



**POLICY AND LEGISLATIVE FRAMEWORK ANALYSIS OF
POULTRY BATTERY CAGE FARMING IN TANZANIA.**



Effective Altruism



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Table of Contents

ACKNOWLEDGEMENT	2
Status of poultry farming in Tanzania	4
The policy environment for the poultry in Tanzania.	4
POULTRY HUSBANDRY PRACTICES.....	5
Production, productivity and farming system of poultry in Tanzania.	5
POLICY AND REGULATORY ENVIRONMENT	7
Policies and regulations in the post-independence time frame (After 1961 - 1989) in Tanzania.....	7
Policies and regulations influencing performance of the poultry industry in tanzania to date.....	7
Current policies and regulations 2011 to date	10
Health and biosecurity measures	12
Consumerism gap	13
Conclusion.....	13



Status of poultry farming in Tanzania

Chicken production is an important source of animal source food and income for rural subsistence producers in Tanzania. It also offers well remunerated opportunities for commercial chicken production enterprises. In terms of livestock ownership, chicken is dominant in Tanzania. It is reported that 86% of livestock-keeping households in Tanzania own chickens. Of the 4.6 million livestock-keeping households, 48% keep chickens. These statistics demonstrate the central importance of promoting poultry meat and egg production to poverty reduction and nutrition improvement in Tanzania.

In Tanzania, there are three major poultry production systems: - traditional indigenous, improved family chicken and commercial specialized chicken systems. 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. 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. 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).

The traditional indigenous system supports the largest proportion of the national flock. The supply of indigenous chickens meets more than 70% of demand for chicken meat and egg production in rural areas and 20% in urban areas. Low-yielding genetic composition, poor animal health services and feed shortages are the major obstacles to improving the productivity of the traditional poultry production system, the largest source of the country's egg and chicken meat production upon which millions depend for their livelihoods.

The policy environment for the poultry in Tanzania.

In Tanzania, the government is trying to protect the infant domestic poultry industry through the enhancement of local production and banning of importation of poultry and poultry products. Tanzania has several policies for the poultry sector that regulates the input and veterinary sector. However, implementation remains inadequate. There is potential for growth of the indigenous



and dual-purpose breeds because they are highly preferred by consumers especially in urban areas in Tanzania compared to broilers and layers.

In Tanzania, livestock keeping is one of the most important means of improving livelihoods. Livestock Sector Analysis (LSA) shows that 50% of all Tanzanians household keep livestock which is about 4.6 million households and according to Tanzania Livestock Modernization Initiative (TLMI 2015), 62% are rural and 23% urban, with ownership pattern dominated by chickens 86%, goats 48%, cattle 35%, pigs 9% and other livestock 10%.

The poultry sector is still at infancy stage both in the commercial and traditional subsectors. However, poultry farming does play a pivotal role in both urban and rural settings in terms of food security, source of income, manure and meeting social obligations such as dowry and rituals. The growth of the poultry sector is steady. Indigenous chickens are mainly raised by rural dwellers and contribute to almost 100% of poultry meat and 20% of eggs consumed in the rural and urban areas respectively, while layers and broilers are raised by urban dwellers. The commercial poultry industry includes the breeder farms, hatcheries, poultry farms (layers and broiler farms), traders and processors. Poultry as a source of protein has a competitive advantage over other livestock such as cattle, goat, sheep, and pig due to the fact that it can be produced in large quantities within minimum space and time. As eating habits are changing from red meat to white meat and the economy is growing, disposable income is increasing and the demand for poultry products is likely to keep increasing. Growth of the middle-income class, rapid urbanization, and an increase in disposable income has increased the demand for animal-based protein including poultry and its products. Previous studies such as Kusi *et al.* (2015), Mottet and Tempio (2017) report a fast-growing trend in production, demand, and trade of poultry and poultry products in the last decade. However, although demand for poultry meat has been growing in Tanzania, domestic supply is still low largely due to institutional constraints (Amanor-Boadu *et al.*, 2016; Ringo and Mwenda, 2018). Tanzania has embraced an approach of enhancing and protecting the domestic poultry industry by limiting poultry meat and eggs imports from infiltrating the economy (BFAP and SUA, 2018).

POULTRY HUSBANDRY PRACTICES

Production, productivity and farming system of poultry in Tanzania.



The current (2018/2019) population of chickens is estimated at 79.1 million, of which 38.5 million are indigenous (backyard chicken) and the remaining 40.6 million are commercial poultry (Budget Speech, 2019). Among the existing 4.6 million livestock households in Tanzania, 3.7 million households keep chicken. Furthermore, the poultry industry has a potential to employ a large number of people, especially the youth who are currently facing unemployment.

