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Acknowledgment

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Executive Summary

Poultry farming in Kenya has continued to revolutionise as the sector incorporates modern ways of animal husbandry particularly the utilization of battery cage systems. Farmers have been seen to continually incorporate a commercialised approach of farming to meet demand of poultry products for both domestic and commercial purposes and to also cater for food security in Kenya. As it stands, Kenya produces over one million chicks per week and exports 42% of them to its neighbours like Uganda, Tanzania, Ethiopia, and Somalia. This has made poultry farming in Kenya become one of the agricultural businesses in the country that is considered to be profitable. Currently, Kenya has more than 31 million birds of poultry – this accounts for both domestic and commercial poultry farming. However, with increased land fragmentation, farmers have had to be creative with the way they rear poultry – US style industrial animal agriculture has been resulted to with the incorporation of cage systems to enhance productivity.

The sustainable development of the poultry sector can play a key role in achieving the UN sustainable development goals. It can do much to improve the livelihoods of the millions of people who depend on poultry keeping for a living. However, studies have shown that if left unmonitored and unregulated the industry may bring about direct and indirect socio-cultural and economic impacts because of outbreak of diseases – owing to the way in which humans interact with, and handle the production, distribution, processing, and marketing of live poultry and poultry products.

An in-depth analysis of the legislative framework governing the poultry industry in Kenya depicted that battery cage system is neither enacted nor unauthorized. The paucity of such legislation has boosted the utilisation of the caged system among a growing number of small-scale farmers within several counties in the country targeting consumers residing in peri-urban and urban centres. This scarcity has also propelled the importation, acquisition, and supply of the battery cages from outside countries where their ethical use has been questioned and subsequently banned due to raised welfare concerns. Disguised with the prospective of alleviating poverty through job creation and upholding food security among the low-income earners in Kenya, the battery cage system is bound to make a strong foothold with minimal government interference. No contemporary legal instrument oversees the practice providing for consumer rights exploitation and abuse of animal welfare freedoms. The report will give an understanding of how the poultry sector can contribute to delivering the sustainable goals. The report then gives a wholistic analysis of the poultry husbandry practices highlighting their impacts on human health and impact on the environment. It will then analyse the animal welfare laws, all while giving an analytical study that will seek to establish if the current framework is ready to encompass the welfare issues that may come up with the large scale poultry industrial system. The report will conclude by giving the consumerism gaps on poultry production.
1.0 Introduction

The agricultural sector is the backbone of Kenya’s economy and the means of livelihood for most of our rural population. Its continuous sustained growth and transformation offers substantial opportunities for the agricultural development, poverty reduction, food security gains and improved human nutrition - innovation is inevitable. The continuous growth and transformation of the livestock sector offers substantial opportunities for the agricultural development, poverty reduction, food security gains and improved human nutrition - innovation is inevitable. Further, they may contribute to several of other sustainable development goals, and to future food security though maintaining proper husbandry practices.

In 2004, Kenya adopted the Strategy for Revitalizing Agriculture (SRA). It was aimed at guiding the increase of productivity in the various spheres of agriculture including poultry farming. However, the said strategy failed to materialize and see out its objective of six years and was therefore replaced by the Agricultural Sector Development Strategy (ASDS) in 2010. The ASDS was intended to provide a guide for public and private sectors’ efforts in overcoming the outstanding challenges the agricultural sector in Kenya. – it intends to position the agricultural sector as a key driver in achieving the 10 percent annual economic growth rate envisaged under the economic pillar of Vision 2030.

1.1 Status of poultry farming in Kenya (profile)

Poultry farming in Kenya has been on the rise on the last 15 years. It has dramatically changed, moving from traditionally small family farms to a large agricultural industry. To keep up with the increase in demand of poultry products, the industry now produces as much as possible with as little cost as possible. As of 2010, commercialization of poultry farming was introduced and were accepted by commercial farmers in Kenya. This was after the introduction of the Agricultural Sector Development Strategy (ASDS) by the government in a bid to boost the agricultural sector and poultry farming with it. Change was remarkable. As it stands to date, Kenya has an estimated 28 million birds out of which 76 per cent consist of free-ranging indigenous chicken, while 22 per cent are commercial layers and broilers. Other poultry species like duck, turkey, pigeon, ostrich, guinea fowl and quail make up 2.2 per cent and are becoming increasingly important. Annually, the country produces about 20 tonnes of poultry meat worth KES 3.5 billion and 1.3 billion eggs worth KES 9.7 billion.

