



DSPACE

<https://dspace.org/>

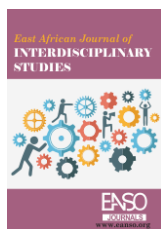
Exploring the Latent Roles of Indigenous Chickens among Rural Households in Kericho County, Kenya: A Grounded Theory Approach

**Cheruiyot, Joseph K.; K. Kibett, Joash; E. Ogunyini, Michael; M. Kere, George
2025**

East African Journal of Interdisciplinary Studies

<http://ir-library.kabianga.ac.ke/handle/123456789/1039>

Cheruiyot, J. K., Kibett, J. K., Ogunyini, M. E. & Kere, G. M. (2025). Exploring the Latent Roles of Indigenous Chickens among Rural Households in Kericho County, Kenya: A Grounded Theory Approach. East African Journal of Interdisciplinary Studies, 8(1), 81-93.
<https://doi.org/10.37284/eajis.8.1.2653>



East African Journal of Interdisciplinary Studies

eajis.eanso.org

Volume 8, Issue 1, 2025

Print ISSN: 2707-529X | Online ISSN: 2707-5303

Title DOI: <https://doi.org/10.37284/2707-5303>

EANSO

EAST AFRICAN
NATURE &
SCIENCE
ORGANIZATION

Original Article

Exploring the Latent Roles of Indigenous Chickens among Rural Households in Kericho County, Kenya: A Grounded Theory Approach

Joseph K. Cheruiyot^{1*}, Prof. Joash K. Kibett, PhD¹, Prof. Michael E. Ogunyini, PhD¹ & Dr. George M. Kere, PhD¹

¹ University of Kabianga, P. O. Box 2030-20200, Kericho, Kenya.

*Author's Email: cheruiyotjoseph@gmail.com

Article DOI: <https://doi.org/10.37284/eajis.8.1.2653>

Date Published: ABSTRACT

29 January 2025

Keywords:

ASGM,
Indigenous Chickens,
Latent Roles,
Ladder of Change,
Grounded Theory,
Community-Based
Participatory Action
Research.

Chickens are the most popular poultry worldwide. About 23.7 billion chickens globally in 2018 were reared mainly for their eggs and meat products. Indigenous chickens in Kenya constitute about 70% of the poultry population. Their role in rural livelihoods is widely understood in terms of provisioning for nutrition and household income. This study aimed to investigate, through a community-based participatory process, the latent roles of indigenous chicken (IC) in the livelihoods of smallholder farmers in rural areas of Kericho County, Kenya. This study adopted a Grounded Theory Approach and a Community-based Participatory action research design. Six sites in three out of six sub-counties were selected for the study based on their agroecological zones and administrative locations. Data were collected through focus group discussions and interviews. Community-based participatory action research tools; focus groups, resource mapping, role plays, and community workshops, were used to encourage participation and knowledge sharing. Data were collected through note-taking and group presentations. The data were analyzed using the grounded theory constant comparative method. Analysis revealed that the higher order concepts and theories that could explain the latent roles of indigenous chickens were 1insurance against shocks, 2marketness; sales for income, 3instrumentalism; as an instrument for personal motivations, 4ecological functions and 5immanent roles; to utilize existing resources and capabilities. It has roles as a socio-economic 6ladder-of-change, contributes to 7household functionalism by engaging youth and women and household 8dietary needs, and social roles in 9interpersonal connectedness. In conclusion, indigenous chickens had roles in the economy, ecology, socio-culture and food supplies. This understanding has implications in formulating strategies by development agents, for sustainable IC production. Further research in different contexts to build on the in-depth understanding of the IC roles is recommended.

APA CITATION

Cheruiyot, J. K., Kibett, J. K., Ogunyini, M. E. & Kere, G. M. (2025). Exploring the Latent Roles of Indigenous Chickens among Rural Households in Kericho County, Kenya: A Grounded Theory Approach. *East African Journal of Interdisciplinary Studies*, 8(1), 81-93. <https://doi.org/10.37284/eajis.8.1.2653>.

CHICAGO CITATION

Cheruiyot, Joseph K., Joash K. Kibett, Michael E. Ogunyini and George M. Kere. 2025. "Exploring the Latent Roles of Indigenous Chickens among Rural Households in Kericho County, Kenya: A Grounded Theory Approach". *East African Journal of Interdisciplinary Studies* 8 (1), 81-93. <https://doi.org/10.37284/eajis.8.1.2653>.

HARVARD CITATION

Cheruiyot, J. K., Kibett, J. K., Ogunyini, M. E. & Kere, G. M. (2025) "Exploring the Latent Roles of Indigenous Chickens among Rural Households in Kericho County, Kenya: A Grounded Theory Approach", *East African Journal of Interdisciplinary Studies*, 8(1), pp. 81-93. doi: 10.37284/eajis.8.1.2653.

IEEE CITATION

J. K., Cheruiyot, J. K., Kibett, M. E., Ogunyini & G. M., Kere "Exploring the Latent Roles of Indigenous Chickens among Rural Households in Kericho County, Kenya: A Grounded Theory Approach", *EAJIS*, vol. 8, no. 1, pp. 81-93, Jan. 2025.

