Livestock marketing in Kenya-Ethiopia border areas: A baseline study

Sara Pavanello

HPG Working Paper

July 2010

hpg
Humanitarian Policy Group

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Overseas Development Institute

About the author
Sara Pavanello is a Research Officer in the Humanitarian Policy Group (HPG).

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The Humanitarian Policy Group at ODI is one of the world's leading teams of independent researchers and information professionals working on humanitarian issues. It is dedicated to improving humanitarian policy and practice through a combination of high-quality analysis, dialogue and debate.

Humanitarian Policy Group
Overseas Development Institute
111 Westminster Bridge Road
London, SE1 7JD
United Kingdom

Tel: +44(0) 20 7922 0300
Fax: +44(0) 20 7922 0399
Website: www.odi.org.uk/hpg
Email: hpgadmin@odi.org.uk

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Acknowledgements

The author would like to thank the staff of CARE International who commissioned and supported this study, particularly Marko Lesukat (CARE UK) for his support and planning of the study and revision of drafts, and Oruko Enock (CARE Kenya) and Belachew Deneke (CARE Ethiopia) for logistic support. Special thanks go to Bashir Osman (CARE Kenya) for his invaluable help with contextual information, research support and translation during field trips in Kenya, and to Boneya Guyo (CARE Ethiopia) for his facilitation and translation during field visits in Ethiopia. The author would also like to thank the many people who contributed in numerous ways to the study, including research support, provision of documents and materials and revisions of drafts, particularly Dr Abay Bekele (Oxfam GB), Dr Solomon Desta (ILRI) and John Letai (Oxfam GB).

The author is particularly grateful to the many pastoralist communities, traders and other market participants in the locations visited in northern Kenya and southern Ethiopia for the time given and interest shown in the study.

Thanks also to Vincenzo Napoletano (independent) for his help with the background research for the study, and to Matthew Foley for his expert editing of the paper.

ODI gratefully acknowledges the financial support of the European Commission Humanitarian Aid Department (ECHO).

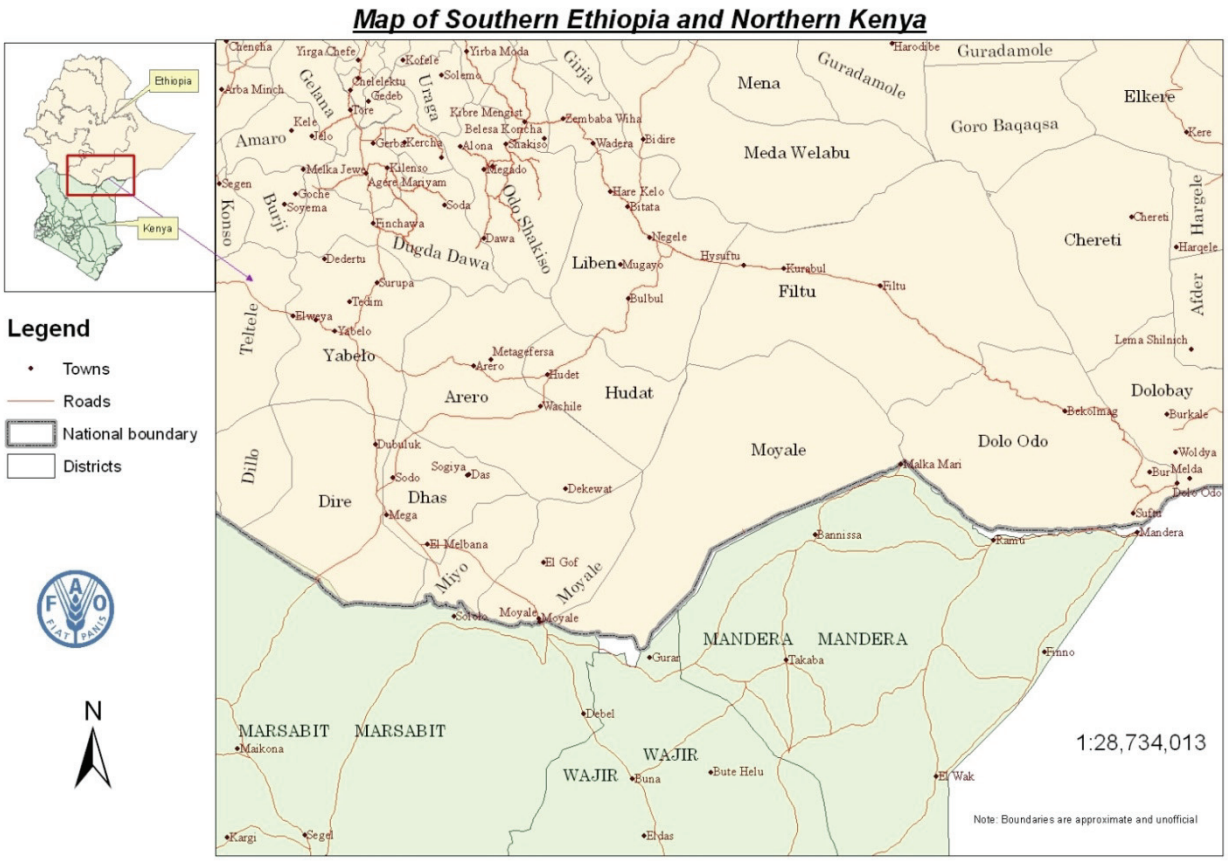
Acronyms

ALRMP	Arid Land Resource Management Project
ASAL	Arid and Semi-Arid Lands
ETB	Ethiopian Birr
FGD	Focus Group Discussion
GL-CRSP	Global Livestock Collaborative Research and Support Programme
MLD	Ministry of Livestock Development
NGO	Non-governmental organisation
KES	Kenyan Shilling
KMC	Kenya Meat Commission
LINKS	Livestock Information Network and Knowledge System
PA	Pastoralist Association
PDO	Pastoral Development Office
PLI	Pastoralist Livelihoods Initiative
S-C-P	Structure-Conduct-Performance

Currency exchange rates against US$

1 ETB = 0.08024 US$
1 KES = 0.01398 US$

Figure 1: Map of the study area



Source: FAO.

Executive Summary

Livestock is the main household asset and a key productive resource for pastoralist communities living in the border areas of Kenya and Ethiopia. However, recurrent droughts are eroding pastoralists' livestock base and weakening their livelihoods and their resilience to climatic shocks. Livestock marketing, understood as the process through which live animals change ownership, is increasingly perceived as critical for improving pastoral household income. Efforts aimed at addressing constraints to the development of efficient and vibrant livestock marketing activities in the region are increasingly seen as a meaningful way of reducing pastoralists' vulnerability to drought.

This baseline study, commissioned by CARE International, identifies structural issues behind livestock marketing in Mandera Central and West in Kenya and the Borana zone in Ethiopia. The study also aims to provide potential entry points for action to improve livestock marketing in the region.

Financial needs, rather than profit-making opportunities, are the major trigger for livestock sales in pastoralist households. In non-drought times livestock marketing decisions are largely driven by the type and magnitude of expenses that pastoralists need to cover with the cash obtained from livestock sales. Decisions are also strongly influenced by climatic and environmental conditions, all of which in turn affect livestock production, body weight and market value. Growing financial pressures and food insecurity during drought push pastoralists to sell their livestock regardless of productivity, age or sex, in order to purchase basic food items.

The livestock marketing system in the Horn of Africa is founded upon a complex trading chain involving producers, intermediaries, traders and numerous other market participants. Animals move from bush, primary and secondary markets along key trading routes and corridors to terminal and export markets. This trading network spans the international borders of Kenya and Ethiopia. Beyond major livestock market hubs such as Moyale, the cross-border livestock trade is an integral part of life among communities living in remote pastoral areas. While proximity to the border can provide important benefits to adjacent communities, particularly in terms of drought coping mechanisms, communities can enjoy these benefits only during periods of peace.

The most significant constraints to livestock marketing in the focus areas of this baseline study are as follows:

- *Livestock markets infrastructure and management.* In Kenya, policy and institutional bottlenecks are among the key constraints to the development and sustainable management of livestock markets. Recent efforts in the Borana zone have focused on the construction of livestock markets centres. Initiatives have largely been concerned with physical infrastructure, with little attention paid to issues of management and the long-term sustainability of market centres.

- *Road infrastructure and distances to markets*. Poor road conditions, particularly in northern Kenya, translate into high transport cost for traders. Long trekking distances to markets are a significant impediment to pastoralists' ability to profitably sell their livestock. During drought periods animals lose weight on the journey to market, which significantly lowers their value. In some cases animals are too weak to embark on the homeward journey, forcing producers to sell at very low prices or even barter animals for food.

- *Livestock market price information*. Poor and uneven access to market information remains a major constraint for livestock market actors, producers in particular. Observations at market sites in Borana zone point to an imbalance in the bargaining power of traders and producers. Traders collude and jointly determine prices ahead of market day, and producers have very little or no ability to negotiate prices.

Recommendations for action

Investigate the potential and relevance of livestock market development

- Local and international actors could play an important role in the facilitation of dialogue and partnerships between pastoral com-

munities and local authorities to develop, manage and maintain livestock markets.
- An in-depth analysis of the benefits that would accrue to pastoralists from the development of livestock markets in the focus areas of the baseline study should be conducted, focusing on the poorest and most marginalised.
- Initiatives aiming at developing basic livestock market centres should be accompanied by joint efforts with government authorities and long-term development actors to improve services, infrastructure and capacity in pastoral areas.

Facilitate links with traders' cooperatives
- More attention should be paid to supporting and developing the capacity of traders' cooperatives, and to link cooperatives to livestock and meat processing plants, exporters and private abattoirs.

Strengthen producers' bargaining power
- Greater efforts and more in-depth analysis are needed to assess how best to strengthen producers' bargaining power at markets, and the steps required to achieve positive changes in market structures, including collective action and more structured organisation.

