



EDUCATION FOR AFRICA ANIMALS WELFARE

**“EVALUATION OF BATTERY CAGE-FARMING
STATUS IN TANZANIA”
PROJECT REPORT-2024**



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EXECUTIVE SUMMARY

Animal welfare is an increasing issue of concern in the poultry and egg industry. Central to this is housing systems, which play a crucial role in the welfare of layer hens, as transition to cage-free farming systems have been proven to significantly contribute to the welfare of layer hens.

In Tanzania, It has been projected that the demand and consumption of poultry meat and products will continue to grow steadily; primarily driven by population growth, rising urbanization, and a growing middle-class. Based on the necessity, growing concern for, and increasing intensive farming practices, Education for African Animal Welfare (EAAW) undertook a research study to map out and understand the status of battery cage farming in key regions of Tanzania; with an aim to understand the main farming methods, trends in caged and cage-free farming, and challenges encountered by poultry farmers. The study produced interesting findings and observations, some of them including: New techniques being promoted by cage dealers to promote the adoption of battery cages (where they encourage farmers to purchase cage systems in groups thus making it cost-effective for them.), and increasing motivation for youth to venture into farming and adopt the use of battery cages.

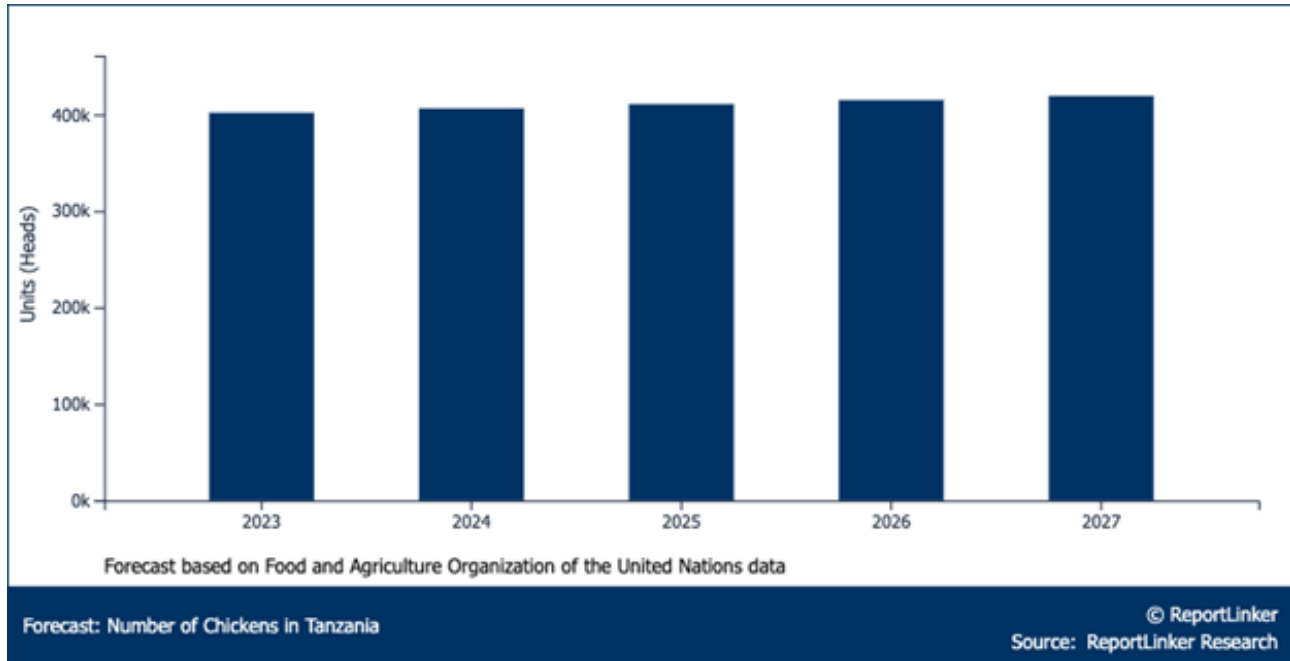
From the study, it is evident that a lot of work still needs to be done to promote sensitization and advocacy efforts among farmers, and the strong need for continued research to assess and evaluate trends in poultry farming in the industry.



