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Walter Magero Wafula
University of Nairobi, Kenya

Oliver Vivian Wasonga
University of Nairobi, Kenya

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Analysis of Actors and Activities at Dagoretti Livestock Market in Nairobi City, Kenya

Walter Magero Wafula and Oliver Vivian Wasonga*

*Department of Land Resource Management and Agricultural Technology, University of Nairobi,
P.O. Box 29053-00625, Kangemi, Nairobi, Kenya.*

***Corresponding author's email: wamagero@gmail.com**

Abstract

Pastoralism is the main economic activity in the massive drylands of Kenya, consisting over 70% of the countries' livestock population. It employs 90% of communities living the arid and semi-arid parts of the country. Although few small-scale livestock markets exist in rural pastoral areas, most of the animals end up in the urban markets with peak demand of livestock-based commodities. Dagoretti livestock market, located in Nairobi City (the capital of Kenya) is the largest and terminal market for pastoralist communities countrywide as well as a source of income to various market actors and government revenue. Despite this immense contribution, there is limited scientific information on the market actors, opportunities and challenges encountered at the market, to guide planning, decisions and interventions for sustainable livestock trade in the city of Nairobi. This study was the aim of this study. Data was collected using semi-structured Key Informant Interviews (KIIs) and Focus Group Discussions (KIIs). A total of 41 KIIs and 4 FGDs were conducted with various market actors. Results show that Dagoretti livestock market is dominated by pastoralists, suppliers of animals for trade; whereby cattle consisted 63.5% of total animals sold, sheep (28.7%) and goats (7.8%). Majority of the animals came from Southern and Northern rangelands of Kenya, 43.02% and 21.68% respectively, with only 9.33% from Uganda and Tanzania. The market attracted a myriad of income opportunities including traders in live animals, brokers, transporters, trekkers, loaders and off-loaders, herders of unsold animals, forage-sellers, veterinary officers, revenue officers, food vendors, cleaners, security guards, branders, butchers, and slaughtered animal value-chains. Main challenges included high taxation barriers, poor infrastructure, lack of incentives, and animal-congestion. There is need for regulatory frameworks supporting livestock trade and incentives to empower market actors, improve efficiency in market operations, and returns to the government and individual actors.

Keywords: Livestock trade, Market actors, Pastoralists, Revenue, Urban areas.

Introduction

Livestock trade is an important livelihood activity and source of income to over 200 million pastoralist households globally (African Union, 2015; Dong *et al.*, 2016; Tully & Shapiro, 2014). It contributes significantly to the world's agricultural Gross Domestic Product (GDP) that is 40% globally, 35% in Africa, 40% in East Africa and 42% in Kenya (FAO, 2009; GoK, 2019; Nyariki, 2017). In Kenya, pastoral production dominates livestock markets supplying over 70% of the country's livestock, and is practiced in arid and semi-arid areas (ASALs), which comprise approximately 89% of the nation's landmass (FAO, 2018; GoK, 2012). Livestock industry operates at several nodes through several processes and chain actors who link producers to the final market mainly for consumption as cattle, sheep and goat-meat (Alarcon *et al.*, 2017; Mahmoud, 2010).

Historically, livestock trade among pastoralists in Kenya dates back in over 200 years ago, where they engaged in barter trade to exchanged crops with an agreed equivalent number of animals (Waller, 2012). Traditionally, keep pastoral communities indigenous livestock species comprising cattle, sheep, goats, camels and donkeys (Omollo, 2017). However, the arrival and settlement of British colonial government in Kenya in 1880s marked the shift from the traditional livestock trading system. During this era, the colonial government came up with new regulatory frameworks in livestock trade, such as introduction of monetary system as a recognized form of exchange and requirement for destocking among pastoralists through trade to attain ecosystem's carrying capacity (Guyo, 2017). In 1902, when the European settlers introduced exotic livestock species in the country's highland regions and formation of the Kenya Meat Commission in 1950 (GoK, 2019). In addition, the agricultural intensification strategy of 1954 led to the establishment of Livestock Marketing Division as well as permitting Africans to keep and trade in exotic livestock breeds (Swynnerton, 1954). Since then, the country's livestock trade industry has continued to advance through development of policies supporting local and export livestock trade.