Harmonise market information collection efforts
- Initiatives aimed at collecting market prices should be harmonised in order to reduce duplication of effort.
- Market price information should be consolidated, analysed and made available in soft-copy, thereby providing a valuable data set for advocacy and policy-making.
- More efforts should be made to understand how to best disseminate timely and reliable information to redress bargaining power imbalances at market sites.

Improve understanding of cross-border trade
- More in-depth analysis on the volumes and types of livestock traded, trading routes, key actors, main constraints and the role of the livestock cross-border trade during drought could be the focus of follow-up studies to identify gaps and appropriate entry points for support to cross-border initiatives. Such knowledge-base could also form the basis for advocacy activities aimed at redressing the negative perceptions surrounding the cross-border livestock trade.
- Efforts aimed at promoting cross-border interventions need to be premised on an in-depth analysis and understanding of adjacent communities' long-standing relationships and livelihoods.

1. Introduction

Pastoralism and livestock production are of significant importance to the economies of Kenya and Ethiopia and to local livelihood systems. In Kenya, livestock production in the Arid and Semi-Arid Lands (ASALs) accounts for nearly 90% of the livelihood base and nearly 95% of family income (Kenya Ministry of Agriculture, 2008). With an estimated livestock resource base of 60 million animals, including 13 million cattle, 16 million shoats and 800,000 camels (AU-IBAR and NEPDP, 2006), the livestock sector in Kenya contributes 12% of total GDP and 42% of agricultural GDP (SNV, 2008). Ethiopia is home to the largest population of livestock in Africa (CSA, 2009). Recent estimates put the cattle population at 49 million, alongside 25 million sheep, 22 million goats and approximately 700,000 camels (ibid.). These figures do not take into account livestock in the predominantly non-sedentary pastoralist regions of Somali and Afar, which means that the total number of livestock in Ethiopia is significantly higher than these figures suggest. The livestock sector generates about 17% of Ethiopia's total GDP, and 30–35% of agricultural GDP (ACDI/VOCA, 2007).

This baseline study was conducted in the border areas of Kenya and Ethiopia. These areas are chronically vulnerable to drought. The widespread and frequent livestock deaths that result have eroded pastoralists' asset base and pushed many families out of pastoralism and into destitution. Pastoralist communities receive the highest levels of humanitarian aid in the Horn and East Africa (OCHA et al., 2010). Livestock marketing, understood as the process through which live animals change ownership, is increasingly perceived as critical for improving pastoral household income. However, there is relatively little analysis of the structure and performance of livestock marketing systems, or of the various market actors involved. The increasingly vibrant regional cross-border livestock trade in particular is poorly understood (Little, 2009).

Study details and methodology

This baseline study, commissioned by CARE International, is designed to identify and assess structural issues behind livestock marketing. The study also identifies potential entry points for action to improve livestock marketing.

The study was conducted in Mandera Central and West[1] in Kenya and in the Borana zone in the Oromiya Region of Ethiopia. Locations visited in Mandera District were Elwak, Shimbir Fatuma, Takaba, Dandu and Bourduras. In Borana zone, locations visited were Dillo, Magado, Dubluk, Harobake and Moyale Ethiopia. The study has two main components: a pastoralists' assets analysis and a livestock market analysis. The assets analysis aimed to gather key information at the household and community level about pastoralists' assets, the current livestock situation, patterns of decision-making and trade. The livestock market analysis used the Structure-Conduct-Performance (S-C-P) framework to gain an understanding of market structures, the behaviour of market participants and market performance. The S-C-P is an analytical approach designed to investigate how the market environment influences the behaviour of market participants, which in turn influences how markets perform (FEWS NET, 2008).

Data for the baseline study came from individual interviews and focus group discussions (FGDs), observation at market sites and a review of the literature and secondary quantitative data on livestock prices and sales volumes. Primary data collection included in-depth qualitative interviews, both planned and opportunistic, and FGDs with pastoralists,[2] traders and members of traders' cooperatives. Key-informant interviews were conducted with local and international NGOs, UN agencies, livestock experts and government authorities. Fieldwork in the selected locations in Borana zone and Mandera took place over ten days at the end of September 2009.

Because of time and budget constraints, this study must be considered an exploratory first step in understanding livestock marketing in the study areas. While the research attempted to understand trade patterns across seasons and during periods of shock, observations at market places were one-off, rather than repeated exercises across seasons. This needs to be factored into the analysis of the findings as it inevitably provides a limited picture of livestock marketing in the region.

1. Unless specified, in this study Mandera District refers to Mandera Central and West.
2. In this study the terms 'pastoralist' and 'producer' are used interchangeably.

In addition, the quantitative data available is too limited to be conclusive, though it is backed by qualitative evidence. Finally, while the initial design of the study included an analysis of livestock products, because of time constraints the main focus is on livestock marketing, with few examples relating to the marketing of livestock products.

The report begins with a discussion of the drivers and patterns of livestock marketing behaviour among pastoralists at household level. Chapter 2 describes the drought situation that was affecting Mandera at the time of visit, and discusses how livestock marketing behaviour and prices at household level are distorted in times of climatic shocks. Chapter 3 describes the main livestock market participants and their role within the marketing system, and provides an overview of the main livestock trading routes in the region. Chapter 4 analyses the key aspects of cross-border trade, both in Moyale and among communities living close to the Kenya–Ethiopia border. Chapter 5 discusses the main constraints to livestock marketing in the areas visited, and Chapter 6 presents the study's conclusions and key points for action.

2. Livestock marketing at the household level

2.1 The role and value of livestock in pastoral livelihoods systems

Livestock is the mainstay of the pastoralist economy in the arid and semi-arid areas of Mandera and the Borana plateau, and is the fundamental physical, financial and social capital of pastoralist livelihoods. In the drylands of northern Kenya and southern Ethiopia, as elsewhere, the accumulation of large herds in times of plenty is a well-known insurance strategy against climatic stresses. To facilitate post-crisis recovery, herd composition is strongly biased towards female animals, ensuring high rates of reproduction and regular milk supplies (Bailey et al., 1999; Umar and Baulch, 2007). In Mandera District, for example, the total number of adult female cattle is estimated at around 146,000, compared with just 35,000 males (Murithi et al., 2007). Ownership of large herds is also an important determinant of social status and prestige. Livestock transfers, whether in the form of sale, barter or exchange, are widely used to meet social obligations, including traditional safety net mechanisms such as clan restocking schemes, and in settlement of disputes between and within clans. In Borana, infringements of traditional natural resource management mechanisms are settled with the payment of cattle by the offender.

Camels are the most expensive livestock species in the study area. A mature camel in good condition can fetch up to 70,000 KES (just under $1,000) in Moyale Ethiopia market (ALRMP, 2009a). As discussed in Section 2.3, camels' resistance to climate variability and harsh environmental conditions have made them increasingly important (GebreMichael and Kifle, 2009; Riché et al., 2009). Lactating camels produce large quantities of milk several times a day, providing an abundant source of nutrition for the household. During droughts camels are the last animals to reduce and eventually stop milk production, and therefore represent an important and reliable source of food in times of stress.

Cattle are also a traditionally attractive asset for pastoralists in the Horn of Africa. Boran breed cattle grown in the Borana plateau are renowned for their beefy conformation, fast growth rate and large size. A Boran bull can reach maturity and optimum weight in just three years,[3] and a fattened, full-grown bull can fetch over 5,000 ETB[4] ($365). In recent years, thousands of Borana breed cattle purchased from southern Ethiopia and northern Kenya, in particular from Mandera District, have been introduced to the highland areas of Oromiya to improve dairy production.[5]
Sheep and goats (shoats) are also important in pastoral livelihood systems. Thanks to their small body size, rapid rates of reproduction and low price shoats are more easily marketable than cattle and camels and therefore represent a critical liquid asset (Desta et al., 2006). Ordinary household expenses are predominantly met with the sale of shoats, and pastoralists often refer to them as 'small change' (Umar and Baulch, 2007).

2.2 Livestock marketing behaviour at the pastoral household level

This baseline study did not undertake an in-depth analysis of livestock marketing behaviour at household level, nor did it explore the linkages between livestock marketing behaviour and wealth. Nevertheless, FGDs and interviews with producers point to a number of factors that influence marketing decisions in pastoral households in Mandera and the Borana zone.

In non-drought times, marketing decisions are largely driven by the type and magnitude of expenses that pastoralists need to cover with the cash obtained from livestock sales. The great majority of producers interviewed in the study area noted that the main reason for selling shoats in non-drought times was to meet basic expenses. Camels are sold only in exceptional cases, for example to cover wedding expenses. Cattle sales are also infrequent, and used to obtain cash to cover school fees, major medical costs, weddings and other major outgoings. All producers interviewed strongly favoured the commercial off-take of male, rather than female, animals. Respondents stated that, during non-drought years, only old and non-productive females were sold. Selling productive females is a clear indication of stress in pastoralist households (Umar and Baulch, 2007; Bailey et al., 1999; Adugna, 2006).

3. Personal conversation with a livestock expert in Ethiopia.
4. Personal conversation with livestock traders in Harobake livestock market, Ethiopia.
5. Ibid.

Marketing decisions at the household level are also strongly influenced by environmental and climatic conditions (Bailey et al., 1999; Umar and Baulch, 2007; Awour, 2007). In the study area livestock production depends almost solely on grazing, rather than industrial production (such as ranches or feedlot operations); rainfall patterns and climatic variations have a direct impact on the availability of water and pasture, which in turn influences livestock production, body weight and market value.

Figure 2: Seasonal calendar in southern Ethiopia and northern Kenya

Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1st Dry Season				1st Rainy Season		2nd Dry Season				2nd Rainy Season	

Source: ALRMP, 2009: 1.