REPORT OUTLINE:

1. Introduction
2. Overview of the global and regional (Africa) cage-free movement
3. Comprehensive studies/reviews on the status of battery cage farming in Tanzania
4. Issues Facing the Poultry Sector in Tanzania.
5. Field Report
6. Conclusion

PART 1: LITERATURE REVIEW



An image showing the forecast of the number of chickens in Tanzania.
<https://www.reportlinker.com/dataset/fb7e75a5244780fd2134d3e9e4926bcc5e9e0a4a>

Animal welfare is an increasing issue of concern in the poultry and egg industry. Central to this is housing systems, which play a crucial role in the welfare of layer hens, as transition to cage-free farming systems have been proven to significantly contribute to the welfare of layer hens.(1)

In Tanzania, the poultry industry has grown steadily over the past decade. As of 2020, the population of chickens in Tanzania stood at 83,280,000 (38,770,000 indigenous chickens and 44,510,000 exotic chickens) whilst the egg production in Tanzania was at 4.05 billion . It has been projected that the demand and consumption of poultry meat and products will continue to grow steadily; primarily driven by population growth, rising urbanization, and a growing middle-class. Chicken continue to be an important source of animal sourced food in the country primarily because at least 86% of the livestock keeping households in the country own and rear chicken. In the midst of growing production and consumption of chicken and chicken products, there have been growing concerns over the welfare considerations of the birds especially in intensive systems (battery cages.)

This study aims to assess the status of battery cage farming in Tanzania and precedes as part of the chicken welfare project conducted by Education for African Animal Welfare in Tanzania. The study aims to promote humane and ethical production of chicken through cage-free farming systems.

1. Our world in Data: <https://ourworldindata.org/do-better-cages-or-cage-free-environments-really-improve-the-lives-of-hens>
2. <https://dutchafripoultry.com/wp-content/uploads/2021/10/Poultry-Study-Tanzania-report-8-July-2020.pdf>

The Cage-Free Movement (Global & Regional)

Until two decades ago, very few people (including animal welfare activists) focused on layer hen welfare. However, over the recent years, there has been a significant growth and focus, and attention on eggs and layer hen welfare. In fact, the 2022 Cage-free fulfillment report by the Open Wing Alliance reports that out of the 2300 cage-free commitments[4] by companies, more and more of these companies are reporting their progress on commitments made. The report also highlights

A cage-free egg commitment is a formal written statement pledging to eliminate all cage-confinement of egg-laying hens. In addition to not confining egg-laying hens to cages of any kind, cage-free egg operations allow hens to roam the totality of the barn/shed.

that as of April 2021, 85% of cage-free egg commitments with deadlines of 2020 or earlier had been fulfilled and in April 2022, 88% of cage-free egg commitments with deadlines of 2021 or earlier have been fulfilled. It is undeniable that the growing momentum in the cage-free movement has been spurred by cage-free campaigns which have targeted all the major food service companies, restaurants, and any company that uses eggs or egg products to only use cage-free eggs.

The rise and growth of the cage-free movement globally has been motivated by a growing concern for animal welfare as battery cages represent some of the worst forms of abuse that any animal endures on factory farms. Among other problems, numerous studies have shown the negative repercussions of caged confinement; including physical and psychological problems for the chickens[5]. Cage-free systems are environments that provide chickens with indoor open spaces, provide enrichment's, and encourage hens to perform their natural behaviors including perching and dust-bathing; thus allowing chickens a higher quality of life. They also prevent the chicken from enduring intense physical and mental pain associated with caged confinement [6]

The cage-free movement in Africa is also growing, on the background of a growing demand for eggs and egg products. Sub-Saharan Africa makes up at least 13% of the global population, and 5% of the global egg production. Nonetheless, the projected demand for eggs (especially as a cheap source of protein) is expected to grow due to a growing population, leading to growth in intensive farming and production. The top five egg producers in the continent are also responsible for 70% of the egg consumption and include: Nigeria, South Africa, Tanzania, Kenya, and Burkina Faso. In addition, the consumption of eggs in Sub-Saharan Africa is considered relatively lower compared to most developed nations, with 34 African countries consuming less than one egg per person per week; for example, Botswana recorded 32 eggs/person/year in 2014 and, Malawi (45), Mozambique (4), Zambia (48) and Zimbabwe(42) [7]. Many animal advocacy organizations in the continent are joining the global cage-free movement by urging producers, retailers, and other major egg users to abandon conventional cages and adopt cage-free farming systems.

3. Tanzania Livestock Modernization Institute: <https://hdl.handle.net/10568/67749>

4. A cage-free egg commitment is a formal written statement pledging to eliminate all cage-confinement of egg-laying hens. In addition to not confining egg-laying hens to cages of any kind, cage-free egg operations allow hens to roam the totality of the barn/shed.

