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Agricultural Policy Research in Africa

WINNERS AND LOSERS IN LIVESTOCK COMMERCIALISATION IN NORTHERN KENYA

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Working Paper

WP|39
September 2020

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ACKNOWLEDGEMENTS

This study was conducted as part of the Agricultural Policy Research in Africa (APRA), a five-year research programme funded by the Foreign, Commonwealth & Development Office (FCDO). The authors are extremely grateful for the kindness and openness of pastoralist producers, brokers, transporters and local traders in Marsabit and Isiolo, as well as for sharing their valuable time, insights and knowledge. For support during fieldwork, the authors want to thank Daniel Sunyuro and Ibrahim Jarso. During the writing process, we benefited greatly from the critical insights and constructive feedback shared by Doris Okenwa, Jeremy Lind and Andy Catley, who all substantially contributed to strengthening this paper. Finally, we are very thankful to John Hall for preparing the digital map of the study area.

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This research was conducted with funding from UK aid of the UK government. The findings and conclusions contained are those of the authors and do not necessarily reflect positions or policies of the UK government or the Foreign, Commonwealth & Development Office (FCDO).

ACRONYMS

AfDB	African Development Bank
FGD	focus group discussion
KII	key informant interview
LMA	Livestock Marketing Association
NGO	non-governmental organisation
USAID	United States Agency for International Development

INTRODUCTION

Although livestock commercialisation has received global attention, in both research and development, relatively little is known about its implications for different actors along value chains in northern Kenya. As in other parts of East Africa, livestock marketing dynamics are changing in northern Kenya, with greatly increased levels of trade, some of which are facilitated by recent infrastructural upgrades, as well as the involvement of new actors. While the Kenyan government and various aid actors have championed increased livestock marketing as a way of reducing poverty and encouraging 'development' in northern Kenya, the impacts and influences of changing livestock dynamics are uneven. Commercialisation could benefit some actors in the form of increased income, better net margins, employment, and ease of doing business, but simultaneously have negative consequences for others. This paper assesses how livestock commercialisation has impacted different actors and different wealth groups in Isiolo and Marsabit counties in northern Kenya. It reflects on key drivers of livestock commercialisation and how recent trends have impacted actors along short and long-distance supply chains.

Over the years, there has been a sustained drive by the government and donors to improve the income of pastoral households and cushion them against recurring shocks, such as drought, livestock disease, and conflict, as well as associated livestock losses. Since the 1990s, government agencies and Kenya's development partners have renewed their interest in promoting livestock marketing as a way to reduce poverty and promote development. Some of these efforts include the formation of pastoral livestock marketing groups and cooperatives in northern Kenya (Pavanello 2010), as well as support to livestock production through disease control, development of water sources for livestock, goat breeding and pasture improvement (Zaal and Ton 1999). The region is replete with development projects linking pastoralists to markets. Examples of current projects include the United States Agency for International Development (USAID)-funded Feed the Future, Kenya Livestock Market Systems project.[1] It offers i) grant facilities to value chain entrepreneurs, ii) partial scholarships to youths to participate in vocational and technical training and apprenticeships, and iii) support to Livestock Marketing Associations (LMAs). Another example is a World Bank-sponsored project to construct abattoirs and auxiliary services, such as market stalls, livestock holding grounds and loading ramps in selected arid and semi-arid counties, such as Garissa, Isiolo, Marsabit and Wajir (Andai 2019).

Greater investments in livestock marketing as a route out of poverty, and a way to encourage development, happen against a backdrop of wider debates on the social, economic and cultural implications of smallholder commercialisation in Africa (FAO 2014; Sokoni 2008). Although the impacts of commercialisation vary greatly – depending on the specificity of the agricultural product, market location and policy environment – the positive impacts of smallholder commercialisation (income, employment, health and nutrition) is considered to outweigh the adverse consequences (Gebremedhin *et al*. 2009). However, the nature of the outcomes depends on the level of market integration, the transaction costs of specific markets, and the overall efficiency of rural markets (Jabbar *et al.* 2008; Fafchamps and Gavian 1996).

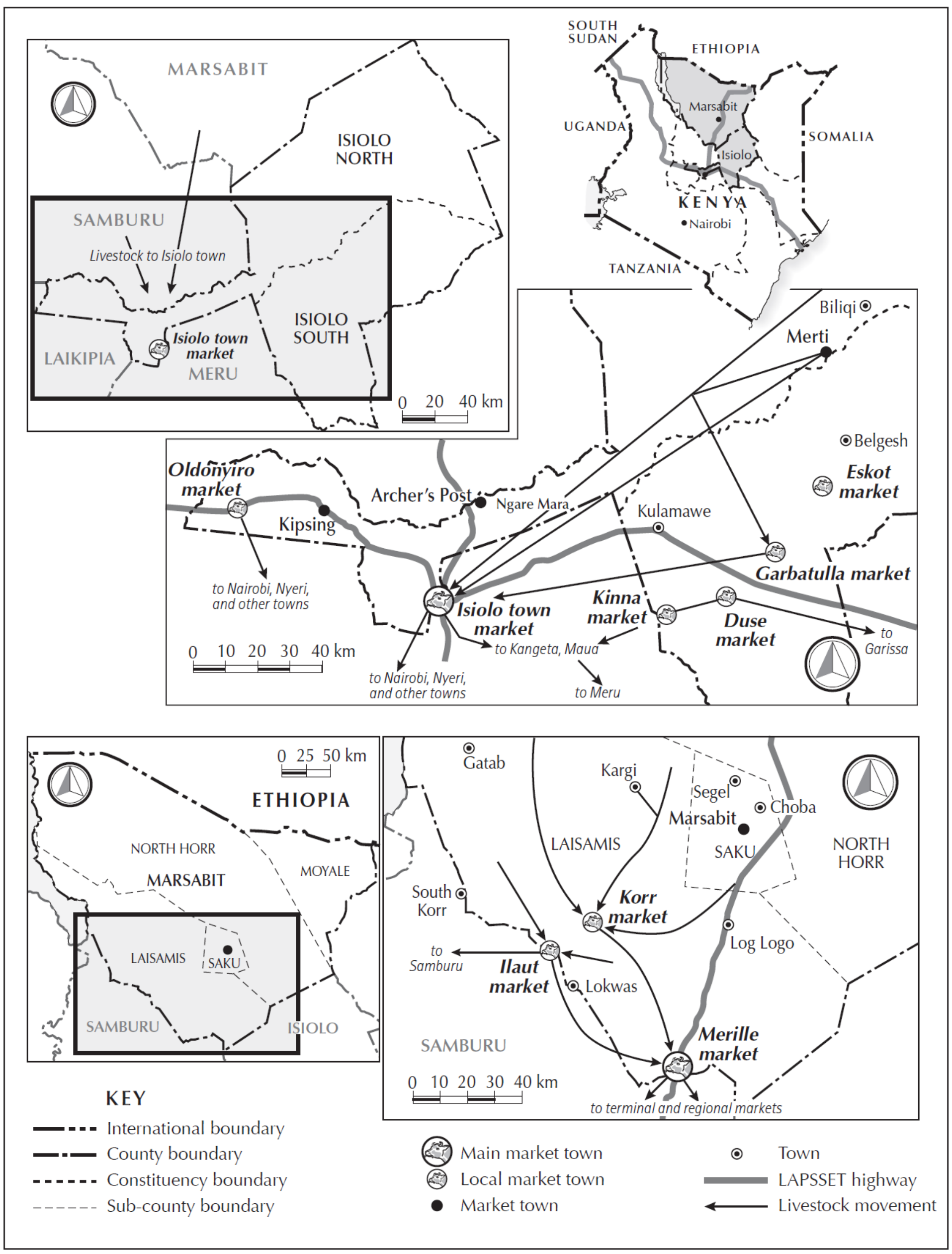
There are related debates on the merits of strengthening domestic markets versus encouraging meat exports to Gulf States. Opinions differ on whether to increase investments in infrastructure to support domestic sales, or strengthen livestock/meat export requirements, such as traceability, equipping abattoirs to export standards, and improving related phytosanitary standards. The potential of such investments to benefit livestock producers and pastoralists depends on the level of coordination among the value chain actors and the existence of a favourable marketing policy (Kocho *et al*. 2011).

Pastoralists are the main suppliers of livestock and livestock products to key marketing chains in East Africa, but evidence shows that the economic returns are not evenly shared across and within pastoral societies (Aklilu and Catley 2009). Growing stratification in pastoral societies is apparent in changing herd ownership structures, with wealth increasingly concentrated amongst the better off (Caravani 2017). Other studies document a number of other challenges, as well. Incomplete livestock market integration, for example, results not only in market segmentation, but also a lack of price transmission from terminal markets to livestock sellers (Bailey, Barrett and Chabari 1999; Fafchamps and Gavian 1996). Still other studies show the weak market information transmission between pastoral livestock suppliers and urban markets (Roba, Lelea and Kaufmann 2017; Turner and Williams 2002). Traders and exporters face high operation costs, and depend on social networks to enforce contracts, for price discovery and to mitigate risks (Roba *et al*. 2019; Roba, Lelea and Kaufmann 2017; Jabbar *et al*. 2008; Mahmoud 2008; Williams and Okike 2007). Information asymmetry between buyers and sellers results in livestock price volatility that affects market participation of livestock producers (Barrett and Luseno 2004). Rapidly changing prices means it is harder for traders to take advantage of favourable prices (Roba *et al*. 2018). Oscillations between profits and loss are inescapable for most traders (Roba *et al*. 2019).