MLA CITATION

Cheruiyot, Joseph K., Joash K. Kibett, Michael E. Ogunyini & George M. Kere. "Exploring the Latent Roles of Indigenous Chickens among Rural Households in Kericho County, Kenya: A Grounded Theory Approach". *East African Journal of Interdisciplinary Studies*, Vol. 8, no. 1, Jan. 2025, pp. 81-93, doi:10.37284/eajis.8.1.2653.

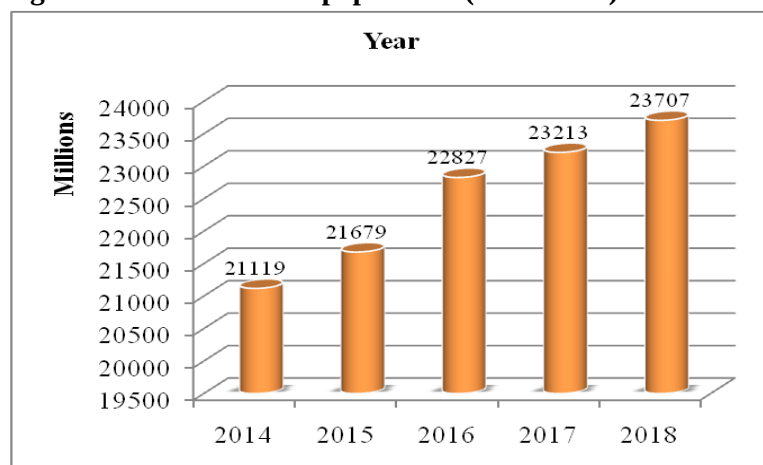
INTRODUCTION

Chickens are the most popular poultry worldwide and across all regions irrespective of the culture and religion prevailing in a region (Padhi, 2016). There were about 23.2 billion chickens worldwide in 2017, the figure rising to 23.7 billion in 2018 (FAO, 2020). Chicken eggs produced were about 1.27 billion in 2017, rising to about 1.37 billion in 2018, and chicken meat amounted to 0.1 billion tons in 2014, rising to 0.114 billion tons in 2018 (FAO, 2020). The progressive growth in chicken eggs and chicken meat production over the years is expected to improve human nutrition, particularly in developing countries (Uzundumlu, & Dilli, 2023). The statistics gathered from FAO sources suggest that there has been an annual growth rate of the chicken population of about 2% between 2014 and 2018 as illustrated in Figure 1. But what are their roles per se?

The indigenous chicken (*Gallus domesticus* L.) in Kenya constitutes about 70% of the entire population of poultry. Their products, particularly meat and eggs, are an important source of protein for rural and urban populations (Njuguna *et al.*, 2017). As of 2017, there were about 21 million indigenous chickens in Kenya. The major roles of indigenous chickens are the provision of subsidiary

income and as a source of nutritious chicken eggs and meat (Padhi, 2016). It is recognized, however, that there are some other roles of native chickens such as socio-cultural roles, including their use in traditional ceremonies. Importantly, it has been argued that indigenous chicken plays a role in the improvement of the socio-economic conditions of rural populations at a low cost. The cost of inputs and labour for indigenous chicken production is relatively low.

The role of the indigenous chicken is commonly understood from the perspective of the 'outsiders' (Chambers, 1986) as a source of nutrition and income for rural households. Many studies report income and food security as the main roles for Indigenous chicken rearing among rural households in developing countries. The real underlying reasons for indigenous chicken rearing are hardly studied in depth. There is indeed a complex role played by indigenous chicken in the livelihoods of rural societies, probably more complex than the food security, income, and socio-economic development linear roles. The grounded theory approach appears an appropriate methodology for understanding the latent facts on the roles of indigenous chickens in rural societies.

Figure 1: Global chicken population (2014 -2018)

Source: Compiled from FAO, faostat, 2020

The Grounded theory approach can be viewed as a research methodology that generates a set of grounded concepts integrated around a central theme to form a theoretical framework. It is a qualitative research methodology used to understand underlying facts for a given phenomenon. The development of concepts and theories is grounded in the data collection during the research process. The concepts leading to the development of a theoretical framework or set of concepts emerge from the data itself (Corbin, 2011). The researcher engages in constant comparison of the data collected with that previously collected to obtain patterns and codes from the datasets. The goal of the grounded theory is to develop a set of concepts by first collecting data, then generating categories and discovering a core category which organizes the other categories to give rise to a substantive theory (Glaser, 2002) or a theoretical framework that explains phenomena beyond descriptive (Roman *et al.*, 2017). A substantive theory, with a grounded theory approach, is a theory related to a substantive context. Grounded theory thus goes beyond descriptive into developing a context-specific theory. Previous studies on the role of indigenous chicken in the livelihoods of rural communities mostly documented descriptive studies based on the important roles of chicken in food, nutrition and cash income. The present study

sought for an understanding of the underlying roles based on grounded theory, from the perspective of the community.