There are four (4) major commercial hatcheries in Kenya, namely: Kenchic, Sigma, Kenbird, and Muguku. The number of day-old chicks produced by the hatcheries are as shown in the table below:

<table>
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<th>Hatchery</th>
<th>Layers</th>
<th>Broilers</th>
<th>Total</th>
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<tr>
<td>Kenchic (Based in Industrial Area, Kajiado, Kisumu, Athi River)</td>
<td>2,900,000</td>
<td>10,100,000</td>
<td>13,000,000</td>
</tr>
<tr>
<td>Sigma (Based in Nairobi)</td>
<td>300,000</td>
<td>700,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Kenbird (Based in Naivasha)</td>
<td>780,000</td>
<td>312,000</td>
<td>1,092,000</td>
</tr>
<tr>
<td>Muguku (Based in Kikuyu)</td>
<td>384,000</td>
<td>768,000</td>
<td>1,152,000</td>
</tr>
<tr>
<td>Total</td>
<td>4,364,000</td>
<td>11,880,000</td>
<td>16,244,000</td>
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Other hatcheries are Western Kenya Hatcheries based in Webuye; Bixa based in North Coast, Mombasa; and Lake Chick Hatcheries in Kisumu City. The hatcheries have medium-scale hygiene standards. Some of them also keep cattle on their farms and some (e.g. Sigma Supplies) also make feed for sale to the public and for use by their flocks.

Small scale poultry farmers are found in areas like Machakos, Nakuru, Bungoma, Rachuonyo, Makueni, Mwingi, Kilifi and Kitui districts in decreasing order of numbers. The Arid and Semi-Arid Lands districts of Mwingi, Kitui, Machakos, Makueni, Kwale and Kilifi are contiguous and between themselves carry the highest concentration of poultry in Kenya. On the other hand, farmers in Kiambu, Thika, Nairobi, Nakuru, Kisumu and Machakos produce broilers in large numbers. In addition, commercial layer farmers are located in Thika, Kiambu, Maragua, Nakuru, Nairobi and Kilifi. All the high concentrations of commercial layer and broiler farmers are located near provincial urban centres and in the peri-urban areas of the city of Nairobi where access to markets is guaranteed. Nairobi County is the ultimate destination for poultry from the rest of the country – it is also the major entry point for poultry coming into the country and a transit point for poultry destined for neighbouring countries.
Poultry Husbandry Practices

Since fixed costs are high on small farms, it is more difficult to take advantage of the economies of scale which can be beneficial to the poultry farmers. Therefore, the models have moved from a system of small, diversified, independently operated, family farms into a system of large-scale, mechanised, corporately controlled agribusiness. Also, land or free space is becoming a limiting factor, and therefore free-range system of poultry rearing is near obsolete - in urban areas, hardly can a poultry farmer spare open land for rearing chicken, therefore, going intensive proves the worth of keeping the birds in minimum spaces. And so, proponents of animal agriculture have resulted to more economic efficient agricultural system like the Confined Animal Feeding Operations, CAFOs models.

The CAFO model is centred on the ungainly and yet apt use of confined premises with intensive animal feeding operations. The facilities confine thousands of animals – bred for fast growth with low input costs and fed on commercial feeds – in small indoor cages and stalls or crowded sheds and pens.

Indoor Cages (commonly known as Battery Cages)

This is a system whereby poultry is reared in identical rows and columns of cages connected for easy feeding and collection of eggs. The system allows eggs laid to roll out of the cage to a receiving gutter while food receptacles are outside the cage and water supplied with pipes bearing drinking nipples. The outright advantages of the battery cage system includes: high egg production and quality meat – as attributed to the fact that movement of the poultry is minimal hence the poultry energy is conserved and directed to production of eggs; the collection of eggs is within the system and so becomes less labour intensive; and the system has increased hygiene resulting in much lower incidence of diseases in which infectious diseases are spread. Farmers opt for this system as the process of identifying unproductive poultry is easy as it provides the best opportunity for close supervision of individual birds so that capabilities and productiveness are monitored.

However, despite the advantages, the system has disadvantages. They are the system lacks physical and psychological space for the poultry; the poultry lack exercise resulting to higher incidence of metabolic disorders; the system lacks nesting opportunities resulting in severe frustration for many birds each time an egg is laid.

Crowded Sheds and Pens (Also known as Deep Litter)

This is a system where poultry is reared on floors covered with litters like saw dust or wood shavings to make birds feel comfortable. Poultry equipment sets such as feeding and drinking troughs are
then placed in convenient places inside the coop. The main disadvantage of this system is that farmers find it hard to monitor the poultry since the birds move frequently and this could be costly to the farmers. Farmers have also alleged that the due to increased movements, they find it difficult to identify unproductive birds.

In both systems, the chicken is raised in fully automated hatcheries where they endure severe restrictions on their mobility; most have little to no access to natural light or the outdoors; their reproduction is fully controlled; and familial behaviours are drastically curtailed. There is documented decrease in growth and an increase in stress indicators for poultry reared in both systems.