Still, relatively little is known about the consequences of changing livestock market dynamics for different actors in Isiolo and Marsabit counties. Understanding these is important, particularly considering largescale investments in infrastructure and government plans to more closely incorporate the region into Kenya's wider domestic livestock markets in the central highlands and Nairobi.

This paper focuses on the marketing of sheep and goats, because they dominate local marketing and are commonly sold as a way to access cash and pay for household needs, by poorer and wealthier households alike. Specifically, the study covers areas of Laisamis

Map 1.1 Livestock marketing flows and infrastructure in northern Kenya



sub-county in Marsabit County, where a growing number of smaller markets are located including Korr, Ilaut as well as the vibrant Merille market. In Isiolo, the study focused on the main market in Isiolo town, Oldonyiro, and other smaller markets that have good links to Meru, Nyeri and Nairobi.

1.1 Data collection

A combination of research methods were used to collect data on the typologies of livestock markets, the actors, market organisation and drivers of livestock commercialisation, as well as data that helped us discern the winners and losers in livestock commercialisation. The study began with a literature review and initial identification of individuals and organisations active along livestock value chains originating in Marsabit South and Isiolo County. Based on this preliminary review, a spreadsheet with an initial list of local markets (with their locations), livestock species predominantly traded, and value chain actors were generated and later updated during exploratory research in December 2018. The field work was conducted between October 2018 and June 2019.

During the exploratory study and thereafter, field observation occurred on 15 market days – six in Isiolo central markets, two in Kina/Garba Tula, one in Oldonyiro, two in Merille and four in Korr market. During the market visits, observations were made about activities of diverse actors, types of transactions, the movement of livestock from different local markets to central markets and the average number of livestock in different markets. Informal interviews were held with local traders, brokers and livestock sellers on market days. Both market observations and informal conversations were recorded in field notes. The market visits also helped identify potential interview targets – livestock sellers, local traders, transporters, brokers etc – which took place with eight active traders in Isiolo and seven in Marsabit South.[2]

In order to collect historical data on market activities performed by local traders, a narrative interview was conducted with five older (retired) traders to record their trading experience. Focus group discussions (FGDs) with current traders were also conducted to gain insights on the drivers of livestock commercialisation, and their thoughts on who have been the winners and losers in this process. The FGDs gathered four to six people in short and long-distance supply chains (three FGDs in Isiolo and five in Marsabit South). Additional FGDs were conducted with livestock producers (two FGDs in Isiolo and three in Korr).

In addition to the interviews with retired traders, key informant interviews (KIIs) were also conducted with project leaders from ACDI/VOCA, Mercy Corps, the Kenya Livestock Marketing Council, the directors of livestock in Isiolo and Marsabit county governments and veterinary officers.

2 LIVESTOCK COMMERCIALISATION IN NORTHERN KENYA – DYNAMICS OF CHANGE

In northern Kenya, livestock are traded within and outside formal markets. Historically, pastoralists have supplied a north–south trade network in Kenya (Konaka 2001; Kerven 1992). The trade network began with small-scale trade between most cultivating and livestock-producing groups in southern and northern Kenya (van Ufford and Zaal 2004; Kerven 1992; Sobania 1979). Grains were traded for live animals and animal products (van Ufford and Zaal 2004), or livestock products bartered for industrial items like clothes, spears and beads, as well as being sold to fulfil tax obligations imposed by the British colonial government (Kerven 1992).

Although livestock trade predates the colonial period, the trade network fundamentally changed during the colonial era (Kerven 1992). The imposition of government taxes and a simultaneous rise in demand for meat during World War II significantly increased livestock trade (van Ufford and Zaal 2004). Thereafter, the orientation of local market networks grew into a relay network, connecting pastoralists in northern Kenya to urban towns down country,[3] such as Nairobi (Kerven 1992). Initially, Somali itinerant traders dominated the north–south trade network, before the emergence of Boran traders who began to compete with the dominant Somali traders (*ibid*: 19).

Between the 1950s and 1970s, the Livestock Marketing Department and the Kenya Meat Commission, then newly-created outfits, assumed active roles in livestock and meat marketing by setting up auction markets and working to reorient the north-south market network towards pastoralist supplies. By the 1980s and early 1990s, studies demonstrated a strong market system, consisting of longer routes connecting increasingly larger areas of pastoral production with small market centres and even urban markets further afield, which had resulted in increasing the number of formal markets and livestock traders (van Ufford and Zaal 2004; Zaal and Ton 1999; Kerven 1992). Earlier studies demonstrated the potential for leveraging livestock marketing as part of wider economic development plans while also establishing the importance of pastoralists to the wider economy. At a time when Kenya's development planning emphasised increasing agricultural productivity, it should therefore have seemed obvious that livestock marketing would be a pathway out of poverty for pastoralists. Yet, an anti-pastoralism bias was still apparent in government planning, which, in contrast, focused on encouraging pastoralists to move into alternative livelihoods like farming or settlement-based trades. Consequently, budgetary allocations were biased towards crop farming. However, in the latter part of the 2000s, the government took a number of initiatives to revitalise the livestock sector. This started with the creation of national livestock policy, a soon-to-be-unveiled livestock and livestock products marketing bill, and related reforms to livestock product marketing. Other anticipated reforms include a livestock breeding policy, animal disease control policy and animal welfare policy, among others. Selected counties are also beginning to construct key infrastructure, such as abattoirs and livestock markets.

At present, a large proportion of livestock in northern Kenya, particularly sheep and goats, are sold at formal markets and are destined for regional and national markets such as Kariobangi in Nairobi (Roba, Lelea and Kaufmann 2017). In Isiolo and Marsabit counties, two types of supply chains can be distinguished: short distance and long distance. Short distance chains connect livestock sellers with nearby buyers, mostly from small markets. This localised marketing exists at the sub-county and ward level. The short chains constitute a number of primary markets that form the first selling point for pastoralists, while the long chains connect the short chains to larger markets (secondary, regional and terminal) within and beyond county boundaries. Within these trade networks, local traders are an important link between pastoral producers at local markets and buyers at distant regional and terminal markets.

Social relations (ethnicity, groups, shared area of origin etc.) are at the heart of the activities of the actors, along both short and long-distance supply chains, and these unique forms of market embeddedness (political economy) influence how market actors respond to different types of variability. For instance, local traders that share the same ethnicity with livestock producers lower transaction costs and reduce the risks associated with challenging market conditions (Allegretti 2017;

Roba, Lelea and Kaufmann 2017; Van Ufford and Zaal 2004). These close ties can provide access to price information, supply volumes, competition and demand in regional and terminal markets (Bailey, Barrett and Chabari 1999). In the short run, short supply chains are more resilient, have fewer opportunities for substantial accumulation, but allow for more distributed benefits, especially to women, who through close-knit networks and livestock marketing groups are able to sustain sales, with profits shared widely.

2.1 Growth of short and long supply chains

In the 1990s, there were four major livestock markets in northern Kenya: Isiolo, Lolguniani, Marsabit and Moyale. Over the years, many smaller, or feeder, markets have emerged, which are linked to these major markets. In addition, occasional trading of livestock northwards into Ethiopia (Mahmoud 2013), and *vice versa*, occurs, with trucks ferrying cattle originating from Ethiopia, en route to Dagoretti and Njiru markets via Marsabit and Isiolo counties. Primary markets include those established within pastoral production areas. Some of these markets result from pastoralist responses to the needs of visiting livestock traders for water points and smaller shopping centres, where animals are assembled in small numbers or tied to trees for traders' selection. Non-governmental organisations (NGOs) and county authorities have also established saleyards throughout the region to encourage livestock marketing.

The volume of trade in primary markets has grown considerably since 2000, in both Isiolo and Marsabit counties. The level of trade in secondary (larger) markets has also steadily increased. Today, in Isiolo alone, there are 12 markets: two secondary markets (Isiolo and Oldonyiro), connected to several primary markets – four in Isiolo south (Eskot, Duse, Garba-Tula and Kinna) and seven in Isiolo north (Merti, Biliqo, Kipsing, Ngarendare Daraja, Belgesh, Yaqbarsadi and Archers Post). In Marsabit, three secondary markets have been developed in Marsabit town, Moyale and Merille (all along the Isiolo–Marsabit highway). Each of these is connected to several primary markets, including Ilaut, Torbi, Sololo, Maikona, North-Horr and Korr – all in Marsabit County. The recent growth of primary markets is very important for the functioning of the secondary markets (Table 2.1).