In southern Ethiopia and northern Kenya the year is divided into two rainy seasons and two dry seasons (see Figure 2). The long dry season, called *Jilaal* and *Bona Haggaya* in Kenya and Ethiopia respectively, runs from mid-December to mid-March. During this period animals lose body mass, making them less marketable. Towards the end of the dry season, pastoralists are forced to alter their diet to include cheaper items other than meat, such as maize and rice. The greater need to acquire cash to purchase grains and other food triggers household livestock sales, sharply increasing supply and forcing prices down.

The *Gu'* or *Ganna* rains, which run from mid-March to mid-June, are widely regarded as favourable periods for herd accumulation, with high reproduction rates and large quantities of milk production, used both for household consumption and sale. Following a few weeks of rain, animals gain weight and their body condition improves. Thanks to abundant milk supply, pastoralist households are usually not pressured into selling their animals to obtain cash to purchase grain and other foods. All the producers interviewed expressed a preference for selling livestock during the last weeks of the rainy season, around May and November, when animals reach their optimal weight. During the dry season (mid-June to mid-September – *Hagaa* or *Adolessa*) prices decrease, only to rise again in the *Deyr* or *Hagaya* rainy season (mid-September to mid-December).

Financial needs, rather than profit-making opportunities, are the major trigger for livestock sales in pastoralist households. Although livestock producers will, if possible, aim to maximise their profit, speculative considerations can often become subordinated or sidelined by more pressing concerns. As discussed below, during drought the imperative to address urgent household food needs almost always leads to distress sales of livestock assets.

3. Livestock marketing drivers and prices during drought

3.1 Livestock prices and food security during drought: distress sales in Mandera

At the time of the study visit, prolonged drought in Mandera was critically affecting livestock welfare, cattle in particular. In the absence of weight measures, producers relied on visual observations and assessments of body condition, specifically ribs, back, hip and hook bones, to gauge the degree of fattiness of their livestock. There were widespread complaints about the growing weakness and thinness of animals, especially cattle. According to the ALRMP drought monitoring bulletin, during September the body condition of livestock in all parts of Mandera District was very poor, and there were reports of cattle deaths because of starvation (ALRMP, 2009: 4). As Table 1 shows, cattle losses were also widely reported by producers.

Table 1: Reported cattle losses in September 2009 in selected locations in Mandera Central and West

Location	Cattle losses
Elwak	210
Takaba	140
Shimbir Fatuma	65
Dandu	43
Burduras	44

Source: Study data.

Because of the lack of water and pasture in the areas visited, respondents indicated that around 60%–70% of cattle had been migrated, mainly to the Borana zone but also to Somalia. With livestock away from settlements, many households were unable to access supplies of milk. Moreover, cattle that remained in Mandera had stopped producing milk in early June. By August the lack of water and pasture had also brought camel milk production to an end. No fresh milk was available at the household level in any of the locations visited, and in Mandera District milk was scarce (ALRMP, 2009). Women complained that their children were malnourished and increasingly vulnerable to diarrhoea and other infections. In September around 20% of children under five years were estimated to be at risk of malnutrition in Mandera District (ibid.).

As drought progressed, producers' marketing decisions were increasingly linked to the need to purchase sugar and grain. Growing household food insecurity pushed producers to sell their livestock regardless of productivity, age or sex, before they became too weak to be trekked to market. By late September only shoats were being offered for sale in the locations visited in Mandera.

Box 1: Distress livestock sales in Takaba

A group of producers interviewed in Takaba had come to the market to sell shoats in order to meet urgent food needs. Rather than seeking a good price, they were simply hoping for any trader to show up and purchase their animals. They were all visibly emaciated and weakened by hunger, and said that they would not be able to embark on the journey home – which for some entailed up to one and half days by foot or four or five hours by bus – unless they were able to eat and had cash to pay the bus fare. In addition, they could not return with their livestock unsold as they had to purchase basic food for their household. They added that their shoats were also too weak to endure the return journey unless they were watered and fed. As a last resort and in case of failed sales they said that they would ask local shopkeepers to barter their shoats for sugar and maize.

3.2 The impact of drought on food security and livestock prices

As drought progressed in Mandera District and the body condition of animals worsened, livestock prices plummeted. The monthly data collected by the Arid Lands Resource Management (ALRMP) Project in Mandera District, given in Table 2 and Figure 3, shows a clear downward trend in average prices. This was confirmed by interviews with producers and traders in the areas visited.

As Figure 3 shows, following a peak in May towards the middle of the *Gu* rains, the average prices for cattle in Mandera District fell steadily from June to September. Interviews with pastoralists and traders confirmed this pattern. In Takaba, traders said that around April–May the price of castrated bulls in Moyale Kenya was approximately 9,000 KES (around $125), but by July the price had dropped to less than 5,000 KES ($70). The average price of goats (Figure 4)

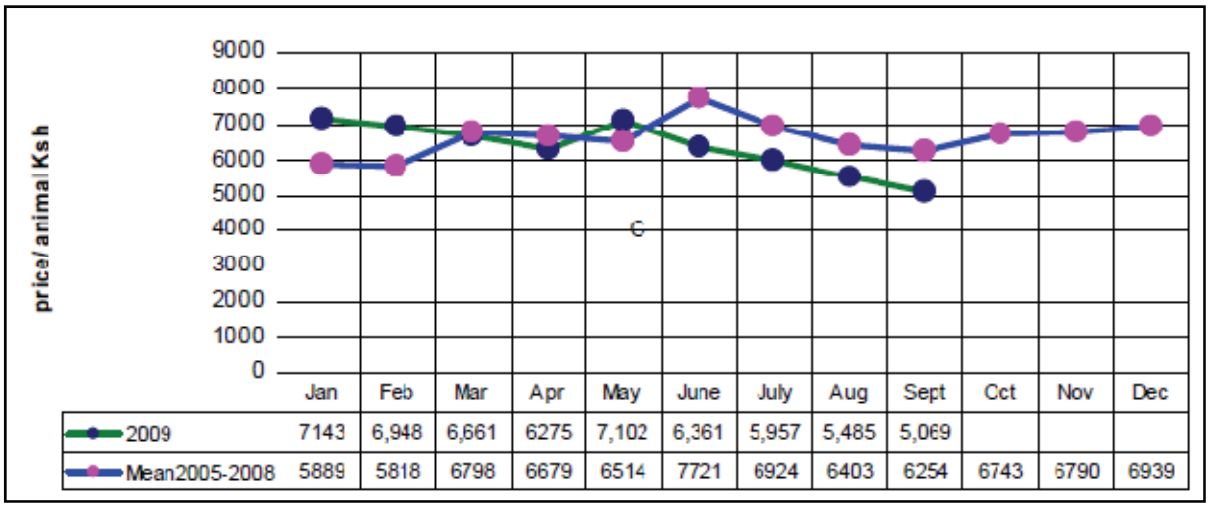
followed a very similar pattern: following a peak in May, between June and September prices decreased. While the study data points to higher goat prices in the locations visited than the average price in Mandera District, the downward trend is nevertheless clear. At the time of the study visit in mid-September respondents said that the price of a goat of approximately 20kg was around 3,000 KES ($40) in Elwak, Takaba and Dandu, and 2,000 KES ($28) in Shimbir Fatuma. According to interviewees, in non-drought times the price of a goat can reach 4,500 KES ($63) in these locations.

Table 2: Average price of cattle and goats in Mandera District in May and September 2009

Livestock specie	May price in KES	September price in KES	May price in US$	September price in US$	Percent change
Cattle	7,102	5,069	99.28	70.86	28.62%
Goats	1,370	1,117	19.15	15.61	18.48%

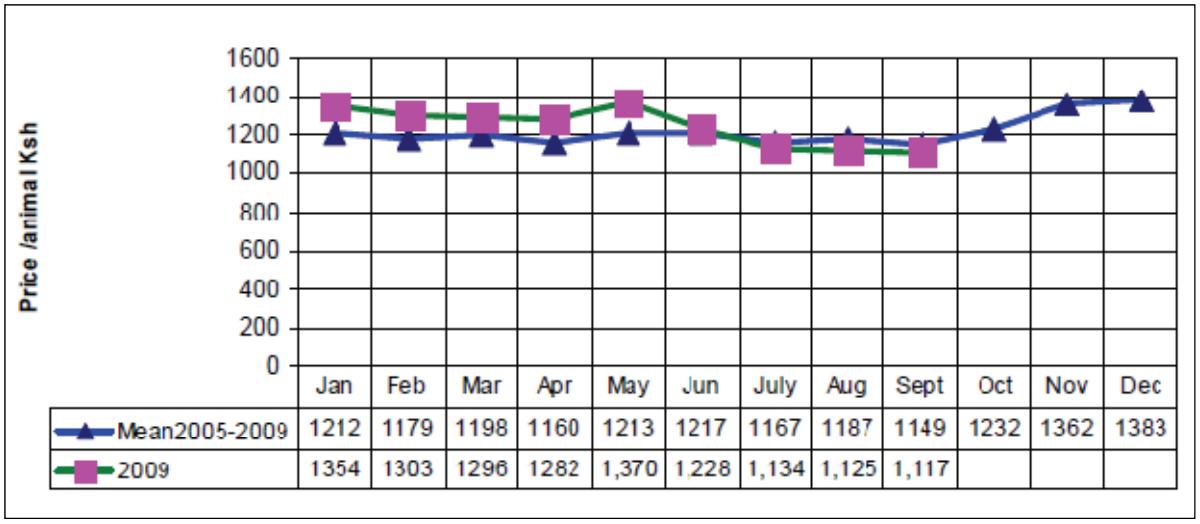
Source: Adapted from ALRMP, 2009.

Figure 3: Average prices for cattle in Mandera District January–September 2009



Source: ALRMP, 2009: 5.

