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Climate Risks and Market Opportunities: Livestock Trading and Marketing in Borana, Southern Ethiopia

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Year Two Report

PROJECT ON “CLIMATE-INDUCED VULNERABILITY AND PASTORALIST LIVESTOCK MARKETING CHAINS IN SOUTHERN ETHIOPIA AND NORTHEASTERN KENYA (CHAINS)”

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Preface

This report is part of a series of field research reports from the “Climate-Induced Vulnerability and Pastoralist Livestock Marketing Chains in southern Ethiopia and northeastern Kenya (CHAINS)” project, which is part of the *Feed the Future Innovation Lab for Collaborative Research on Adapting Livestock Systems to Climate Change* based at Colorado State University and supported by USAID Grant No. EEM-A-00-10-0001. It represents the second annual report by Dr. Dejene Negassa Debsu, a post-doctoral research associate on the project who is based in Ethiopia. The CHAINS project works with several partners in Ethiopia, including the Institute of Development Studies, Addis Ababa University and the International Livestock Research Institute (ILRI), and in Kenya, including the Technical University of Mombasa and ILRI. Its objectives are to: (1) understand the ways in which climate variability and change affect livestock marketing chains in southern Ethiopia and northeastern Kenya; (2) assess which social groups (for example, low-income pastoralists and small- and large-scale traders) benefit the most from different market chains and climate risk scenarios; (3) examine the effects of increased market commercialization and climate variability on pastoral livelihoods and land use; and (4) recommend policy-based solutions to improve livestock markets and the benefits that low-income pastoralists and traders derive from them.

As part of the CHAINS project, Dr. Dejene Negassa Debsu has been involved with a study of livestock traders and pastoralist households in southern Ethiopia. This annual report highlights both the successes and challenges that he has faced in the field and provides some of the unedited excerpts from his detailed ethnographic interviews with traders and herders. Rather than wait several months or even years until these materials are published in a formal format or journal, we are making the materials available in a field research report series with only light editing. Enjoy!

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1. Executive Summary

This report is based on a year and a half field study in the Borana area, focusing on the Dikale (from Yabello woreda) and Kancharo (from Dillo woreda) Pastoral Associations (PAs). Several field visits also were made to Adama to interview feedlot operators and livestock exporters. The research combined household and traders' surveys as well as qualitative interviews of pastoralists and other actors in the business of livestock trading in order to learn about pastoralism, livestock trade, and climate variability. It is aimed at understanding the interactions among herd management, household access to different market channels, climatic factors, especially extreme weather events, and family welfare.

The study results show that even though the Borana pastoralists are still subsistence producers, today male animals produced in the area are destined for Middle Eastern countries through various local towns and neighboring countries' major cities. There are different market channels, both formal and informal, involving different actors. Most producers sell their animals at bush and primary markets and the remaining chain is completed by other actors in the business such as local/small traders, big traders, live animal and meat exporters, cooperatives, and unions.

Dikale pastoralists have relatively good access to major markets in terms of proximity, road networks, and transport facilities, even though those in the remote parts of the PA complain about livestock markets being distant. On the other hand, Kancharo pastoralists have poor market access and receive low prices for the animals they sell. Those pastoralists in the border areas, such as Moyale, take their animals across the border to receive better prices. In general, improved livestock markets and price are associated with improved household food security.

Both traders and producers face constraints in trading and marketing their animals. Climate variability is one of the major factors that impacts pastoralist production and the marketing of animals. In particular, drought is responsible for most of the livestock loss and the low price in the Borana area. The impact of drought is mixed for traders, with some saying they benefit from plummeting livestock prices during droughts, while others report increased risks such as the death of animals, the increase in cost of hay and water and an increase in the incidence of disease. Conflict is another risk for pastoralists, which disrupts livestock markets. Other constraints which affect both producers and traders include a lack of buyers for their animals, the prevalence of disease, and the lack of proper veterinarian and quarantine services. Problems associated with taxation (such as multiple taxations) and price information systems particularly affect producers.