Sometimes, primary markets do not necessarily refer to a physical place or location. Some transactions happen at water points or homesteads/villages where itinerant traders[4] aggregate livestock for sale at centrally-located markets in the county or markets further afield. Buyers and sellers in primary markets typically also share the same ethnicity. For instance, the actors in Isiolo south are mainly Borana, while those from Archers Post and Kipsing are mainly Samburu and those in Ngarendare Daraja market are mainly Turkana (Figure 1.1). As such,

Table 2.1 Livestock marketing chains in Isiolo and Marsabit counties

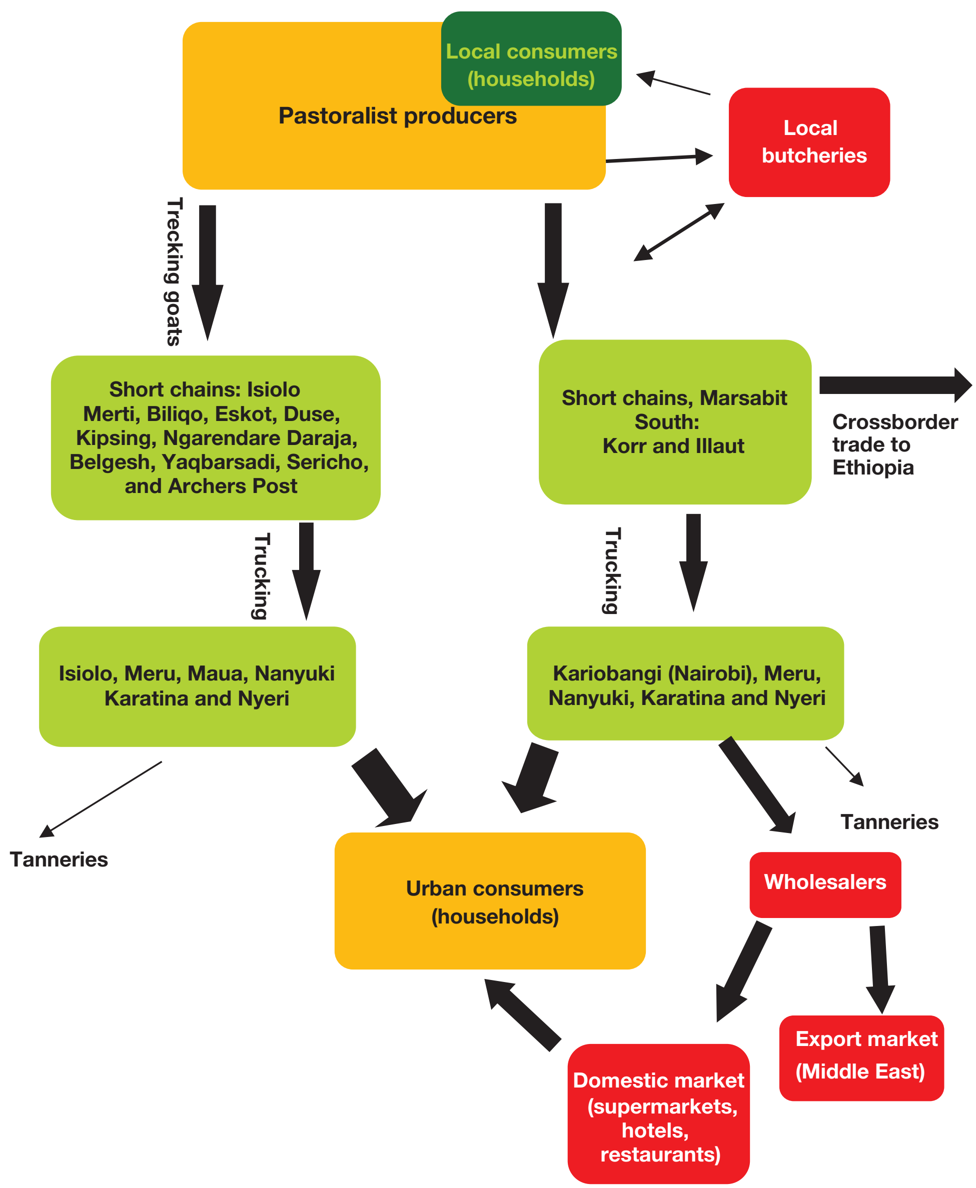
Secondary markets	Connecting primary markets	Main buyers	Additional attributes of the market
Isiolo central market	Merti, Biliqo, Eskot, Duse, Kipsing, Ngarendare Daraja, Belgesh, Yaqbarsadi, Sericho, Archers Post, Merille, Moyale, Torbi, Badha Hurri, Sololo/Ethiopia	Most livestock buyers in Isiolo market are from Meru, Timau and Nyeri. Cattle are mainly bought by Tharaka traders from Meru County. Many sheep buyers are from Nyeri, Laikipia, Chaka, Naro Moru, Thika and Karatina.	Cattle are mostly sold in Meru County while camels are sold to butchers in Isiolo and at Athi River slaughterhouse. Goats are mostly sold in Meru County. The livestock in Garba Tula and Eskot mainly go to Maua.
Oldonyiro market	Oldonyiro draws livestock from Laikipia, part of Isiolo and Samburu (Lolguniani Wamba, and Sere Olivi markets) and Marsabit (Merille), (mostly cattle).	Traders are from various counties, e.g. Nairobi (Kiamiko and Njiru markets), Nanyuki, Karatina (mainly sheep traders), and sellers of foodstuff from Meru and Nanyuki.	A weekly Tuesday market with alternating main and small markets on Tuesdays. Species traded are predominantly small stocks (sheep and goats), cattle (average of 50 cattle), and a few camel.
Merille market	Illaut, Korr and other smaller markets in Samburu	Burji traders from Kariobangi (Nairobi), Meru traders, other traders from Nanyuki, Karatina and Nyeri.	A weekly Tuesday market along the Isiolo–Marsabit highway. All livestock species are traded and it attracts traders from diverse regions and counties.

the governance of short supply chains is through socially-embedded networks, defined along lines of both geography and kinship. Such markets have fewer brokers than distant terminal markets. In contrast, in larger secondary markets the brokers are key actors in bridging language barriers and negotiating transactions between sellers and buyers.[5]

Over the years, markets in both Isiolo and Marsabit have shifted in specialisation with respect to the predominant livestock species that are traded. For example, sheep are mostly traded in Sericho and Korr markets, while goats make up most of the livestock marketed in Merti, Archers Post, Merille, Illaut and Kipsing.[6] The difference in livestock species that are traded often comes down to the grazing suitability of the livestock catchment areas. This relative specialisation of different local markets is good for long-distance traders who are interested in specific livestock and are keen to fill trucks quickly. With such specialisation, traders can effectively choose the purchase market.

In the long supply chains that connect the primary markets to bigger secondary and terminal markets, traders from different ethnic groups converge to amass sheep and goats for onward transportation. In long chains, on each market day, higher volumes of livestock are transacted. Examples of such markets are Isiolo central, which receives livestock mainly from Isiolo north as well as from neighbouring counties including Laikipia, Marsabit, Samburu and Wajir. Oldonyiro market receives livestock from Oldonyiro

Figure 2.1 Movement of livestock from local, secondary to terminal markets



Source: Author's own

catchments, Kipsing, Kimanchu in Laikipia and eastern Samburu. Markets supplying long chains have more brokers (from different ethnic groups), buyers and transporters. Brokers provide a range of services such as mediating transactions, debt collection, sourcing for animal feeds, and relaying market information needed by long-distance and external traders (outside the ethnicity of a community in a specific market area).[7]

Diverse local traders mobilise livestock from local markets, water points and homesteads and move them to secondary and terminal markets. Figures 1.1 and 2.1 illustrate the movement of livestock along short and long supply chains in Isiolo and Marsabit.

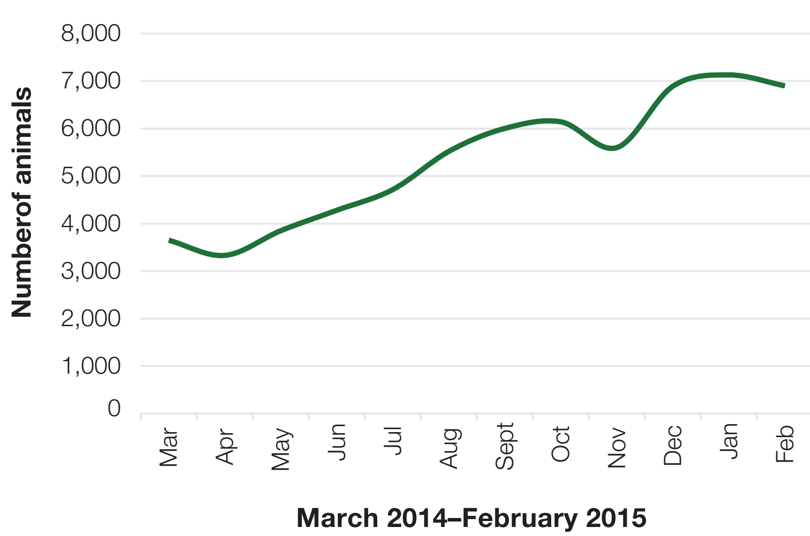
The multiplying number of secondary and primary markets in Isiolo and Marsabit coincides with a period of increasing livestock sales. According to data collected by Food for the Hungry (FH) Kenya (a national NGO working in Marsabit), between 2014 and 2015, 64,014 head of sheep and goats were sold in Merille market alone (Figure 2.2), with a monthly sales value estimated at US$6.4 million. Similarly, primary markets like Korr and Illaut have also registered steady growth in monthly sales (Figures 2.3 and 2.4).