**Such facilities have direct impacts on the poultry, namely:**

1. **Rapid Growth**

   Broiler chicken have been selectively bred for rapid growth to market weight. Ongoing selection for rapid growth is a severe welfare problem as it has resulted in poor bone health, leg disorders including deformities, lameness, and ruptured tendons. Broiler chicken selected for faster growth also suffer from weakened immune system, making them susceptible to a variety of additional diseases.

   Rapidly growing chicken show altered patterns of behaviour – they spend more time lying down than slow-growing birds. This unusually high level of time spent lying down is thought to be related to fast growth and heavy body weight, which in turn leads to breast blisters, hock burn, and painful foot-pad dermatitis.

2. **Lack of Adequate Space**

   Stocking density refers to the number of birds per unit of floor space therefore, indicating the level at which the animals are crowded together in a grow-out house. Lack of adequate space can have negative consequences on the health, behaviour, and physiology of the poultry. It results in thigh sores and scabs, and scratches on the back from birds disturbing and climbing over one another. When birds lie in wet litter, ammonia produced by the decomposed organic material may irritate the skin. Hock and foot-pad dermatitis, lesions on the back of the legs and feet, respectively, which may be superficial or progress into deep ulcers may develop indirectly by deteriorating litter quality.
iii. Artificial Lighting

Although there are a variety of artificial lighting regimes, poultry is commonly reared under nearly continuous lighting. A lighting schedule with 23 hours of light and 1 hour of darkness per 24 hours have been used to hasten growth compared to a more natural photoperiod. Reduced nightly periods of darkness are detrimental, because they limit the opportunity for sleep and rest, causing abnormal eye development, and promote feeding behaviours, further enhancing growth, which can exacerbate problems with leg disorders, sudden death syndrome, higher mortality, and ascites syndrome.

iv. Air Quality

Rapid deterioration of air quality within sheds is another common result of overcrowded confinements. Excrement from tens of thousands of birds accumulates on the floors – failure to clean has been linked to respirable particles in the air in the confinements. Bacteria break down the litter and droppings, causing the air to become polluted with dust, bacteria, fungal spores, and ammonia. Excessive ammonia levels in the litter and air can lead to ocular abnormalities, eye lesions, structural damage to the lungs, skin, and respiratory problems, and even blindness. Ammonia fumes also inhibit the poultry’s sense of smell.

v. Broiler ‘Breeders’

Poultry used for breeding are typically raised on separate sites from those raised for meat. Female breeding birds lay eggs that are collected, incubated, and hatched to supply chicks to the meat production sector. Broiler breeders are confined in large, warehouse-like sheds with littered floors – which contain long rows of nest boxes that facilitate the collection of fertilized, hatching eggs. Unlike the broiler chicken, breeders are kept for one or, if force-molted, two years. Because the time period during which females stop laying can be lengthy, commercial hatching egg producers speed up the molting process by stressing the birds with complete feed withdrawal for 10-14 days, until they lose 25% of their body weight. This process is viewed by producers as “recycling” the flock. This is the most problematic welfare issue as severe feed restriction results in health and reproductive problems.
vi. **Transportation**

When the poultry has reached the market weight, they are caught and crated for transport to slaughter. Birds experience fear, stress, and due to skeletal defects associated with leg problems, which results in pain during the process. Catching and crating the birds as quickly as possible with the minimum effort possibly becomes the major focus – careful handling becomes secondary.

Once the crates are loaded onto trucks, the chicken are transported to the slaughter plants. Transport causes further stress for the birds, as they experience noise, vibration, motion, overcrowding, feed and water depravation, social disruption, and potential temperature extremes. Some chickens do not survive the trip – some die *en route* from infectious disease, heart and circulatory disorders and trauma experienced during catching and crating.

**Health, Biosecurity Measures**

Whether you raise poultry in confinement housing or outdoor pens, a low-stress environment should be maintained by providing good nutrition and health care, adequate space, shelter from extreme weather conditions, and care in handling - the risk of disease in poultry is real. However, the risks are exacerbated by the large-scale poultry industrial system - although not typically recognised, the system generates a unique ecosystem environment that may facilitate the evolution of zoonotic pathogens and their transmission to human population. As the large-scale poultry industrial system increases, potential impacts on human and environmental health from long term inadvertent exposure to the increased wastes and to contaminants that may be present in the system. Studies surrounding the impact of large-scale industrial systems show that contaminants from the industry include veterinary pharmaceuticals, pathogens, naturally excreted hormones among other wastes – bearing in mind that antibiotics are used extensively not only to treat or prevent microbial infections, but also commonly used to promote more rapid growth.