Figure 4: Average prices for goats in Mandera district January–September 2009



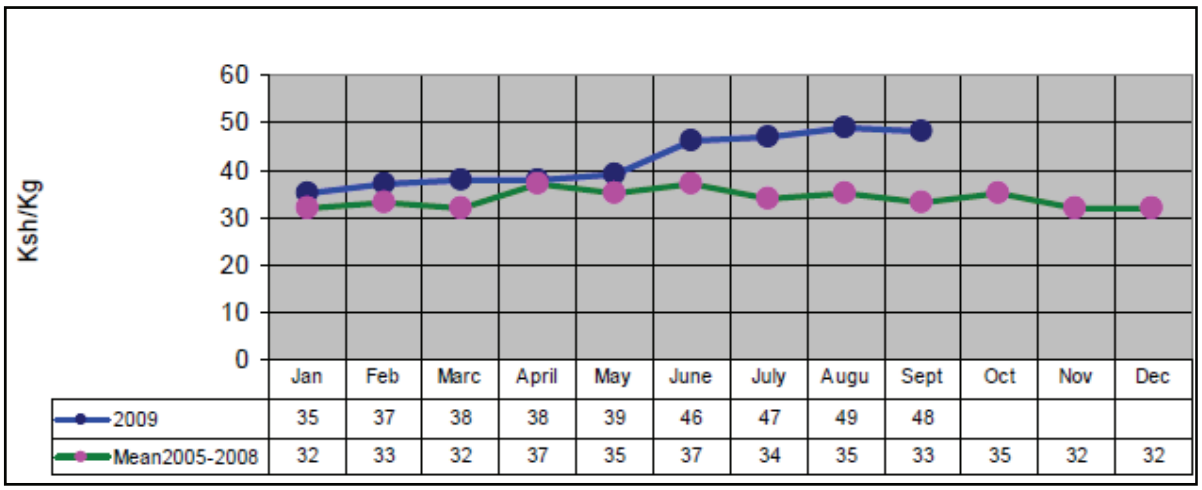
Source: ALRMP, 2009: 5.

In September and during the preceding months, there were widespread reports of increasingly alarming food insecurity in pastoral areas in Mandera and in other districts in Kenya, attributed mainly to the lack of food at household level as a result of pastoralists' low purchasing capacities and prolonged low milk supply (ALRMP, 2009; WFP, 2009; USAID, 2009). At the time of the study visit in September, the meagre incomes derived from shoat sales were being entirely used to purchase food, in particular sugar and grains. Interviews with pastoralist households in Mandera pointed to the adoption of coping mechanisms such as skipping meals, going a whole day without food and increasing reliance on tea and sugar intake for subsistence. Pastoralists interviewed reported that, in times of acute stress, they sustained themselves by drinking very sweet tea or sugar mixed with water.

The terms of trade between livestock and grains (that is, how much of a food-grain can be purchased by the sale of a single animal) is widely used to assess the extent of food insecurity in pastoral areas. Both livestock and grain prices register high seasonal variations, and the two prices usually move in opposite directions (Awuor, 2007): when livestock prices drop towards the end of the dry season, because of animals' weight loss, grain prices tend to rise because of shortages and increased demand. In Mandera 'maize availability is considered synonymous with food security' (WFP, 2009: 7). Given that *ugali* is the main staple starch in the area, and that goats were being widely sold at the time of visit to meet household food needs, the terms of trade between *ugali* and goats provide a good indication of the food security situation in Mandera at the time of visit.

Goat prices in Mandera fell from 1,370 KES ($19.15) in May to 1,117 KES ($15.61) in September. Meanwhile, as Figure 5 shows, *ugali* prices rose from 39 KES ($0.54) a kilo in May to 48 KES ($0.67) in September. The combined effect of reduced purchasing capacity and rising grain prices left pastoralist households unable to buy enough grain to survive. One producer in Shimbir Fatuma complained that, during non-drought times, the monthly food expenses for his household could be met with the sale of 15 goats; during drought he was forced to sell up to 30 goats. In his opinion, this was the worst effect of drought and the main reason why his household was skipping meals and relying increasingly on tea and sugar intake.

Figure 5: Average prices for *ugali* in Mandera District, January–September 2009



	Jan	Feb	Marc	April	May	June	July	Augu	Sept	Oct	Nov	Dec
2009	35	37	38	38	39	46	47	49	48			
Mean2005-2008	32	33	32	37	35	37	34	35	33	35	32	32

Source: ALRMP, 2009: 8

3.3 Adapting to drought

Despite the social significance and prominent economic role that cattle-rearing has traditionally played in pastoral production systems, recurrent and increasingly intense droughts seem to have prompted pastoralists to diversify their herds. This finding is in line with several recent studies looking at responses to climate change and variability in Afar (GebreMichael and Kifre, 2009: 19), in Borana zone (Riché et al., 2) and in Kenya's North-Eastern Province (Aklilu and Catley, 2010: 11). While this is clearly an area for further study, interviews with producers in the locations visited appeared to indicate a growing shift away from shoats, cattle and camels to herds mainly or primarily made up of camels and goats. Cattle are slowly being phased out, either by not restocking

after drought-induced losses or by progressively reducing the number of cattle through commercial off-takes and sales.

Box 2: Cattle production in the drylands: an increasingly risky and costly business

After weeks of prolonged drought in Elwak, one producer was trying to sell a few shoats in the centre of Elwak town in order to purchase food for his household. His cattle were at home: some were already dead and the rest were no longer marketable. He pointed to the fact that, contrary to camels and goats, cattle are too susceptible to drought and disease, and repeated cattle losses over the previous five years had made him consider abandoning cattle-rearing altogether, and concentrate solely on camels and shoats. While he estimated that his capital would decrease by 40% he added: 'after this drought I am really tired and I do not think that I can afford to keep rearing cattle only to lose them when the next drought comes'.

He noted that camels and goats are more resistant than cattle as they can survive without water and pasture for days and can sustain themselves by eating shrubs, leaves and twigs. Because of the increasing frequency and intensity of drought in the region, he sees cattle production as increasingly risky, costly and labour-intensive. In order to keep his cattle alive during drought, he is forced to buy dry hay, travel long distances to find pasture, or cut trees and plants for fodder. Especially during drought, when he is also weakened by hunger, trekking to remote areas or cutting trees becomes highly demanding and strenuous physically.

4. Livestock marketing actors and key marketing routes

4.1 Livestock marketing actors

Pastoralists and agro-pastoralists are the main producers of livestock in the region. They are often located in remote areas, at times in inaccessible terrain and far from town centres. In line with the seasonal market supply patterns described above, producers interviewed in northern Kenya and southern Ethiopia said that they sold a limited number of animals – one or two cattle or four or five shoats at a time, either to livestock collectors or by trekking to bush or primary markets.

Local independent agents collect livestock from producers in pastoralist settlements, central water points and bush markets, and resell animals in primary markets or directly to traders. One broker living near Dillo said that he regularly purchased small stock from local producers, reselling the animals in Dubluk or Harobake markets. His profit was 2%–3% per head. In some cases, traders place their orders with trusted collectors; once the animals are assembled, the collector delivers them to the buyer (Legese et al., 2008; Bekele and Aklilu, 2008). Livestock collectors often operate in marketplaces as brokers or *dilaal*, acting as intermediaries between buyers and sellers.[6]

Livestock traders operate at various levels of the trading chain. Large traders can usually count on high levels of capital, own their own trucks and have contracts with buyers, including meat processors such as ELFORA in Ethiopia and the Kenya Meat Commission (KMC). Contracts with ELFORA and KMC are however unpredictable, and orders can be cancelled, postponed or changed at short notice. Nonetheless, large traders can still count on regular orders, allowing them a certain level of planning and predictability in their business. Other participants in the livestock trading chain include trekkers hired by producers to move animals to market; feedlot operators, who fatten animals for sale in domestic or export markets; loaders, who operate at major market places and are in charge of loading animals onto trucks; lorry drivers, who are hired by traders to transport animals; and workers in market sales-yards, who brand or mark animals after sale to prove new ownership (Legese et al., 2008; Umar and Baulch, 2007).

6. *Dilaal* is an Arabic word meaning 'go-between' (Mahmoud, 2008).

Over the past few years, local and international NGOs and government agencies have facilitated the formation of a number of pastoral livestock marketing groups and cooperatives in northern Kenya and southern Ethiopia. With the provision of basic training in small-business management, marketing skills, grass-roots savings and start-up grants, producers have been encouraged to engage in small-scale livestock trading. Rather than relying on livestock collectors, producers themselves act as small-scale entrepreneurs, collecting, purchasing and selling livestock. Reducing the role of intermediaries in this way is designed to streamline the supply chain and lower transaction costs. The development of livestock marketing groups and cooperatives is also meant to increase the bargaining power of producers, build capacity in pastoral areas and facilitate livestock off-take during droughts, with the overall aim of reducing vulnerability (Desta et al., 2006).

Table 3: Types of livestock markets in pastoral areas

Type of market	Description
Bush	Most of the animals offered for sale are directly owned and sold by primary producers, either to other producers or to livestock collectors and small traders, for sale in primary markets or for breeding purposes. There are many bush markets scattered around pastoral areas.
Primary	Animals sold by producers or small traders are bought by other producers, medium-scale traders and livestock collectors, for fattening, breeding, onward sale to secondary and terminal markets and slaughtering. Primary markets are usually located in district or *woreda* towns.
Secondary	Transit markets where livestock is sold by medium-scale traders to large traders who purchase animals for onward sale in terminal markets.
Terminal	Final markets located in major cities and capitals, where large traders sell animals either to middlemen or butchery agents for slaughter in local abattoirs, or to export traders who purchase animals for further fattening and export of live animals to overseas markets.