Secondary markets in long supply chains offer advantages to buyers and sellers. At the time of research, in 2019, the most active markets were Merille and Isiolo central. This is partly because of its location along the main road linking Isiolo to Moyale. Hence, it offers better connectivity, and the arrangement of coordinated market days which boosts both the number of livestock delivered and the overall volume purchased by traders. Merille and Isiolo central markets are also located along the Isiolo–Marsabit highway, and therefore well-situated between rangelands where livestock are reared, and regional and terminal markets. The other advantage these markets hold over markets in Nyeri or Nairobi, is that they are situated in an environment that is similar to the rangelands where the animals are reared; hence, livestock do not shrink, change body condition or 'fade' in colour. Since most secondary markets pool livestock from wide producer catchments for sheep and goats, four to six trucks are usually unloaded per market day. This makes secondary markets attractive to long-distance traders, particularly those from outside the region.

Over the last two decades, livestock marketing arrangements have become more organised, to varying degrees, in both primary and secondary markets. Each market has a scheduled market day, with different markets having an assigned market day. This coordination of marketing days supports traders, since livestock will not be driven to many different markets on the same day, but will aggregate at a particular primary market. Scheduled market days therefore not only accommodate the itineraries of local and external traders to meet purchase targets, but they also offer livestock producers different selling avenues and choices (see Table 2.2 for the schedule for different markets).[8] Coordinated marketing days also offer producers a choice of selling market(s).

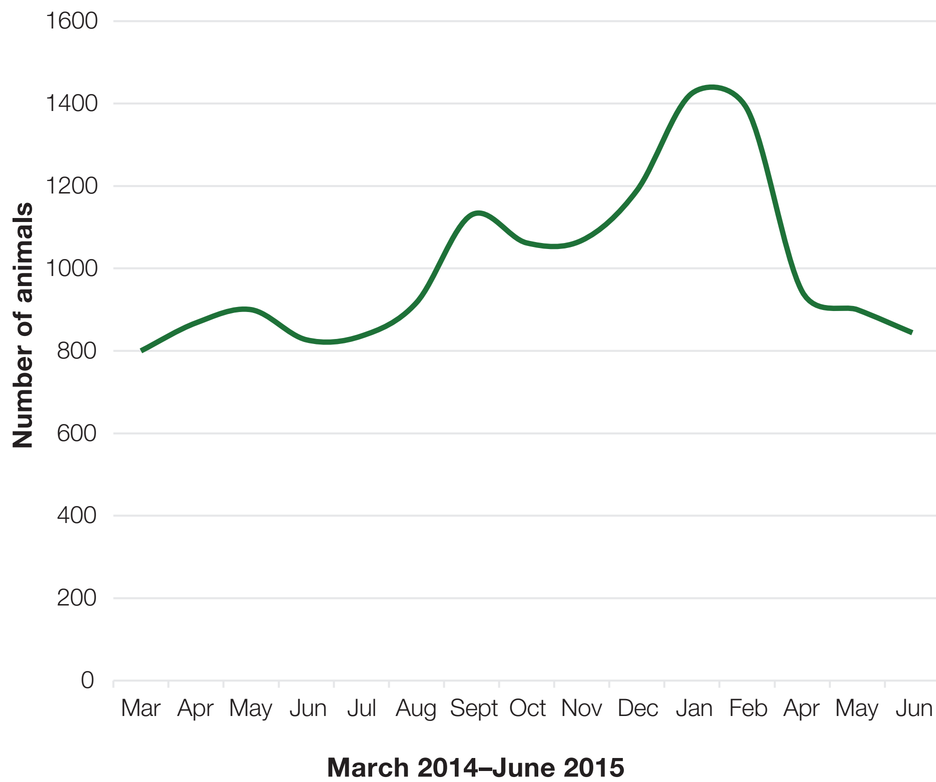
Market-specific trading days offer local traders the convenience to purchase a target number of sheep and goats and plan their travel to terminal market(s). For example, a local trader in Isiolo south can sell at Maua market on Thursday and travel back to Eskot on Friday for a repeat purchase during the Saturday market and then travel again to Maua market on Sunday.[9] On the

Figure 2.2 Monthly sales of sheep and goats at Merille market



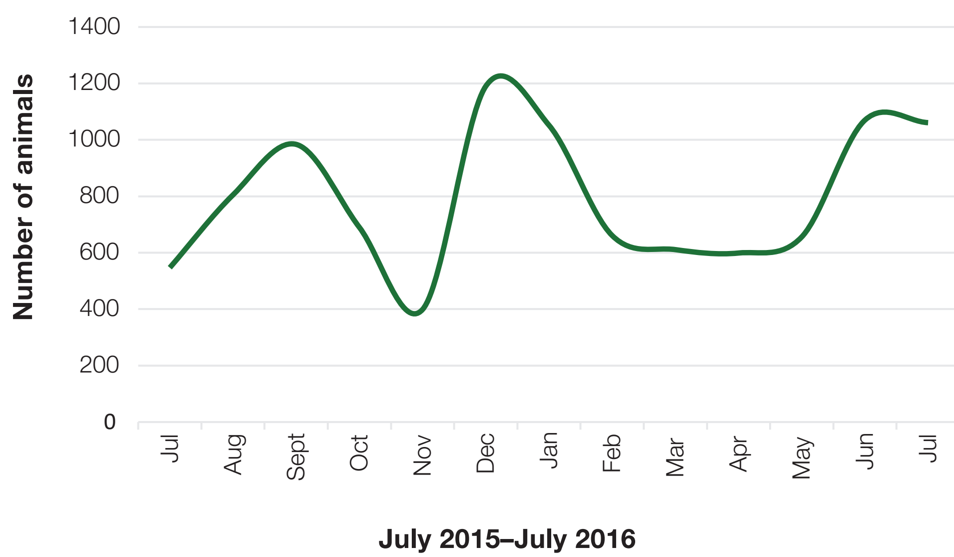
Source: FH Kenya (Marsabit field office)

Figure 2.3 Monthly sales of sheep and goats at Illaut market



Source: FH Kenya (Marsabit field office)

Figure 2.4 Monthly sales of sheep and goats at Korr market



Source: FH Kenya (Marsabit field office)

Table 2.1 Livestock marketing chains in Isiolo and Marsabit counties

County	Markets	Market day(s) in a week
Isiolo	Oldonyiro	Tuesday
	Ngarendare Daraja	Wednesday
	Merille	Tuesday
	Kipsing	Friday
	Merti	Tuesday and Saturday
	Duse	Tuesday
	Eskot	Saturday
Marsabit (south)	Merille	Tuesday
	Illaut	Every other Tuesday
	Korr	Saturday

Source: Authors' own,

other hand, local traders in Isiolo North mainly rely on Merti market to purchase livestock, before then selling it at Isiolo central market.

As the market chain extends beyond the sub-county into a longer-distance chain reaching to terminal markets in Meru, Nyeri and Nairobi, the power over sales shifts out of the hands of local traders to the brokers and end market clients.[10] This highlights the biggest challenge in the sheep and goat trade from pastoral areas. Sustained investments by the government and donors can influence small changes in markets in Marsabit and Isiolo, but the governance of the long-distance trade remains the real blockage and, by extension, defines who benefits and who loses from increased livestock commercialisation. The extent of loss to the traders as they move beyond the short supply chain to the terminal market can be massive because the accrued costs for maintaining unsold goats are usually high, the goats' bodies shrink and their chances of attracting clients diminishes. Such goats are eventually sold at a loss. The scheduled rotatory market day system resulted from this recognition by pastoralists, especially those in remote rangelands, where trader numbers are low or altogether absent at times. Such circumstances result in both low livestock prices and stock returning after offers on market days. These challenges and potential benefits from self-organisation prompted tighter organisational arrangements in livestock markets.

2.2 Emergence of new actors

Usually, in all markets, multiple actors play specific roles, including local traders,[11] external traders,[12] brokers, livestock transporters, butchers, meat distributors, processors and different forms of labourers. Although these actors have existed in different markets for decades, a recent phenomenon is the emergence of livestock marketing groups, which are groups comprising of livestock producers and local traders collaborating to trade together and bargain for better sales. There are estimated to be more than 100 such groups in Marsabit South alone, with the majority owned and managed by women. However, the presence of women in livestock marketing, as sellers, is not a new phenomenon; even in 1987 in Isiolo market, women made up 60 per cent of the sellers.

