

**Commercialization of camel milk: *Isiolo camel milk chain actors in an Endeavour to create a functional and efficient chain.***

**Authors: Morgan Siloma and Thomas Were (SNV - Netherlands Development Organization)**

**Abstract**

The camel and its products have been described by some pundits as a "sleeping giant". This summarizes the potential that the camel has especially in the face of the now regular droughts; effects of climate change and the unexploited nutritional value of the camel products. Unfortunately, it seems that this potential has not been fully utilized due to various factors that include; lack of effective coordination among the actors at various levels; inadequate capacity in production and marketing; lack of awareness on the nutritional value of the camel and its products; poor infrastructure etc. In this case study, we focus on camel milk in the Greater Isiolo and what various actors are undertaking to make the chain more effective; market oriented and consequently contribute immensely to people's livelihoods.

It's estimated that the Greater Isiolo has about 40,300 camels with a daily milk production of about 40,000 liters . Out of the 50,000 liters only about 5,000 liters ( 12.5%) is supplied to the main market in Eastleigh. The rest of the milk is consumed in Isiolo town or subsistently at the household level. The focus has been to strategically enhance market efficiency of camel milk; support the camel producers and traders improve the hygiene of the milk and lastly facilitate opening of new markets for camel milk to increase supply.

In this regards various development partners including Kenya Camel Association; SNV Netherlands Development Organization; VSF – Suisse; KARI-KASAL etc have been implementing projects to ensure that the above strategic areas are responded to. The partners have creatively divided responsibility such that VSF- Suisse; KARI etc support improvement of camel milk hygiene and handling while SNV supports improving business efficiency and marketing in the chain. In this case study therefore, we track the changes that these interventions have triggered.

There is evidence that from this initial work; demand for camel milk is gradually increasing but there is need for further linkage of the market to increase supply; women traders are now using Mpesa as a means of cash transactions; bank accounts have been opened; gross margin analysis undertaken has encouraged the camel milk traders to try accessing financial services to improve on their transport services; aluminium cans are now being used as a means to improve hygiene etc However, there is need to further invest in this sector to ensure that efficiency is attained while shifting from subsistent to commercial orientation.

**Introduction:**

According to FAO statistics there are about 19 million camels in the World, of which 15 million are found in Africa and 4 million in Asia. Of this estimated world population, 17 million are believed to be one-humped dromedary camels and 2 millions two-humped. Most of the camels are kept by pastoralists in subsistence production systems. They are very reliable milk producers during dry seasons and drought years when milk from cattle, sheep and goats is scarce. At such times, camel can contribute to up to 50% of the nutrient intake of the pastoralists. From a global perspective, the economic significance of camel production is minimal in comparison with that of other domestic animals. Nevertheless in Africa, especially in East Africa and Sahel countries, the camel population makes a significant contribution to national economies. However it is difficult to evaluate this economic contribution as most of the camel products are traded in the informal sector.

Kenya has the fifth largest camel herd in the world estimated at 1.06 million traditionally kept by the Somali, Rendille, Gabbra, and Turkana communities living in the country’s harshest arid and semi-arid lands. These areas are also ranked as the poorest parts of the country. Kenya’s camel milk production in 2007 is estimated to have stood at over 340 million liters valued at over Ksh 8 billion at the farm level. This estimate makes the camel milk sub-sector much larger than cotton and pyrethrum sub-sectors put together, and only comparable to much bigger sub-sectors such as coffee.

**Camel milk in Isiolo District:**

The total population of camels in Isiolo district was estimated at 40,460 in 2007 making it the district with the **seventh** largest camel population in Kenya. Even with the seventh position, the district has a paltry 3.8% of the Kenyan herd and from relative perspective should actually be an insignificant contributor to marketed camel milk in the country. This is however not the case as Isiolo currently contributes to more than 90% of marketed camel milk reaching national urban markets. Various reasons can be given for this unusual contribution. These include the proximity to Nairobi, good tarmac road, the market orientation of the Somali segment of the Isiolo population, among others.

While these reasons are plausible and significant, there is a strong view that these are merely factors that have facilitated continued commercialization of the camel milk value chain in Isiolo. Commercialization of the Isiolo milk cluster represents the typical growth and commercialization of production clusters. It is highly possible that, the trigger for commercialization of this cluster may have come from the business community of livestock traders; the donor community or even a much less significant factor. This is generally what happens to clusters – the trigger is many times not necessarily a significant factor, but what is important is the existence of facilitative environment for growth which can be replicated to stimulate growth of other clusters.

It’s estimated that the Greater Isiolo produces about 40,000 liters of camel milk daily. Out of the 40,000 liters about 5,000 liters (about 12.5%) is supplied to the main market in Eastleigh. For milk production clusters in Isiolo which have good access to the markets reached through the Isiolo town milk bulking hub, the rural household and restaurants segment is estimated to take up to 25% of marketed milk. In essence, there is an extra over 50% camel milk that is not accounted in the chain.

