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Beef, sheep and goat food chains supplying Nairobi: Analysis of ‘value chain profiles’ to investigate food security and safety risks

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Introduction (max. 100 words)

Beef, sheep and goat meat consumption provides essential nutrients in highly bioavailable form, and poses a zoonotic pathogen threat. In Nairobi, these luxury products are difficult to access by poor households, yet little is known on the city’s food system in terms of food safety and security risks. An understanding of the food systems is essential to assess and contextualize the chains supplying poor households and to determine population exposure to hazards. Mapping is therefore crucial to assess food security and food safety risks. The present study characterised the Nairobi beef, sheep and goat food systems using value chain analysis.

Methods (max. 200 words)

Data collection targeted the different stakeholders involved in beef, sheep and goat meat food systems from: (1) urban and periurban farmers; (2) livestock and meat traders, abattoir/market owners and workers, and livestock and meat transporters in all Nairobi markets; (3) managers of the main beef, sheep and goat meat processing companies; (4) urban and periurban retailers; (5) 205 low income consumers and (6) government/regulatory officers. Data were collected through focus groups discussion and individual interviews, and complemented with secondary data. Qualitative data were obtained on people, animals, products and chains interactions to identify all the existing stakeholders and chains, and assess their organizational, spatial and temporal structure. Quantitative data were collected to assess flow of products in the different chains and their contribution to the supply of these commodities to Nairobi. Data were recorded and entered in thematic templates for analysis. Mapping analysis was done through the creation of 'Chain profiles', which groups patterns of

operations/flows of commodities. Mapping of these profiles was done at 3 levels: (1) people chain profile (map interactions of actors); (2) Geographical chain profiling (map of routes of animals and products); and (3) Product profiling.

Findings and interpretations (max. 200 words)

Eight chain profiles that make up the beef, sheep and goat meat food systems were identified. A critical profile was the 'less integrated terminal markets', composed of chains where no group or person own a large proportion of different activities. This profile represents three quarters of the city's beef, sheep and goat meat supply and contains two significant markets (Figure 1). Large companies integrate market, product transport and distribution, and mainly export or supply to high class retailers and consumers. Six beef keeping activities were identified in the city, mainly as temporary settlements. Sheep and goat keeping was mainly small scale (1-5 animals) and their animals are mostly slaughtered in households for festive occasions. In low income households beef was obtained from butcheries (83%), while goats were obtained from butcheries (51%) and markets (40%).

This study shows the importance of specific chains to the food security of a city, and describe the dimensions of urban human-livestock interactions. In combination with an understanding of chains governance and barriers, this study provides a powerful approach, missing to date, for the investigation of nutrition and food safety risks.

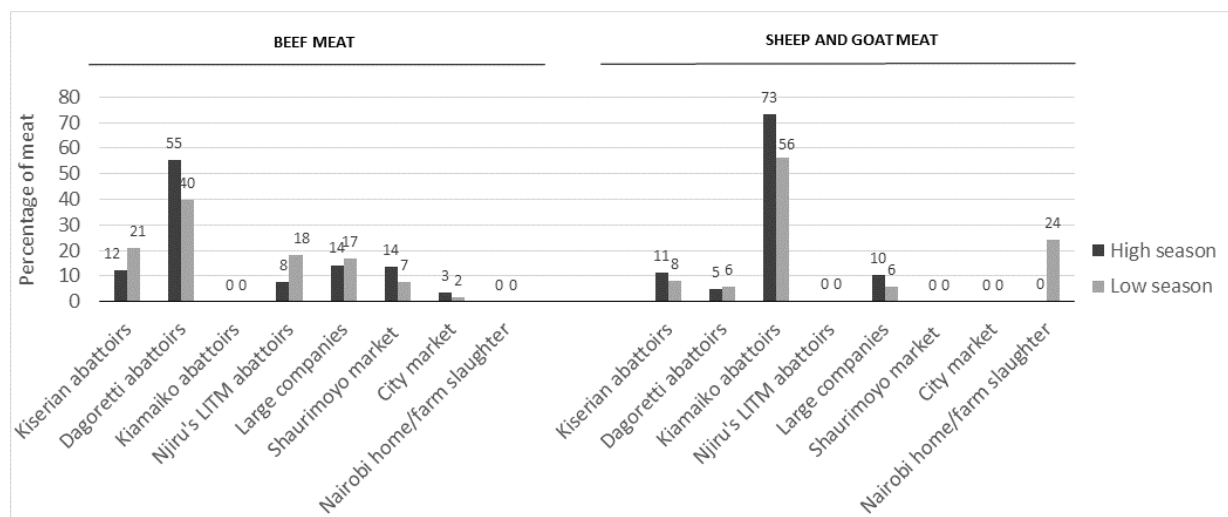


Figure 1. Contribution of main chain nodes to the Nairobi beef, sheep and goat food products.

References

Theme (select one)

- Agriculture, poverty and health
- Agriculture, diet and NCDs in development
- Emerging food borne and zoonotic diseases
- Value chain approaches in agri-health research
- Innovative metrics for agriculture and health research and evaluation
- Impact of environment and climate change on agriculture, health and nutrition

If selected for an oral presentation, will you apply for a bursary?

- Yes
- No
- Don't know (yet)