There are three major poultry production systems; traditional/indigenous, improved family chicken and commercial specialized chicken systems (LMP, 2015; Da Silva et al., 2017).

1. **The traditional/indigenous family subsystems** an extensive scavenging dual-purpose system, with levels of low egg (50 eggs/ year) and meat (1.5 kg for mature chicken) production. This system supports the largest proportion of the national flock. The supply of indigenous chickens meets more than 70% of demand for chicken meat and egg production in rural areas and 20% in urban areas.
2. **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. Both the traditional indigenous and improved family subsystems are family-orientated. The main indigenous breed subtypes include Kuchi, Kishingo, Sukuma, Kinyafuzi and Kiduchu. 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).
3. **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). 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). 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).

POLICY AND REGULATORY ENVIRONMENT

Policies and regulations in the post-independence time frame (After 1961 - 1989) in Tanzania

Tanzania on the other hand has been implementing a gradual process of trade policy reforms since the mid-1980s leading to a more open trade regime of agricultural products including poultry. The outbreak of Avian Influenza in 2006, attracted government interventions into the sector leading to the banning of importation of poultry and its products into Tanzania to prevent bird flu from entering the country.

POLICIES AND REGULATIONS INFLUENCING PERFORMANCE OF THE POULTRY INDUSTRY IN TANZANIA TO DATE

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.

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.

Tanzania has put in place several policies to regulate the input and veterinary services sector, though the implementation is still not adequate in some cases for example, -



• **Animal Welfare Act, 2008 (No. 19 of 2008);** - The Animal Welfare Act of Tanzania Government recognize both vertebrates and invertebrates as sentient beings as well as enshrining the Five Freedoms in law in the Animal Welfare Act (2008). An Act to provide for the humane treatment of animals, establishment of the Animal Welfare Advisory Council, monitoring and mitigation of animal abuse, promoting awareness on the importance of animal welfare and to provide for other related matters. **The Act state that; -**

(1) A person who keeps a farm animal shall provide appropriate housing, care and attention taking into account the physiological and behavioral needs of the animal.

(2) A person shall not cause any unnecessary pain, suffering or distress to or abandon a farm animal.

(3) The Minister shall prescribe minimum standards for appropriate housing system, animal carriers, and animal transport vehicles on land, sea and air for each category of livestock in accordance with the minimum animal welfare standards.

(4) A person shall not manufacture, keep in stock, sale, deliver, or in any manner, make use of animal housing system, unless such a system is built, maintained and conforms to the prescribed minimum standards for the welfare of an animal.

• **The Tanzania Veterinary Act of 2003** mandates the Veterinary Council of Tanzania to regulate the veterinary profession in the country including procedures to address disciplinary cases related to mismanagement of drugs and vaccines.

• **Tanzania Food, Drugs, and Cosmetics (TFDC) Act, No. 1 of 2003** which establishes the Tanzania Food and Drugs Authority (TFDA) and gives it an exclusive mandate to regulate all matters related to the quality and safety of veterinary drugs, biological, and medical devices.

• **The Industrial and Consumer Chemicals (Management and Control) Act, 2003** mandates the Chief Government Chemist Laboratory Authority (CGCLA) to inspect and certify imported veterinary drugs at the point of entry before they are allowed on the market.

• **The Animal Diseases Act of 2003** gives the Director of Veterinary Services (DVS) the overall mandate of regulating livestock activities to control animal diseases in the country. The Act has set requirements and procedures for inspecting, registering, testing, identifying, licensing and regulating movements of animals and animal products. This is one of the acts that regulate poultry breeding farms and hatcheries in Tanzania.

- **The Tanzania Meat Industry Act of 2006** mandates the Tanzania Meat Board to regulate all stakeholders involved in the business of producing and trading poultry birds and their products including breeding farms and hatcheries. There is an inadequate regulatory framework in hatcheries and breeding farms.
- **The National Livestock Policy (NLP) of 2006** was designed to stimulate the development of the livestock industry to exploit available resources whilst showing due concern for the conservation of the environment. With regards to poultry, the policy objective was to increase the quantity and improve the quality of poultry and its products to satisfy domestic demand, increase export, and promote sustainable poultry production.
- **The Animal Diseases (Hatcheries and Breeding Flocks) Regulations of 2010.** These Regulations were launched following the global outbreak of the H5N1 avian influenza virus to ensure the quality of chicks sold in the market. The regulations require hatcheries to be inspected and registered formally and hatchery owners to have formally written Standard Operating Procedures (SOPs). They also regulate the production and sale of eggs and chicks through registration and inspection of hatcheries and agents that distribute eggs and chicks
- **The Grazing Land and Animal Feed Resources Act of 2010** provides for the management and control of grazing lands, animal feed resources and trade, and other matters related to animal feeding. It regulates feed manufacturers, importers, and distributors. It also sets standards for different feed resources and ensures no substandard feeds are sold in the market. While the law was passed in 2010, its implementation is still poor as the government is still formulating regulations and training inspectors.