Gender itself is a constraining factor to getting involved in livestock marketing and trading and for women that are involved, they often face multiple challenges. Decisions to sell animals are not seen to be within a woman's domain and often women have to obtain approval from their husband to sell animals. For those involved in livestock trading, a lack of capital and access to credit facilities limit them to small stock trading. However, traditional credit associations and modern micro-credit services (though both are not well developed) are beginning to provide new opportunities for women traders in Moyale and elsewhere in Borana.

2. Introduction

There are several changes going on in the pastoral areas of the Horn of Africa in general and in the Borana area in particular. One of these changes is the fast growing export market for live animals and chilled meat. Several actors emerged around these businesses including abattoirs, butcheries, livestock traders, feedlot operators, animal feed suppliers, and live animal exporters. The changes are mostly in response to the growing international demand for meat, particularly from the Middle East.

Domestic meat consumption has also grown and several feedlot operators target local consumers for their businesses. The main suppliers of these animals remain pastoralists who continue to practice extensive livestock herding. Some estimates put the contribution of pastoral lowlands in the IGAD countries to the animal and animal byproducts export trade at 90% (Aklilu et al, 2013).

In 2012, Emory University launched a research project in southern Ethiopia and northeastern Kenya to understand the interplay between climate variability and livestock trading. The purpose of the project is to learn about pastoralism, livestock trade, and climate variability. More specifically, it intends to understand the interactions among herd management, household access to different market channels, climatic factors, especially extreme weather events, and family welfare.

In spite of the growing livestock trade in the region, both livestock traders and producers continue to operate under several constraints, including climate variability, a lack of buyers, a high prevalence of disease, a lack of proper trucks for trade animals, and an inadequate price information system. These constraints, however, do not have the same impact on all actors, and certainly some benefit more than others in the process.

Climate variability in pastoral areas is one of the major factors impacting pastoralist production and the marketing of animals. In particular, drought is responsible for most of the livestock loss in the Borana area. Traditionally, pastoralists have adapted to climate-related changes through mobility which facilitated the opportunistic use of patchy resources in their dry areas. Various socioeconomic and political factors, however, have weakened mobility and customary methods of rangeland management and use. It is important to understand the impact of these changes on pastoralist communities in general and livestock marketing and trading in particular.

Mobility is a production-based strategy rather than market-based, and has to be examined against the backdrop of burgeoning markets for livestock, a less developed market infrastructure, and transport

constraints. Is mobility compatible with the livestock marketing needs of pastoralists? What kind of constraints do pastoralists/traders face to sell their animals? How do pastoralists and traders respond to situations of drought? With the full understanding of these problems and more, it is possible to explore some of the potential explanations and generate practical recommendations from this research. Some studies indicate that current knowledge on livestock market structures, performance, and price in Ethiopia is inadequate in order to generate policy recommendations (see Little and McPeak 2006; Little et al. 2010). This would suggest that there is a need for more in-depth studies. This study is a step in this direction with the results potentially being interesting to policymakers, donor agencies, and non-governmental organizations.

The report is based on field research that has been going on in the Borana and Adama areas since July 2012. Borana is one of the research sites in southern Ethiopia and represents the production side of the market chain while the Adama site is where most of the feedlot operations are conducted and from where animals are trucked to Djibouti for export.

3. Background to the Research Sites

The household survey research in Borana was conducted in two selected sites, the Yabello and Dillo woredas, located in the Dikale and Kancharo PAs, respectively. The site selection aimed to achieve the best representation of the zone in terms of ecological diversities, livelihood systems, and access to markets. In addition, several field sites were visited for the traders' interviews including Adama, Yabello, Moyale, and Dubuluk. Background information for the three most important sites is provided below.

3.1. Yabello Woreda

Most parts of the woreda have an elevation of about 1700 m .a. s. l. and receive an average annual rainfall of 700–800 mm. Along with livestock rearing, crop production has also become an important part of people's livelihood. The household survey results show that 87.1% of the study population practices some kind of crop farming.

Yabello woreda has relatively better access to major markets in terms of proximity, road networks, and transport facilities. The woreda shares a boundary with Arero in the east, Dirre in the south, Teltelle in the west, and Dugda Dawa in the north and is located along a main livestock marketing route. Major livestock markets in the woreda include Haro Bakke, Elwaya, Surupa, and Yabello (for small stock).

