li>• Breeding Farms &amp; Hatcheries; Livestock &amp; Carcass Grading; Feed resources quality - implementation will improve quality of DOCs, quality of poultry meat and quality of feeds.</li> </ul>
<p>Investment Act, 1997;</p> <p><i>The Tanzania Investment Centre (TIC) offers a package of investment benefits and incentives to both domestic and foreign investors. A minimum capital investment of \$500,000 if foreign owned or \$100,000 if locally owned is required. The investment can be invested in a maximum period of 3 years.</i></p>	<ul style="list-style-type: none"> <li>• Access to various services related to permits, licenses and approvals in the TIC One Stop Facilitation Centre.</li> <li>• The recognition of private property and protection against any non-commercial risks. Tanzania is an active member of the World Bank Foreign Investment Insurance wing, MIGA (Multilateral Investment Guarantees Agency) and the International Centre for Settlement of Investment Disputes (ICSID) also a body affiliated to the World Bank</li> <li>• 0% Import Duty on Project Capital Goods, Computers and Computer Accessories, Raw Materials and Replacement Parts for Agriculture, Animal Husbandry and Fishing, Human and Livestock Pharmaceuticals and Medicaments, Motor Vehicle in Completely Knocked down (CKD) form and inputs for Manufacturing Pharmaceutical Products.</li> <li>• 10% - Import Duty for Semi-processed/semi-finished goods.</li> <li>• Introduction of pay and refund scheme for excise duty paid on fuel purchased by eligible companies.</li> <li>• 100% capital expenditure to Mining &amp; Agricultural sectors.</li> <li>• The Income Tax Laws allows 50% Capital allowances in the first year of use for Plant and Machinery used in manufacturing processes and fixed in a factory, fish farming; or providing services to tourists and in a hotel Thereafter, wear and tear rates apply to the remainder as below:</li> <li>• VAT Deferment granted on project capital goods such as Plant &amp; Machinery. However, the person has to carry on an economic activity, keep proper VAT records and file returns, have no Tax outstanding, and VAT payable in respect of each unit of the Capital goods is twenty million Shillings or above.</li> </ul>



## 5. RECOMMENDATIONS

### 5.1 SWOT Analysis of the Poultry Subsector

Table 12: SWOT analysis including meat and eggs



## 5.2 Tanzania Investment Centre (TIC)

The investment priorities highlighted in Section 4 should be pursued in close coordination of Tanzania Investment Centre (TIC) building on incentives that are offered to investors<sup>5</sup>.

## 5.3 Emerging Investment Opportunities in the Poultry Subsector in Tanzania

There are several prospective areas for investments that are emerging from this quick scan and are narrated further in Table 13. These would require further in-depth development with potential investors.

Table 13: Key areas for investment in the poultry sector of Tanzania

Investment Area	Description	Priority
Animal Feed	• Animal feed technologies (pelleting technologies, extrusion of soybeans, other efficient feed processing technologies)	HIGH
	• Warehousing and grain silos management	HIGH
Breeder Farms	• Breeding – crossbreed chicken • Building on the on-going R&D by ACGG • Producing parent and grandparent stock	MEDIUM
Hatchery Farms	• Importing parent stock, grandparent stock, and at times fertilised eggs • Producing and distributing day-old chicks (DOCs)	MEDIUM
Integrated Poultry Farms (including, hatchery, production & processing)	• Importing parent stock, grandparent stock, and fertilised eggs • Producing and distribution of day-old chicks (DOCs) • Production of broilers and layers • Processing of poultry products • Distribution of poultry products	MEDIUM
Third-Party logistics (3PL) cold chain	• Cold transportation and storage along the poultry food chain • This may include a high care food grade processing facility • Transportation management and trucking software	HIGH
Processing facility	• High care slaughterhouse designated for poultry • This should include cold storage facility	HIGH
Supply of poultry equipment and technologies	• Farm infrastructure including automated feeding and innovative waste management • Animal feed processing technologies and equipment • Transportation and storing equipment	HIGH

## 5.4 Capacity Building Priority Areas

**Advocacy:** The formation of strong poultry associations including the apex Poultry Association of Tanzania, the Tanzania Smallholder Poultry Forum will play a key role in guiding the poultry industry and hence strengthening the animal feed industry.