Source: *Umar and Baulch,* 2007; Awuor, 2007.

4.2 Clan-based livestock marketing

An important feature of the livestock marketing chain, both in the focus areas of this study and in the livestock trade in the Horn of Africa generally, is its strong reliance on personal and clan relationships based on trust (Mahmoud, 2008; Bailey et al., 1999; Little and Mahmoud, 2005). In the absence of formal systems of credit enforcement, weak infrastructural and market support services and widespread insecurity in pastoral areas, the informal institution of livestock marketing is sustained by high levels of social capital among key market actors. In this uncertain business environment, the social ties based on clan affiliation and kinship that bind livestock marketing actors together become an important risk management mechanism.

The great majority of pastoralists interviewed noted that, in order to obtain livestock price information, they contacted brokers in relevant markets via mobile phones. While the majority of respondents said that they trusted brokers ethnically related to them to provide up-to-date and reliable information, some admitted that these brokers would at times act to further their own interests. Similarly, members of the trader cooperatives interviewed said that they acquired market information from brokers or other trusted market agents belonging to their clan. Some cooperatives deliberately placed members in key markets such as Moyale and Nairobi in order to provide regular, reliable and timely market information, in addition to managing administrative and financial matters.

While trust-based relationships and clan-controlled networks greatly facilitate livestock transactions, they can also be highly exclusive and can distort livestock supply and movement (Little, 2007). Clan-controlled networks strive to protect their trade and favour market and financial transactions with members of the same clan or with other trusted people (ibid.). This tendency is exacerbated during periods of conflict or when livestock actors belong to rival clans. For example, the ongoing hostilities between Garri and Borana communities in Ethiopia mean that Ethiopian traders of Garri ethnicity do not visit Borana-dominated markets such as Harobake and Dubluk.[7]

7. Personal conversation with livestock trader in Moyale, Ethiopia.

4.3 Livestock marketing routes in southern Ethiopia and northern Kenya

In Mandera and Borana zone, producers sell shoats directly at the nearest market, or to livestock collectors or traders' cooperatives. Members of the trader cooperatives interviewed in Mandera indicated that they purchased shoats locally from Elwak, Takaba, Shimbir Fatuma and other surrounding locations. Respondents also said that they did not have any links or contracts with private or parastatal buyers. The great majority of goats originating from Mandera are trucked to Nairobi for domestic consumption. Because of high domestic demand, Kenya exports very limited numbers of live animals and meat products: in 2004 only 1.3% of sheep and goats' meat went overseas (AU-IBAR and NEPDP, 2006; see also EPZA, 2005 and Aklilu, 2002). Because of the proximity of Mandera District to Somalia, there is also a regular flow of goats from Somalia into Mandera. A number of traders in Elwak indicated that producers from the Gedo region of Somalia trek their goats to Elwak for sale. Traders interviewed in Elwak estimated that approximately 90,000 goats from Somalia are sold in Elwak every year. Because the Gedo region had not been hit by severe drought as had Mandera, at the time of the visit traders noted that goats coming from Somalia were in better condition than goats in Mandera. In addition, given the volatile economy of their country, Somali producers and traders were accepting lower prices. Members of small trader cooperatives interviewed Elwak were generally reluctant to venture into Somalia to purchase small stock directly from producers. The risk of theft was mentioned as the main factor restricting the expansion of trading activities into Somalia.

Small-scale traders interviewed in Borana zone, whether private individuals or members of cooperatives, said that they purchased shoats locally for sale in Dubluk, Harobake and other markets in the area. Shoats sold in these markets are supplied directly from producers who trek their animals to the market. The journey can take up to three days, depending on how close the producers are to the market. As discussed below, thanks to the cross-border livestock trade among communities living close to the border there is also a considerable supply of goats from northern Kenya into Borana zone. In the primary markets in Borana, shoats are purchased by medium-to-large traders, who truck them to the central highlands for slaughtering, consumption or export. According

to ACDI/VOCA[8] in Ethiopia, 70% of small stock originates from the highlands, mainly destined for domestic consumption; the remaining 30% comes from the lowlands, and is mainly exported to Arab countries (it is a requirement of the shoat export market that animals are of lowland origin because the meat of lowland animals is less prone to discoloration (Legese et al., 2008 and personal conversation with ACDI/VOCA)). In addition, Arab importing countries such as Saudi Arabia and the UAE require well-fed young males between one and two years, with live weights between 13 and 45 kilos (Legese et al., 2008).

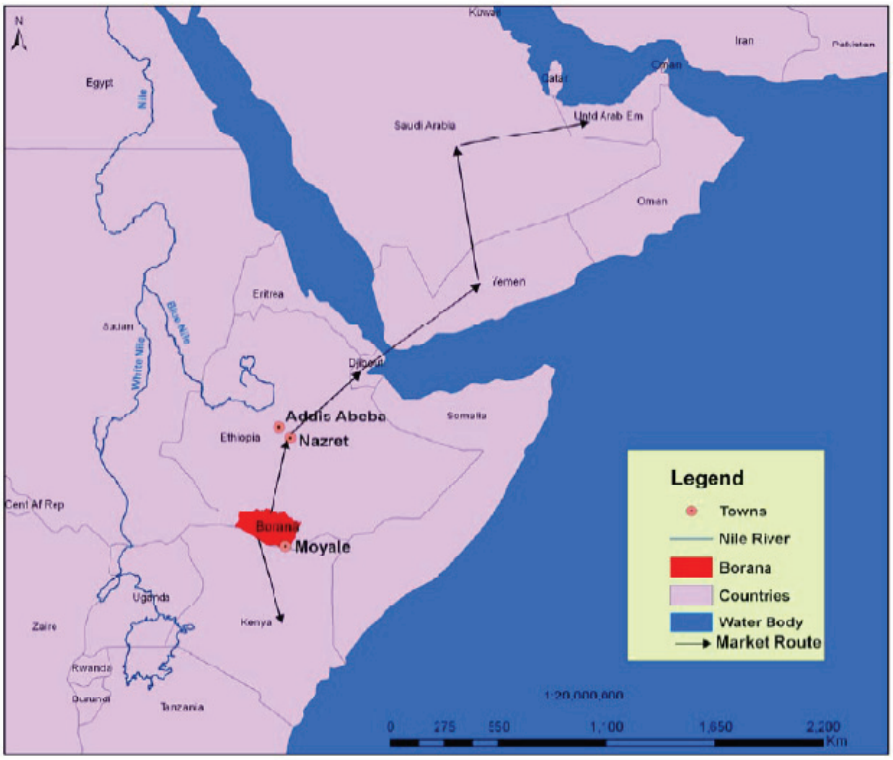
Camels originating from the locations visited in Mandera are sold in Ethiopia and Somalia. Producers trek their camels to Moyale Kenya, cross the border with Ethiopia and then sell them in Moyale Ethiopia. From there the camels are trucked directly to the main centres in the highlands, such as Nazareth, from where they are exported to Djibouti, Saudi Arabia, Yemen and the UAE. According to a recent study, the Borana zone supplies most of the live camels exported through formal channels (Aklilu and Catley, 2010). The other destination for camels originating in Mandera is Somalia. Interviewees in Shimbir Fatuma and Elwak stated that proximity to Somalia is a major factor influencing the decision to sell camels there, though security was a concern. According to one producer in Shimbir Fatuma, when selling in Somalia 'there is a 50% risk that either camels or cash will be stolen'. One way of minimising the risk of theft is to send someone ahead to check on the security situation. Producers also tend to join their livestock with others' and travel in groups. The absence of market opportunities in Mandera is a key factor in forcing producers to venture into insecure areas in Somalia.

The major market centres for the cattle trade in Mandera are Moyale, Mandera, Garissa and Wajir. As discussed below, because of the limited number of cattle traders who travel to remote areas like Shimbir Fatuma, Dandu, Takaba and Elwak, pastoralists and traders usually trek their cattle to market centres in order to improve their prospects of selling. An estimated 40% of the cattle traded in the livestock market centres of northern Kenya are trucked to Nairobi's Dagoretti market.[9] According to KMC, between January and May 2009 Moyale alone accounted for up to a third of KMC cattle supplies from northern Kenya.[10] In the Borana zone, cattle are traded in the key livestock markets of Moyale, Harobake, Dubluk, Finchawa, Bokoloboma and Elweya. From the Borana plateau there are two key trading routes for cattle, one to the south, the other to the north. The southern route takes cattle to Moyale Ethiopia market, to be sold across the border in Moyale Kenya. The northern route is used to transport cattle to highland cities such as Debre Zeit, Addis Ababa and Nazareth for slaughter, domestic consumption or export.

8. Personal conversation with ACDI/VOCA representative.

9. Personal conversation with KMC representative.
10. Ibid.

Figure 6: Livestock trading routes from the Borana zone



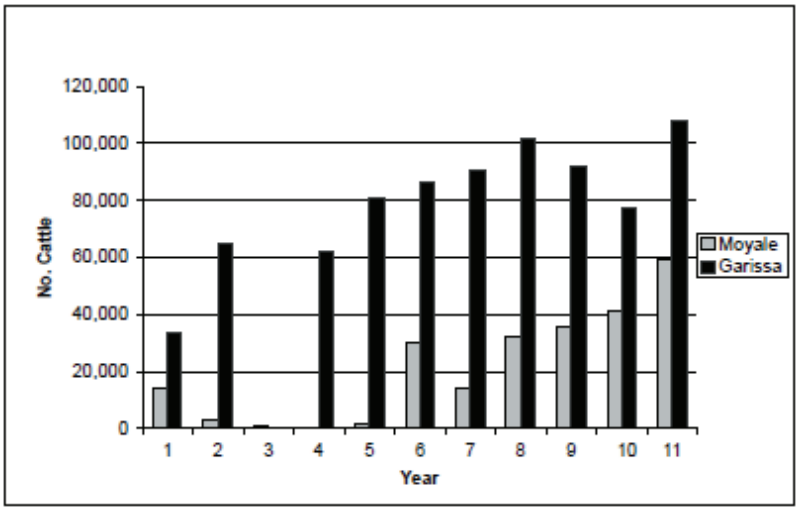
Source: Eyasu, 2009: 24.