Livestock markets in Kenya are structured into primary, secondary or tertiary markets, whereby; primary markets usually have few buyers, low market prices and in rural areas; secondary ones are located in urban areas with high market demand, livestock volume of traded animals and high prices (Fareh, 2011); whereas tertiary markets comprise the cross-border and export trade to other countries (Arero, 2018; Tessema *et al.*, 2019). The livestock survey report of 2019 shows that the

country's ruminant livestock comprise 15.8 million cattle (consisting 82% indigenous, and 18% exotic breeds), 28 million goats, 19.3 million sheep, 4.6 million camels, and 1.2 million donkeys (KNBS, 2020). Livestock sector has attracted several research funding to boost food security, employments and poverty alleviation in the country (Mahmoud, 2010; Roba, 2018).

Currently, pastoral livestock trade is a fundamental tool in attaining economic development goals both locally and globally (African Union, 2015; GoK, 2017, 2019; United Nations, 2019). In Kenya, studies have shown that the demand for livestock meat, milk and other livestock-products is expected to increase, with peak cases in the largest cities; Nairobi and Mombasa City (FAO, 2018; Robinson & Pozzi, 2011). This demand has been occasioned by rapid urbanization, increase in human population, income levels and change in consumption patterns in favor of animal-protein (Oyugi *et al.*, 2017). It is projected also that by the year 2030, the demand beef, mutton and goat-meat will have risen by a double proportion, hence increasing pressure on pastoral production as the major supplier of animals for trade (Alarcon *et al.*, 2017).

Despite its immense contribution in livestock trade, pastoralism still experiences a myriad of challenges that continue to drag behind the perceived merits. Key of these challenges include; poor infrastructure, transport and communication systems, poor pricing, lack of financing by the government and financial institutions, frequent and prolonged droughts diminishing grazing resources (Iruata *et al.*, 2015; Kandachar, & Halme, 2017; Nyariki, 2017). Although several studies have been conducted in promotion of livestock revenue through trade, the general contribution of individual market actors, activities and opportunities arising from livestock trade in urban areas is still overlooked. Understanding such information is necessary in informing policy interventions and practices that will enhance efficiency and improved livestock trade, for increased returns to various actors and the general economy.

Materials and Methods

Study Area

This study was conducted in Dagoretti livestock market located on the border of Nairobi City County and Kiambu County, Kenya. Geographically, the market is situated at latitude 01°17' South, and longitude 036°41' East. It is at an altitude of approximately 1,900 meters above sea level and experiences an average rainfall of 1000 mm, a mean annual temperature of 19⁰C and

relatively higher humidity (above 80%) in the morning, and lower (below 40%) in the afternoon (GoK, 2014; Makokha & Shisanya, 2010). Dagoretti market, also known as *Ndonyo* (which means ‘the market-place’ in *Kikuyu* language) is the major livestock market that serves residents in Nairobi City, Kiambu and Kajiado Counties. It was selected as the largest livestock market supplying ruminant meat and other livestock-products in Nairobi City and its neighboring towns on daily basis. Established in 1950, the market occupies approximately 6.8 hectare land along the Nairobi-Naivasha railway line. This railway line was formally used in transportation of people and livestock for trade from white-settler farms in Rift Valley region to City of Nairobi mainly sale and slaughter. Until today, it is the main terminal market of livestock from the pastoral areas in Kenya as well as the neighboring countries.

Data

Data for this study was collected using semi-structured key informant interviews (KIIs) and Focus group discussions (FGDs). Data collected entailed the market history, market actors and their roles, type and source of animals sold, and their selling price. A total of 41 KIIs, and 3 FGDs were conducted comprising between 6 to 8 market actors as participants (having at least 2 youth, 2 men and 2 women), to supplement information from obtained from the key informants.

Results and Discussions

The study reveals that Dagoretti urban livestock market is a major trading ground mainly for cattle, goats and sheep of pastoral livestock keepers from the Kenyan rangelands. In addition, livestock traders (pastoralists) also source animals for trade in Uganda and Tanzania to complement the nation’s livestock and livestock-product high demand. The livestock traders at the market were divided into two; small ruminant traders (sheep and goats) and large ruminant traders (cattle alone). The nature of animals traded are as reason of high livestock meat demand in urban and peri-urban areas, Nairobi being the peak market location (Oyugi *et al.*, 2017). The findings also show that market brokers or intermediaries were the largest in number, followed by livestock traders and food vendors; as the dominant market players at 43.5%, 18.6% and 18.6% respectively.

The findings show that the animals traded at market consisted 99% indigenous and 1% exotic; consisting cattle (East African zebu, Boran, Ankole, Sahiwal, crosses of cattle and Jersey cattle), Goats (Galla, Small East African goat and crosses of goats), whereas sheep (Dorper, Red Maasai sheep, Somali Black-head and crosses of sheep). The findings reveal that the traded animals come

from pastoral territories of the nation 43.02% in southern Kenya, 21.68%, northern Kenya, 17.22% eastern Kenya, 7.32% Rift Valley and western region; while 1.42% in central Kenya. From the neighboring nations, 7.1% of cattle originated from Uganda, mainly Ankole breed, while 2.23% from Tanzania.

