

Mapping of Livestock Value Chains as a Tool for Understanding Disease Risks in Agro-Pastoral Systems of Kajiado County, Kenya

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Research Article

Keywords: Abattoirs, Diseases, Pastoralists, Ruminants, Value chains

Posted Date: May 9th, 2022

DOI: <https://doi.org/10.21203/rs.3.rs-1609217/v1>

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Abstract

BACKGROUND

Ruminant production plays a major role in the Kenyan livestock sector, but they face a myriad of disease threats including zoonoses. The objective of this study was to map the ruminant livestock value chains and describe disease risks and their implication to pastoral livelihoods in Kajiado South sub-county, Kenya. This area is characterised by a highly intertwined wildlife-livestock-human interface which is ideal for transmission of zoonoses and other livestock diseases to connected systems and farms.

METHODS

The study used a cross-sectional design, where primary sampling units were people including pastoralists who operated in critical livestock value chain nodes including slaughterhouses, slaughter slabs and livestock markets. Data were collected using focus group discussions (FGDs), semi-structured interviews (SSIs) and key informant interviews (KIIs) using published participatory methods including listing, probing and pairwise ranking.

RESULTS

A number of constraints to livestock production including diseases, poor extension services and drought were encountered in the study area. In the disease constraint, they treated their animals by themselves, which lead to misuse of drugs thus to antibacterial resistance. The kind of diseases they may contract due to their livelihoods were mentioned among others, anthrax, brucellosis, Rift Valley Fever, tuberculosis, tapeworms and rabies, in that order. Foot and mouth disease (FMD) and lumpy skin disease (LSD) were mentioned across the FGDs that using the animal products, the pastoralists came down with similar flu symptoms.

CONCLUSION

From the pastoralists' point of view the inputs in the value chains were self-medication of their animals leading a possible misuse of drugs without proper withdrawal periods; they were able to identify the disease risks including zoonoses they were faced with. A better understanding of infection processes at the along the ruminant value chains is needed to minimise disease transmission, and it is this which this study aimed to improve.

1 Introduction

Agriculture and in livestock sub-sector, is an important contributor to the overall Kenyan economy. Recent statistics estimate that the sub-sector accounts for approximately 10% of the National Gross Domestic