Given that grounded theory emphasizes collaboration between researchers and participants, this study employed Community-based Participatory Action Research (CBPAR) tools to gather data. This study design allowed for the incorporation of the wider perspective advocated by a grounded theory of making the research process reflective of the experiences and insights of the community members. The objective of the study was to investigate, through a community-based participatory process, the latent roles of Indigenous chicken in the livelihoods of smallholder farmers in the rural areas of Kericho County, Kenya.

RESEARCH METHODOLOGY

Research Design

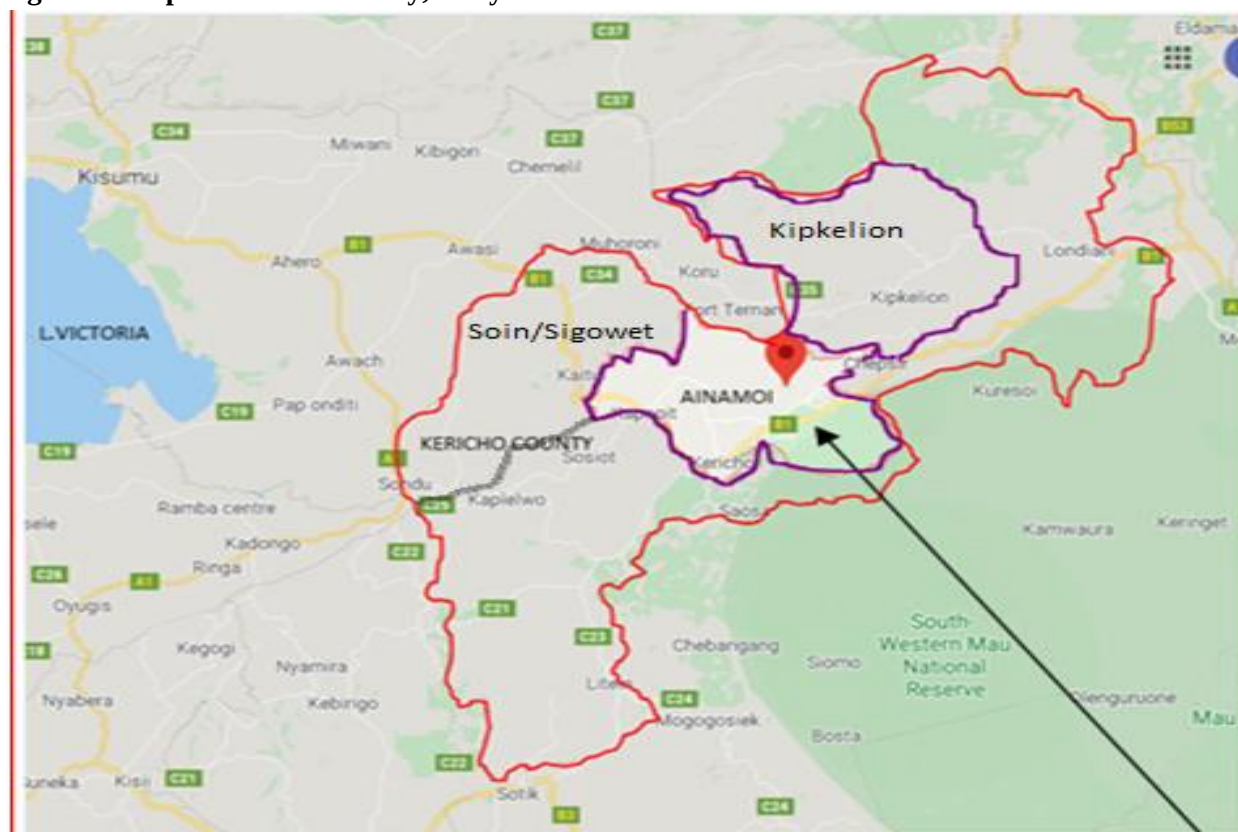
This study was underpinned by an epistemological assumption of contextualism. Contextualism assumes that knowledge is locally situated and emerges from contexts (Braun, & Clarke, 2013). The study design therefore does not assume generalization of the information or knowledge and unlike positivism, it does not assume objectivity but rather assumes subjectivity. This study adopted a grounded theory approach and a community-based participatory action research design. In this design,

participation plays a central role in the research process; the subjects are active participants in the creation of context-specific knowledge (Franz *et al.*, 2010). Given that the grounded theory approach emphasizes flexibility in data collection methods, based on research contexts, with its focus on in-depth qualitative data, the community-based participatory action research was deemed an appropriate design for this study.

Location of Study

The study was carried out in the rural areas of Kericho County. Kericho is one of the 14 Counties in the Rift Valley region of Kenya. It lies between longitude 35° 02' and 35° 40' East and between the equator and latitude 0 23' South (County Government of Kericho, 2014). The county borders Uasin Gishu to the North, Baringo to the North-East, Nandi to the North-West, Nakuru to the East and Bomet to the South (Figure 2). On its South-Western border are Nyamira and Homa Bay counties and to the West is Kisumu with its boundaries as captured in Figure 2.