Table 1: Volumes of animals sold Monthly

| Livestock species | Average No. of livestock sold monthly | Average market price of the animal (USD) | Monthly Sales in (USD) | Percent Totals sold monthly |
|-------------------|---------------------------------------|--|------------------------|-----------------------------|
| Cattle | 15,655 | 400 | 6,262,000 | 63.5% |
| Goats | 1,927 | 65 | 125,255 | 7.8% |
| Sheep | 7,057 | 60 | 423,420 | 28.7% |
| Totals | 24,639 | 525 | 6,810,675 | 100% |

Overall, livestock trade in the City market offered a range of informal employments to livestock traders, market middlemen, sellers of meat, livestock forages, manure, sand, sawdust, skin and horn dealers, track drivers, rental house owners, herders of unsold animals, food vendors, cleaners and security officers.

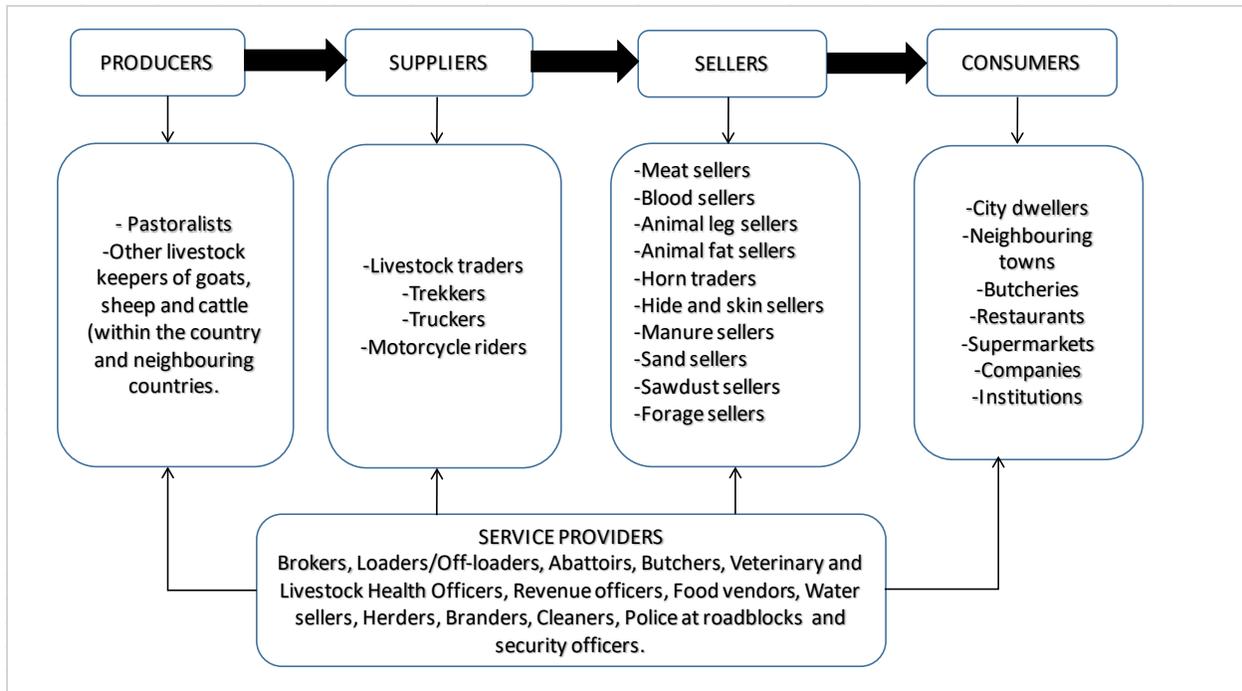


Figure 1: Flowchart diagram of market actors and events in livestock trade

Conclusion and Recommendations

Dagoretti market is an important center for livestock trading in Nairobi City, and a source of income to market actors in various the market value-chain and value-additions. It is also a key source of the county and national government's revenue through taxation. However, it is faced with a number of challenges including poor financing, poor infrastructure, multiple taxations at both inter-country and cross border during livestock transportation to the market. There is need for policy measures to promote livestock trade through infrastructural development, harmonization of livestock tax system for a one-stop taxation and financing of the livestock trade sector to enhance efficiency, and profitability to various market actors for economic development. Further research is required on livestock value chains in urban markets, costs and revenues in livestock trade, and willingness of market actors to pay for improved livestock trade.

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