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EXPLOITATION OF INDIGENOUS CHICKEN FROM THARAKA-NITHI COUNTY FOR GLOBAL MARKETS

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ABSTRACT

Indigenous chicken are found in virtually every rural household in the world as important source of livelihood. They are staple food for many communities, ceremonial species and key economic activity. However, production has remained at the household level and nearest market centres, leaving many consumers craving for this delicacy. Tharaka-Nithi County's Agriculture Sector Development Support Program is developing a poultry value chain, identified by stakeholders using the value chain prioritization tool matrix. This study investigated the socio-economic hurdles that the enterprise has to overcome to penetrate global markets. The challenges were poor attitude to the enterprise, labelled as local in contrast to exotic, belittling the enterprise as being only "meaningful" to the resource-poor and enterprise ownership by women. The economic "hurdles to jump" include low production levels due to poor management of the flocks, low investment into the enterprise, lack of a well-developed value chain, exploitation by the middlemen and global market standards. Addressing the challenges may require establishment of resource ownership rights, strengthening market structures, management and providing production incentives so as to avail them to the global dining table.

Keywords: Culture, Value Chain, Food security, livelihood

INTRODUCTION

Indigenous chicken production represents an important source of livelihood for the growing human population of Tharaka Nithi County. They are also a source of high quality protein and provide additional income to resource-poor small farmers, especially women (Guèye, 2009). According to FAO (2002), the increasing human population pressure, the need for high quality versatile foods especially protein, increasing levels of income and standards of living have created a tremendous demand for poultry products. According to Perry et al (2002) and Moreki et al (2010) chickens are the most widely kept livestock species in the world and also the most abundant. Indigenous chickens play an important role in income generation and food production. They are widely distributed in rural and peri-urban areas (Thornton *et al.* Moreki *et al.*, 2010). They make up to 70 % of all chicken kept in Africa (FAO, 1986). About 90% of the small-scale farmers in Kenya rear indigenous poultry, majority of which are indigenous chicken (Gichohi and Maina, 1992). In 2013 indigenous chicken comprised of over 90% of all the poultry kept in Tharaka Nithi County. Eggs and meat from indigenous chicken contribute to the protein nutrition of various household in the country. Sale of poultry products increase and diversify revenue in the livestock sector. For instance in 2013 indigenous chicken produced over 8.5 million eggs and almost 200 metric tonnes of meat in the County (Livestock Annual reports 2013). Poultry sub-sector creates employment and promotes overall economic development. Indigenous chicken have been used in cultural activities such as traditional medicine and for various rites (King'ori, 2004).

Compared to other livestock species, chicken production has quick returns to investment even with limited management practices. Chicken has many market outlets for their products. Sale of products especially eggs in low value units make chicken products affordable to the lower income brackets (Say, 1987; FAO, 1997). Tharaka Nithi County has an estimated poultry population of 0.7 million. Of these, about 90 % are free-ranging indigenous chickens (Livestock Department 2013). Poultry keeping is especially attractive to poor households as they require low start-up capital and have low maintenance costs. Besides, increasing landlessness occasioned by the high population growth means that poultry production has become the investment of choice due to its low space requirements. The productivity of indigenous poultry is normally low due to genotype, poor feed conversion efficiency and low adoption of modern technologies. In an endeavour to improve indigenous chicken production in Tharaka Nithi County, the Agriculture Sector Development Support Program, a SIDA funded program under the Ministry of Agriculture, Livestock and Fisheries is trying to assist in the development of the indigenous chicken value chain. The poultry value chain was identified by stakeholders using the value chain prioritization tool matrix. This study was motivated by the need to contribute to knowledge about value chain development for indigenous Chicken in Tharaka-Nithi County. The main objective was to map and analyze the challenges facing indigenous chicken value chain actors in Tharaka-Nithi. The factored considered were production, marketing and social.

Conceptual framework

This study employs a Value Chain Analysis (VCA) framework to understand the challenges facing indigenous chicken industry in Tharaka Nithi County. The value chain describes all the activities which are required to bring a product or service from the beginning, through the different stages of production delivery to final consumers and final disposal after use. The VCA seeks to understand the various factors that drive the incentives, growth, and competitiveness within a particular industry and identify opportunities and constraints to increasing benefits for stakeholders operating throughout the industry. This feature of VCA lends to its completeness as a strategic tool in exploring different alternative strategies for poverty reduction. The purpose of analysing the value chain for indigenous chickens is to identify key points of intervention along the chain and to recommend specific policy directions to enhance the competitiveness of the indigenous chicken sub-sector.