The slaughtering process is the terminal stage for the marketing of poultry and breaches in biosecurity are likely to happen here most often. These breaks in biosecurity will need special attention in view of the threat of an avian influenza disease outbreak.
Consumerism Gap

Poultry production holds an important place in Kenya economically and as a food source. Therefore, its viability ultimately hinges on consumer demands and perceptions of poultry production. Consumers expect good quality products derived from healthy animals raised in a healthy environment – to be natural, fresh testing and nutritious. Recognition and adaptation to consumer opinion will assist poultry production viability.

The main concerns by consumers are:

i. Safety of the Poultry Products

Consumers have three main concerns about the safety of poultry products, i.e. antibiotic residues which are as a result of excessive use of microbials in veterinary practice or as a supplement in ready-produced feed; hormone residues used to achieve growth rates and production qualities of poultry; and food borne pathogens easily spread during the trade and processing of the poultry production – spread is facilitated by industrialization and the growing trade in animal feed, live animals and food. The safety issues continue to intensify with the increased use of antibiotics and the increased scale of poultry production.

The issues imply a lack of proper management practices on the part of the producer. Therefore, there is need for government to establish mechanisms to put pressure on the producer to supply safe products. The role of the government is to act as a check and balance and ensure, though administrative and regulatory methods, that consumers are not exposed to unsafe poultry products. All stakeholders need to understand their responsibilities and voluntarily incorporate safe and acceptable practices.

ii. Access to Information

Access to information is an important aspect of poultry farming and production as the public prefers if they are made aware of the production systems that were used in the rearing of the poultry – they would wish to be informed if the poultry was reared in a free range system, or if the poultry was injected with hormones. And so, agricultural literacy is paramount and forms the basis of relationship between producers and consumers. The more the information or knowledge is withheld by producers, the more the consumer feels left out. Therefore, there is need for increased funding which will be used to conduct consumer education though print and electronic media.

Most consumers equate appearance as the primary indicator of quality. Therefore, consumers would prefer if all the information is ascribed on the package material of the poultry products. This would enable them to make informed decision on the products that they will purchase.

iii. Proper Regulation of the Poultry Production Systems

Consumers believe that government intervention is required in poultry farming. Especially with the introduction of the various antibiotics, they believe that if government puts in place mandatory stringent regulations on the introduction and use of antibiotics, both organically and conventionally produced poultry will possess similar level of health for the consumer.
Current Legislative Framework and its Effect on Poultry

Legislative framework on animal agricultural practices is anchored on the OIE principles that govern welfare practices. The principles’ main objective is to have a world where the welfare of animals is respected, promoted, and advanced. Despite Kenya expressing support for the OIE principles, it has showed by action the need to uphold animal welfare practices in their legislation. Its blueprint (Vision 2030) identifies the need to comply with the sustainable development goals which has directly been seen to be compatible with working to improve animal welfare – SDG 12 deals with responsible production and consumption. Showing the relationships between animal welfare and the sustainable development goals helps highlight the importance of animal welfare when implementing these goals in practice.

As the poultry industry in Kenya is developing and integrating new technology and new ways of doing things, there is need for Kenya to incorporate legislative frameworks that take a precautionary approach – in that the policies will seek to cushion all the risks that may accrue from the expansion of the industry. The laws should be proactive and not reactive in dealing with the poultry industry.

Global Laws & Policies

i. World Trade Organisation and its Associated Treaties

This regime maybe the most important legal framework regarding animals as it controls the international trade of live animals and animal products such as meat and skins. It legislates on safety measures in food, animal, and plant health. The agreements also accord member states the policy space to regulate the health standard that it deems appropriate for its jurisdiction – members are urged to harmonize such measures by basing them on international codes or standards such as those from the OIE for animal health.

ii. International Air Transport Association Live Animal Regulations

This is the worldwide standard for transporting live animals by commercial airlines whether it is a pet, an animal transported for zoological or agricultural purposes or for any other reason. Its objective is to ensure all animals are transported safely and humanely by air.

Regional Laws & Policies


This is a policy document whose vision is to create an Africa where animals are treated as sentient beings, as a leading continent in implementation of good animal welfare practices for a competitive and sustainable animal resource industry. Its actions are to be led by a framework based not only on animal welfare and human compassion, but also on sustainable livelihoods, communities, value chains for safe and profitable food and nutrition security, and efficient animal traction/utilization. It seeks to use a system approach which will address the full range of animal welfare challenges
including farm animals, working animals, experimental or laboratory animals etc. and deploying a variety of interventions and convening partners from across countries, the continent and the world. The AU-IBAR seeks to be the main driver of animal welfare strategy in Africa through its multi-stakeholder platform (APAW) which is mandated to coordinate and guide the implementation of the Animal welfare strategy for Africa.