*Strategies to build capacity in this area could include:*

- Liaise with key sector players MLFD, MIT, ACT, TPSF and TMB
- Build on other poultry forum such as ACGG National Chicken Genetic Gains Innovative Platform
- Consolidate fragmented poultry sector organisations including animal feed sector associations

**Governance:** Creating more conducive environment for more private investment in both breeding farms and animal feed companies by having consistency policies. There are conflicting roles of institutions and gaps in value chain governance (e.g. the role of TFDA and the Veterinary Council of Tanzania (VCT) in regulating veterinary drugs, the role of the meat board restricted to only meat and not eggs). Such conflicting roles or

<sup>5</sup> <http://www.tic.co.tz/selectedincentives>

undefined boundaries of institutions have left gaps and lack of clarity on the role of actors should play, consequently leading to poorly governed value chains and resulting poor performance.

*Strategies to build capacity in this area could include:*

- Liaise with key sector players MLFD, MIT, ACT, TPSF and TMB
- Liaise with TIC and TRA through TIC One Stop Facilitation Centre

**Biosecurity:** Development of a practical guide as a tool intended for those working directly with the commercial poultry industry, including poultry farmers, technicians and other key stakeholders in the poultry-farming sector. The objective is to provide a practical plan on how to establish a barrier to prevent entry of diseases onto a farm. It cannot be denied that in areas where biosecurity is an integral part of daily operations, diseases challenges are much lower, and when the rare challenges occur, the diseases are quickly eliminated.

*Areas to build capacity in biosecurity could include:*

- Farm management – quality control, quality feeds, etc.
- Record keeping
- Availability and affordability of veterinary services
- Build on on-going R&D that enhances biosecurity

## 5.5 Investment Risk Analysis and Management

### 5.5.1 Identification of Key Risks

The poultry sector in Tanzania is emerging but still quite underdeveloped compared to other countries in the region (Kenya, Ethiopia, Malawi and Zambia) due to among other things low capacities of producers to ensure that good hygiene practices are in place (biosecurity) and the low effectiveness of the extension system (by public & private sector), and periodic market failures determines to a large extent, the risks that ought to be monitored for the success of any investment in this sector. Risks and mitigation strategies are discussed in the next section.

### 5.5.2 Risk Analysis and Management

Table 14 gives mitigation strategies for risks in investing in the Tanzanian poultry sector.

*Table 14: Risk analysis and management – investments in poultry and related value chains Tanzania*

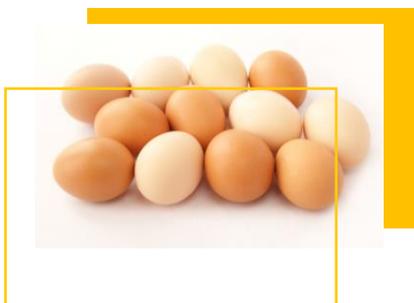
<i>Risk</i>	<i>Level</i>	<i>Mitigation Strategy</i>
Limited Quality Breeds	MEDIUM	There are tendencies of inbreeding and poor breeding management among smallholder farmers and this has contributed to low productivity and production. The other fact is that usually breeding stock is inadequate. Investors in the poultry production farms need to source parent stock or fertilised eggs abroad or invest in production of in-house parent stock and breeding farms because there is limited local supply of fertilised eggs and DOCs of good breeds. There is also need to work with R&D initiatives such as ACGG to see how to commercialise breeding and multiplication of genetic gains birds.
Diseases outbreak (Newcastle disease for local chicken, etc.) and biosecurity	HIGH	There could be a high potential risk for these diseases to occur. If it occurs, the investment made will be all in vain. The investor should work closely with the public and private extension systems to put biosecurity monitoring mechanism and control system (early warning) in place to mitigate potential undesirable impact. Ministry of Livestock and Fisheries Development