Tanzania Food, Drugs and Cosmetics Act 2003	<ul style="list-style-type: none"> • Registration of premises • Issuing of wholesale and license. • Issuing of import permit.
Act No 16 of 2003: The Veterinary Act	<ul style="list-style-type: none"> • Registration of Veterinarians & paraprofessionals • Establishment of Veterinary Council • Registration of Veterinary practice facilities • General principles of veterinary practices and management of complaints



Act No. 17 of 2003: Animal Diseases Act	<ul style="list-style-type: none"> • Provides provisions for control and prevention of animal diseases • Appointments and administration • Measures for checking livestock diseases and diseases of animals other than livestock • Disposal of animal carcasses • Compensation
Act No. 10 of 2006: The Meat Industry Act	<ul style="list-style-type: none"> • Provisions for the restructuring of the Meat Industry • Establishment of the Tanzania Meat Board • Provisions relating to registration of facilities • Offences and penalties
Act No. 12 of 2010: The Livestock Identification, Registration and Traceability Act	<ul style="list-style-type: none"> • National livestock identification; • Registration and traceability system; and • Livestock recording system
Animal Welfare Act, 2008 (No. 19 of 2008).	<ul style="list-style-type: none"> •An Act to provide for the humane treatment of animals, establishment of the Animal Welfare Advisory Council, monitoring and mitigation of
	<ul style="list-style-type: none"> animal abuse, promoting awareness on the importance of animal welfare and to provide for other related matters.

Table: Summary of Major legislations and their respective thrust in poultry industry.

Current policies and regulations 2011 to date

Since 2006, Tanzania has maintained a hardline position on its ban on imports of frozen or fresh chilled chicken and poultry products from all countries. There has also been a ban of poultry meat from neighboring countries including Kenya, Uganda, Rwanda, Burundi, Congo, Zambia, Malawi, and Mozambique since 2016. Additionally, the importation of chicks was banned in 2016 to protect farmers, but because of their acute shortage, fertilized eggs and DOCs (both broiler and layers) have continued to be imported. Due to the differences in the agricultural trade



policies in Tanzania mainland and Zanzibar, there is the importation of poultry meat and poultry products in Zanzibar which illegally infiltrates into the mainland.

Tanzania Livestock Modernization Initiative (TLMI) formulated in 2015 had an objective to transform the traditional livestock subsector into a modern, responsive, sustainable and environmentally friendly engine for rural development and improved national health and nutritional standards. **The TLMI priority areas for supporting the development of the poultry value chain were: -**

- (i) Identify key dual-purpose breeds suitable for Tanzania free-range conditions;
- (ii) Rapidly disseminate improved breeds to meet agreed targets of household and commercial operators;
- (iii) Strengthen stock management capacity;
- (iv) Support concentrated delivery of veterinary and extension services;
- (v) Ensure availability of high quality improved feeds;
- (vi) Facilitate the availability of credit and insurance, and
- (vii) Revise the regulatory framework to facilitate investments in the poultry sector.

The Value Added Tax (VAT) Act, 2014, and Finance Act, 2018 were instituted in Tanzania to exempt imported animal and poultry feeds additives from VAT from July 2018 aiming at reducing the costs incurred by livestock keepers and increase the contribution of the sector to the economy. The government of Tanzania, through the Ministry of Livestock and Fisheries is mandated to regulate all feed manufacturers to ensure there is correct formulation of all the ingredients required in poultry feed.

The Government of Tanzania formulated the import policy in the poultry subsector which relates to the importation of veterinary products, DOCs, poultry meat, eggs, parent stock, equipment, and machinery. The import policy aims at ensuring that the products that are imported are of high quality and free from diseases and health risks. The importation of veterinary drugs and vaccines has been left to the private sector which has increased access and availability of veterinary services to farmers within the poultry value chain.