**ii. IGAD Regional Animal Welfare Strategy**

The objective of this policy is two-fold; (i) to draw the attention of member states’ policy makers and all animal welfare stakeholders to the key issues and challenges affecting the compliance status of IGAD member states to the OIE animals welfare standards; and (ii) to share key policy recommendations so as to assist and advocate mainstreaming of welfare into all animal production and utilization activities.

**iii. The Treaty for the Establishment of the East African Community**

The treaty provides for cooperation, integration and development of the agriculture and food security sector and of the environment. Article 105 directs interventions that include the enactment of a common agricultural policy, the attainment of food sufficiency and the development of early climatologically warning systems. Although the treaty does not have a specific provision advancing the interests of smallholder farmers, overall, it undertakes in the preamble to raise the standards of living of the people through fostering cooperation and integration.

**iv. The East African Community Fourth Development Strategy**

The EAC development strategy provides for the priorities and interventions for the community for all the sectors. Its focus is to design economic integration as a step towards global integration through sustainable use of resources, value addition, trade, and enhanced competitiveness. In agriculture and food security sector, the strategy recognizes inadequate extension services, low productivity and entrepreneurship and limitations in technology adoption and innovation as challenges to be addressed in the sector. To improve the sector, the strategy in the development objective 6 aims at developing the regional competitive and sustainable sectors and prioritizes the promotion of agricultural productivity as well sustainable natural resource management. Additionally, it directs the promotion and protection of indigenous traditional knowledge associated with biological resources and eco-systems as well as the harmonization of biosafety policies on genetically modified organisms in the community.

**Policy Gap: The policy has no special provisions for smallholders and does not integrate elum principles in crop health and livestock practices, farm energy and post-harvest practices.**

**v. The East African Community Agriculture and Rural Development Policy**

This policy is the common agricultural policy provided for in Article 105 of the Treaty for the Establishment of the east African Community. It has the objective of achieving food security in the
Community. The Policy elaborates the strategies of achieving the food security objective which includes increasing output, quality and availability of food and rational agricultural production through promoting complementarities and specialization under sustainable use and management of soil, water, fisheries and forests in order to conserve the environment.

**Policy Gap:** Smallholder interests are not directly addressed and there is no reference to sustainable development, farm energy and organic farming principles.

vi. **The Maputo Declaration on Agriculture and Food Security in Africa**

The Maputo Declaration is a policy that resolves to revitalize the agricultural sector by implementing, as a matter of urgency, the Comprehensive Africa Agriculture Development Programme and flagship projects for agricultural development. It acknowledges the need for Africa to utilize its full potential to increase its food and agricultural production by guaranteeing sustainable food security and ensure economic prosperity for its people.

vii. **The Comprehensive Africa Agriculture Development Programme, CAADP**

The Comprehensive Africa Agriculture Development Programme (CAADP) is the common agricultural policy for Africa provided under Article 6 of the Treaty Establishing the African Economic Community. It aims at increasing agricultural growth rates through extending the area under sustainable land management and reliable water control systems, facilitating market access, increasing food supply, and improving research and extension.

The Kenyan CAADP Compact is implemented through the Agricultural Sector Development Strategy.

**National Policies & Legislations**

Despite the huge role poultry farming plays in the Kenyan economy and a major source of livelihood for many Kenyans, both small scale and large scale, there is no single statute that provides for poultry farming in Kenya as a standalone. Originally, it was provided for under the Crop Production and Livestock Act, but the said statute was repealed by the Crops Act in 2013 when the Act came into force. However, the Crop Act does not expressly cover or cater for poultry farming in Kenya. This then leaves regulation of poultry farming by national policies, strategies, and national institutions with the mandate of implementation the aforementioned. There are, however, bills in parliament that are yet to be made laws: Poultry Development Bill 2012, Animal Health Bill, and Veterinary Public Health Bill. The bills have been drafted based on guiding principles that seek to regulate and promote safe and healthy poultry farming in Kenya in accordance with international standards.

i. **Constitution of Kenya 2010**

The Constitution gives the mandate for animal husbandry, plant, and animal disease control to the County Government. Article 40 of the Constitution of Kenya 2010 provides that every person, either individually or in association, has the right to acquire and own property. Poultry and domestic animals
in general can be regarded as property. This article then protects the farmers’ right to own and rear poultry.

The Constitution also provides for various bill of rights that are accorded to citizens in Kenya. Article 23(4) takes legislative, policy and other measures, including the setting of standards to achieve the progressive realization of guaranteed economic and social rights. Article 46(1)(c) of the Constitution 2010, protection of consumers health, safety and economic rights are guaranteed.

Food security, food safety, and food sufficiency have been at the core of public policy. In this context, Article 43(1) of the Constitution enshrines the right to be free from hunger and to have adequate food of acceptable quality. Its main objective of poultry farming is to provide protection to the rights of the disadvantaged, to the quality of food and to ensure their enjoyment of the range of rights guaranteed under the Constitution.