5. https://www.wellbeingintlstudiesrepository.org/cgi/viewcontent.cgi?article=1014&context=hsus_reps_impacts_on_animals

6. What are cage-free eggs: <https://thehumaneleague.org/article/cage-free#:~:text=Cage%2Dfree%20systems%20provide%20hens,and%20freely%20explore%20their%20environment.>

7. <https://www.feednavigator.com/Article/2020/02/24/Africa-s-rising-poultry-and-egg-market>

FIVE FREEDOMS	FIVE DOMAINS
1. Freedom of hunger and thirst	1 Nutrition giving sufficient, balanced, varied and clean food and water
2. Freedom from discomfort	2. Environment-comfort through temperature, substrate, air, odor, noise and predictability
3. Freedom from pain, injury and disease	3. Health-enabling good health through the absence of disease, injury, impairment with good fitness level
4. Freedom to express normal behavior	4. Behavior-Providing varied, novel, and engaging enrichment through sensory input exploration, foraging, bonding, playing, retreating and others
5 Freedom of fear and distress	5. Mental state-the animal should benefit from predominant positive state e.g pleasure or comfort while reducing negative state such as fear, frustration, hunger, pain or boredom

Status of Battery Caged farming in Tanzania

The vast majority of the Tanzania population consists of farmers who live and work in rural areas, and depend on agriculture as their main economic activity[8] . Among these agricultural activities, livestock keeping is one of the main activities and contributes an important and integral part to the economy.

The poultry production system in Tanzania consists of both commercial (broilers and layers) and traditional systems, which rely on indigenous breeds, improved breeds, and dual purpose breeds. Besides, the commercial production of poultry is practiced in both urban and peri-urban areas. The poultry sector in the country contributes greatly to food security, source of income for millions of farmers, and for important social obligations like dowry and other rituals. Besides, many studies and reports point to the huge potential for growth of the industry due to huge land availability in the country, among other reasons.

Besides, a study by the Tanzania national bureau of Statistics[9] revealed that the majority of the Tanzanian population keep some chicken. The bulk of chicken production in the country is mostly attributed to small-scale producers. The report also revealed that the production of chicken was varied and distributed across the country, with the highest density of birds being kept in the regions that surround Dodoma, Dar es Salaam, and Kilimanjaro. The largest areas under production are Tabora (6.5%), Shinyanga (5.2%), Mwanza (5.2%), Morogoro (5.1%), Geita (5.1%) and Dar es Salaam (4.5%).

A different study also recently conducted on the status of battery caged farming in Tanzania[10] revealed and indicated free-range farming as the most common system farming method, followed by semi-intensive, and lastly intensive systems which included battery caged farming. The study also revealed that the common breeds of chicken were local breeds at 41%, layers and boilers at 36% and exotic breeds at 23%. The survey revealed that there were no local chicken breeds in battery cages in the farms visited. Layers, on the other hand, were the most common breed found in battery cages. The study also established that while many farmers preferred the use of battery cages because they were deemed to be more hygienic, and would result in an increase in production, the use of these systems thereof was considered very expensive and beyond the reach of many small to mid-scale farmers.

8. Economy of Tanzania: <https://www.tanzaniainvest.com/economy>

9. Tanzania National Bureau of Statistics: <https://www.nbs.go.tz/index.php/en/tanzania-in-figures/277-tanzania-in-figures-2016>

10. East Africa Cage-Free Chicken Conference:

https://www.anaw.org/resources/reportsonchickenfarming/East_Africa_Chicken_Cage_Free_Conference_2022.pdf

Some of the characteristics of these different farming systems include[11]

Free-Range:

- This is a traditional indigenous poultry farming system.
- Mostly family oriented farming.
- Chickens are given space and practice extensive scavenging.
- Has low egg production (50 eggs per hen or less per year.)
- Is considered inexpensive and requires low input.

Poultry production in Tanzania: [https://research.csiro.au/livegaps/findings/livestock-production/poultry-production-in-](https://research.csiro.au/livegaps/findings/livestock-production/poultry-production-in-tanzania/#:~:text=Tanzania%20has%20a%20poultry%20flock,8%20million%20for%20laying%20eggs.)

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tanzania/#:~:text=Tanzania%20has%20a%20poultry%20flock,8%20million%20for%20laying%20eggs.