Figure 2: Map of Kericho County, Kenya



Source: Google maps, 2020

Kericho County covers a total area of 2,479 km². This study was carried out in three of the six Sub counties in the county. The study was carried out in Ainamoi, Kipkelion and Soin/Sigowet Sub Counties (Figure 2). The three Sub counties were chosen to reflect the diverse conditions within the county: Soin/Sigowet for its potential in indigenous chicken farming, attributed to its upper midland

agro-ecological zones; Ainamoi for its proximity to urban market infrastructure; and Kipkelion and Soin/Sigowet Sub-counties for their predominantly rural character with 92% and 84% of its households respectively reliant on agriculture (KNBS, 2019).

Target Population

The target population for this study comprised all rural-based indigenous chicken farmers in Kericho County, representing a population residing outside urban areas. The target population therefore excluded urban-based households in Township Locations. Whereas quantitative research is guided by the desire to select a random sample, qualitative research is guided by judgement as to who is likely to provide the required information, where such information is collected until a data saturation point is reached; a point at which no new information is forthcoming (Kumar, 2019). This study utilized a philosophy-guided design of community-based participatory action research to collect qualitative data until a saturation point was reached. Kumar (2019) explains that quantitative data validity relies on a predetermined sample size, whereas qualitative data validity hinges on the researcher's subjective saturation point or gathering as diverse information as possible. This study was pre-planned to allow for several interactions with the smallholder farmers as envisaged by the grounded theory approach.

Data Collection Instruments

The community-based participatory action research design primarily utilized interviews as informal conversations and discussions rather than strict question-and-answer sessions. Individual and group interviews, with the aid of interview schedules and focus group discussion guides, were conducted to solicit insights into the roles of indigenous chickens in the community. The validity of interview outcomes was ensured through triangulation, a process involving cross-checking with multiple sources within the community. This was achieved by arranging for plenary presentations of the focus group discussion notes where all the community participants were free to add their views. The practice of interviewing provides researchers with the advantage of gaining insights from various individuals and exploring alternative explanations from diverse sources (Kolb, 2012). In this study, focus group discussion guides and interview schedules were utilized to gather data, from groups

and individuals respectively, throughout the iterative community-based participatory action research process. Community-based participatory action research tools including; focus groups, participatory resource mapping, role plays, and community workshops, were used to encourage participation and knowledge sharing among the participants. Participation in this socially engaged research formed an important part of the data collection process (Huffman, 2017). All perspectives were collected during the interviews, with no data disregarded. Participants frequently changed roles to allow for active participation of all the participants in the study.

Data Analysis

The grounded theory analysis, which employs a constant comparative method involving systematic comparison and coding of qualitative data, was utilized. Open coding was conducted to generate initial themes (categories), followed by axial and selective coding to refine and consolidate concepts as outlined by Braun, & Clarke (2013). Open codes represent the most basic level of coding. These codes are then organized into higher-level categories or themes based on their relationships. It involves grouping related codes to form higher-level concepts and theories and to explain phenomena beyond descriptive (Roman *et al.*, 2017). By going beyond description, the grounded theory approach seeks to provide deeper insights into social behaviours and structures. The interactions between the researchers and the participants shape how the data is collected, analyzed and interpreted (Charmaz, 2006).

RESULTS AND DISCUSSION

The initial coding of the qualitative datasets, based on grounded theory analysis, identified 15 categories related to the roles of indigenous chickens. These categories coalesced around themes such as food supplies, use of existing natural resources, use of existing skills/knowledge, cleaning environment/waste management/waste

utilization, combating food insecurity, alleviating poverty, engaging youth, involving women, providing cash for various needs, managing livestock parasites, balancing household diets, generating wealth, as a way of life, enhancing beauty/aesthetics, and meeting emergency needs. A constant comparison of the emerging themes from the data gave rise to further categories:

- Food security roles
- Income security roles
- Utilization of existing resources
- Waste management
- Parasite control
- Contribution to poverty reduction/wealth creation
- Aesthetic reasons
- Engagement of youth/provide occupation
- Engagement of women labour/occupation for women
- Nutrition security
- Emergency situations/medical, unannounced visitors

Upon closer scrutiny, the generated categories seemed to adopt a higher conceptual or theoretical perspective. In grounded theory, each observed datum is underpinned by an underlying concept or theory. The researcher's role in the grounded theory approach is to uncover these underlying concepts and theories through continual scrutiny of the data (Corbin, 2011). When a community or individuals for example indicate access to food, access to nutritious food and access to income in case of emergencies, the overarching role of the indigenous chicken appears to be one of insurance against any form of risk, food-related or income-related. Following a constant comparison method as advocated by the grounded theory, the following

higher-order concepts have been thought to explain the roles of indigenous chicken in the community studied;¹insurance, ²marketness, ³instrumentalism, ⁴ecologic, ⁵immanence, ⁶ladder-of-change and household⁷functionalism. The others are ⁸dietary, and ⁹interpersonal connectedness.

In this paper, it is argued that the roles of indigenous chicken as captured from the data-driven research appeared to form a nonagon of concepts that explain the role of the chickens beyond the common descriptions. The set of concepts broadly explained the underlying roles of the indigenous chickens among rural households. Each of the nine concepts and its links to the raw datasets are explained in the succeeding sections.