Other than the Constitution, the following legislations and national strategies have an impact on animal welfare:

ii. Agricultural Sector Development Strategy, ASDS
The Agricultural Sector Development Strategy (ASDS) is the overall national policy document for the sector ministries and all stakeholders in Kenya. The document outlines the characteristics, challenges, opportunities, vision, mission, strategic thrusts, and the various interventions that the ministries will undertake to propel the agricultural sector to the future. As a revision of the Strategy for Revitalizing Agriculture (SRA), the ASDS has incorporated not only the successes but also the lessons learned from the SRA to provide the framework for stimulating, guiding and directing progressive agricultural growth and development in the next 10 years. The document proposes realistic policies and institutional changes that we believe are necessary in contemporary Kenya for creating a vibrant and productive agricultural sector.

Under the ASDS, the agricultural sector is expected to ensure that farmers, producers, processors, and marketers of agricultural produce employ the most contemporary methods and technologies. This will require that all agricultural enterprises be highly productive, commercial in nature and competitive at all levels. The strategy also underscores the need to develop and prudently manage our factors of production such as land, water, inputs, and financial resources so that the cost of production is within international standards.

The strategy guides promotion of poultry productivity.

iii. Penal Code
Section 289 of the Penal Code provides for offences against animals where it criminalizes injury to animals and theft with intention to kill it.

iv. Prevention to Cruelty to Animal Act
The statute’s main objective is to prevent cruelty towards animals by recognizing offences against animals and the applicable penalties for such offences. The offences relate to the care, management, training, and experiments on animals.
The Act also regulates the slaughter of animals by offering the Cabinet Secretary of Agriculture powers to pass regulations on slaughterhouses. Section 8 seeks to address the processing sector of the poultry industry, especially the slaughterhouses. It prohibits cruel slaughtering of poultry. Contravention of the same attracts a penalty of up to 3 months imprisonment or two thousand shillings or both.

It also accords the Minister powers to grant licenses for experiments for research institutes; issue regulations on care of kept animals in animal boarding establishments; and issue regulations on transport by air, road, sea or inland waters of animals. Enforcement of these provisions is done by the police officers or authorized authority as gazetted by the Cabinet Secretary.

v. The Veterinary Surgeons Para-Professionals Act No. 29 of 2011

The Act provides for the registration of both Veterinary surgeons and Veterinary Paraprofessionals by the Veterinary Board established by the Act.

The Act aims to create a veterinary board to regulate the professionals that offer veterinary services that is, in their training, business, practice and employment. The board is accorded powers to issue annual licenses to private veterinary professionals. The Act provides for the establishment of a veterinary directorate to regulate the manufacture, importation, exportation, registration, distribution, prescription and dispensing of veterinary medicines and poisons. The Act provides that the Cabinet Secretary with powers to make regulations for the implementation of the Act, such regulations include those regulating the handling of animals with a view to safeguarding their welfare.

vi. Animal Diseases Act

The Act aims to ensure the prevention and management of animal diseases in the country. It states that for the diseases deemed ‘notifiable’ animal owners ought to notify immediately the nearest administrative officer or inspector on occurrence of such a disease. The inspector then advises on what measures should be taken up to prevent the spread of the diseases. Inspectors are usually veterinary officers. Measures taken may include quarantine and movement control to minimize spread of the disease. Eg. If a bird flu of any kind spreads, the same will be governed by this Act.

However, the Act does not mention or recognize any animal welfare principles or good practices.

vii. The Environmental Management & Coordination Act

Enacted in 1999, it was to foresee and provide legal framework for the protection of the Environment. The Act recognizes animals as part of the natural resources that need to be safeguarded prior to commencement of any development.

With the commercialization and large-scale rearing and production of poultry products, it led to usage of huge production and processing plants. The Act, therefore, offers regulations on disposal of wastes from the production systems and plants. Part IV of the Act provides for Integrated Environmental Impact Assessment for such plants and projects. Before setting up of these projects and factories, as per section 58, they are required to apply for Environmental Impact Assessment License to show that they would not have negative impact on the environment.

Section 72 prohibits disposal of the waste in water bodies, as it has been the case n most processing plants, as it leads to water pollution.
viii. The Pharmacy and Poisons Board Act

This Act was enacted to make better provision for the control of the profession of pharmacy and the trade in drugs and poisons. The Pharmacy and Poison Board is established by the Act and mandated to regulate the practice of pharmacy and the manufacture and trade in drugs and poisons in the country. The Board aims to implement the appropriate regulatory measures to achieve the highest standards of safety, efficacy and quality for all drugs, chemical substances and medical devices, locally manufactured, imported, exported, distributed, sold, or used, to ensure the protection of the consumer as envisaged by the laws regulating drugs in force in Kenya.