There are a large number of livestock populations in the woreda. According to a CARE (2009) report, Yabello has 200,000 cattle, 77,000 goats, 21,000 sheep, and 11,200 camels. People are engaged in the livestock business as traders, butchers, brokers, and trekkers. Some of them are organized into unions and cooperatives to take advantage of the booming livestock market.

3.2. Dillo Woreda

Dillo woreda is located 724 km south of Addis Ababa and bordered by Dirre woreda in the east, Kenya in the south, Teltelle woreda in the west, and Yabello woreda in the north. Most parts of the woreda have an elevation ranging between 700-1100 m. a. s. l. and receive an average annual rainfall of 500-600 mm.

The study communities in Dillo are mainly pastoralist and raise cattle, camels, goats, and sheep. The livestock population of the woreda consists of 80,000 cattle, 100,000 goats, 30,000 sheep, and 20,000 camels (CARE, 2009). Its ecology, with low rainfall, high temperatures and little moisture, stresses impacts on water availability and allows for very little farming. Only 20% of households said they have access to farmland and do some kind of farming.

The woreda generally has poor access to markets. Constraints to livestock marketing include long distances from other major markets, a lack of all-weather roads, and a lack of transport. There are only a few livestock markets in the woreda. A big market for goats is Goray, which is about 17 km from Dillo town. Dillo is another major market for both cattle and small stock.

Many households in the woreda take their animals to Dubuluk, Elwaya, and Bakke to sell. Most of these are a 3-4 days walk from the woreda capital, even though Dillo market has been upgraded from primary to secondary status. This is because there are only a few buyers due to the constraints mentioned above.

3.3. Adama and its Surrounding Towns

Adama town is located in the East African Rift Valley and has warm weather which is conducive for animal fattening. It is located 100km east of Addis Ababa at an important junction on the market chain. According to unpublished data obtained from Adama Quarantine Station, there are about 57 feedlot operators in Adama and its surroundings alone.

Table 1: Number of Feedlots* and their Locations

| S. No. | Location | # of Feedlots | Distance in Km from Adama |
|--------|---------------|---------------|---------------------------|
| 1 | Adama Town | 26 | 0-8 km |
| 2 | Mojo | 4 | 20 km |
| 3 | Meki | 2 | 100 km |
| 4 | Dera | 11 | 30 km |
| 5 | Awash Melkasa | 3 | 25 km |
| 6 | Metehara | 5 | 100 km |
| 7 | Awash | 4 | 130 km |
| 8 | Adami Tulu | 2 | 130 km |
| | Total | 57 | |

*These feedlots may contain cattle, goats, sheep, camels, or more than one animal species

Adama's favorable weather for feedlot operations, their proximity to export channels, and their access to fodder production areas make it an important site on the market chain. Traders purchase bulls for fattening from Borana and other areas, feed them for a few months in Adama and its surrounding towns, and truck them to Djibouti port for export.

4. Methodology and the Fieldwork

The research combined household and traders' surveys as well as qualitative interviews of pastoralists and other actors in the business of livestock trading. Several field trips were made to Borana and Adama to:

- Visit feedlots and interview feedlot operators and livestock exporters
- Observe livestock markets
- Interview livestock sellers
- Interview local livestock traders, *dellalas* (brokers), and trekkers
- Interview officials from government departments
- Conduct household surveys, and
- Conduct qualitative interviews

In spite of the occasional challenges encountered during the fieldwork in the Borana area, such as problems related to field vehicles and security problems¹, the research work was generally successful. While qualitative interviews and traders' surveys were ongoing processes during the entire field season, the household surveys were conducted at specific times.

¹ In July 2012 the conflict between the Borana and Garre in Moyale forced the research team to postpone its planned visit to the area.

Identifying and locating traders was one of the major challenges. The Borana Zone Trade and Transport Office provided the list of some traders in the zone, but it was not complete and was limited to those who were licensed. Therefore, the research team had to establish contact through traders that were contacted earlier² and obtain their phone numbers. In this regard, mobile phones played a crucial role in contacting traders.