Insurance

The data gathered among the native-chicken farmers in the rural setup of Kericho County suggests that chicken rearing was highly regarded as a form of insurance against unforeseen shortages, shocks or unexpected events. In the words of one participant *"We keep chicken to be able to sell to cater for small-small things which may be needed urgently when you have no money"*. With the word small repeated, it seemed to emphasize the subsistence nature of the livelihood strategy and 'needed urgently' broadly speaking thus appears to be a case of insurance against unforeseen demanding events but such events are not necessarily economic. The rural households appeared to transfer the risks of unexpected small events to the indigenous chicken.

The Indigenous chicken livelihood strategy can provide a safety net against various risks such as health issues or loss of income. As clearly stated by one participant *"My chickens were very useful to me when I had no income during the dry season due to a decline in milk production as a result of the drought"*. This observation suggests that the indigenous chicken contributed to the overall financial well-being of the households; a case of insurance against financial downturns for

households. The risk of unexpected events such as ‘unexpected visitors,’ as narrated by another participant, was also cushioned by slaughtering readily available chicken. Visitors who arrived unannounced or at an inconvenient time in terms of food and cash availability tended to disrupt routines as households re-arranged their schedules to provide hospitality, depending on the relationship with the visitors as explained by a participant. This underlying role of indigenous chicken was recognized in a study conducted elsewhere by Udo, & Bassey (2004) on the role of chicken farming as a safety net for rural families in Nigeria. Similarly, the role of chickens in risk management was identified by Msoffe *et al.* (2010) in a study conducted in Tanzania and further by Odeyemi, & Ojo (2015) emphasizing its role as a livelihood safety net. In the absence of such unforeseen circumstances, necessitating sudden adjustments, the Indigenous chicken served another role of a household cash economy through trade, largely determined by market prices and demand, a case of marketness.

Marketness

Analysis of the accounts provided by the participants showed that raising indigenous chickens for cash income was a significant activity within households. As narrated by one participant “*We keep chicken because when you take care of them properly you can sell each one for up to one thousand shillings within a short period of time, like eight months*”. The participants’ statement regarding chicken prices suggested that market demand and market prices influence the choice of indigenous chicken as a livelihood strategy. This observation aligns well with Block’s concept of ‘marketness’, which refers to the extent to which economic activity is influenced by market factors such as price and demand (Thornburg, 2013). In the current scenario, indigenous chickens seem to fulfil market demands, capitalize on market prices and thereby generate cash income for rural households. Market factors heavily influence household

decisions regarding chicken rearing. This research employs the concept of *marketness* to elucidate this phenomenon.

The indigenous chicken livelihood strategy enables households to respond to market factors, resulting in cash earnings. According to some participants, the income they earned allowed them to “change their way of life,” suggesting a behaviour driven by self-interest. This indicates that pursuing self-interest goals plays a significant role in chicken rearing as an economic activity. We consider the concept of economic instrumentalism crucial for explaining this phenomenon.

Instrumentalism

Is it that some individuals in the community engage in chicken rearing as an instrument to achieve their desires? The concept of economic instrumentalism helps explain to what extent the choice of a livelihood strategy is motivated by the desire to achieve self-interests rather than fulfilling other economic and non-economic roles. The concept evaluates the motives of economic actors (Thornburg, 2013). It entails the nature of individual motivation in an economic action (Ament *et al.*, 2022). According to some participants, the indigenous chickens are also “*beautiful when they are in the compound*”. This indicates that chicken served different purposes among the participants, in this regard, the aesthetic value chickens have in the compound, is a non-economic reason that serves individual interests.

The practice of chicken rearing as a livelihood strategy was sometimes pursued independently, without external pressures or demands. In such cases, chickens served a non-economic role, as there was no consideration of market demand, pricing, sales logistics or specific target consumers. This practice appears to cater solely to individual preferences that are non-economic. In another instance, indigenous chickens served households in both economic and non-economic roles, such as contributing to ecological services.

Ecologic

The ecological roles of indigenous chicken as derived from the data appeared to be both economic and non-economic. *“Indigenous chickens are very good in removing ticks from cattle, so we don’t have to use a lot of chemicals to control the ticks”*. This statement from one of the participants suggests that the ecological roles of indigenous chickens help to reduce costs in pest control, while also reducing chemical usage. An observation by one of the research participants that, *“Chickens assist in mixing manure on farms while ground-scratching for food”* was similarly interpreted as an ecological role. Ground-scratching and ground-browsing by chickens help them to find a variety of foods including insects, seeds and small animals (Lesley, 2023). The research participants appeared to appreciate the ground-browsing and scratching behaviour of chickens for their ecological roles. As one participant stated; *“The top-dressing fertilizer I had applied on my tea was spread very well on the farm as my chickens were fending for their feeds”*. The participant seemed to refer to an ecological service from the browsing and scratching behaviour of chickens.

Another participant commented further, *“The chickens are useful in utilizing feeds that could go to waste such as waste from the kitchen”*. Although this appeared to be a case of supplemental feeding, it could largely be viewed as a case of waste management role; an ecological role. Scratching and pecking on the ground is an instinctive behaviour of chickens that seems to play an important role in soil aeration and soil structure modification (Biswas, & Mukherjee, 2016). As one participant commented; *“my soils became more cultivable when I introduced chicken into my homestead, they help to loosen the soils”*. The participant appeared to refer to the ground-scratching and sand-bathing natural behaviours of the indigenous chickens. These ground-scratching and sand-bathing behaviours of chickens appear to have a direct impact on the soil texture and

structure. Comments like *“they enrich the soils with their manure,”* significantly featured among several participants. Chicken manures were regarded highly by several participants.