Semi-intensive farming:

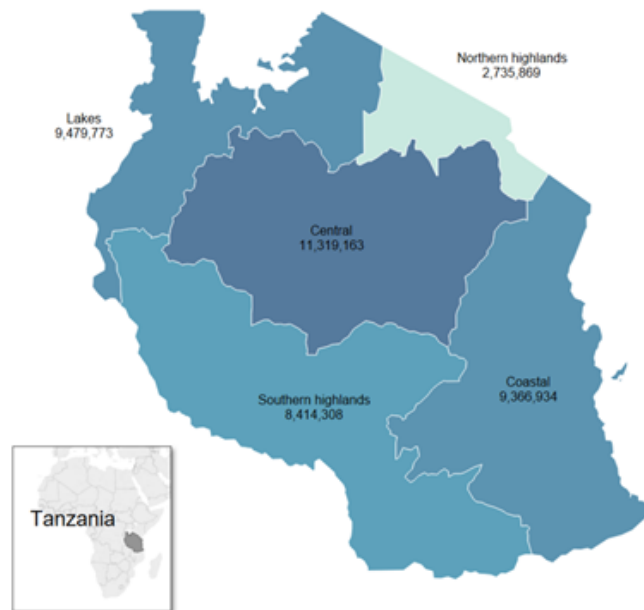
- Also known as improved subsystem farming
- Has a moderately high production of eggs (150 eggs per hen per year.)
- Entails a mix of local and imported breeds.

Battery caged farming:

- Is an intensive farming method
- Has high production of eggs (270 eggs per hen per year).
- Increased instances/ concerns over the violation of hen welfare.

Cage-Free farming system:

- This system is also known as barn or perched farming system and houses birds indoors without cages.
- Different types of barns may house the birds on the floor or different levels.
- In the system, the birds are provided with nesting boxes to lay eggs, and designated spaces for perching, roosting, and litter areas.
- Can consist of two different systems: aviary system and floor raised system.



Total poultry population by production zone in Tanzania (Ministry of Agriculture, 2018):
<https://research.csiro.au/livegaps/findings/livestock-production/poultry-production-in-tanzania/>

Issues in the Poultry Sector in Tanzania

Some of the biggest issues facing the poultry industry in Tanzania include [12]

Lack of knowledge and training. The poultry sector considerably consists of smaller and medium stakeholder farmers who lack the right knowledge and training needed to enhance their production capabilities and ensure proper hen welfare considerations in farming. There is also minimal to no practical poultry training specifications.

Existence of middlemen. Middlemen play a significant role in the poultry value chain in Tanzania, where they also play a significant role in producing input and the sale of products.

Many different poultry associations. There are a significant number of poultry associations in the country addressing different concerns, contributing to the multiplicity of associations.

Consumer preference. The majority of consumers in Tanzania prefer indigenous chicken meat and eggs to products from exotic broilers and layers (Naggujja et al., 2020) due to the perception that they taste good and are nutritious and that they come from chickens which are raised organically.

High cost of chicken feed. Chicken feed is estimated to account for over 70% of production costs. In addition, there is a general lack of standardization in the quality of feed.

PART 2: FIELD REPORT

Education for African Animal Welfare undertook a comprehensive survey and research project in the Dar Es Salaam, coastal region, Arusha, Mbeya, and Iringa regions of Tanzania between October 2023 and February 2024. For the purposes of the study, we only targeted farmers practicing chicken farming. The field exercise aimed to answer the following research questions:

1. What is the most prevalent chicken farming production system?
2. What are the prevailing notions and perceptions regarding caged vs cage-free farming?
3. What are the trends in chicken farming and production in the four regions of research focus?