The wider emergence of livestock marketing groups is an important development, particularly for poor households that can be easily exploited by traders, as they sell only one or two animals at a time to satisfy their need for immediate income. Livestock marketing groups therefore enable poorer households to organise their sales collectively and strengthen their bargaining position with buyers. In a group selling arrangement, a poor livestock keeper can sell a goat to the group at any time. Then, it is earmarked to be sold on a scheduled market day where the livestock is sold jointly. The result of this type of group-coordinated action is that the price obtained by a poor household is not reduced because of the fact that they are in urgent need of money.

Women are increasingly involved in the sheep and goats trade in both Isiolo and Merille. In recent years, Ajuran, Borana and Garreh women traders have deepened their presence in Isiolo markets while Merille market in Marsabit South is dominated by Rendille/Samburu women traders. The increase in the number of women traders is due to many factors, including i) deliberate support to women by development actors (mainly NGOs), ii) minimal capital required to engage in the sheep and goat trade, and iii) the convenience of trading closer to home. Long-distance trade often requires extended absences from home and, as such, few women can participate due to their competing domestic demands. The increasing number of women traders has also pushed men to trade in big stock (cattle and camels).

3 DRIVERS OF LIVESTOCK COMMERCIALISATION

3.1 Road infrastructure and improved security

Infrastructure and improved security accentuate the process of livestock commercialisation in northern Kenya. Poor road conditions and long treks to markets increase transport costs, reduce animal body weight and, hence, lower their market value (Pavanello 2010). Conversely, improved road conditions lower transport costs, increase access to markets and improve trading volumes (*ibid.*). Further, the security (or lack thereof) also affects the performance of livestock markets. Even mutually-connected groups and those with established trading history suspend livestock marketing activities during raids and counter-raids between communities (Nunow 2000). Until recently, the road network north of Isiolo was nearly entirely unpaved. The poor state of the main road linking Isiolo with Marsabit and Moyale, which was impassable seasonally following heavy rains, compounded the isolation of the region and its distance from large markets in Kenya's central highlands and Nairobi. Livestock trucking on the old road took about 12 hours from Moyale to Isiolo, a distance of about 550km, and protected convoys were often required as a security measure. The commissioning of a new road in mid–2017, however, with estimated cost of KSh42 billion (US$395 million) reduced the Moyale–Nairobi journey from three days to one. Trucking costs have fallen sharply since the new road was completed. Average transport costs between Isiolo and Merille have dropped from US$0.49/km to US$0.28/km (AfDB 2018). The new highway also offers better connectivity between Kenya and Ethiopia, reducing transport costs on the Ethiopia–Kenya livestock trade route, and *vice versa*. As such, producers and market actors in Marsabit and Isiolo have not only been able to access trade in Kenya, but have also increased regional trade.[13]

With an impetus to boost revenue, both Isiolo and Marsabit counties have invested – sometimes in partnership with development agencies – in livestock markets, road upgrading and the development of regulations to manage livestock markets. The county governments of Isiolo and Marsabit[14] have also created additional rural roads linking secondary markets to primary markets. Besides easing the movement of livestock to the primary, secondary and terminal markets, improved rural roads have also reduced transport costs to different destination markets, given the increased number of trucks that are ferrying goods from Nairobi to Isiolo and Marsabit.[15] Expanding roads have also attracted new buyers from Meru, Nairobi, Nyeri and Karatina, and the increasing number of external traders has improved price competitiveness and attracted more livestock sellers.[16]

Although the new Isiolo–Moyale road has accelerated livestock marketing, much of the trade centres on markets along the main highway. Many feeder roads – whose maintenance is the responsibility of the county government – are in a state of disrepair, presenting challenges for trade. Within areas such as Garbatulla, Merti and Sericho in Isiolo County, for example, there is less than 50km of tarmacked roads.

Road infrastructure is not only important to livestock trade, but also opens up the area to other business. The number of trucks ferrying goods to Isiolo and Marsabit, and beyond, has increased, and this has provided additional transport options to long-distance traders that were not previously available. Typically, these trucks have no goods to be transported on their return journeys from northern Kenya, and so offer cheap fees to livestock traders to cover fuel costs and avoid returning empty.[17] This cheaper alternative has recently become more commonly available with the construction of the new roads between rural areas and Marsabit.

Good roads also minimise the incidence of road insecurity and banditry. Banditry and ethnic conflicts, and the practical need for hired police escorts, increase the transaction costs for traders, in addition to paralysing market activities (Mahmoud 2008). The presence of Dogodia (Somali) traders shrunk in the 1990s, after being pushed back to their grazing area by conflicts with Borana herders. Similarly, the presence of Samburu traders in Isiolo market also reduced because of persistent road banditry and conflict along the trade routes from Samburu to Isiolo market.[18] Sporadic banditry within the Turkana grazing area in Isiolo led to the deaths of some traders and affected the trekking of sheep and goats from markets in Samburu to Isiolo town. However, better market management and governance, through LMAs' timely dispute resolution, has contributed to improving security and growing numbers of external traders.

3.2 Expanding mobile phone networks

Mobile communication between trading partners in northern Kenya and Nairobi is an essential development that has facilitated knowledge of market conditions, prices, highway security and level of competition (Roba *et al.* 2018; Mahmoud 2008). Traditionally, most pastoralists and local traders relied on their social networks to acquire information on prices. This has changed with the expansion of mobile phone technology over the past two decades in northern Kenya.

Remote areas of Isiolo and Marsabit have experienced a steady growth in mobile phone coverage. Better connectivity has linked all market actors, e.g. buyers, sellers, brokers and truck owners.[19] Mobile network coverage has also enabled livestock producers and livestock traders to compare prices for different grades of livestock in different markets, as well as identify specific types of livestock demanded by diverse clients. The expansion of the mobile network has enabled local traders to call brokers or clients at terminal markets before purchasing animals; this is an essential strategy for risk reduction among long-distance livestock traders.[20] Traders with a direct link to clients can determine their demand specifications, prices, and can compare across clients or markets in order to make more informed sales decisions.[21] With the ability to collect information on livestock prices, quantities and quality of livestock on offer from different markets, traders are able to make quick comparisons and source the right livestock for the best price.

The improving mobile phone network has also connected traders to truck owners. For example, truck owners in Marsabit central can be quickly contacted by traders, instead of traders having to incur the costs associated with physically traveling to meet and negotiate fees with truck owners. This is a critical development for traders based in remote areas like Illaut and Korr.

Although the expansion of the mobile phone network has fostered livestock trading, it has also exposed the market secrets of local traders. Now livestock keepers get real-time market information from different areas from their fellow livestock keepers. Such price information makes livestock sellers hold on to their livestock or demand higher prices, which reduces a trader's profitability. Traders also face demand and profit margin uncertainty and potentially higher operating costs, because they still lack bidding contracts that spell out supply specifications and supply prices prior to purchase and delivery. In terminal markets like Nairobi, prices can often be unpredictable, and the potential to make a profit is therefore often low, so traders manoeuvre through uncertain trade environments, created by fluctuating prices, a lack of direct clients and high operating costs, to make sales.

3.3 Physical markets and related infrastructure

Opening up of road networks and improved mobile phone coverage goes hand-in-hand with market infrastructure development. Previously, livestock was largely traded on the outskirts of central markets, including along roads and in grazing fields in both Isiolo and Marsabit. Yet, since 2005, NGOs, as well as donors like USAID, the African Development Bank (AfDB) and the World Bank, have invested in market infrastructures in the region, including abattoirs and auxiliary services such as loading ramps, water systems, market stalls and offices for LMAs. An example is the REGAL-AG programme (ACDI/VOCA 2017), which made multimillion-dollar investments in constructing modern market facilities in Isiolo and Oldonyiro in Isiolo County, and Merille, Illaut, Korr, Torbi and Moyale in Marsabit County. The strategic location of some of these markets, e.g. Isiolo central and Merille markets, is very attractive to traders from other counties. The improved livestock volume and better connections to other local markets have therefore boosted the diversity of visiting traders.

Although the improved price competitiveness resulting from traders competing for livestock to purchase is good for pastoralists, market infrastructure, per se, is not the greatest determinant of any resultant upward shift in profit margins. Some investments have been flawed. Abattoirs in Isiolo and Marsabit, like in other northern counties, are not fully complete and operational, and therefore not used by the pastoralists. Some small rural markets developed by NGOs, such as in Sololo town, a second Ilaut market on the Samburu–Marsabit county border, have remained abandoned for a number of reasons, including locational disadvantage, remoteness and lack of a constant livestock supply and inconsistent visits by traders. These markets have not benefitted pastoralists.

Market infrastructure has also improved complementary trade. Newly established market structures have accommodated offices for LMAs, offices for chiefs, grocery stalls, agro-vet shops and stalls where other household items are traded. As a result, on market days, sellers of diverse food and household items converge from different areas and sell items to livestock sellers. This has created additional employment and enabled retail businesses to expand.[22] For example, some entrepreneurs have begun to sell prepared food to livestock buyers and sellers on market days. Livestock producers are therefore able to sell their livestock earlier and purchase other household items at the same market competitively, due to the presence of many competing sellers. This improved affordability and accessibility of much needed food items is potentially improving the nutritional status of households, and has also eliminated the need for women to trek long-distances to other markets.

