



## **The value of milk in rangelands in Mandera County, Kenya**

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Lack of water over expansive regions in Greater Horn of Africa created the rangelands and rangelands created pastoralism. Pastoralism involve keeping of large livestock herds and movement in search of resources, mainly water, pasture, medicine and wild foods. Several studies have been done in the last century and findings pointed at pastoralism being primitive and unsustainable. It has been predicted it would die in the last century but in the rangelands, pastoralism lives on and it is resilient. This study is based in Mandera, a pastoralism county in Kenya that neighbors Ethiopia to the North and Somalia to the East. The study sought to investigate contribution of milk to pastoralism resilience. Interviews were conducted in the field among the pastoralists, women groups, transporters, traders, government officials and consumers of milk. These information was corroborated with actual field investigations in the expansive rangelands of Mandera County. Pastoralists rarely slaughter or sell their livestock even when the animals waste away during droughts. This is because they have been through such cycles before and observed livestock make tremendous recovery when the right conditions were restored. Rangelands lack infrastructure, there are no roads, schools, telephone or hospitals. Pastoralists diet is comprised of rice, wheat and milk. It was established milk was the main source of income among pastoralists in Mandera County. From milk, the pastoralists make income that is used to purchase the other foodstuffs. Milk is available on daily basis in large quantities owing to the large number of livestock. Unfortunately, every pastoralist household produce copious amounts of milk, thus no local demand and transport infrastructure is nonexistent, making sale of milk a near impossible task. The findings showed the pastoralists have established unique routes through which milk reach the markets in urban centers where demand is high. Urbanization sustain pastoralism. These routes are dynamic, just like pastoralism, far flung and use symbols to communicate with various handlers along the value chain. Consumers and producers don't meet, the need for any form of contact is eliminated through this mode of communication. Drawbacks were identified as lack of water and poor education standards that compromise on hygiene which affect public health. In addition, it takes several hours to move short distances in poor roads or using draught animals. This is further compounded by very hot temperatures that affect milk quality. Handling milk can be improved through vocational training on hygiene and proper handling of milk. On farm mobile cottage industries need to be considered to reach a broader market and boost the returns. Standard milk ferrying containers should be introduced as matter of urgency to improve milk safety. Further services and responsibilities for consumers to producers need to be identified and introduced to enhance the wellbeing of the pastoralists as current practices are in favour of the consumers.