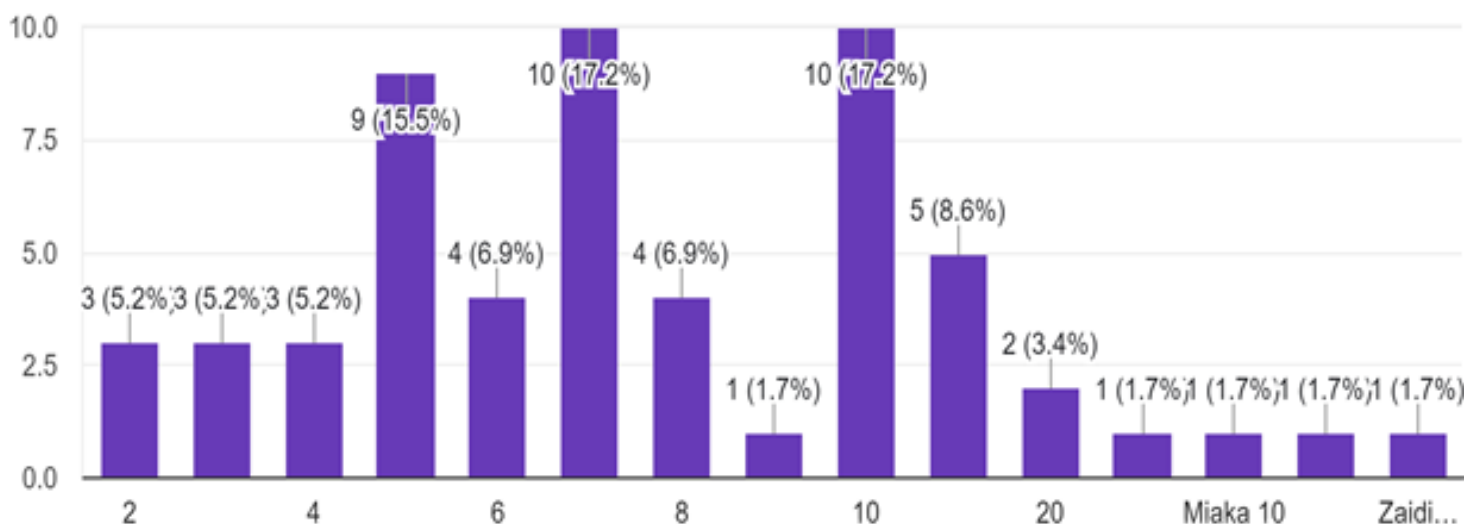
Regions

The research focused on the following regions in Tanzania: Arusha, Meru, Dar es salaam, Kinondoni, Ubungo, Iringa, Kilimanjaro, Mbeya, Moshi areas. We garnered a total of 58 responses from a sample size of 100 farmers.

Number of years of involvement in poultry farming:

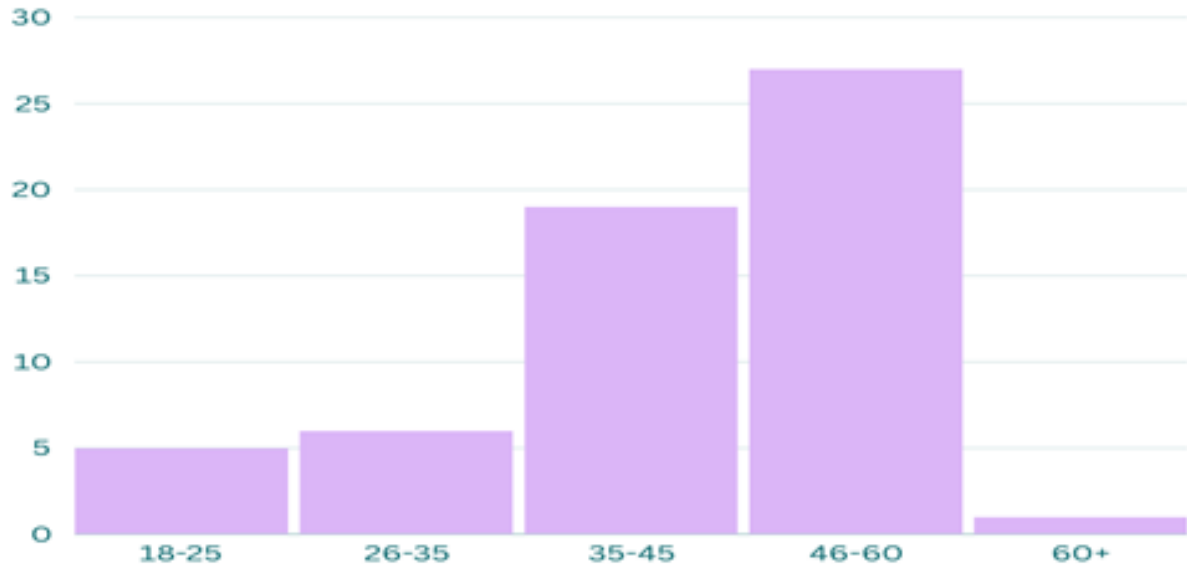
The majority of the respondents participating in our study had more than 10 years of involvement in poultry farming, and they were primarily from the Dar es Salaam (Kinondoni and Ubungo regions.) This was closely followed by the Iringa (where we had 9 poultry farmers), Kilimanjaro (5 poultry farmers), and Arusha (3 poultry farmers) regions.

