



Value chain analysis and sanitary risks of the camel milk system supplying Nairobi city, Kenya

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ABSTRACT

The camel milk trade in Kenya has evolved significantly from a small-scale business undertaken in local villages to its current status involving a large number of different stakeholders supplying urban towns, particularly Nairobi City. Despite the evident growth pattern, the supply of camel milk to Nairobi has largely remained informal, with minimal enforcement of regulations. The aim of this study was to characterise the camel milk system supplying Nairobi and assess its governance, main challenges and the potential food safety risk practices.

A value chain analysis framework was used to carry out data collection between August 2014 and July 2015. Qualitative and quantitative data were collected through focus group discussions and key informant interviews with stakeholders operating in different nodes of the value chains.

Three milk value chains supplying Nairobi were identified and mapped: the Isiolo chain, the Kajiado chain and the camel milk processing company chain. Overall, the results indicate that 94% of the milk supplied to Nairobi city is informally traded (traded without any effective regulation), while 6% originates from a formal milk processing company. In the informal chains, milk traders (mostly women) were reported to play a pivotal role in the organisation and daily functioning of the chains. The processing company had partly integrated activities and reported exporting 5% of their products to regional and international markets.

Food safety themes identified were associated with i) lack of cold chain, ii) gaps in hygiene practices, particularly at farm and market levels, iii) consumption of raw camel milk, and iv) lack of food safety training, among other issues. Low level involvement by government agencies in enforcing stipulated food safety measures were reported in the informal chains, as these concentrate efforts in the regulation of dairy milk chains. Isiolo milk traders were identified as the dominant group, setting milk prices and providing sanctions.

The framework and findings obtained can help future research and policy makers to reach informed decision about what to regulate, where to target and importantly how to make the camel milk value chain more efficient and safer.

1. Introduction

Recent estimates suggest that more than 60% of the world's dromedary camel population is in the four East African countries: Kenya, Somalia, Sudan and Ethiopia. Kenya is the second highest producer of camel milk in the world with an approximated production of 0.94 million litres per annum (FAOSTAT, 2014), with a value projection of

more than US\$ 34 million (Musinga et al., 2008). Camels' unique adaptability to arid and marginalised areas (Schwartz, 1992; Khan et al., 2003) results in their milk constituting a significant proportion of the total diet intake for camel owning pastoral communities in Eastern Africa.

The camel milk trade in Kenya has evolved significantly from a small scale business undertaken in few local villages to the current

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