Once they were identified, the next challenge was to schedule a meeting with the traders for an interview. The fact that virtually every day is a market day in Borana (i.e., markets are held on different days in different locations)³ means that traders were often travelling to visit these markets and most of the time they were not available for interview. The team tried and failed, except in a few cases, to interview traders on market days because they have to buy or sell their animals on those days.

As a male researcher, getting the consent of female traders for interviews presented its own challenges. They resisted requests for interview, except a few who volunteered. This may be due to religious and gender differences between the traders and the interviewer. Even though hiring a local female assistant proved essential to obtaining useful information, the women traders did not have time for relaxed conversations since they buy and sell every day.

Compared to the traders' interviews, the process for household surveys and qualitative interviews were relatively less complicated. Seventy households were selected through random sampling from each research site for the survey. PA household registeries were used as a sampling frame to select the households. However, the registriess were not up-to-date, and whenever a household was not available due to migration, death or any other reason, the next household on the list replaced them.

The surveys were conducted by going from house to house where either male household heads or their wives were interviewed. In Dillo, the surveys were conducted during the dry season, February 2013, which affected the availability of male household heads who often were absent from home for the purpose of watering livestock. In contrast, the survey in Dida Hara was conducted in December 2012, at a time when water and pasture were relatively abundant and male household heads were available for interview.

² Cell phones played a significant role in contacting traders since virtually all of them own mobile phones.

³ It is a market day in Yabello on Saturday, in Bakke on Sunday, in Elwaya on Monday, in Finchawa on Tuesday, and in Dubuluk on Friday.

Qualitative interviews were also conducted with key informants in August 2013 to supplement and fill the gaps in survey results. Narratives on some important issues such as livestock marketing history, livestock diversification, the Borana livestock breed, and conflicts over resource use were recorded. Other issues such as the value of education for the children of pastoralists, views about current livestock prices, gender and the cultural meanings of marketing animals were also explored using this method.

5. Livestock Marketing and Trading Chains

There are different levels of livestock markets in the Borana Zone. There are about 25 primary and 6 secondary markets in the zone. In addition, there are several bush markets that supply to the primary and secondary markets. Secondary markets have infrastructure such as fences, water sources, and tax collection offices while primary and bush markets do not have these facilities⁴. Livestock prices in these different types of markets vary considerably depending on their distance from major market centers, access to price information, and the availability of buyers.

Even though the Borana pastoralists are still subsistence producers with a high percentage of female animals in their herds, male animals produced in the area today are destined for Middle Eastern countries through various local towns and neighboring countries' major cities. Most producers sell their animals at bush and primary markets and the remaining chain is completed by other actors in the business such as local/small traders, big traders, live animal and meat exporters, cooperatives, and unions⁵. The volume of meat and live animal export trade from Ethiopia significantly increased in the past two decades, replacing its traditional leading export item, hides and skins (Gebremariam et al, 2010).

Apart from formal trade routes, large numbers of animals leave the country through informal cross-border trade with Kenya, Somalia, and the Sudan. Gebremaraim et al (2010) estimate the number of animals leaving the country through informal cross-border trade at 250,000-500,000 head of cattle per year. In the past few years, the direction of cross-border trade changed from Kenya to Ethiopia with regard to animal type and age. While mostly castrates (oxen) and infertile cows are trekked or trucked across the border to Kenya, young bulls, goats, and big camels are trucked or trekked to the Ethiopian

⁴ Some secondary markets, such as Dillo, do not have water, and markets such as Bakke have ponds which are considered to be not pure.

⁵ The focus of this study is on individual traders and households, and unions and cooperatives were not contacted.

side. Pavanello (2010) reports “approximately 70% of cattle crossing into Kenya are castrated bulls, and 30% cows” (p. 21).

On the Somali side, Wuchale and Berbera are the final destinations before animals are shipped to the Gulf States. Somali contraband traders have agents, sometimes licensed traders, who collect animals and/or negotiate prices for them at the center (Adama area) in Ethiopia. From there, animals such as young bulls (age 3-4 years) as well as camels (3-6 years) and sheep (1-2 years) are trucked to Wuchale or Berbera. The main route for contraband trade for camels, however, is through Babile and Jijiga to Berbera.