58 responses



Gender of respondents:

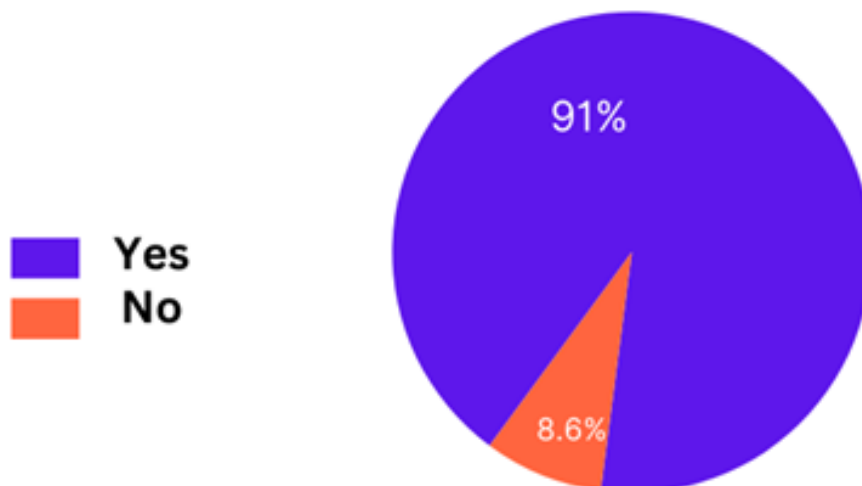
The majority of the respondents that formed the basis of the study were men at (55.2 %) followed by women at (44.8%) Out of these, the majority of the farmers under the target focus were aged between (46-60 years) followed by (35-45 years).



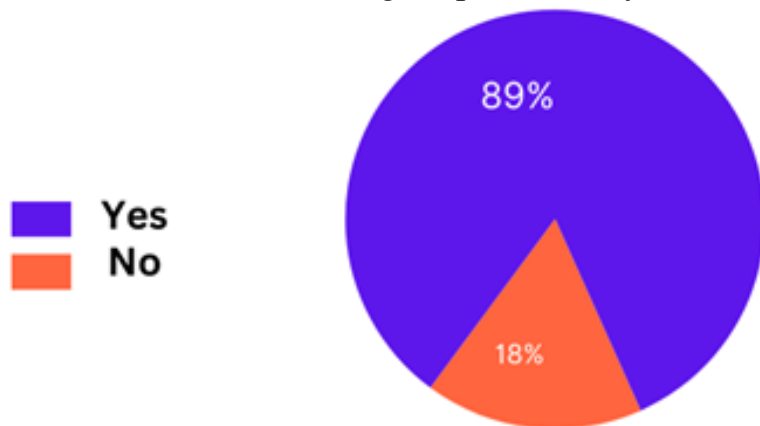
Understanding of chicken welfare:

In addition to the general questions, we also sought to establish some specific questions regarding knowledge of chicken welfare amongst the farmers. Beyond finding out about chicken production methods, we also aimed to establish whether farmers were sufficiently aware and knowledgeable about animal welfare, and more specifically chicken welfare.

From our sample size, the majority of the farmers under target were sufficiently aware and knowledgeable about animal welfare. When asked whether they understood that animals had some fundamental rights and freedoms (such as right to food and water, freedom from pain, injury and disease, most farmers consented and acknowledged. The majority also seemed to know, understand, and acknowledge that chickens also had rights and freedoms like other animals.