**Camel population and production trends: DLPO Isiolo**

<b>YEAR</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Population	32500	33900	37900	39100	40300
Slaughter	307	379	473	722	824
Av. Daily milk Exports (Lt)	4000	4600	5300	5400	5200
Camel milk prices (Ksh)	24	28	32-35	37-40	40-70

**Objectives in the camel milk chain:**

The overall objective of the assignment is to commercialize camel milk as a market product and consequently enhance livelihoods of communities who rear camels.

**Specific objectives:**

The specific objectives of the assignment are;

- 1) To enhance Business efficiency of the Eastleigh camel milk chain
- 2) To support the camel producers and traders improve the hygiene of camel milk
- 3) Facilitate opening of new camel milk markets to increase supply of camel milk
- 4) To enhance Co-ordination of stakeholders in the camel milk chain

**Interventions undertaken and outcomes:**

**a) To enhance market efficiency of the Eastleigh camel milk chain:**

Eastleigh is the main market for camel milk in Kenya. Out of the daily 40,000liters produced in the Greater Isiolo district, about 5,000 liters find its way to the Eastleigh market. Apparently Isiolo is the main supplier of Eastleigh market with a supply of about 90%. It is understood that the Eastleigh market became prominent after the influx of Somali refugees in Eastleigh after the fall of the Somali government in 1991,

In 2008, SNV Northern Kenya Portfolio got interested to support the camel milk chain. After undertaking a scan, SNV identified and engaged Anolei Women group as a client with the aim to support them to improve camel milk production and marketing. The assignments sought to undertaken the following;

- 1) Business analysis of trade practices and identification of areas for improvement
- 2) Experiments around milk hygiene and improved practices along the chain
- 3) Marketing improvement

To start, SNV undertook a Gross Margin analysis of the Eastleigh camel milk chain with Anolei group. This was meant to analyze how the group was managing the business including the costs of running their business (annex the gross margin analysis). After the Gross margin analysis was done, it was presented to the group and a key outcome of this process was the fact that transportation cost of the milk from Isiolo to Nairobi was the greatest cost in the business.

It emerged that the group transports between 5,000 – 6,000 litres of camel milk daily from Isiolo to Eastleigh Nairobi. The buses charge a transport fee of Kshs 100 per a 20litre jerry can i.e. Kshs 5 per litre. In essence therefore, 33-35 women will jointly pay Kshs 25,000 to Kshs 30,000 per day for transport. This translates to about Kshs 750,000 and Kshs 900,000 a month. After this gross margin analysis was undertaken, the group proposed that with this amounts of money paid for transport, they could access financial service (loan) to own their transport services.



From this, SNV supported the group to develop a business profile that includes the cost benefit analysis of buying a truck. This was shared to the group and, after realizing that the investment is high, they decided to develop an action plan that will assist them buy a truck by March 2011. As per the action plan, they have increased their monthly contribution from 200Kshs to 1,000kshs. They also plan to hold a fundraiser that will help them raise a 20% value of the truck. The SNV team intends to continue supporting the group to realize their dream of reducing the transportation and cooling costs. To this end, SNV has facilitated initial discussions with First Community Bank in Eastleigh and Equity Bank in Isiolo. Due to the proximity of Equity Bank, training sessions on business development services and credit services with Anolei have begun. It's envisaged that after the training, Equity will provide the group with loans that will enhance various segments of the chain.

Initially, before the SNV interventions, the Eastleigh camel milk value chain was purely transacted on a cash basis. What basically happened was that, the traders in Isiolo will supply the milk through the buses to Eastleigh in the morning hours. In return, the wholesalers in Eastleigh insert equivalent cash in an envelope and given to the bus drivers to take back to the women traders in Isiolo. This was a business that purely operated based on trust. However, there were reported incidences in which, thugs in Nairobi got to know that the buses always carried back the camel milk money. They therefore frequently raided the buses and took all the cash with them. In this case, the producers and the women traders loose as there was no way of claiming back the money. The women traders were therefore advised to adopt the famous "Safaricom Mpesa" money transfer system. Since then, the traders have adopted this system and it has saved the entire chain operators from further losing money. Together with this advise, the women opened individual bank accounts and therefore feel that their in control of the business.

### **b) Support the camel producers and traders improve the hygiene of camel milk**

A key challenge that faces camel milk in penetrating into the market, especially the non traditional camel milk markets is its hygiene. Among the traditional camel keeping communities, there is a traditional way of handling camel milk that includes smoking camel milk containers. This traditional method has been able to serve the subsistent market adequately. However, with the need to supply larger markets more sustainably (like Eastleigh), this method has been questioned by actors involved in ensuring hygiene and



quality of milk.