On market days, in larger secondary markets like Merille, businesspeople from Kenya's central highlands visit and sell a variety of goods. On their return journey, they buy livestock and hence establish a trading partnership with entrepreneurs to deliver other goods and items required within pastoral areas.

While new infrastructure has supported the expansion of livestock marketing, the choices over the placement of new roads, abattoirs and mobile phones towers is a political process. Road construction to the north has lagged behind the rest of the country, until 2017, approximately 45 years after independence. The construction of other market-enabling infrastructure – meat processing facilities, meat marketing boards and cold-chains – that would enable more efficient slaughter and movement of meat and meat products from source to point of consumption has also been slow. The locations of such trade-enabling facilities are largely political, rather than purely based on the needs of market actors.

4 POLITICAL ECONOMY OF CHANGING LIVESTOCK MARKETING DYNAMICS

4.1 Political economy along the long-distance supply chain

The political and governance dynamics of the sheep and goat trade can be grasped by understanding the organisation of a trade network, particularly along long-distance chains. In long-distance sheep and goat chains in northern Kenya, trade networks are initially constructed around ethnic ties. However, this gradually diminishes as trade becomes increasingly multi-ethnic downstream.

In long-distance trade, Nairobi-based brokers, who usually occupy an intermediary position between members of distinct ethnic groups, play a central role in the trade network. These brokers often have a number of advantages, including being closely located to clients, having good connections to the owners and managers of Nairobi's slaughterhouses, and an extensive network of hidden personal relations that they draw upon to fulfil their sales mediation and transaction roles (Roba, Lelea and Kaufmann 2017). In doing so, Nairobi brokers play an important role for long-distance traders and sit at the top of the marketing pyramid in this long-chain,[23] a position from which they derive political and social authority.

Brokers decide the details of the transactions, including schedules, quantity ordered, destination etc., in addition to taking care of all finance-related arrangements.[24] By virtue of this position, the organisational details of long-distance trade are almost entirely in the hands of Nairobi brokers, rather than the long-distance traders themselves. Like any other trade, the secret of sheep and goat trading is in market information. Brokers are the custodians of this vital trade information that they acquire from various associates and networks (Roba, Lelea and Kaufmann 2017).

Each long-distance trader connects to a broker of the same ethnicity, or the same area of origin, demonstrating the importance of ethnicity in this trade. One reason for this is that the governance of the sheep and goat chain is based on mutual trust rather than binding contracts, i.e. the expectation that brokers offer essential information and support during the transactions, and that long-distance traders will maintain the relationship by engaging brokers in their transactions.

In Nairobi, the brokers assert their power and prove their indispensability because the sale of livestock to "faceless buyers" – through the brokers – is the most complicated and risky stage in the long-distance chain. This is partly because of a notorious lack of creditworthiness among the buyers. The brokers also establish business relations between long-distance traders and clients of different ethnic backgrounds in Nairobi, Nyeri and Meru, an arrangement that hastens the sales of livestock at terminal markets, and thereby affects the overall potential for livestock commercialisation. The roles of the brokers are restricted to organising transactional details without guaranteed prices, and supply and demand specifications. This affects the overall price received by long-distance traders and partly explains the fluctuating profits.[25] This complicated network means that there is often no smooth circulation of market information, from end market clients to livestock producers, local traders, and brokers, and back to the clients.

Individual traders usually construct trade networks through other traders using positive referrals. The broker is one key contact passed from one trader to another. This passing over of brokers from one trader to another not only reinforces the powerful position of the broker, but also limits the possibility of a trader or group of traders constructing trade networks that extend directly from traders to clients.[26]

The connections different communities have to terminal markets determines their overall position and benefits in the chain. The current trade in sheep and goats revealed a clear distinction between different destination markets – Nairobi, which is less ethnically segregated, and others that are slightly more ethnically divided. For instance, Burji traders have a significant presence in Nairobi's Kariobangi sheep and goat market, and their kinsmen own the majority of the slaughter facilities. Therefore, they have strong connections to markets in Nairobi, which is an important factor in this trade.

Overall, the ability of an individual trader to make decisions on sales results from several factors, including their location, social capital in specific markets, quickness of selling and return to do more purchase among others. The sheep and goat trade is largely based on trust and personal relationships between brokers and traders, rather than on explicit and defined contracts. As such, traders do not govern the overall operation of the trade or the terms of trade. This continues to present bottlenecks, especially to traders travelling long-distances to terminal markets, because they incur high costs to truck animals.

4.2 Political economy along the short-distance supply chain

On short-distance supply chains, sheep and goat trades are ethnically controlled. As such, different ethnic groups have different connections to rural and urban spaces, and different control over rural markets. In the short chains (shown in Figure 2.1), sheep and goats circulate within localised chains, characterised mostly by homogeneous ethnic identities. These local networks influence the social space along ethnic lines, to the benefit of both livestock producers and local traders. Ethnic and clan-based solidarities are important for building long-term trust, which is vital to fulfilling the selling and buying activities of livestock producers and some categories of local traders. These closely-knit relationships in the Isiolo and Marsabit chain (upstream) explain why many local traders face few challenges in meeting their purchase targets and sellers locating buyers. Additional geographic and operational connections between the actors, combined with a strong bond based on common ethnicity and clan, facilitates transactions. The existence of local traders from the same ethnicity as the livestock producers offer pastoralists many advantages, including the possibility of tracking the itinerary of a trader, gaining access to credit facilities, gathering market information and negotiating better prices. In addition to ethnic solidarity, shared ethnicity improves problem-solving resources between actors in the market.

Collaboration built on a common identity, however, can create possible entry barriers for external traders outside of these networks. A clear example is how Rendille and Samburu traders locked out Burji traders from Marsabit central from accessing Korr and Illaut markets, enabling them to dominate short supply chains connecting Illaut and Korr with Merille market.

During the early 1990s and up until 2008, Burji traders were the main buyers in Illaut and Korr short chains. This has changed, as Rendille traders (many former security guards who have worked in Nairobi, and so have acquired language skills in Kiswahili which enables them to trade in Nairobi and other towns), joined forces and pushed Burji traders out of these primary markets.[27] As Burji traders lost increasing numbers of sheep and goats in the grazing field to theft by Rendille herders, they retreated from Illaut and Korr markets. Instead, they began to dominate Merille market where they could purchase a truckload of livestock and leave for a terminal market in Nairobi[28] within the same day.

In contrast, the long-distance nature of the sheep and goat trade implies that the ethnic homogeneity of the network, within which the trade takes place, is gradually replaced by greater socio-cultural diversity. As the trade network shifts from a predominantly ethnic-based system to a heterogeneous socio-cultural one, some relationships essential to the transactions of long-distance traders become weak or disappear, as control slips out of the hands of the local traders and into the hands of other actors along the sheep and goat supply chains. Long-distance traders from Marsabit and Isiolo counties, for example, are obliged to recreate networks to link up with the terminal markets in Nairobi, Nyeri, Karatina and other towns. Essentially, these relationships are with another set of network actors. The long distances between point of purchase and sale have resulted in the emergence of networks that “interact at a distance”, either between long-distance traders and Nairobi-based brokers (for sale of sheep and goats), or between long-distance traders and lorry brokers (for livestock transportation). This disconnection deters closer collaboration in the sheep and goat trade.

By working through Nairobi-based brokers, the link between long-distance traders and clients in Nairobi is missing, often severed deliberately by the brokers. The power and central position of these brokers limits the possibility of long-distance traders from Marsabit and Isiolo forging direct links with diverse end buyers. This constitutes the biggest challenge in the long-distance trade of sheep and goats. Without a direct connection to clients, the final prices, and demand and supply specifications are unknown to the traders. As a result, potential losses arise and this has implications for the level of livestock commercialisation.

While long chains are being promoted by external factors and actors, the development of short chains has been more favourable to local dynamics and is largely more pro-poor than notionally developmental external interventions.

4.3 Dimensions of gender and youth impacts

Recent livestock commercialisation presents an opportunity for both women and youth to participate in local and terminal markets. According to FGDs with a group of women traders in Merille, sustained support by development and faith-based organisations has not only increased the presence of youth and women in local chains and secondary markets, but also created opportunities for women and youth at different levels, including employment as labourers, livestock aggregators and traders:

> Support by NGOs and government has helped us a lot. We can now buy goats in groups and sell as a group. Today we have much [more] bargain than in the past because many other women are joining small stock trade that give us money to not only make essential purchases but also employ some men on short term to trek with goats from Korr to Merille. (FGD, Merille market, 7 May 2019)[29]

This engagement of women and youth in different segments of livestock chains has the potential to increase the influence of women in major decision-making processes and thereby contribute to their partial control over household income. Group trading disproportionately benefits women because they are able to manage the entire process, from livestock purchase, to fattening and sale. Consequently, there has been a growth of women livestock-trading groups in both the Isiolo and Merille markets.