METHODOLOGY

The data for this study were collected from both primary and secondary sources. Secondary data included published and unpublished literature in the public domain. Data collection was guided by checklists based on the terms of reference above. The report relies heavily on proceedings of various stakeholder meetings held under the ASDSP from the Livestock Department, particularly the 2013 annual report. In an endeavour to support the indigenous chicken value chain in the county, it relies on Annual reports.

In addition, informal interviews with key stakeholders in the poultry sector were conducted from various stakeholders identified during the value chain mapping by ASDSP. The data collected was collated with the information available from secondary data sources. Respondents included key participants in the poultry value chain such as indigenous Chicken keepers, middlemen involved in the business, retailers, hoteliers and even individual consumers. The respondents were asked their views on challenges facing the indigenous poultry industry in the county. Data was analysed qualitatively with an emphasis on descriptive analysis.

RESULTS

Indigenous chicken are the most widely kept birds in the County. From Figure 1 below it is evident that indigenous chicken population is far much above the population of exotic broilers and layers. Indigenous chickens are well spread over the County. However, most of them are found in Tharaka South Sub County.

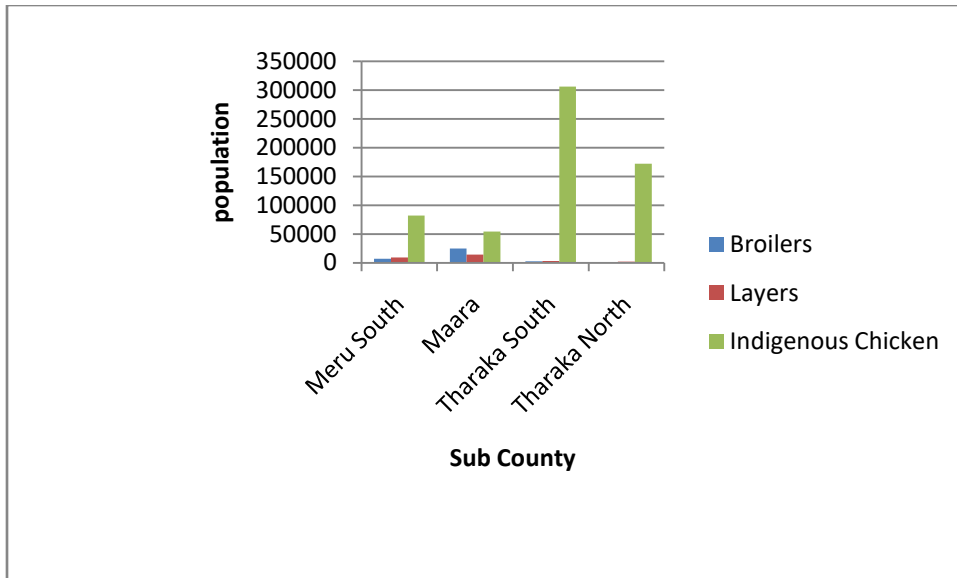


Figure 1: Population of various chicken types in Tharaka-Nithi County

Extracted from County Summaries for Livestock Population 2013

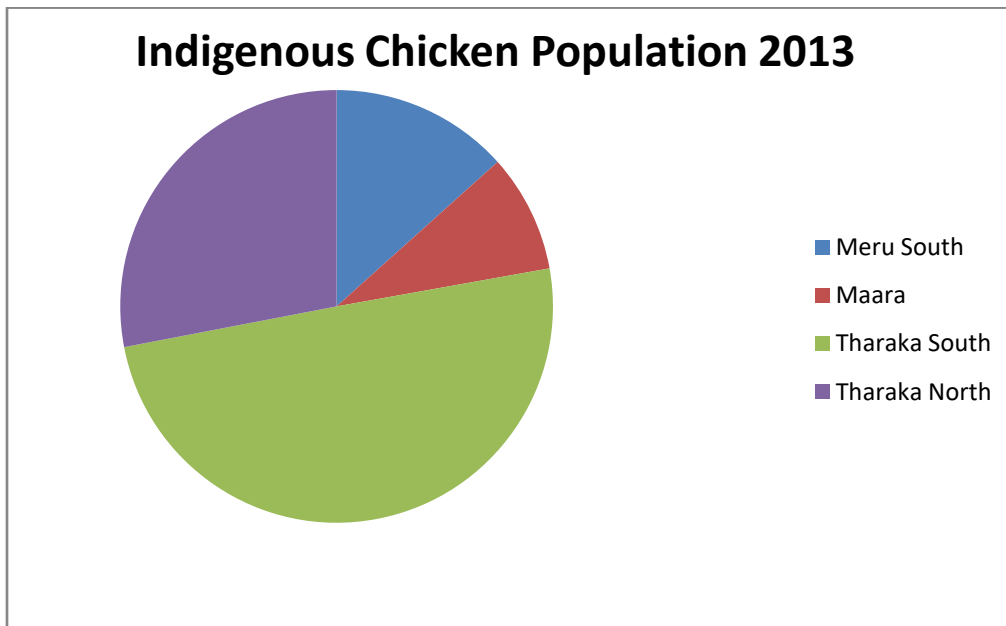


Figure 2: Indigenous chicken population by Sub-county

Source: County Summaries for Livestock Population 2013