The Department of pharmacy within the Ministry of Health procures for drugs through its agency KEMSA. In the case of veterinary pharmaceuticals, the Chief Veterinary Field officer holds all AIEs (authority to incur expenditure) for effective veterinary procurement. Appropriate use of veterinary medicines guarantees animal welfare and animal food safety that are important aspects in local and international trade in animals and animal products. The enforcement of the veterinary pharmaceutical industry is uncoordinated as it is done by multiple agencies; this has led to the misuse of drugs and increased antimicrobial resistance that pose a threat to human and animal health.

ix. The Standards Act

The Act seeks to promote the standardization of the specification of commodities, and to provide for the standardization of commodities and codes of practice. It also establishes the Kenya Bureau of Standards and defines its functions and provides for its management and control. The KEBS regulates imported goods to meet the Kenyan standards as specified in the regulations.

x. The Meat Control Act

The Act aims to enforce standards in the meat industry by regulating slaughterhouses and the importation and exportation of meat products. The Minister of Agriculture specifies standards with the Health Minister on meat products which apply throughout the entire value chain. The Minister is mandated to make regulations on licensing and control of slaughterhouses, on meat transportation and the regulation on the export or import of meat. The Act provides for the penalty for breach of such regulations.

xi. The Kenya Draft Livestock Policy, 2019

The draft policy seeks to regulate the animal resource industry specifically livestock or farm animals. It aims to improve the management of livestock and promote animal health and food access to international markets. The policy seeks to cooperate with county governments in livestock development, through the establishment of an intergovernmental secretariat within the Ministry of Agriculture. The policy it acknowledges that there is low awareness on animal welfare requirements in feeding, housing, transportation and slaughter and animal participation in sports.

The policy statement recommends the national government to create regulations and standards to ensure animal welfare is upheld and enforced. It also recommends the county government to ensure enforcement of animal welfare among communities through awareness and legislation, animal control services including licensing of companion animals, facilities for accommodation care and proper disposal of animal carcasses. The policy also recognizes the need to regulate cross-border disease management by strengthening surveillance on diseases on cross border trade with neighbouring countries. The policy also proposes the review of the numerous legislations governing livestock and
farm animal resources to ensure aspects of devolution are incorporated and the various regulators are restructured where necessary.

**xii. Poultry Development Bill 2012**

This bill was established to provide an institutional framework to guide the development of the poultry industry, and for the control of the importation and exportation of poultry and poultry products.

The bill gives the responsibility of promoting awareness about the health benefits of poultry rearing and consumption to the government. It also provides that the government shall partner with civil society groups to provide training, sensitization, and awareness programs on the health benefits of poultry rearing and consumption. The bill emphasises on the need to have good husbandry practices and gives the government the mandate to promote and encourage both existing and upcoming hatcheries to come up with appropriate breeds that support enhancement of conservation of the genetic pool. It then states that hatcheries will be encouraged to set up the necessary infrastructure with the necessary bio-security measures.

**xiii. Animal Health Bill, 2019**

This Bill intends to provide for prevention, detection, control, and eradication of animal diseases and pests. It intends to promote animal health for sustainable improvement of animal health and veterinary governance.

The bill is to provide efficient control and eventual eradication of animal diseases by establishing measures that ensure that management of any pandemic is done promptly and efficiently. It also seeks to control livestock movement within counties, across counties, and internationally. It provides for simple, reliable, verifiable, affordable, and effective system of animal identification, registration and traceability; improvement of veterinary clinical services; zoological services of relevance; efficient, reliable, and accessible veterinary lab services; animal health insurance; animal census; and efficient and effective veterinary governance in Kenya.

**xiv. Veterinary Public Health Bill**

A Bill of Parliament that seeks to provide for the safety of food of animal origin, to provide for construction and control of slaughterhouses and establishments where food of animal origin is processed, to provide for control of non-food animal products, to provide for marketing and trade in food of animal origin and animal products.

It shall inform the control of safety of all foods of animal origin, including but not limited to control of food-borne infections, infestations, and contaminants, food-borne zoonoses, residues in food and genetically modified organisms in foods of animal origins; construction and control of slaughterhouses; control of animal diseases; construction and maintenance of establishments for processing food of animal origin; control of safety of animal feeds and fodder; and control of the safety and quality of non-food animal products and by-products; and marketing and trade in animal products on matters of safety to consumers thereof.
Conclusion

Analysis of the legislative framework governing the incorporation and utilization of the battery cage system in Kenya as a means of poultry production has revealed that the law does not expressly legalize nor ban the practice. Their use therefore is neither legal nor illegal. A scarcity of laws and the inadequacy of the current ones provides a major gap that results in no scrutinization and regulation whatsoever. As it stands, poultry farmers in the country are at liberty to exercise any production means they deem fit to further boost their produce. This clearly alludes that the cage system is bound to grow exponentially in the future with very minimal supervision. A foreseeable ban similar to the European Union Council Directive 1999/74/EC that was passed by the European Union on minimum standards for keeping egg laying, is at the moment a long-term and ambitious goal for Kenya.