Increased livestock commercialisation also has an effect on the emergence of other complementary trades.

> Construction of modern markets has boosted both livestock and non-livestock trade activities for women in sale of foodstuff, second hand items, vegetable vending, Mpesa stalls and Boda boda[30] businesses for youths. (KII, Isiolo)[31]

The strong establishment of non-livestock related trade was particularly evident during the closure of livestock markets after the outbreak of Rift Valley Fever in 2018, when the vibrancy of other businesses continued uninterrupted. Usually, on market days, sellers of diverse food and household items travel to the market and sell items relatively cheaply, usually on stalls around livestock markets.

However, long-distance chains (e.g. to Nairobi) are still dominated by men, and there is only a limited presence of women and youth. Engaging in long-distance trade requires considerable experience, a vast network, working capital and extended time away from home. Some of these requirements are major constraints to women and youth participation.

5 REFLECTIONS ON THE WINNERS AND LOSERS

5.1 Perceptions about winners

Based on the qualitative data from Marsabit and Isiolo County, this section of the paper reflects on the perceptions about winners and losers in livestock commercialisation. It also documents some gains and losses from livestock commercialisation in pastoral areas.

There are varied conceptualisations of the winners of livestock commercialisation. Although the degree of actual benefit varies, from field assessments in Isiolo and Marsabit, the winners in livestock commercialisation are many and include local traders, brokers, pastoralists, livestock transporters, butchers, women and youth livestock businesses and meat distributors, and county government (from increased revenue).

Pastoralists perceive that different types of local traders gained the most from changes in livestock markets. Two reasons influence such a perception. First, the number of local traders has grown along different chains, in particular the number of itinerant traders and long-distance traders. Most local traders emerged from the opportunities presented by the growing number of local markets and better connectivity from one market to another. The majority of the Rendille local traders are former guards from Nairobi, while in other cases, young traders have also emerged by taking initial working capital from their herd/stock and working under the mentorship of experienced long-distance traders. Local itinerant traders with small working capital have "cooperated" to aggregate sheep and goats from far-away grazing areas and sell at the primary markets. Therefore, increased marketing activities happen in parallel to widening socio-economic differentiation at the local level, where new itinerant traders emerged to take advantage of prevailing opportunities, as well as other traders transacting between local markets. The growth in the number and types of traders,[32] particularly the itinerant traders, is attributed to the healthy price differential between village/water point markets and primary markets. Although these traders report modest profits, they also benefit from opportunistic trade, such as barter exchange when they meet a willing herd owner who wants to exchange a donkey for a few goats, for example.

Long-distance traders are subjected to profit fluctuations, but they have other complementary trading opportunities, including options to engage in a second line of business, for instance by purchasing goods in Nairobi (shoes, ropes, veterinary medicines and motorbike spares) that are sold in their retail shops in their home areas. Secondly, traders can choose among many markets as their end market option. With increased livestock marketing, the benefit for traders is that, for instance, when prices are low in Merille, they can proceed to Isiolo or beyond. Of course, this incurs costs, but the fact that there are many market options allows them to make strategic choices and time their sales to increase their chances of making a good profit.

Even among traders, some have benefitted to a greater extent. For example, Rendille traders mostly collaborate in groups. Those that worked in Nairobi as security guards have acquired Kiswahili language skills, enabling them to trade in Nairobi and other towns without restrictions. Due to the complementary nature of the sheep and goat business, they usually acquire their initial trading stock from their home herds. When suffering extreme business losses, they can also replenish trading stock from their home herds. The fact that they have a close kinship connection with Rendille pastoralists and proximity to existing and emerging local markets means they enjoy unique benefits from opportunities during purchase and sourcing for livestock.

Burji traders, who largely control long-distance chains to Nairobi, have also benefitted significantly from increased marketing. They enjoy strong connections with slaughterhouses as a result of kinship relationships, with the majority of the slaughterhouse owners in Kariobangi in Nairobi. They have also benefitted from a second line of business, through retail shops and other ventures in Marsabit town. In addition to being enterprising, Burji traders have strong connections to truck owners in Marsabit and Moyale, who are also largely of Burji ethnicity.

In Isiolo, livestock commercialisation has brought new actors from Nyeri and Meru counties. These actors often have greater amounts of working capital and trade in collaboration with each other. This arrangement enables them to control markets for cattle (Tigania/

Tharaka traders) and sheep (Nyeri/Karatina traders). Their knowledge of the end market/butchers and strong connections to these markets give them an advantage, enabling them to make informed purchases and sales, and thereby gain associated margins.

Other experienced traders located in remote areas in Marsabit South have seen real transformation from increased livestock marketing. They are mostly stationary (rather than nomadic) and engage in livestock fattening. They mostly buy young goats at moderately low prices, on average KSh1,000 (US$9.40) each, graze them for an average period of 12 months, and sell mature goats at prices that are sometimes three times the purchase price. This venture is the most profitable in the sheep and goat supply chain, especially when a trader buys a high volume of stock, e.g. 200–300 goats. These traders also often have a second business line, such as transportation, or retail shops that also double up as a purchase point for livestock.

Although pastoralist households also win in livestock commercialisation, there is a clear differentiation. As confirmed in separate FGDs in Korr, Ilaut and in Isiolo markets, the location of a pastoral households determines their level of benefits from livestock commercialisation. Pastoralists located in far-flung areas like Ilaut have geographical restriction to markets, particularly for the poorer households which sell only one or two goats at any given sale. As such, the costs of pursuing better prices in Merille is high. It is expensive to trek with one or two goats to Merille, which takes three days to walk. The cost of food, overnight accommodation and other miscellaneous expenses means that it is not viable to sell in Merille. This is the same for the majority of the poorer livestock keepers in Isiolo and Marsabit.

Contrary to this, richer pastoral households have the option to postpone sales until market prices are low, and they can target their sales more strategically. In Marsabit, richer pastoralists stated that they mostly made one-off annual sales at Kiamiko market in Nairobi and rarely engaged in day-to-day sales at the primary or secondary markets in the county, as most poor households do. Poor households sell regularly, due to a lack of finances and the constant necessity to meet regular household needs. On the other hand, poorer households located closer to more connected markets, such as Merille and Isiolo, have more chance of benefitting from livestock commercialisation. They regularly gain market information, can more easily monitor prices, and then decide when to sell when the market is most favourable. Communities based around Korr/Kargi expressed their disappointment during the FGDs about their limited opportunities to participate in livestock marketing. They are located about 56km from Merille market and 105km from Marsabit central market. While this disadvantages pastoralists in the area, it is an advantage to itinerant traders who regularly visit boreholes and offer to purchase animals. This is not considered by pastoralist households to be as favourable as making sales at the markets with organised market days, on which traders are many and diverse and so the chances for better sales are higher.

In Merille, Korr and Ilaut, where many women trade through organised livestock marketing groups, members feel that they benefit from the livestock business. In Korr, for example, women have used the proceeds from their sheep and goat business to acquire capital items, as well as maintain household consumption. Men working as casual labourers with these women livestock marketing groups, mostly walking livestock markets or herding etc., also directly benefit. In general, many labourers, either engaged by livestock traders or women in livestock businesses, benefit from daily wages on marketing days, commission or fixed salaries.

According to local traders and pastoralists, expanding livestock commercialisation has disproportionately benefitted the county government by boosting its annual revenue. In Marsabit County, for example, the livestock trade accounts for 28 per cent of the annual revenue. Out of this, the county treasury receives 70 per cent in the form of cess (a form of tax charged/levied on sale and purchase of goats), while 30 per cent goes to the LMAs to cater for their operational costs. However, local traders believe that the income accruing to county governments through the livestock markets is not always used to develop the markets or improve terms of trade for local traders, pastoralists and other market actors.

Local traders also feel that truck owners are benefitting from livestock commercialisation. Truck owners with business ventures in Marsabit and Isiolo, which are operationally linked to Nairobi, benefit by transporting livestock to Nairobi. The opportunity to ferry animals to Nairobi and other markets along the highway, at a fee ranging from US$200–400 per trip, is beneficial to truck owners who would otherwise pay for the fuel costs and other road expenditures from their own pocket. Livestock transportation also benefits other actors who earn a commission/fee from livestock movement activities. This includes lorry brokers who connect truck owners to livestock traders, in-truck labourers who care for livestock in transit, and livestock loaders among others. Also, livestock businesses sustain many livestock brokers, through commission earned in the form of brokerage from transactions.

Livestock commercialisation has also benefitted traders in other businesses. The construction of modern markets with stalls for other goods and services has boosted the businesses and incomes of traders in non-livestock related businesses.

Looking at the winners of livestock commercialisation, they are generally slightly more organised, better informed about markets, have access to transport, are skilled in bargaining and, in the case of local traders, are fairly well-networked and work in collaboration, which enables them to share market information and working capital.