<p>Limited financial institutions interested in investments in the poultry sector in Tanzania</p>	<p>MEDIUM</p>	<p>experience with routine vaccination has been instrumental in controlling outbreak but resources are limited to reach all smallholder producers.</p> <p>There is limited tailored financial support designed for value chain primary actors especially inputs suppliers, feed millers, hatcheries and off takers in poultry value chains. There are; however, emerging innovative financial service providers including AgDevCo, AECE, SIF, EFTA, KASI Agriventures and commercial banks that will tailor made their products and provide instruments such as matching grants, guarantee scheme, hire purchase, etc. Dutch investors could also access financial services in the Netherlands such as the Dutch Good Growth Fund (DGGF) that provides finance for SME entrepreneurs who want to invest in emerging markets and developing countries. Dutch and international banks are active in financing Dutch DFIs.</p>
<p>Competition from beef and indigenous chicken (buyers switching)</p>	<p>MEDIUM</p>	<p>By enhancing animal production and health management to reduce production cost will minimize this risk. Use of modern production and processing technologies will reduce the production costs. Tanzania is currently net importer of animal feed inputs and additives, fertilised eggs, parent stock and processed poultry products. These trends indicate that there is still demand for poultry products in the country. There is also a huge regional market in East and Southern Africa</p>
<p>The investors cannot influence policy direction on regulatory frameworks, taxes, etc.</p>	<p>HIGH</p>	<p>There could be a risk that the investor alone is unable to make significant influence on policy direction especially on the policy changes, tariffs and non-tariff barriers. Nevertheless, Tanzania Investment Centre (TIC) is supportive to give guidance and direction and access to various services related to permits, licenses and approvals in the TIC One Stop Facilitation Centre. Once an investor is registered by TIC and has TIC Certificate of Incentives; the investor can enjoy numerous benefits that are stipulated in the Tanzania Investment Act of 1997 mentioned in section 3.6 above.</p>

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## 7. ANNEXES

### 7.1 Annex 1: Key Active Players

SNO	Organisation	Contact + Designation	E-Mail	Telephone Number
1	African Chicken Genetic Gains (ACGG)	Data Administrator		+255 784 695 028
2	AKM Glitters Co Ltd Dar es Salaam	Elizabeth Christopher Swai, Managing Dir	detaurwa@gmail.com	+255 783 833 335 +255 754 347 442
3	AKO Catering Dar es Salaam	Roger –Director Commercial	rstringer@sfgroup.co.tz	+255 762 498 770
4	Animal Care Poultry Farm- Breeder Flock	GM	P.o Box 55010, DSM	+255 713 276 240
5	Delta Veterinary Centre			+255 754 360 104
6	Euro Poultry Ltd	GM	europoultry@hotmail.com	+255 782 225 724 +255 782 925 724
7	Frostan	Luc Battel -Director	lbattel@cibus.be	+255 688 637 696
8	Hill Animal Feed Co Ltd Dar es Salaam	Hillary Shoo, Managing Director	info@hillgroup.go.tz	+255 784 617 565 +255 732 921 249 +255 784 617 564
9	Interchick Co. Ltd (Kenchick)	Manager		+255 222 627 160
10	International Tanfeeds Co Ltd Morogoro	Prof Faustine P. Lekule, Managing Director	lekulefp@yahoo.com	+255 754 690 023
11	Irvine Chicken (Tyson)	Pietro Stella, Managing Director	sales@irvines.co.tz	
12	Kana Hatcheries	Manager	-	+255 656 237 538
13	Kuku Poa	Manager		+255 683 943 030
14	Mkuza Farm		maxi@intafrica.com	+255 784 442 240
15	Msigani Poultry Farm Hatchery	Manager	mavura56@hotmail.com	+255 784 646 381
16	NAPOCO			+255 27 250 8366
17	Nzua Enterprises Ltd Dar es Salaam		nzuaenterprises@gmail.com	+255 712 705 839
18	Organia (Egyptian owned breeding farm)	Manager	info@taheroverseas.com	
19	Silverlands	Sean Johnson	sean@silverlandstanzania.com	+255 766 047 715
20	Tanzania Poultry Farm	Manager		+255 27 255 3812
21	Twiga Animal Feeds		info@twiga-chem.com	
22	Wilsa Poultry Farm	Manager		+255 784 763 933

*Additional Feed Manufacturers:* Falcon Feeds, Energy Animal Feeds, Harsho Feeds, Kijenge Animal Products, Brand Animal Feeds, A and H Feeds, Farmers Centre, Kibo Feeds, Kilitan Animal Feeds, Kerege Animal Feeds, Jadide Animal Feeds, A to Z Animal Feeds and Amadori Feeds

### 7.2 Annex 2: Public Sector Partners

SNO	Organisation	Contact + Designation	E-Mail	Telephone Number
1	Ministry of Livestock and Fisheries Development	Permanent Secretary	<a href="mailto:ps@mifugo.go.tz">ps@mifugo.go.tz</a>	-
2	SUA Sokoine University of Agriculture	SUA-ACGG		+255 784 521 628
3	Southern Agriculture Growth Corridor of Tanzania	Geoffrey Kirenga	geoffrey.kirenga@sagcot.com	
4	Tanzania Investment Centre (TIC)	John Mathew Mnali, Dir of Investment Promotion	<a href="mailto:john.mnali@tic.go.tz">john.mnali@tic.go.tz</a>	+255 222 116 328 +255 754 858 854