The ecological benefits of chicken rearing were further highlighted when a participant mentioned that his cows *“produced more milk after grazing in an area previously fertilized with chicken droppings”*. This data indicates that the nutritional quality of livestock forage likely increased when fertilized with chicken droppings.

Immanence

The rearing of indigenous chickens involved utilizing existing household resources. Some participants indicated that they kept chicken because *“it is easy to keep, it does not require much from outside the farm”*, *“it is of low cost”*, *“it does not require a lot of capital since you just leave it to roam freely in search of its food”*. These observations indicate that the indigenous chicken has a role in utilizing the existing resources, circumstances and skills. Interestingly, upon closer examination of the data, the idea of inherent livelihood strategies appears to explain the role of indigenous chickens in utilizing existing resources and capabilities. Such livelihood strategies that are inherent or intrinsic to the local context have been described by Morse, & McNamara (2013) as immanent livelihood strategies. Immanence underscores the importance of considering local conditions, resources and capabilities in livelihood strategies. The concept of immanence in livelihood strategies aligned well with the overall role of indigenous chickens in utilizing existing resources, without relying on external inputs as explained by Morse, & McNamara (2013).

The phrase *“it does not require much from outside,”* suggests that participants engaged in indigenous chicken rearing as a livelihood strategy without relying heavily on external interventions. Indigenous chickens played an immanent role as a livelihood strategy deeply integrated within the

household's existing context, resources and capabilities. They utilized available resources and local knowledge effectively. Importantly, by leveraging these resources and capabilities, Indigenous chickens contributed to wealth accumulation for individual households, thereby fostering socio-economic change.

Ladder-of-change

The contributions of indigenous chickens to the socio-economic growth of individuals were highlighted by participants. They explained *"Indigenous chicken rearing is where we started from before we could afford to buy a cow,"* This indicates that Indigenous chickens played a role in the ladder of change in the community's socio-economic prosperity. By using "we", participants likely referred to many community members who progressed to the point of affording to buy cows. In this context, ladder-of-change signifies how individuals transition from one livelihood strategy to another over time, representing steps towards greater socio-economic prosperity (Anirudh, 2005). It involves steps or stages representing different levels of socioeconomic prosperity, represented as rungs in a ladder of change. Each rung of the ladder signifies a progression towards greater socio-economic prosperity.

Another participant commented, *"Chickens are an important way of saving small money so that in future you can afford something bigger"*. This statement seemed to imply two things in one; savings and growth, but savings for what? The plausible interpretation, in this case, is that the low-valued chicken relative to other assets presents an easier investment for a lowly endowed individual on his way up the ladder of change. In grounded theory thinking the underlying role of the chicken is its contribution to the socio-economic ladder of change. The concept of ladder-of-change was first coined by Anirudh (2005) to explain the stages of prosperity through which low-resourced individuals go to ultimately get out of deprivation. The ladder-of-change concept explains how individuals or

communities transition from one livelihood strategy to another over time. In this regard, the indigenous chicken appears to play a key role in the lower rungs of the ladder. Each rung of the ladder signifies a progression towards greater income security and well-being. The Indigenous chicken appears to play an important role by occupying the lower rungs of the ladder of change. Interestingly, when asked to indicate the livelihood strategies from the lowest to the highest rungs, all focus group discussants placed Indigenous chicken within the lowest three rungs.

One elaborate data source stated that *"People who are still struggling for wealth own between two to three chickens only. When the number they own increases they can be able to sell and purchase a goat and eventually a cow"*. This text from a participant was interpreted to mean that for livestock-based livelihood strategies, the Indigenous chicken was a starting point in the ladder of change. Vulnerable individuals or communities who face significant livelihood risks and uncertainties often adopt less risky livelihood strategies due to their limited endowments (Chambers, & Conway, 1992). The high frequency with which indigenous chickens appeared in the lower rungs of the ladder of change indicates that the community viewed the chickens as a less risky livelihood strategy compared to other forms of livestock. Such livelihood strategies that are less risky contribute to overall household livelihood security. On a similar note, Abbasi *et al.* (2023) observed that indigenous chickens are valued as a resource in many African countries, Kenya included. They observed that chickens play an important role in empowering disadvantaged groups, such as the poor, by offering income, food security and social recognition. In the current study, however, the view held is that the indigenous chicken has an additional specific role as a driver of socio-economic change in the ladder of socio-economic prosperity.

