



University of Kentucky
UKnowledge

International Grassland Congress Proceedings

XXIV International Grassland Congress /
XI International Rangeland Congress

A Policy Brief on Adopting the Somali Camel for Enhanced Profitability and Pastoral Resilience in Northern Kenya

Simon G. Kuria

Kenya Agricultural and Livestock Research Institute, Kenya

A. O. Adongo

Kenya Agricultural and Livestock Research Institute, Kenya

S. Murithi

University of Nairobi, Kenya

O. K. Koech

University of Nairobi, Kenya

J. T. Njoka

University of Nairobi, Kenya

See next page for additional authors

Follow this and additional works at: <https://uknowledge.uky.edu/igc>



Part of the [Plant Sciences Commons](#), and the [Soil Science Commons](#)

This document is available at <https://uknowledge.uky.edu/igc/24/6-2/1>

The XXIV International Grassland Congress / XI International Rangeland Congress (Sustainable Use of Grassland and Rangeland Resources for Improved Livelihoods) takes place virtually from October 25 through October 29, 2021.

Proceedings edited by the National Organizing Committee of 2021 IGC/IRC Congress

Published by the Kenya Agricultural and Livestock Research Organization

This Event is brought to you for free and open access by the Plant and Soil Sciences at UKnowledge. It has been accepted for inclusion in International Grassland Congress Proceedings by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.

Presenter Information

Simon G. Kuria, A. O. Adongo, S. Murithi, O. K. Koech, J. T. Njoka, and P. Kamande

A Policy Brief on Adopting the Somali Camel for Enhanced Profitability and Pastoral Resilience in northern Kenya

*Kuria SG; #Adongo AO; †Murithi S; †Koech OK; †Njoka JT and †Kamande P

*Kenya Agricultural and Livestock Research Organization, Kiboko; P.O. Box 12-90138 Makindu
simon.kuria@kalro.org; kuriasg@gmail.com; +254722289697

Kenya Agricultural and Livestock Research Organization, Marsabit; †University of Nairobi, CAVS-Kabete

Key words: Commercial camel rearing; Sustainable camel farming; Adaptation to climate change

Abstract

Persistent drought and high temperatures in Isiolo and Marsabit counties of northern Kenya repeatedly devastate livestock herds particularly cattle making the pastoralists less resilient, more vulnerable to climate change and poor. To address this challenge, an IGAD funded project promoted adoption of Somali camel breed, trained farmers on improved management and also estimated potential profitability of rearing the camel. Through the project, trainers were trained and facilitated to train 240 peri-urban Somali camel producers in Isiolo and Marsabit on breeding, health, routine husbandry and marketing. Impact study documenting positive stories of change was conducted at the end. Producers who hitherto made zero money from their camels were making KES. 42,000 a month from sale of 20 litres of milk daily from only 5 milking camels; producers had adopted a new grazing management strategy that ensured daily access of the camel milk market and conservation of grazing areas around settlements; motor bikes had been adopted as means delivering milk to collection centers thus creating jobs for the youth; the beneficiary producers were spending more money on production inputs. In terms of policy, the county governments of Isiolo and Marsabit need to appreciate the huge business potential in Somali camel rearing and the magnitude of positive change that can be brought about by capacity training of producers on improved camel management technologies and agree to allocate more funds in support of livestock production extension services.

Introduction

Persistent drought and high temperatures in Isiolo and Marsabit counties of northern Kenya repeatedly devastate livestock herds particularly cattle making the pastoralists less resilient, more vulnerable to climate change and poor. The poverty index in the two counties was recently calculated at about 70%, compared with the national average of 48% (Government of Kenya, 2013). Apart from climate change, livestock productivity around which the local economy revolves has been hampered by factors including poor management and breed choice. Water available for livestock and natural pasture production will become less due to rising temperature. In response therefore, the 'Enhancing Resilience of Livestock-based Livelihoods in Northern Kenya' project sought to improve livestock productivity through promotion of adoption of Somali camel breed and capacity building on improved management of the same. The Somali camel breed produces more milk, is heavier and produces more meat, fetch higher price in the market and has higher load capacity compared with other breeds of camel in Kenya. Considering that feed resources will become scarcer in future owing to not only climate change but also human activities, it makes sense to keep few but more productive animals that will also help in climate change mitigation by releasing less greenhouse gas to the atmosphere. The project also sought to understand marketing and estimate potential profitability of Somali camel rearing in northern Kenya as a business.