Indigenous poultry value chain in Tharaka-Nithi County

The value chain map for indigenous chicken in Tharaka-Nithi is simple and under developed with no infrastructure except small market segments set aside for chicken traders in the main trading centres such as Chuka, Kaanwa and Kathwana. The main actors along this value chain are smallholder farmers, primary collectors and live bird traders and retailers. There are a few wholesalers in larger markets like Kathwana. The main marketing channels are from farmer to trader or consumer (informal marketing). The other marketing channel is from farmer to retailer and then to consumer (primary marketing). Some farmers sell directly to restaurants while others sell to middlemen who take their chickens either to secondary markets and urban markets (wholesalers). The final end market of indigenous chickens is domestic consumption through hoteliers.

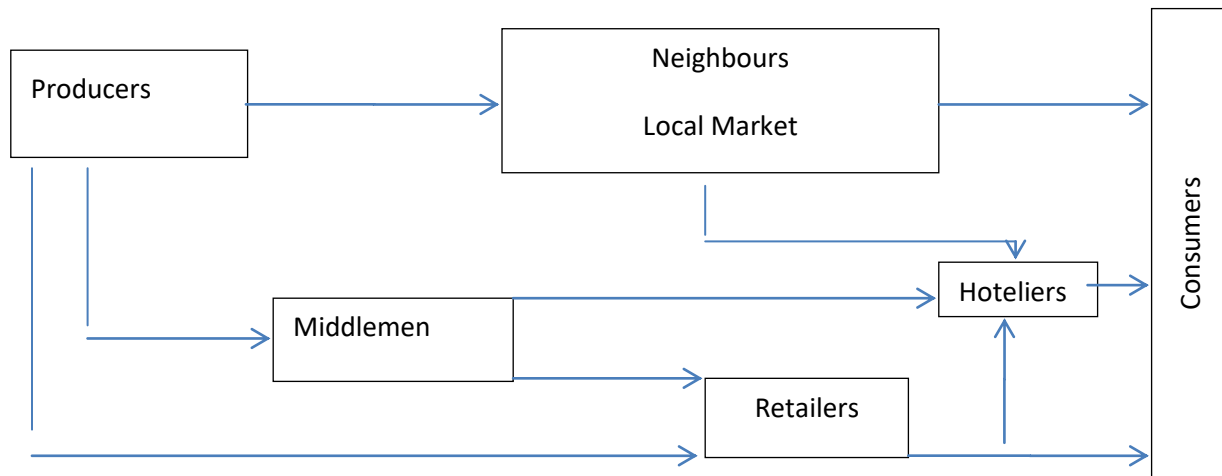


Figure 3: Tharaka-Nithi County Indigenous chicken value chain map

Challenges to overcome

Challenges affecting the indigenous chicken in Tharaka-Nithi are diverse. These challenges occur at every part in the value chain. They include:

Production challenges

i. Types of indigenous chicken kept

Like in most developing countries indigenous chicken populations kept in Tharaka Nithi County are the result of uncontrolled cross breeding programmes between various lines of local and exotic breeds. However, there are distinct indigenous chicken types such as frizzled feathered, naked neck and barred

feathered. These types vary in body size, conformation, plumage colour and performance. Therefore the indigenous chickens kept are a heterogeneous population with no standardized characteristics and performance and hence cannot be gauged on the same standards.