Household Functionalism

The household livelihood security ensures that members have access to food, shelter and other necessities. *“The indigenous chicken we keep engages the youth and women well”*. This narrative from a participant was interpreted to mean every member of the household has to contribute to the necessities of the household. It indicates that indigenous chickens had a role to play in the household's overall operation and well-being. When a household or family is viewed as a system with various parts working together, the concept of household functionalism as described by Talcott Parsons (Ormerod, 2019) seems to explain the allocation of roles among household members. If the youth and women are allocated the role of caring for the chicken to contribute to livelihood security, then the indigenous chicken livelihood strategy may be regarded as a significant player in household functionalism. One comment by a participant thus went, *“It is for the children to have something to do”*. This observation seems to lend credence to the concept of household functionalism as the household heads tended to encourage their young ones to engage in chicken rearing. But, why is it so? *“The young ones can afford to buy young starter flock”*, commented one participant. This view suggests the significance of the low capital input required for indigenous chicken production.

The perception that Indigenous chicken rearing is a low-input livelihood strategy enables the household members to allocate the socio-economic activity to the less-resourced youth and women, ultimately contributing to household functionalism. In this paper, we argue that the underlying reason for engaging the youths and women through chicken rearing is one of household functionalism. This is closely tied to provisioning for the household needs such as income and dietary needs.

Dietary Roles

The dietary role of indigenous chicken was exemplified in responses such as *“so that we can eat*

well”, *“for our protein”*, and *“for meat”*. These were some of the roles indicated by the respondents which appeared to focus on the dietary roles of indigenous chicken. Although the word diet was not mentioned by the participants, the mention of some keywords such as *protein, meat, diversified meal supplies, and white meat*; all seemed to indicate the significance of the role of indigenous chickens among the rural households in provisioning for their diets. *“The yellow-fleshed chicken is particularly tastier”*, as commented by one participant, seemed to introduce an aspect of tastes and preferences; another dimension of human dietary needs. Kennedy *et al.* (2005) discussed this subject, suggesting that preferences for poultry skin colour vary by region and by colour. The author noted the influence of feed on the skin colour of the chickens; with yellowness largely attributed to a diet rich in plant carotenoids. Another view from the participants that; *“Whenever we have visitors, we can have some meat to serve, even when we have no money to buy from the butchery”* emphasized a dual role. This statement from one participant suggests that Indigenous chicken served as a vital source for urgent dietary requirements within the household and impacted their interpersonal connections as well.

Interpersonal Connectedness

The indigenous chicken appeared to have an underlying social role of fostering interpersonal connectedness from statements gathered from the participants; words such as *“catering for visitors”* appeared to feature several times. The term interpersonal connectedness is chosen to explain the apparent closeness and emotional bonding (van Bel *et al.*, 2008) that seems to characterize the relationship between the visitors and the host. From this finding, we argue that indigenous chicken has a role to play in fostering social relationships. In a similar case, a statement from one participant *“chicken are good gifts during ceremonies”*, is an indication that indigenous chicken may be reared to take care of obligations associated with social ties.

CONCLUSIONS AND RECOMMENDATIONS

This study focussed on understanding the latent roles of indigenous chicken from a grounded theory approach, in which inductive reasoning starts with specific observations or data, to build substantive theory or concepts. It involves the creation of concepts that explain phenomena observed in data. This study concludes that in the context of the rural households in Kericho County, Kenya there were underlying concepts or theories that explain the roles of indigenous chicken. Indigenous chicken has; Insurance¹, marketness² and Instrumentalism³ roles for individuals to achieve their desired economic and non-economic outcomes. The Indigenous chickens have vital Ecologic⁴ roles, Immanence⁵ roles in utilizing existing resources and human capabilities, and a role in the Ladder-of-change⁶ as people transition from one livelihood strategy to another in their socio-economic progress. Indigenous chicken contributed to Household functionalism⁷ by engaging the less resourced youth and women in the households and had a vital role in provisioning for dietary⁸ requirements of households and for Interpersonal connectedness⁹ through gift exchange and its association with social events and ceremonies.

Recommendations

The current study delved into the latent roles of indigenous chicken using grounded theory thinking, emphasizing the importance of context. The hidden, not immediately apparent roles become evident upon closer examination of their contributions to the economy, ecology, culture and being a food source. Additional studies in various contexts, focusing on indigenous chicken-rearing households are recommended to further develop the underlying theories and concepts explaining the roles of Indigenous chickens among rural households in developing countries. This in-depth understanding has implications for the formulation of strategies by agricultural development agents for sustainable indigenous chicken production.

REFERENCES

- Abbasi, I.A., Ashari, H., Ariffin, A. S., & Yusuf, I. (2023). Farm to Fork: Indigenous Chicken Value Chain Modelling Using System Dynamics Approach. *Sustainability*, 2023, 15, 1402. <https://doi.org/10.3390/su15021402>
- Ament, J., Tobi, D., Merrill, S., Morgan, C., Morse, C., Liu, T., & Trubek, A. (2022). From Polany to Policy: A tool for measuring embeddedness and designing Sustainable Agricultural Policies. *Frontiers in Sustainable Food Systems*. DOI:10.3389/fsufs.2022.983016
- Anirudh, K. (2005). Stages of Progress: A Community-based Methodology for defining and understanding poverty. Duke University (USA).
- Biswas, T.D., & Mukherjee, S.K. (Eds.) (2016). *Text Book of Soil Science (2nd Ed.)*. McGraw Hill Education (India) Private Limited, New Delhi.
- Braun, V., & Clarke, V. (2013). *Successful Qualitative Research: A Practical Guide for Beginners*. London: SAGE Publications Ltd.
- Chambers, R. (1986). *Rural Development: Putting the Last First*. Longman Scientific & Technical (UK).
- Chambers, R., & Conway, G.R. (1992). *Sustainable Rural Livelihoods: Practical Concepts for the 21st Century* (IDS Discussion Paper 296). Institute of Development Studies.
- Charmaz, K. (2006). *Constructing Grounded Theory*. SAGE Publications.
- County Government of Kericho (2014). *Strategic Plan 2014-2017*. County Government of Kericho, Republic of Kenya
- Food and Agriculture Organization of the United Nations, FAO (2020). *Kenya at a glance*. Retrieved from <http://fao.org/kenya/fao-in-kenya/kenya-at-a-glance/en/>.