Methods and Study Site

The project intervention activities were implemented in the arid counties of Marsabit and Isiolo, northern Kenya. The activities included sensitization and awareness creation of advantages of Somali camel compared to other breeds and livestock species, capacity building on selection and breeding, health among other management practices and marketing. The capacity building activities mainly focused on the peri-urban production system and was implemented through training of trainers, covering theory and field demonstration sessions. The trained trainers then trained a total of 240 Somali camel pastoralist in selected sites in Isiolo and Marsabit counties. The project technical team monitored and evaluated the program and collected impact

related data. In implementing the activities, the project team worked closely with field extension personnel to ensure sustainability of the efforts beyond the project duration.

Results and Discussions

During a monitoring and evaluation visit to some of the working sites, the following was picked;

Speaking to two Somali camel pastoralists who had benefited from the trainings, the farmers were emphatic that “the idea of camel milk marketing was very exciting and that one of them was selling 20 litres of camel milk daily earning a net of KES. 1,400 after paying the transfer costs. This translated to a monthly net income of KES. 42,000. The other farmer was selling 10 litres of milk daily earning KES. 21,000 a month. Unlike before the training, the farmers said they had started buying mineral salts for camels to enhance health and milk yield. That the group of trained farmers held a meeting after the training and agreed on a grazing management strategy that would ensure continuous delivery of milk to the market. The strategy entailed herding lactating camels in groups of 3 – 4 and in locations accessible by a motorbike at all times to facilitate milk collection every morning. The strategy also required that some other camel herds are shifted close to the main road to Isiolo to avoid overgrazing of areas around market centers and to ensure milk is directly collected by the vehicle transporting milk to Isiolo town”. This was a crucial story of change considering that in late 2014 when the project was starting, not a single drop of camel milk was being sold from the area, yet there was a high concentration of camels and surplus milk was being wasted. However, the project technical team in two occasions engaged and challenged the local pastoralists to consider selling the milk and demonstrated to them through simple calculations that the milk would indeed pay with the use of motorbikes which were already available in the market Centre. As the project team was visiting the site for monitoring and evaluation, camel milk marketing had already started as illustrated in the following pictures;



Figure 1. A motorbike (bodaboda) rider ferrying 90 litres of Somali camel milk from a site called Barambate to Kula Mawe market Centre, with target of Isiolo Market

In total, there were six boda bodas transporting about 400 litres of camel milk to Kulamawe to link with the vehicle transporting camel milk to Isiolo town. The milk was generating about KES. 25,000 daily for the local camel pastoralists and had created some jobs for the youth (boda boda riders) who were earning KES. 600 to 1000 every morning from milk transportation.

In another site called Shurr in Marsabit county camel milk business had also started as a result of the project interventions and the team in fact met one Toyota Land Cruiser on the way to the site for monitoring and evaluation, ferrying milk to Marsabit town and gathered that 2-3 such vehicles were picking camel milk every morning and delivering the same to town.

In another site called Kipsing in Isiolo County, the project team interviewed two beneficiaries of the training and the team captured stories as under, that: *the farmers were yearning for more since they thought they were good camel managers but the training had proved them wrong; they were impressed by the health management practical which exposed them to the right drugs for treating, correct dosage determined on the basis of live weight of camels, correct route of administration for various drugs; they had learnt how to manage ticks in the camel nostrils using pour-ons which had previously proved very difficult for them and the training had built their confidence in managing camels.* The farmers confirmed that the few camels treated during the practical had recovered and indicated the same had remained sick for long. The farmers had also learnt how to manage breeding especially where one want to upgrade the Turkana or Rendille camel using Somali, that they