The world has been grappling with the option of coming up with a global agreement or treaty for the protection of the welfare of animals. Animal welfare inadequacies have continually come to light increasing the debates on how to better improve animal standards world over. The poultry industry is in dire need of reform, as their standard practices are simply inhumane. Strategies for change should encompass the whole production process, i.e. from breeding all the way to slaughter. There is need for raising standards on protection and welfare of poultry animals and sanitize the trading system.

In Kenya, the existing legislations have the potential to be effective in raising awareness of the welfare conditions of the poultry at large as encompassed in the OIE animal welfare guiding principles.
Recommendations

1. Legislative Frameworks
   The poultry industry is in dire need of reform – frameworks need to be laid to govern the whole process. Practices need to be re-evaluated considering bird welfare concerns in an effort to reduce pain and suffering and enhance their quality of life.

2. Facilities and Equipment
   There should be guidelines, that incorporate the five freedoms, that provide for the minimum requirements for facilities that farmers use to raise poultry. The farmers should have guidelines that ensure that the facilities have a low-stress environment by providing adequate space, shelter from extreme weather conditions, and care and handling.

   Every facility should adhere to environmental regulations - Before setting up of these systems, environmental conservation measures need to be considered. Matters such as where and how to dispose waste have to be factored in. Failure to adhere to such need to be have their farming projects cancelled.

3. Animals
   The farmers must ensure that their animals are well vaccinated against diseases.

   Farmers should also keep a proper inventory of their animals so that there can be appropriate traceability in case of any outbreak. Also, this helps in the spread of diseases with the facilities.

4. Biosecurity
   It is paramount for veterinary experts, medical experts, farmers, and other stakeholders to come together and agree on the safety of all feeds, vaccines and other chemicals that are used to rear the poultry to ensure health preservation of all their consumers. There is need to provide sanitary guidelines that are to be upheld by farmers to ensure that there is proper handling of poultry in and out of the poultry confinements. They should ensure that the personnel maintain a proper inventory of all the animals in the facility – they should also have proper gear that will minimise contact with the people to avoid spreading of zoonotic diseases.

   Establish a waste management system that will ensure that the wastes from the hatcheries are composted effectively in a controlled manner away from the people and other animals.

5. Personnel
   The personnel should be adequately educated and provided with the necessary knowledge in handling of poultry to avoid spread of diseases. Education should be rich in animal welfare principles and an understanding of the health and environmental implication of improper handling of the poultry.

   They should be provided with the necessary protective gear that will enable them practice good healthy practices.
Citations

i The poultry sector in Kenya, See more at https://zootecnicainternational.com/field-reports/poultry-sector-kenya/

ii Proponents of these developments like global agribusiness, governments of countries with vast and powerful agricultural lobbies, scientists, and researchers often justify them with data points like these: by 2050, the human population will exceed nine billion and the overall demand for food will rise by at least 60% from what it is today. This scenario assumes that an increasingly urbanized middle class and global wealthy global population will consume more food overall – and in particular demand more meat, eggs, mild, and processed dairy products.


iv Ibid

v Ibid

vi The data is based on research done in 2004.

vii Ibid

viii Ibid

ix Ibid

x Ibid

xi Ibid


xiii See image at https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.scoop.it%2Ftopic%2Fagriculture-qmos-pesticides%2F%3F%26tag%3Dpoultry&psig=AOvVaw3x4jlIq0B9KAwMoPt2xou&ust=159110988586000&source=images&cd=vfe&ved=2ahUKEwjAqveu8ODpAhWR04UKHSKgA UgQr4kDegUIARDsAQ


xv molting is a natural process of feather loss and re-growth, and results in reproductive quiescence during which hens cease egg-laying for several months.

xvi Impacts of waste from concentrated animal feeding operations on water quality, see more at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1817674/


xviii Ibid

See the treaty and its associated treaties at https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm1_e.htm

See full text at www.iata.org


See full objectives of the treaty at https://www.eac.int/customs/objectives


See policy at shorturl.at/msuIT

See full declaration at shorturl.at/hqLS2

Research on Policy and Legislative Framework Analysis on Poultry Battery Cage Farming in Kenya
Africa Network for Animal Welfare (ANAW) is an indigenous Pan-African non-governmental organization which works to sustain animals as sentient beings through showing them compassion, care, and appreciation. We achieve this by influencing policy, community empowerment, advocacy and attitude change.