5.2 Perceptions about losers

One group perceived to have lost from livestock commercialisation are the lorry brokers based in Marsabit and Isiolo town, who had been affected by the increasingly widespread use of mobile phones. In the past, long-distance traders had to send one of their representatives to physically reach truck owners, negotiate a transport fee, and locate available trucks. Since the associated costs of doing this were high, lorry brokers emerged from the truck owners' towns in linking truck owners with traders in remote towns. The brokers charge 10 USD as commission and thereby eliminated the expensive costs of travel incurred by traders. The expansion of mobile networks to smaller towns like Korr, Illaut, Kargi and Merti increased the chances that long-distance traders will contact truck owners or lorry drivers directly. This has drastically cut the demand for the services of lorry brokers. Although this and other emerging technology is a huge plus for traders and pastoralist livestock producers, it has negatively affected other actors.

Truck owners were another group who were identified as losers. As road infrastructure has developed and expanded from Marsabit through Isiolo to Nairobi, additional transport options have emerged, particularly the number of trucks ferrying goods from Nairobi/other towns to northern Kenya. These trucks usually have no return journey luggage, and therefore charge less to ferry animals on their return journeys. Usually, livestock traders offer a transport fee that is, on average, KSh5,000 (US$47) less than the traditional fee charged by their usual trucks/clients. Traders now tap into this cheaper option as their first priority, while only pursuing the traditional trucks from Marsabit/Moyale in absence of these relatively cheaper means of transport.

Recent livestock commercialisation and the improved mobility in the region has presented trading opportunities for traders from Meru, Nyeri and Nairobi. In certain instances, like in Isiolo's cattle market, a group of traders from Meru formed a monopoly and now offer relatively better prices, so livestock producers prefer selling to them. This group of "emerging traders" is better connected to end-markets, in comparison to local traders from Isiolo/Marsabit. Increasing livestock commercialisation has therefore pushed some local traders out of this trade, or into alternative options like running butcheries, which are not as lucrative. Some local traders have been reduced, at most, to livestock suppliers at Isiolo, Merille or Marsabit markets, or gatherers of vital livestock supply information for traders from Meru, Nyeri and Nairobi. The overall number of local traders along long-distance chains to Meru–Nyeri–Nairobi has therefore reduced.

6 CONCLUSION

As we critically reflect on the winners and losers, we note that geography, working capital and the poverty levels of sellers distinguish the two. Commercialisation outcomes along short supply chains benefit, to a certain extent, poor households and groups of women engaged in the small ruminant trade. In short chains, the geographic and operational connections between actors, combined with a strong bond based on common ethnicity, facilitates the ease of transaction and provides more benefits to women and poor households. In more integrated short chains, the reliability and the potential to estimate profitable sale by local traders and pastoralists is a possibility; hence gains are fairly predictable. In contrast, actors along long-distance chains are less socially embedded, more capitalised male traders, who are largely from outside the area. They are engaged in remote "faceless" exchanges in bigger towns that occasionally earn them some profits, but simultaneously limit their margins due to precarious relationships and the absence of fixed contracts.

Although expansion of the roads, mobile networks and arrangement of coordinated market days remain the main drivers of livestock commercialisation in Marsabit and Isiolo, as the chain extends to terminal markets, the power shifts out of the hands of pastoralist and local traders, making them price-takers. This point brings out the clear winners and losers in livestock commercialisation and speaks to the primary challenge with regard to the governance and control of the chain, which to date remains unresolved. Neither the local traders nor livestock producers in northern Kenya can precisely target their sales or position themselves to benefit from favourable livestock demands. Linkages to end market clients will improve access to demand specifications, prices and supply conditions. However, as much as the governance and control of the chain is not in the hands of pastoralists, neither local traders nor livestock producers can precisely position themselves to benefit from favourable livestock market situations.

Certain attributes define winners, namely: they are slightly better organised, better informed about markets, have access to working capital and transport, are skilled in bargaining and, in the case of local traders, are fairly well-networked and work in collaboration, which enables them to share market information and working capital. Therefore, livestock commercialisation will suitably help groups with existing capital, and this is an important part of the picture when it comes to tackling economic change.

Although greater livestock marketing offers different kinds of benefits for different groups, it is not clear that it will necessarily help the poorest households, particularly those distant from improved road and market infrastructure. To date, there are large areas of Isiolo and Marsabit counties that are isolated and have very poor market access. Infrastructure, such as mobile phones and tarmacked roads, helped some groups to address remoteness and geographical isolation, and also simultaneously lowered prices for some goods in places like Illaut's "Nairobi 1-day market", where sellers of diverse foodstuff and household items converge on market days, which to some extent has benefitted everyone.

To extend the benefits more widely, particular measures are needed, such as strengthening linkages (through local traders) to clients at end markets, possibly through contractually linking buyers and sellers and making demand specifications of diverse clients more explicit, and lead to pastoralists producing and offering different stock for different markets, and responding to market needs timely and profitably. This will enable the sellers (either pastoralists or local traders) to supply the required size and type of stock, and time their sales advantageously. Improved relations at this level will improve, among other things: i) prices for different ranges of animals; ii) the diversity of clients and their quality/ quantity specifications; and iii) access to alternative markets that can be targeted by pastoralists and local traders. County governments and national road agencies must also extend rural road networks in order to improve access and reduce the costs of trucking livestock to markets in and beyond county boundaries. However, while small adjustments through locally appropriate investments in Marsabit and Isiolo counties can benefit both pastoralists (through more choices of local markets, improved local prices and sales) and local traders (lowered costs, ease of aggregation and quicker purchases), the control and governance of long-distance trade remains the real blockage and, by extension, defines the level of benefit or loss.

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ENDNOTES

1 https://www.acdivoca.org/projects/feed-the-future-kenya-livestock-market-systems-activity/

2 This includes interviews with current and past long-distance traders who moved between Marsabit and Nairobi and Isiolo and Nyeri/Karatina, and short-distance traders who moved between Isiolo, Garba-Tula, Iiolo-Merti, Korr-Merille and Illaut-Merille, as well as elderly retired traders.

3 “Down country” is a common term used to refer to more densely-settled parts of the country such as Nairobi, and other urban settlements.

4 These are traders who trek across vast areas in groups to take advantage of price differentials between local markets and pastoralist homesteads, villages or water points.

5 Interview with a trader in Isiolo, 15 May 2019.

6 Market observation note, 2 April 2019 and 10 May 2019 (Merille).

7 FGDs with experienced traders in Isiolo and Marsabit South, 4 April 2019.

8 FGD with long-distance traders in Marsabit South, 13 May 2019.

9 Interview with a local trader in Kina, Isiolo south, 2 June 2019.

10 Interview with a long-distance traders, 9 August 2019.

11 Traders originating from a specific local community and trading at the local market.

12 Traders, usually from other communities, who visit local markets to make purchases.

13 FGDs with long-distance traders in Korr, 26 April 2019.

14 The major road that has been improved is the Kulamawe–Barambate–Malkadaka connection, which opened up small towns which lie along the Ewaso Nyiro river.

15 Interview with long-distance trader, Isiolo–Nairobi, 9 August 2019.

16 Producer FGDs, March 2019.

17 Narrative interview with long-distance traders in Korr, Marsabit South.

18 Interview with an old/retired trader in Isiolo, 15 May 2019.

19 Interview with Isiolo–Nyeri long-distance trader, Isiolo–Nyeri, 9 August 2019.

20 Interview with long-distance trader, Korr, April 2019.

21 Interview with inter-local market trader, in Ngurunit, June 2019.

22 Narrative interview with a long-distance trader, Merille, 28 April 2019.

23 FGD with long-distance traders in Korr, April 26 2019.

24 Interview with long-distance trader, Korr, April 2019 and Isiolo, May 2019.

25 Interview with long-distance trader in Korr April, 2019

26 FGD with experienced traders in Isiolo and Marsabit South 4 April 2019

27 Key informant interview with a long- distance Burji trader in Marsabit, May 2019.

28 Interview with a long-distance Burji trader, Kariobangi market, 18 August 2019.

29 FGD with women livestock traders at Merille market.

30 Boda boda is a term used to describe motorbike taxis.

31 KII interview with Mercy Corps LMS marketing officer.

32 For example, traditional long-distance traders, stationary traders, itinerant traders, butchers, fatteners, and inter-local market traders.

Roba, G.M. (2020) *Winners and Losers in Livestock Commercialisation in Northern Kenya,* Working Paper 39, Brighton: Future Agricultures Consortium

ISBN: 978-1-78118-681-7

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The programme is based at the Institute of Development Studies (IDS), UK (www.ids.ac.uk), with regional hubs at the Centre for African Bio-Entrepreneurship (CABE), Kenya, the Institute for Poverty, Land and Agrarian Studies (PLAAS), South Africa, and the University of Ghana, Legon. It builds on more than a decade of research and policy engagement work by the Future Agricultures Consortium (www.future-agricultures.org) and involves new partners at Lund University, Sweden, and Michigan State University and Tufts University, USA.

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