should be buying bulls instead of the females as had been the practice before. Having been sensitized on the price of camels in the main markets, the farmers had realized they were being exploited by the traders who had bought their camels very cheaply for a long period and making a kill from the same in the main markets. The farmers confirmed that after the sensitization meeting and the training, the number of Somali camels brought to the market for sale had significantly reduced as they discussed how to deal with the problem of exploitation. The feedback further indicated they had embraced marketing of camel milk seriously saying the local demand was high. One of the farmers had two milking camels from which he was selling 5 litres of milk daily earning KES. 500 (about 5 USD) i.e. a 100 per litre. He had two wives and the money was shared between the two, each getting KES. 200 every day while he remained with a 100 shillings. He said that following the training, he would manage the camels better to increase milk yield and increase the daily revenue. These stories clearly demonstrate change and impact of the project interventions.

Conclusions and Implications

That Somali camel pastoralists require capacity building in most of management aspects, the key ones being breeding and health in order to optimize performance of the genetically high potential camel. The need for training is higher in Marsabit County where commercial rearing of Somali camel is in the formative stage. That where the camel production system is commercialized, farmers tend to invest more in production inputs (upwards of KES. 46,000 per annum for an average herd of 35 in Isiolo), commit more time in managing the camels and are quicker to adopt improved management knowledge and technologies in pursuit of profit. This makes camels in such a system perform better compared to where production is largely subsistence oriented. The former and latter were the cases in Isiolo and Marsabit, respectively. Given that pastoralists were managing the Somali camel using indigenous knowledge and still made a minimum of KES. 10,000 per month in Isiolo, it suggests potential profitability is much higher if pastoralists are trained on improved camel management technologies. However, this calls for revival and strengthening of extension service in Isiolo and Marsabit counties where the service is at the moment poor and in fact completely lacking in most of the areas. The findings of this study imply that county governments of Isiolo and Marsabit should consider the following priorities: Promoting rearing of Somali camel particularly in the peri-urban areas by putting in place strategies that will ensure availability of breeding stock particularly bulls, training farmers on improved management technologies and marketing, either singly or in liaison with other stakeholders which would guarantee farmers reasonable income thus making them more resilient to climate variability; Recognizing the importance of extension service in improving livestock productivity and agreeing to commit financial resources in support of the same.

Acknowledgements

The team highly appreciate the Intergovernmental Authority on Development (IGAD) for funding the study through its Applied Research in Drylands Grant Facility (ARDGF). The policy brief was one of the study deliverables. The team greatly value the facilitation of field activities by the project principal investigator, Professor Jesse T. Njoka of University of Nairobi-Centre for Sustainable Dryland Ecosystems and Societies as well as the support by County Director of Livestock Production, Isiolo and coordinator for Pastoralists Community Initiative and Development Assistance (PACIDA) Marsabit who mobilized respondents for data collection jointly with the local leaders. The support by Director General KALRO by allowing his staff time to jointly work with other team members to write the grant proposal and implement the project activities is much appreciated.

References

- Government of Kenya. 2013. *Economic Survey Report*. GoK Printers
- Kuria, S.G., Mwaura, J.M., Kinyua, M.G., Nduma, B., Okoti, M., Wamuongo, J.W., Ofwona. E. 2015. Adapting dryland livestock production to meet climate change challenges in Kenya. *Research Brief*. IDRC, www.idrc.ca/ccw. Produced by WRENmedia, January 2015.
- Kuria, S.G. 2015. Somali camel baseline survey report covering Isiolo and Marsabit, ADIS - University of Nairobi, Upper Kabete Campus Kenya.
- Kuria, S.G., Adongo, A.O., Murithi, S., Koech, O.K., Njoka, J.T and Kamande, P. 2016. Acquisition and Management of Somali Camel Breed for Pastoral Resilience within Peri-urban Isiolo and Marsabit Counties of Northern Kenya. *LRRD 28 (12) 2016*, <http://www/lrrd.org/lrrd28/12/Cont2812.htm>.
- Omondi, S., Kitiem, P. and Okoti, M. 2014. Downscaling of Future Regional Climate Using Ensemble RCMs. IDRC Project Report, KALRO Nairobi-Kenya.