In this regards, since SNV doesn't have experience and capacity in this field, it opted to link with VSF-Suisse who have adequate capacity in animal health and hygiene to support Anolei camel milk traders and producers. VSF-Suisse has been able to undertake the following activities;

- Training of producers, traders/ bulkers and retailers on hygienic milk handling practices
- Supply of aluminium cans to producers, bulkers and retailers
- Milk sampling and testing

From these interventions, the producers and supplies are currently using aluminium cans for storing milk rather than plastic jerry cans. The aluminium cans have the ability to keep the milk at low temperatures and therefore reduce spoilage. SNV and VSF were able to support the women group develop an arrangement that makes the retention of the cans sustainable. This revolves around shared responsibility that begins with the traders. The trader's, who are members of Anolei, identify the producers who will be supplied with the cans. The traders entered into an agreement with the producers that they will on a daily basis supply them the milk. Incase of any loss, the traders then charge the producers and buy a new can. This way, ownership of the cans is then fostered and therefore sustainable.



However the use of aluminium cans introduced a new challenge. The aluminium cans are heavier than the plastic cans. Since the mode of transport is by bus, the bus operators are complaining that the aluminium cans are increasing the weight/load of the bus. This way, they discourage the hygiene way of using the cans. SNV plans to facilitate a meeting between the traders and transporters to see how best to support the use of aluminium cans.

Lastly, SNV facilitated an exposure visit for Anolei camel milk traders and producers to Nyala Dairy cooperative. The exposure visit was meant to expose them to hygiene of milking; handling; bulking and storage of dairy milk. After the exchange visit, the group has shown enthusiasm and has asked the Isiolo District Public Health office to support them through training and coaching to improve milk handling practices.

### **C) Facilitate opening of new camel milk markets to increase supply of camel milk**

As earlier indicated, the main market for commercial camel milk is at Eastleigh in Nairobi. However it has been confirmed that some of the milk from Eastleigh is later supplied to areas within Nairobi like South B and other towns like Nakuru; Malaba etc. However, Eastleigh still remains the main consumer of the milk.

For this assignment, the idea is to assess the viability of the other towns that are already consuming the minimal camel milk from Eastleigh, and identify strategies to increase consumption. It is expected that this will increase supply from Isiolo and Eastleigh and thus increase the incomes of the producers and traders.

SNV has hired a consultant that will take the lead in supporting the Eastleigh traders reach out to about three new markets with a target to open about two of these. The new markets targeted are Nairobi South B; Nakuru; Eldoret; Malaba and Naivasha.

### **d) Enhance Co-ordination of stakeholders in the camel milk chain**

From earlier work done by actors in relation to the camel and camel milk from the 1990's, there is immense interest that has been generated. The interest can be felt at the government; International and national NGOs; civil societies; learning institutions and progressively among the business community. This is a very positive trend that the sector should tap. However the major challenge has been that there is lack of a framework that will guide and facilitate development of the sector at the national level. Kenya Camel Association (KCA) is a membership organization that was formed in 1995 to address camel related issues. KCA has done a tremendous job in terms of research and lobbying for the camel to be recognized in government policies. Unfortunately, due to various limitations KCA has not been adequately felt at the district and grass-root level. According to its vision, it didn't foresee its position as a structure that will provide guidance and facilitate the development of the sector yet it remained the main national camel forum.

It's due to this realization that SNV engaged KCA from 2009 with an aim to support them go through an envisioning process to reflect upon where they are and where they wish to be and to be recognized in future. Though the process started in 2009, a common understanding was reached in 2010 and KCA appreciated the importance of going through a strategic planning process. A strategic plan 2010-2013 was developed. However, KCA and SNV realized that KCA will be challenged if they were to implement the strategic plan on their own. To respond to this, SNV supported KCA to organize for a multi-stakeholder meeting in which KCA presented the strategic plan and interested other stakeholders to support them in the implementation. Some organizations have shown an interest, these include Ministry of Northern Kenya; VSF – Suisse; FHK; Farm Africa; Kenya Drylands Livestock Development Programme (KDLDP) among others. It's expected that the commitment of this organizations will propel KCA to address the key challenges identified in the strategic plan that have hampered the development of the sector.

### **Challenges in commercializing camel milk:**

Major challenges in commercializing camel milk include;

- a) The value and attributes of camel milk not known to many i.e. can treat juvenile diabetes; low cholesterol etc
- b) Informal dynamics of the camel milk sector
- c) Uncoordinated approaches of various partners
- d) Poor infrastructure especially interior roads; no dairies and cooling plants etc



### **Conclusion:**

For SNV and other partners, camel milk is an emerging value chain that has a lot of potential. The partners are still learning from the interventions that have been undertaken with a view to develop practices and models that work. However, there is still a lot of work to be done to position the camel and camel milk in its rightful position especially with face of food insecurity; changing climatic conditions;

nutritional value attached to the milk etc. However this will require joint action among partners; structured investment; capacity building to the chain actors and vigorous marketing of the product. If this is done, the sector has inconceivable benefits to Kenya; traders; producers and the consumers of camel milk.