5. Cross-border trade between Kenya and Ethiopia

Informal cross-border livestock trade has long operated in pastoral areas and makes a significant contribution to regional and national economies, as well as local livelihoods. However, its potential remains constrained by persistent negative perceptions, especially among government officials, who view cross-border trade as an informal and illegal activity, and a loss to the public purse (Little, 2009).

In the decade between 1991 and 2001, cattle sales along the northern Kenya border have grown more than three-fold (Little, 2009). As Figure 7 shows, there has been a rapid increase in trade volumes in the border areas between Somalia, Ethiopia and Kenya, with estimated annual cross-border exports of cattle to Kenya reaching $34.5 million. According to an AU-IBAR study, Kenya imports between a quarter and a third of its domestic beef requirements through unofficial cross-border trade from neighbouring countries (AU-IBAR and NEPDP, 2006). Beyond these headline figures, however, data is sketchy and it is difficult to obtain an in-depth picture of the cross-border trade. There is limited available information on the type of animals traded.

Figure 7: Cross-border cattle trade in the border areas of Somalia, Kenya and Ethiopia, 1991–2001



Source: Little and Mahmoud, 2005: 2.

5.1 An overview of the cross-border cattle trade at Moyale border markets

Moyale is a vibrant livestock trading hub straddling the border between Kenya and Ethiopia. There are three livestock markets: two (Moyale Somalia or Moyale region 5) and Moyale Oromiya or Moyale region 4 are in Moyale Ethiopia, on the Ethiopian side of the border, and one is in Moyale Kenya, on the Kenyan side. All three operate every day except Sundays, although on Saturdays trading activity is very low.

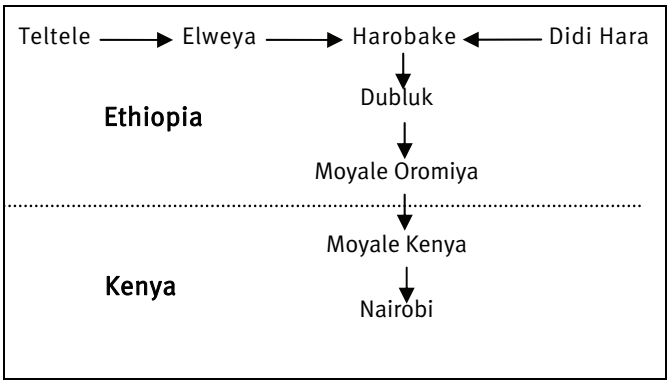
The great majority of livestock traded in Moyale Somalia are camels – up to 80%, according to some respondents, with shoats accounting for the rest. From here, livestock are exported via Nazareth to Arab countries such as Yemen and the UAE. According to the *Moyale* woreda *Pastoral* Development *Office (PDO),* on average 60% of animals traded in Moyale Oromiya are shoats and 40% cattle. From Moyale Oromiya animals are then sold in the primary markets in Borana zone or trucked directly to the central highland towns, such as Nazareth, Debre Zeit and Addis Ababa.

Moyale Oromiya is also an important transit point for castrated bulls and cows *en route* to Moyale Kenya livestock market. According to the Moyale *woreda* PDO, *a*pproximately 70% of cattle crossing into Kenya are castrated bulls, and 30% cows. Cattle are usually trekked to Moyale Oromiya market by livestock collectors, small traders and producers. Upon arrival sellers pay a market fee levied by the local administration of 10 ETB ($0.80) per animal, and liaise with a broker, with whom they trek across the Ethiopia–Kenya border. The extent to which local authorities from both sides constrain this cross-border trade is unclear. Most sellers interviewed said that they were not

harassed by government officials on either side of the border and only rarely had to pay bribes to cross. None of the respondents complained of having livestock confiscated. A number of key informants, however, said that government authorities at the border occasionally confiscated herds, and that producers and traders were often required to pay bribes.

The great majority of castrated bulls sold in Moyale Kenya originate from the Borana lowlands (EFZA, 2005). Interviews with producers and traders in Borana zone pointed to a typical route for castrated bulls shown in Figure 8. From Teltele and Elweya markets on the west of Harobake or from Didi Hara east of Harobake, cattle are trekked to Harobake livestock market. From there, they are trekked Dubluk for sale, then moved on again to Moyale Oromiya – in all a journey of 150–200km. From Moyale Kenya, cattle are then trucked to Nairobi, 730km away, where they are finally slaughtered.

Figure 8: Example of castrated bulls trading route from the Borana zone to Nairobi, Kenya



Source: Study data.

According to key respondents, the cross-border trade in castrated bulls between southern Ethiopia and northern Kenya via the Moyale markets is very significant. One INGO representative estimated that cross-border trade accounts for 75% of the total livestock traded in Moyale.[11] According to the Moyale branch office of the Ethiopian Customs and Revenue Authority, at the time of the visit in September between 300 and 600 castrated bulls were transiting from Moyale Oromiya daily. This suggests that, despite the drought, a regular supply of cattle was still leaving the Borana plateau.

11. This percentage also includes cross-border livestock trade with Somalia.

According *to* Moyale *woreda* PDO (Table 4) over the past five years there has been a steady flow of castrated bulls from Moyale Oromiya to Moyale Kenya. However, interviews with producers and traders in the Borana zone highlighted that sales in Moyale Kenya do not always materialise. Sellers noted that, rather than selling at a low price, they often preferred to take their cattle back to Ethiopia. Similarly, one key informant estimated that up to 50% of cattle may be returned to Ethiopia unsold. In addition to trekking and other costs, failed sales also mean the loss of the 10 ETB ($0.80) tax per head paid at Moyale Oromiya, as there is no refund in case of unsuccessful sales. This makes it still more difficult to estimate the volume of cross-border cattle trade in Moyale Kenya; one possible implication could be that actual sales are 20–30% or more below current estimates.

Table 4: Average number of castrated bulls crossing from Moyale Oromiya into Moyale Kenya every day

Year	Average number of castrated bulls per day
2004	250
2005	150
2006	400
2007	450
2008	200
2009	450

Source: Study data

Respondents agreed that, in both Ethiopia and Kenya, there is high demand for castrated bulls, dictated by domestic consumers' preference for their fattier meat, as opposed to the leaner meat of non-castrated bulls, which is preferred by Arab importing countries. In September 2009, around 750 bulls from Dubluk and 1,350 from Harobake markets were transported to Nazareth and Modjo for export to Arab countries (study data). According to market participants interviewed in Harobake, an estimated 70% of castrated bulls from the Borana zone are trekked to Moyale to be sold in Kenya, while only 30% are sold to traders from the highlands, who in turn sell them in the terminal markets of Addis Ababa for domestic consumption (often after fattening them up). Interviewees also noted that the remaining 70% of Ethiopian meat demand is met by castrated bulls that originate from the central highland areas such as Shewa, Hararghe, Bale and Arsi. A preliminary investigation of the drivers of this trans-boundary trade therefore seems to suggest that, because

domestic demand for meat is met by livestock from the highlands, Moyale represents an essential outlet for Borana castrated bulls, without which market opportunities within Ethiopia would be very limited. In line with the findings of another study, unless there is an increase in the national demand for meat, and provided that such an increase is met with livestock from pastoral areas, 'pastoralists have nowhere to sell their livestock even if they want to since the domestic markets are conveniently "saturated"' (Aklilu, 2002a: 20).

5.2 Cross-border trade among bordering pastoral communities

The focus of the study on the border areas of Kenya and Ethiopia also provided the opportunity to gather insights into socio-economic relations among pastoral communities in these areas. Interviews and FGDs revealed the positive impact that long-standing ties have had on the livelihoods of Ethiopians and Kenyans, especially in times of stress, and the adverse effects of conflict on cross-border relationships.

Communities living close to the Kenya–Ethiopia border have long benefited from sharing natural resources and economic exchanges. For many years the Ethiopian Boranas of Dillo and the Kenyan Gabras of Dukana have shared pasture and water (the pastoralists of Dillo have abundant water sources, while pastoralists in Dukana enjoy abundant wet-season grazing land). At the time of the visit in September, interviewees said that drought in Dukana had forced 240 Gabra herds to move to Dillo since June. Respondents also said that the Boranas of Dillo had lent one of their two motored boreholes to the Gabras, who had in turn granted the Boranas the use of a section of their pasture. The Ethiopian Borana community of Magado (located 38km away from the Kenyan border) and the Gabra community of Forole in Marsabit District (Kenya) also share water and pasture. At the time of the visit, an estimated 50% of the Borana livestock had migrated to Forole to take advantage of better pasture across the border.

The trade in livestock, food, grain and other goods was also widely perceived to provide mutual benefits, especially during periods of drought. A traders' cooperative in Dillo has established an arrangement with a counterpart association in Dukana to purchase several hundred goats a month, for sale in Dubluk market (the cooperative's members indicated that, thanks to abundant pasture, Dukana goats were usually in good body condition). The goat trade provided clear reciprocal advantages to both communities. On the one hand, Dillo traders could avail themselves of a regular supply of good animals for sale at a profit. On the other, Dukana producers could rely on regular purchases of their animals, allowing them to destock during drought.

Box 3: Coping with drought: cattle destocking in Burduras

Interviews with the Garri community of Burduras in Mandera West pointed to strong ties with the Garri community of Hardura in southern Ethiopia. The Burduras settlement is located only 5km from the border of Ethiopia; because there is no clear physical border delimitation, both communities can cross easily.