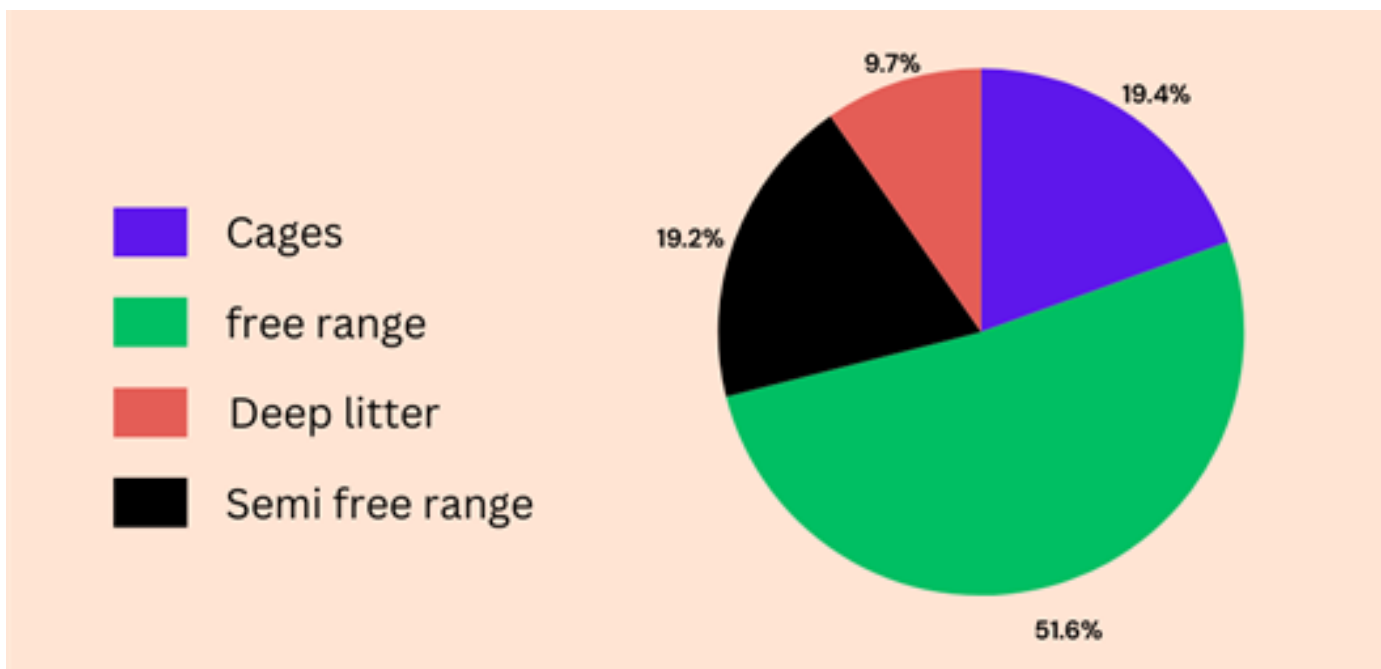


Many farmers also highlighted that they believed that they kept their chicken by observing all the proper animal welfare standards. Out of the target respondents, 89% noted observing the proper standards of animal welfare, while only 8.6% did not. When probing further, the farmers highlighted that they met the welfare standards of: proper feed and water for their chickens, administering the right medication, and proper housing. Majority of the farmers recognized that adherence to proper welfare standards would result in higher productivity.



Chicken Production Systems:

In addition to probing, gaining, and understanding farmers' perceptions regarding chicken welfare, we also sought to learn and understand about the most dominant chicken production systems from our target sample size. The most common chicken production system being practiced by the farmers was free-range farming, followed closely by semi free range, then cages, and lastly deep litter.





Free range was the most commonly practiced production system by the farmers for the following reasons (as explained by the farmers):

- The farmers believed that chickens kept in a free range system experienced unlimited freedom, better health and that free range farming was the best way to keep layer hens because they grow fast.
- They believed that chickens kept in the free range system had the best chance to express their natural behaviors.
- They understood that chickens also had their rights and freedoms, and keeping them in free range systems was right.
- They believed that cage systems were inherently cruel to chickens.
- They believed that free range farming accorded chicken enough space and rest compared to cage systems.
- A section of farmers mentioned that they did not have the sufficient funds and resources to fully invest in cage systems.

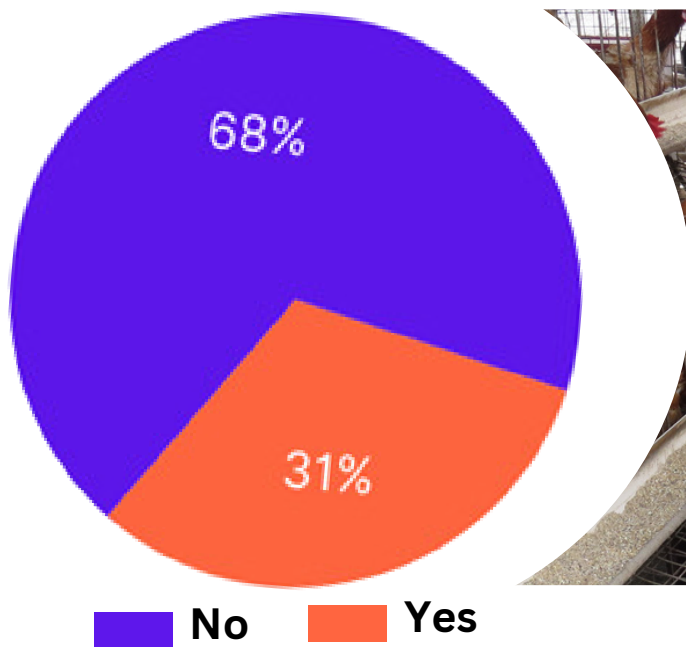


The farmers who kept their chicken in cage systems did so for the following reasons:

- They believed that the most important and significant aspect of chicken production was food, water, and access to vaccination, and that housing did not matter.
- They believed that chickens still received all their basic needs (like food and water) and that this was enough.
- They mentioned that cage systems greatly helped in production supervision and limited wastage of food

When the EAAW team further probed the farmers over whether they were able to shift/ transition to alternative chicken production systems when given sufficient knowledge over its proposed benefits to chicken welfare, the majority of the respondents affirmed yes.

(Note: This question was asked to farmers who reported practicing caged chicken farming.)



OBSERVATION

The aim of this study was to understand the status of battery cage farming in Tanzania, at the farm level. Among the study methodologies used in this study was observation. During the field work, through observation and discussion with farmers the team discovered that;

1. There are new techniques to promote cages, where cage dealers ask farmers to form a group of 10 to be supplied with cages. For those who managed to form a group of 10 to buy cages together, 1 farmer is supplied with cages for free
2. The rising need of renewable resources is supporting cage farming, where farmers are using droppings to fill the biodigester to get biogas. Some farmers stated that the droppings from cages are only suitable for biogas production as it's not mixed with other waste materials to compromise the gas production.
3. There is a huge emphasis for youth especially in the welding industry to manufacture cages locally to increase the access of cages.

RECOMENDATIONS

Based on the above data, EAAW would like to recommend the following:

1. The need for more intensive sensitization and advocacy efforts amongst farmers. From the sample size we targeted, it was evident that farmers were becoming more knowledgeable about chicken welfare, and continued sensitization and advocacy efforts would lead to increased knowledge about chicken welfare.
2. The need for more research to assess trends in battery cage farming amongst farmers. While the majority of farmers practiced free range farming, there was a growing trend towards adoption of cage farming. This necessitates the need for regular research to assess trends, and to inform ongoing advocacy and sensitization efforts.
3. The need to engage more stakeholders in the fight against cages. The need to work with farmer unions, farmers, the government, and all relevant stakeholders in the research, sensitization, and advocacy efforts as chicken welfare is a collective responsibility by all.

CONCLUSION

This study is the window to the next phase of this project as it has provided the room to continue the research and work closely with the other actors in the poultry industry. In the next phase of the project we shall be able to call for the farmers and other stakeholders workshop to discuss the findings and way forward in fighting against caged farming in Tanzania based on the findings from this evaluation. Among other things, these will incorporate the consumers perception, policy makers and law's on the chicken welfare, as well as general public understanding on the chicken productions.

Amidst the growth of the poultry sector in Tanzania, animal welfare, and especially considerations of layer hen welfare through cage-free housing, should be of utmost priority. This will need multi-stakeholder engagement and collaboration, through training, technical knowledge, and by supporting farmers and producers with the right resources to effectively make the change, to create and implement better welfare standards for the hens.



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<https://dutchafripoultry.com/wp-content/uploads/2021/10/Poultry-Study-Tanzania-report-8-July-2020.pdf>

A Comparison of the Welfare of Hens in Battery Cages and Alternative Systems :

https://www.wellbeingintlstudiesrepository.org/cgi/viewcontent.cgi?article=1014&context=hsus_reps_impacts_on_animals

Number of chickens in Tanzania:

<https://www.reportlinker.com/dataset/fb7e75a5244780fd2134d3e9e4926bcc5e9e0a4a>

Tanzania National Bureau of Statistics (NBS, 2016) :

<https://www.nbs.go.tz/index.php/en/tanzania-in-figures/277-tanzania-in-figures-2016>

Cage-Free Fulfillment Report (Open Wing Alliance 2022):

<https://assets.ctfassets.net/ww1ie0z745y7/6jxWMUFP7xKDhN5rbZJ8KA/78844b8a3b274575ad22bef1b655b555/OWA-2022-cage-free-egg-fulfillment-report-final.pdf>

Cage-Free commitment definition: <https://www.cagefreecommitment.com/commitments-gl>

Regionalisation of poultry development in Eastern Africa: <https://edepot.wur.nl/458221>

Guyonnet, V. (2017). Opportunities to grow the egg business in Africa. Poultry Africa 2017. Kigali: FFI Consulting.