- Franz, N.K., Piercy, F., Donaldson, J., & Richard, R. (2010). How farmers learn: Implications for agricultural educators. *Journal of Rural Social Sciences*, 2010, 25 (1), 37-59.
- Glaser, B. G. (2002). Conceptualization: On Theory and Theorizing Using Grounded Theory. *International Journal of Qualitative Methods*, 1(2), 23– 38. <https://doi.org/10.1177/160940690200100203>.
- Huffman, T. (2017). Participatory/Action Research/CBPR (Chap.). In: Jorg Matthes (Ed.), *The International Encyclopedia of Communication Research Methods*. John Wiley & Sons, Inc. Available: <https://doi.org/10.1002/9781118901731.iecrm0180>
- Kennedy, O.B., Barbara, J. Mitchel P.C., &Thurnham, D.I. (2005). Flesh Colour Dominates Consumer Preference for Chicken. *Appetite*, 44 (2005): 181-186.
- Kenya National Bureau of Statistics, KNBS (2019). *2019 Kenya Population and Housing census volume IV: Distribution of population by Socio-economic characteristics*. Kenya National Bureau of Statistics, Nairobi, Kenya.
- Kolb, S. M. (2012). Grounded theory and the constant comparative method: Valid research strategies for educators. *Journal of emerging trends in educational research and policy studies*, 3(1), 83-86.
- Kumar, R. (2019). *Research Methodology: A Step by Step Guide for Beginners* (5th Ed). London: New Age.
- Lesley, C. (2023, November 16). Chicken Behaviors: Dust Bathing, Mating, Preening, and More. *The Old Farmer's Almanac*.<https://www.almanac.com/chicken-behaviours-dust-bathing-mating-preening-and-more>
- Morse, S., & McNamara, N. (2013). *Sustainable Livelihood Approach: A critique of Theory and Practice* [Online]. DOI: 10.1007/978-94-007-6268-8
- Msoffe, P., Msoffe, F., & Mgeni, T.A. (2010). Characterisation of Indigenous Chickens in Tanzania: Challenges and Opportunities for Improvement. *International Journal of Poultry Science*, 9 (8), 763-772.
- Njuguna, K.C., Kabuage, L.W., & Bett, E.K. (2017). Economic analysis of indigenous chicken production: The case of smallholder farmers in Makueni and Kakamega counties, Kenya. *International Journal of Agricultural Extension and Rural Development*, 5(5), 564-540.
- Odeyemi, O.A., & Ojo, O.S. (2015). Impact of Indigenous Poultry on household food security in Nigeria. *International Journal of Research in Agriculture and Food Sciences*, 1(1), 21-26.
- Ormerod, R. (2019). The history and ideas of sociological functionalism: Talcott Parsons, modern sociological theory, and the relevance for OR. *Journal of the Operational Research Society*, 71(12), 1873– 1899. <https://doi.org/10.1080/01605682.2019.1640590>
- Padhi, M.K. (2016). Importance of indigenous breeds of chicken for rural economy and their improvements for higher production performance [online]. *Scientifica*, Vol. 2016. Retrieved from: <http://dx.doi.org/10.1155/2016/2604685>
- Roman, D. J., Osinski, M., & Erdmann, R. H. (2017). A substantive theory on the implementation process of operational performance improvement methods. *Revista de Administração*, 52 (2), 148–162. <https://doi.org/10.1016/j.rausp.2016.12.005>
- Thornburg, G.K. (2013). Embeddedness, Marketness and Economic Instrumentalism in the Oklahoma Farm-to-school Program.

Journal of Rural and Community Development,
8(3): 321-334.

Udo, H., & Bassey, A. (2004). Economic Analysis of Indigenous Chicken Production in Rural Nigeria. *African Journal of Agricultural Research*, 1 (3): 124-130.

Uzundumlu, A.S., & Dilli, M. (2023). Estimating Chicken meat productions of leader countries for 2019-2025 years. *Ciência Rural*, 53 (2). Available: <https://doi.org/10.1590/0103-8478cr20210477>

Van Bel, D.T., IJsselsteijn, W.A., & de Kort, Y.A. (2008). *Interpersonal Connectedness: Conceptualization and directions for a measurement instrument*. Paper Presented at the CHI 2008 Conference, April 5-10, 2008, Florence, Italy.