FGDs with producers in Burduras highlighted how their proximity to the border and trading ties with their counterparts in Ethiopia had enabled them to respond to the drought. Respondents said that, after June/July, as the drought started to worsen, many producers in Burduras decided to sell all their cattle to Ethiopian traders on the other side, in the belief that it was better to destock early than wait until cattle deteriorated and died. They said that they had learnt about the importance of early destocking from Ethiopians across the border, and that their proximity to Ethiopia made it easy for them to take advantage of market opportunities there. For the majority of these households, this was the first time that they had completely destocked their cattle herds. Those who did not destock said that they were waiting to see how those who did fared: if they were seen to cope relatively well, they too would destock their cattle during the next drought.

While proximity to the border can clearly provide important benefits to adjacent communities, it is also apparent that communities were able to enjoy these benefits only during periods of peace. Clan conflict over resources has a detrimental effect not only on natural resource sharing but also trade. The pastoralist communities of Magado and Forole, for example, were in conflict over natural resources for several years, bringing the livestock trade between them to a complete halt. An agreement among elders and key representatives from both communities, based on the repayment of cattle for major offences, was eventually reached in June 2009, and the conflict has since ended.

6. Constraints on livestock marketing in Kenya and Ethiopia

Infrastructural, policy-related and institutional constraints to livestock marketing in Ethiopia and Kenya include lack of access to formal financial systems and credit, onerous and non-transparent taxation systems, limited investment in communication and infrastructure, poor market supply and poor forward and backward linkages. These have been the focus of a number of studies (see for example Legese et al., 2008; Umar and Baulch, 2007; Mahmoud, 2008). A comprehensive review of these obstacles is beyond the scope of this study, which looks only at the most significant constraints as identified by livestock traders and producers themselves.

6.1 Livestock markets infrastructure and management

Since 2006, as part of the Livestock Marketing component of the USAID-funded Pastoralist Livelihoods Initiative (PLI), ACDI/VOCA has built 25 pieces of market infrastructure in Afar, Somali and Oromiya regions, with the overall objective of improving pastoralist livestock marketing through increased sales (ACDI/VOCA, 2007). While the type of infrastructure and services varies from market to market, the majority of market yards have been equipped with a brick fence, separate compartments for shoats, cattle and camels, loading ramps, feeding and watering troughs and shaded areas. In some markets, such as Dubluk and Harobake, the small ruminant yards have also been equipped with scales for weighing shoats (ibid.; Bekele and Aklilu, 2007). For the most part, markets have been constructed near villages and towns on sites that had long been used by traders and producers. The market day, often established several years ago, has also been maintained.

Market visits in Harobake and Dubluk were carried out at the end of September. The Harobake visit took place during the weekly market day, on Sunday. However, because of time constraints the visit in Dubluk took place on a normal weekday, rather than on the market day (on Friday). Harobake is a primary market where cattle, camel, sheep and goats are traded. Harobake is located in the Borana zone in Yabello *woreda*, 13km north of Yabello town and 550km south of Addis Ababa, on the main asphalted road that links Addis Ababa and Moyale. Dubluk is the largest market in Oromiya Region, with approximately 1,000 animals offered for sale per market day (ACDI/VOCA, 2007). Dubluk is located in Dire *woreda* in the Borana zone, 635km south of Addis Ababa along the main route to Moyale.

Besides functioning as vibrant centres for the livestock trade, markets in the Borana zone have also attracted a number of small-scale businesses, such as the many tea houses that surround the market yard, predominantly run by women, as well as food sellers and stalls with other goods. Markets are also important centres for the trade in milk and other livestock products. Women interviewed noted that they benefited from the presence of many buyers in Dubluk on market days.

There was a stark contrast between the level of trading activity and market infrastructure development in the market sites visited in Borana zone and in Mandera. Contrary to the very active markets in Harobake, for example, the locations in Mandera were characterised by very low, almost non-existent, trade, with only a handful of sellers and no buyers observed during field visits. This is probably because Mandera was suffering a serious drought, whereas Borana zone was enjoying a relatively normal dry season. Even without the drought, however, the business environment in Mandera was already precarious. Both producers and traders complained of structural constraints significantly restraining livestock trade. None of the locations visited in Mandera had any basic livestock market infrastructure and none had a fixed weekly market day, making trade extremely unpredictable. There were no fences delimiting the market yards, no holding grounds and no partitions to separate small from big ruminants. Water, fodder and veterinary services were all absent.

In Kenya, the lack of an integrated policy and institutional framework between the Ministry of Livestock Development (MLD) and local County Councils has constrained the development of livestock marketing. Livestock markets are considered public services, and the land on which they stand belongs to County Councils. As such, councils manage the markets and collect taxes, leaving little incentive for the MLD to invest in the development and maintenance of livestock markets. Rather than perceiving livestock

marketing as a vital pastoralist livelihood strategy, a significant economic activity and an important source of investment, local authorities have long regarded it as a means to control diseases and movement, and as a source of revenue. These problems are exacerbated by longstanding tensions between pastoral communities and formal institutions. Decades of inappropriate and biased national policies, protracted isolation and the lack of representation of pastoralists within the national political arena, deeply rooted misconceptions about pastoralism among national decision-makers and the neglect of pastoral areas in the provision of basic services have all led to mutual mistrust and suspicion.

Pastoralists we interviewed in Mandera saw local authorities as unresponsive, collecting taxes while consistently failing to provide services and market infrastructure. Communities reported that they had not established a designated market day or constructed basic market facilities for fear that organising and developing market sites would lead to higher taxation, with no infrastructure or services provided in return. Communities also noted that they could not build permanent structures such as fences or holding grounds without obtaining a permit from the authorities, a lengthy and costly process requiring repeated visits to government offices, travel expenses, lobbying and political connections and the paying of bribes. Because of their limited resources and skills and their inability to communicate effectively, interviewees felt unable to manage such a demanding process.

An initiative supported by the Netherlands Development Organisation (SNV) has facilitated dialogue and partnership between the local community – through a livestock marketing committee – and the local County Council in Samburu and other districts (SNV, 2008). In this 'co-management model', revenues are split equally between the two parties; the County Council is responsible for collecting revenue and maintaining the sales yard, and the livestock marketing committee is in charge of market activities and trade.

In the Borana zone livestock market centres constructed under the ACDI/VOCA initiative are managed by various different authorities. Dubluk market, for instance, is run by the municipality, while Harobake is managed by Pastoralist Association (PA) leaders. Markets managed by the municipality appear to have been better looked after as municipalities collect taxes through the Revenue Office and reinvest part of the revenue in maintaining facilities and infrastructure. The PA does not have an organised structure or mechanisms to collect taxes or reinvest revenues in market maintenance. According to a recent evaluation of the ACDI/VOCA livestock marketing component, livestock markets were constrained by financing and management problems (Bekele and Aklilu, 2008). The evaluation noted that the planning of the market development initiative had focused on the physical aspects of markets 'to the exclusion of management and sustainability issues' (ibid.: 11).

6.2 Road infrastructure and distances to markets

Poor road infrastructure in Mandera and in northern Kenya in general was seen as a major constraint to efficient trade; indeed, as Table 5 shows, respondents rated transport as the highest livestock trading cost. In the areas visited, traders trucked animals from primary and secondary markets to Nairobi terminal market for domestic consumption. Because of poor road conditions it takes approximately 48 hours by lorry to transport animals the 730km between Moyale and Nairobi.

Table 5: Traders' costs from Moyale Kenya to Nairobi[12]

Cost	Amount in KES	Amount in US$
Transport cost	45,000	629
County council fees	2,500	35
No objection letter	2,800	39
Movement permit	1,400	20
Total	51,700	723

Source: Study data.

The 750km asphalted road connecting Addis Ababa with Moyale is an important trade artery for Ethiopia, and Harobake, Dubluk and other markets in Borana zone have been constructed along or

12. Transport costs are based on one lorry-load of 18 cattle from Moyale to Nairobi. Note that, unlike in Ethiopia where the transport cost is calculated per head of cattle, in Kenya the cost refers to the cost of hiring an entire truck irrespective of the number of animals trucked (see also Mahmoud, 2008).

very close to it. The distance between Harobake and Nazareth is 475km, and traders said that the journey took eight hours by lorry. Better road conditions largely explained the considerably lower transport costs incurred by traders in Ethiopia. Traders interviewed indicated that, on average, the trucking cost per head of cattle from Dubluk to Nazareth was around 200 ETB ($16), and from Harobake to Nazareth around 160 ETB ($13).

The constraints to trade deriving from non-paved roads were clearly illustrated by the low trading volume in the newly established Dillo livestock market. Average weekly sales are just ten or 12 shoats and two or three head of cattle; camels are very rarely sold. Interviews with traders, pastoralists and the PDO representative attributed this low trading activity to Dillo's poor connections with the main road network. Dillo market is located 80km from the Addis Ababa–Moyale highway, and is connected to the highway by an unpaved road, increasing transport costs and deterring medium-sized and large traders.

The long trekking distances to markets were also cited as a major constraint to livestock marketing in the study areas. Trekking is a cheaper form of transportation than trucking and is usually the preferred option when animals are moved to or from markets over relatively short distances of approximately 100–200km. Respondents in Mandera and in Borana zone indicated that trekking was the predominant mode of moving cattle to Moyale market. However, the availability of water and pasture along the trekking route appeared to be a key factor influencing whether producers and traders decided to trek their animals to market. Because of better climatic conditions in Borana zone and the availability, albeit scarce, of water and pasture along the trekking routes, at the time of the study visit Boran traders and producers were able to travel to Moyale and other cattle marketing centres in the area, such as Dubluk and Harobake. In contrast, the lack of water and pasture along routes in Mandera meant that producers and traders were unable to trek cattle to Moyale and other markets, including Wajir and Garissa. Unable to trek their animals, and with no traders interested in travelling to their remote locations to purchase drought-stricken cattle, producers had no option but to wait and hope for the rains to come.