### 7.3 Annex 3: Acronyms

3PL	Third-party logistics	SnP	Soya ni Pesa Project
ACGG	The African Chicken Genetic Gains	SUA	Sokoine University of Agriculture
AECF	Africa Enterprise Challenge Fund	TABROFA	Tanzania Broiler Farmers Association
AfDB	African Development Bank	TAFMA	Tanzania Animal Feed Manufacturers Association
AMDT	The Agriculture Markets Development Trust	TALFA	Tanzania Layer Farmers Association
APOKA	Arusha Poultry Keepers Association	TALIRI	Tanzania Livestock Research Institute
AWAN	African Women in Agribusiness Network Company Ltd	TAVEPA	Tanzania Veterinary Paraprofessionals Association
BSF	Black soldier fly	TBS	Tanzania Bureau of Standards
CD-PIT	Centre for Development of Potato Industry in Tanzania	TCPA	Tanzania Commercial Poultry Association
COSTECH	Tanzania Commission for Science and Technology	TFDA	Tanzania Food and Drugs Authority
CRS	Catholic Relief Services	TFNC	Tanzania Food and Nutrition Centre
DGGF	Dutch Good Growth Fund	TIC	Tanzania Investment Centre
DOCs	Day-Old Chicks	TLMI	Tanzania Livestock Modernization Initiative
EAC	East Africa Community	TMB	Tanzania Meat Board
EAGC	East Africa Grain Council	TMEA	Trade Mark East Africa
EFTA	Equity for Tanzania	TPBA	Tanzania Poultry Breeders Association
EKN	Embassy of the Kingdom of the Netherlands	TSPF	ACGG Tanzania Smallholder Poultry Forum (ACGG)
FAO	Food and Agriculture Organisation of the United Nations	TZS	Tanzania Shilling (1US\$ = c. TZS 2,250)
FDI	Foreign Direct Investment	UAE	United Arab Emirates (includes Dubai)
FDOV	Facility for Sustainable Entrepreneurship and Food Security	UFUKUDA	Umoja wa Wafugaji wa Kuku Dar es Salaam
FDW	Sustainable Water Fund	UNIDO	United Nations Industrial Development Organization
G2G	Government-to-government	UWAFUKUMO	Ushirika wa Wafugaji Kuku Morogoro
GDP	Gross Domestic Product	VCT	Veterinary Council of Tanzania
HACCP	Hazard Analysis Critical Control Point	VETA	Vocational Education and Training Authority
IFAD	International Fund for Agriculture Development of the United Nations	VIC	Veterinary Investigation Centre
ILRI	The International Livestock Research Institute	VICOBA	Village Community Bank
kg	Kilogram (or KG)	VISAT	Veterinary Input Supplies Association of Tanzania
LITA	Livestock Training Agency	VSLG	Village Savings and Lending Group
LMP	Livestock Master Plan (of Tanzania)	WEF	World Economic Forum
MATI	Ministry of Agriculture Training Institutes	WHO	World Health Organisation of the United Nations
MFI	Micro Finance Institution		
MMA	Match Maker Associates Limited		
MMPCS	Mwanza Multipurpose Cooperative Society Limited		
MLFD	Ministry of Livestock and Fisheries Development		
MT	Metric Ton (or mt)		
NBS	National Bureau of Statistics		
NACTE	National Council for Technical Education		
ND	Newcastle Disease		
NFRA	The National Food Reserve Agency		
NFP	the Netherlands Fellowship Programme		
NGO	Non-Governmental Organization		
OECD	The Organisation for Economic Co-operation and Development		
OKP	Dutch Orange Knowledge Programme		
OUT	Open University of Tanzania		
PASS	Private Agricultural Sector Support Trust		
PPP	Public Private Partnership		
RLDC	Rural Livelihood Development Company		
SACCOS	Savings and Credit Cooperative Societies		
SAGCOT	Southern Agricultural Growth Corridor of Tanzania		
SEAF	Small Enterprise Assistance Funds		
SIF	SME Impact Fund		
SME	Small and Medium Enterprises		

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