i. Type of production system

In most parts of Tharaka Nithi County indigenous poultry are kept either under free range or in semi intensive production system. In the free range system, birds are let out during the day and are confined at night. They scavenge for insects, green leaves, food wastes, scattered grains, leafy vegetables. The birds are sometimes supplemented with grains during times of abundant food. Birds of all ages live and scavenge together. Drinking water may or not be provided. Housing is not developed and only seeks to protect the birds from extreme weather and predators. In semi-intensive system of production birds are let to scavenge during the day and they are housed during the night. They are supplemented with various feeds such as grain and they do get water and veterinary. The production systems outlined above pose two major challenges. There are heavy losses to predators and sometimes birds are not able to get adequate feed. This slows their growth rate as well as their productivity. Disease outbreaks also become a major challenge. To overcome this hurdle, housing of the indigenous chicken needs to be tremendously improved. Fencing of the walking area with chicken wire goes a long way in ensuring the birds safety

ii. Feeds and feeding

Birds are normally let out to scavenge for food in the morning where they pick whatever is available including insects, food wastes, green grass, leafy vegetables and scattered grain. Availability for food for the scavenging birds is dependent on the cropping season with food being abundant during the harvest season and least just before the planting season. Feed availability is also dependent on the area available for the birds to scavenge. Where there are large tracts of land and lower bird population then there may be more abundant feed. In addition the birds may not always attain the required nutritional requirement. However deliberate effort to feed the birds is imperative if meaningful profits have to be realised. Feeds and feeding greatly affect the level of output of the chicken including both eggs and meat.

iii. Diseases, pests and predators

Diseases are major constraint to not only the indigenous poultry production but also the exotic poultry. Expenditure on disease control is minimal and chick mortalities are high over the first 8 weeks. Newcastle Disease (NCD) is the most prevalent and fatal in the County. The control of NCD is possible through vaccination and vaccines are available from local chemists. Very few farmers vaccinate their poultry since many of them are not aware that NCD can be controlled by vaccination. The vaccine

requires being stored under refrigeration and is packaged in doses for 100 chickens. This packing poses a limitation to the use of vaccines for NCD. Other common diseases include fowl pox, fowl typhoid and coccidiosis. Fowl pox is prevented by vaccination. Fowl typhoid and coccidiosis are prevented by proper hygiene in the chicken house and routine administration of antibiotics. Pests also pose challenges but losses due to pests are relatively small compared to diseases such as NCD that can wipe away whole flocks. Predators are a threat to scavenging birds and especially chicks and pullets.

Marketing challenges

From the value chain actors analysis it is clear that the industry is not well developed as there are no or very few traders of the product from outside the county. In addition, there are no market structures such as wholesaling or assembling for collective marketing. There are no markets sheds for poultry marketing and the County lacks poultry slaughter slabs and cold storage. There is no evidence of an established relationship among value chain actors and the industry lacks sound institutional support systems not only in marketing but also efficient extension services which is easily accessible by rural chicken producers. There is also lack of reliable market information to rural poultry producers and difficult urban markets access due to poor infrastructure. The apparent lack of a centralised market information system easily accessible by rural poultry producers means that their pricing decisions may not necessarily be reflective of the market situation and could negatively affect their incomes from the indigenous chicken business. Difficult markets access characterised by high transportation costs due to poor infrastructure increases production costs and weakens returns from the indigenous chicken business. On the other hand, the middlemen add some price mark-up for commercial gain, hence the end market price for indigenous chickens in the tertiary market becomes significantly high.

Social Challenges

Despite its enormous potential in rural livelihood development, chicken keeping is still largely considered a women enterprise. According to the ASDSP baseline survey conducted in 2013, it is the only livestock enterprise where women are the main decision makers. It also emerged that women enterprises get the lowest allocation of the family resources for investment. In addition, the Tharaka Nithi County Integrated Development plan of 2013- 2017 does not mention indigenous chicken and this is a challenge as the enterprise is not on the County development agenda to propel the enterprise, there needs a mind shift towards the enterprise to facilitate it achieve the full potential.



Figure 4: Decision-making on livestock production for different species by gender

Extracted from ASDSP Baseline Survey page 30

CONCLUSION

The system of production and productivity of indigenous chickens in Tharaka-Nithi County is similar to other regions in Kenya and indeed to other African countries. Indigenous chickens contribute significantly to the county egg and meat production. They are very important in the improvement of the protein nutrition of the rural population and a common feature in the diets of many urban dwellers. The low productivity of indigenous chickens is mainly due to poor nutrition, housing and lack of proper health care. In addition there is little investment towards the enterprise and poor attitude towards the same. Growing indigenous chickens in the free-range system require daily supplementation with balanced chicken feed. Vaccination against NCD reduced mortality, increased eggs per hen per year and increased cash flow income from sale of chicken and eggs. Indigenous chicken production is a way of increasing rural incomes and also economic empowerment of the rural women and youth. The indigenous chicken enterprise holds promise for integrating women into markets due to the existence of a number of opportunities such as the growing demand and preference for indigenous chicken due to changing dietary habits that are driven by the need to have healthy diets. Of supreme importance is the need to invest in innovative interventions to address the systems challenges which have held back the indigenous chicken industry from realising its potential.

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