While drought did not bring the trade of sheep and goats to a complete halt, market activity for shoats was very low. Producers told us that, during non-drought periods they feed and water their shoats on the way to and from markets. During droughts, however, lack of pasture means that animals lose even more weight on the journey to market, lowering their value and in some cases making animals too weak to make the homeward journey, forcing producers to sell at very low prices. Alternatively, they have to purchase fodder and water, a very expensive and unaffordable option in times of economic distress.

6.3 Livestock market price information

Poor and uneven access to market information is a well-known constraint to livestock trade in the region (Adugna, 2006; Awour, 2007; Bailey et al., 1999; Umar and Baulch, 2007). In order to make timely and well-informed decisions, sellers and buyers need access to a wide range of market information, including prices, sales volumes, disease status and the levels of national and international demand.

Producers in Borana zone and in Mandera obtain livestock price information from brokers and other producers, either at end markets or at markets in Borana zone itself. They arrive at markets with information of variable accuracy, and with no exact knowledge of the going rate on the day. Depending on the severity and urgency of household needs, producers may decide not to sell if the price offered is too low and does not meet their expectations. In other instances, household needs may be such that producers cannot afford to base their marketing decisions on prices, but must sell however low the price: access to livestock prices before trekking to the market was seen as largely irrelevant.

Box 4: Outdated price information in Harobake

A Boran producer travelled to the market at Harobake to sell four shoats. He knew from other producers in Didi Yabello, where he lived, that the price of shoats the previous week had been 10.50 ETB ($0.84) per kilo of live weight. He estimated that his shoats weighed between 20kg and 25kg, and so was hoping to earn between 200 and 250 ETB ($16–20) per head. Upon arrival, however, he discovered that the going rate was only 9 ETB ($0.72) per kilo. He therefore decided not to sell, and planned to return to the market once the price rose again. Because prices at Harobake are subject to frequent change, he felt that knowing the previous week's prices was of little help.

In Borana zone, access to poor and outdated market price information appeared to be a more significant constraint to trade for producers than for traders. Interviews with traders' cooperatives and private traders pointed to a well-organised system for sharing price information for shoats among traders, from which producers were largely excluded. When producers wanting to sell shoats arrive at Harobake market, for example, they are approached by brokers, who operate on behalf of traders. If their animals match the specific characteristics requested by traders, for instance colour and weight, the brokers will offer the producers the going rate per kilo of live weight. While there might be a negotiation, producers have very little room for manoeuvre, as all the other traders offer more or less the same price. In Dubluk, traders meet on Wednesdays to agree the buying price for the market day on Friday, based on a number of different pieces of information, including market trends, the previous week's purchases and prices at terminal markets. Traders said that producers are not invited to these meetings, and that none of the information discussed is disclosed to them. The final price is then reviewed and fixed on market day morning, and may be adjusted downwards if a large number of shoats arrive for sale.

Box 5: Lack of milk price information: a constraint to trade for women in Dubluk

In pastoral areas information on the price of livestock products is also poor. Women interviewed in Dubluk said that they travelled to the market to sell milk and other dairy products without knowing milk prices beforehand. Instead, they relied on price information from the previous week, obtained by asking other women who were at the market. As with livestock producers, the decision to sell at lower than expected prices depends on the urgency of the needs the sale is designed to meet. While deciding not to sell milk at a low price meant that women retained an important source of nutrients for their household, the wasted trip to market took up a whole day that could have been spent on other household tasks.

A number of initiatives aim to build and support viable livestock market information systems. One example is the Livestock Information Network and Knowledge System (LINKS), established as part of the USAID-funded Global Livestock CRSP (GL-CRSP) project to support the collection and dissemination of market information in Kenya, Ethiopia and Tanzania. Funding for this project was however terminated in June 2009, and data collection has stopped. While several government and non-government projects are collecting data on livestock prices and sales volumes in major markets, this information was only available in hard copy and data was not being analysed or presented in an easily digestible way. Key challenges to effective price information dissemination include the remoteness of pastoral communities, high levels of illiteracy and in some cases the disruption of dissemination efforts by traders and brokers intent on preventing producers from accessing market information.

7. Conclusions and points for action

Livestock marketing in the Kenya and Ethiopia border area is a highly uncertain activity, and fraught with risk. Infrastructural challenges, the absence of an organised market intelligence system and policy and institutional problems are all major constraints to developing efficient and vibrant livestock marketing activities in the region.

In the focus areas of this baseline study in northern Kenya, the lack of organised and established livestock markets is one of the key constraints to trade. Poor marketing opportunities during non-drought times mean that traders and producers have to trek long distances to improve their selling prospects. This results in significant transaction and transport costs and animal weight loss, which in turn reduces profit margins. The lack of market outlets for camels in particular means that producers had to undertake long journeys to insecure areas of Somalia in order to sell their animals, exposing themselves to significant safety risks. In times of drought, limited marketing opportunities have dramatic consequences. When drought intensifies, livestock body condition deteriorates and market activity is further depressed. The lack of markets is also a major hindrance to destocking, particularly during drought.

With the growing focus on livestock marketing as a meaningful way of reducing pastoralists' need for aid and increasing their resilience to drought, there is an imperative to expand market opportunities. For traders, the lack of market opportunities coupled with poor road infrastructure are significant constraints to developing trading activities and assisting communities in destocking. The lack of linkages with livestock and meat processing plants exacerbates the precariousness of their business and leads to high levels of uncertainty and transaction losses.

Support to livestock marketing groups and cooperatives in northern Kenya and southern Ethiopia constitutes a significant step towards building and strengthening capacity in pastoral areas. It also represents an important opportunity to reduce transaction costs and add value to what is currently a patently inefficient value chain. Yet support for marketing cooperatives appears to have done little to improve producers' bargaining power with traders. As such, efforts to improve producers' access to price information will have limited impact absent complementary work to address the way that livestock markets are currently organised. Targeted initiatives are required aimed at strengthening the capacity of producers to use information to their advantage.

Finally, the discussion of cross-border trade suggests significant untapped potential, both in the important trans-boundary centre of Moyale and among pastoralist communities living close to the Ethiopia–Kenya and Kenya–Somalia borders. Of particular interest is the flow of castrated bulls from the Borana zone into Kenya, and the supply of goats from Kenyan border areas into the Borana lowlands. This study provided only a preliminary overview of these trends, which would need to be investigated in much greater detail.

7.1 Recommendations for action

Investigate the potential and relevance of livestock market development. The development of basic livestock market centres, with a minimum level of infrastructure and a fixed market day, merits exploration. Local and international NGOs could play an important role in this regard, particularly in relation to the promotion and support of dialogue and eventual partnerships between pastoral communities and local authorities to develop, manage and maintain livestock markets. The SNV livestock marketing co-management model may provide a useful platform for establishing such dialogue in Kenya. However, the shortcomings identified in the ACDI/VOCA livestock marketing initiative and other similar initiatives should be kept in mind (Bekele and Aklilu, 2008; Aklilu and Catley, 2010). In particular, an in-depth analysis of the benefits that would actually accrue to pastoralists is needed, particularly the poorest and most marginalised, and whether this work would indeed improve their access to markets. Poor road, communication and other infrastructure and services in pastoral areas is a clear constraint to trade. It is important therefore initiatives aiming at developing basic livestock market centres are accompanied by joint efforts with government authorities and long-term development actors to improve services, infrastructure and capacity in pastoral areas.

Facilitate links with traders' cooperatives. The establishment of linkages between traders' cooperatives and other livestock actors along the value chain, in particular livestock and meat processing plants, exporters and private abattoirs, has not received adequate attention. Linking cooperatives with other key market participants is an important next step in supporting and developing the capacity of cooperatives.

Strengthen producers' bargaining power. More targeted efforts should be made to address the power imbalance at market sites between producers and traders and brokers. More in-depth analysis should be undertaken to assess how best to strengthen producers' bargaining power at markets, and the steps required to achieve positive changes in market structures. This would entail understanding how to improve access to market information and its dissemination to producers, and crucially how to strengthen their bargaining power through collective action and more structured organisation in cooperatives or pastoral groups.

Harmonise market information collection efforts. The proliferation of initiatives aimed at collecting market prices in areas such as Moyale could be harmonised in order to reduce duplication of effort. In addition, information should be consolidated, analysed and made available in soft-copy, thereby providing a valuable data set for advocacy and policy-making. More efforts should be made to understand how to best disseminate timely and reliable information to redress bargaining power imbalances at market sites.

Improve understanding of cross-border trade. The cross-border livestock trade should be further investigated, both at important livestock trading hubs such as Moyale and in more remote border communities. More in-depth analysis regarding the volumes and types of livestock traded, trading routes, key actors, main constraints and the role of livestock cross-border trade during drought could be the focus of follow-up studies to understand gaps and identify appropriate entry points for support to cross-border initiatives. A better understanding of cross-border dynamics and the untapped potential of the trans-boundary livestock trade could also provide an important information base to underpin and support advocacy activities aimed at redressing the largely negative attitudes and perceptions of governments towards cross-border trade. This is particularly important given that domestic livestock marketing opportunities can be very limited because of national policies that favour certain geographical areas over others. This baseline study has also pointed to the adverse effects of conflict on cross-border economic exchanges and relations. This suggests that efforts aimed at promoting cross-border interventions need to be premised on an in-depth understanding of cross-border conflict and communities' historical relations.

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Overseas Development Institute
111 Westminster Bridge Road
London SE1 7JD
UK

Tel: +44 (0)20 7922 0300
Fax: +44 (0)20 7922 0399
Email: publications@odi.org.uk
Website: www.odi.org.uk