The Tanzania Livestock Master Plan was launched in 2019 sets out livestock sector investment interventions which will help Tanzania meet its development targets by improving



productivity and total production in the key value chains of poultry, pork, red meat and dairy.

The key policy interventions to develop the poultry sector were;

- 1) Prioritizing poultry investments in genetic improvement by focusing on crossbred and fully exotic chicken, and pure breeds for both family and commercial enterprises,
- 2) Undertaking investments in promotional activities to change tastes and preferences from beef to white meat, especially chicken and
- 3) Improving access to land appropriate for grazing, and land for feed production.

Health and biosecurity measures

Biosecurity refers to procedures used to prevent the introduction and spread of disease-causing organisms in poultry flocks. Because of the concentration in size and location of poultry flocks in current commercial production operations and the inherent disease risks associated with this type of production, it is imperative that poultry producers practice daily biosecurity measures. Developing and practicing daily biosecurity procedures as best management practices on poultry farms will reduce the possibility of introducing infectious diseases such as Avian Influenza and Newcastle Disease as well as many others poultry diseases.

The primary method of spreading disease causing microorganisms between poultry flocks is the use of contaminated equipment or exposure to contaminated clothing and footwear of humans. Infected animals, such as wild birds and rodents, can also be a source of disease for poultry flocks. Disease causing viruses and bacteria can be transported from one flock to another on bird transporting equipment, trucks, tractors and other farm equipment as well as egg flats and cases. Humans and animals are also important ways of transporting disease causing organisms. Disease causing microbes have been found on human's clothes, shoes, skin, and hair. As a result, many hatcheries and breeder facilities utilize shower in and shower out protocols as part of their biosecurity programs.

Protecting poultry flocks from microorganism contamination is an extremely important component of commercial poultry production environment. The introduction of a highly pathogenic, contagious disease organism into poultry flocks could result in serious economic consequences for producers. The effectiveness of a biosecurity program can be optimized by regional participation. While any level of biosecurity is helpful, if all poultry producers in a given area utilize best management programs, the program as a whole will be more effective.



Practicing sound biosecurity procedures every day as part of a best management program will help reduce the possibility of contracting a disease and will reduce the spread of disease.

Consumerism gap

During the survey conducted the study shows that respondent perceptions or consumers perceptions in regard to preferences and personal understanding of the poultry industry is that in overall, consumers moderately agreed poultry producers care about the welfare of the poultry they produce while other consumers were unsure if farmers use humane production practices. Based on the study conducted we came up with a deep insight that the viability of poultry production in the long run centers on consumer demand and the perceptions that drive their purchases. Therefore, to maintain the viability of poultry production in Tanzania, Marketing and communication efforts should be tailored to improve consumer understanding of antibiotic and hormone use in poultry production and the healthiness of conventionally produced poultry. Messaging and marketing should describe the reality of conventional poultry production. It is also important to have an understanding of what drives consumers to be active in the market. As we all know that the theory of reasoned action states human actions is guided by three considerations: -

1. Beliefs about the consequences of an action (behavioral beliefs),
2. Beliefs about the normative expectations of others (normative beliefs), and
3. Beliefs about the presence of factors that may promote or hinder the behavior (control beliefs)

Consumers are also primarily divided into low-involvement and high-involvement groups; meaning, those consumers with a low involvement mindset focus on tangible considerations (e.g. price and visual characteristics), while highly involved consumers consider intangible attributes when making purchases (e.g. safety, health, animal welfare).

Conclusion

Analysis of the legislative framework governing the use of the battery cage system in Tanzania as a means of poultry production has shown that the law does not specifically legalize nor interdict the practice of using or not using battery cage system in poultry production. Their use therefore is neither legal nor illegal. Despite to the fact that the welfare of chickens in cages is



affected by movement restriction, poor bone strength due to lack of exercise, and prevention of key behavioral patterns such as dust bathing and ground scratching. Cages for chickens also have a long history of causing skin and leg conditions that could further compromise welfare, but a lack of controlled studies makes it difficult to draw conclusions about newer cage designs. Cage environments are usually stocked at a higher density than open floor systems, and the limited studies available suggest that caging may lead to increased levels of fear and stress in the birds. Further, birds reared on the floor appear less likely to harbor and shed *Salmonella*, as litter may serve as a seeding agent for competitive exclusion by other microorganisms.

While the welfare of chickens in floor systems is not without concern, the advantages of a cage-free system for broiler chicken production are more total space, greater opportunity for exercise and improved bone health compared to cage production. Birds kept in litter-based systems are able to express more of their natural behavior, including ground scratching and dust bathing.