6. Traders and their Business Strategies

Most traders interviewed, including those who are exporters today, started their businesses as small traders. Some traders grew from being *dellalas* and trekkers for other traders, through trading small stock, to becoming big livestock traders and exporters. Traders may also be agents of big traders as producers are traders/brokers at the same time. In fact, many traders in Borana are agents for feedlot operators in Adama or abattoirs in Modjo. Household survey results also showed that 16.7% of households who purchased animals in the past 12 months said they bought them for trading.

In the past, few pastoralists were involved in the livestock trading business. Today many pastoralists, mostly men, are getting into the business of livestock trade. These are traders who once were pastoralists, agropastoralists, or farmers in the region. Similarly, many of these traders derived their starting capital either from selling their own animals, borrowing from family and friends, selling crops, or engaging in small businesses.

Traders pursue various strategies to buy animals and make the most profit off of their business. Some traders buy from producers on their way to the marketplace, while occasionally some producers sell their animals directly to traders. There are *delallas* and those who are known as *bittu* (*Oromo term meaning buyer*) who act as intermediaries between the producer and the local trader.

Delallas are brokers, and they are not involved in buying or selling activities, but facilitate negotiations between the buyer and the seller and are mostly paid commission for their services. Traders say *delallas* are useful in establishing trust between the buyer and seller. For example, *delallas* often help in searching for lost animals or identifying stolen animals. Searching for lost animals is an additional cost for traders and buying through *delallas* reduces this cost.

Bittu, on the other hand, are producers, but take the opportunity to buy animals for resale when they can. These are rural traders who buy in the villages or at watering points from neighbors or acquaintances. Unlike other pastoralists, they have money, mobile phones, and market information. A trader informant says, “Animals pass through different hands before their final destination, and directly buying from producers brings good profit and the profit margin declines if you are higher up the chain.” However, this may not be true for exporters who are higher up on the market chain and make the most profit off of their exports.

Many big traders⁶ in Adama have agents in the Afar, Bale, and Borana areas for each animal type (bulls, goats, and sheep). These agents receive commission for their services, often between 100-150 birr for cattle and camels and 20-25 birr for sheep and goats. The relationship between traders and their agents is mostly based on trust. Small traders who do not have agents do all the negotiations, buying, and trucking themselves.

Similar to other traders, abattoirs use various strategies to increase their purchasing volume and improve their profits, but also face challenges such as a shortage of supply. In order to improve their animal supply, abattoirs provide trucks to traders who are only expected to cover the cost of fuel. Others are trying to solve the supply problem by going further into rural markets.

There are different favorable seasons for different actors. Traders take advantage of seasonal fluctuations in livestock prices, supply, and the availability of water and animal feed. Most of them buy just before the rainy season when the animal’s body is in poor condition (considered a favorable season to buy) and sell them when they gain weight after a few months. Some animals may die and others live through the drought season and fetch a good profit for the traders. In this sense, drought is both a risk and an opportunity for traders.

Other traders say they do not benefit from drought situations, even though prices fall significantly during this time, due to several reasons:

- a) There are a significant number of deaths of trade animals in drought seasons;
- b) It takes a longer time for emaciated animals to gain weight and an increase in feed cost;
- c) The capacities of feedlots determine purchase volumes.

⁶ A distinction between big and small traders is difficult to make, but we can say in general that small traders operate at the local level with a limited number of purchases and sales per week. On the market chain they also operate closer to producers, often trek their animals instead of trucking them, and have limited capital and networks.

In general, drought-related problems for traders include the death of animals and the increase in trucking of hay and water, which increases the cost per head as well as an increased incidence of disease.

However, traders can increase their purchase volume without necessarily increasing their capital because of the lower prices. There are also opportunities during drought for traders to buy livestock from producers on credit. In normal seasons, producers avoid selling their animals on credit due to the history of default by traders. In addition, since they mostly sell animals to meet their immediate needs, cash sales make the most sense for pastoralists. However, it is a common practice among traders, including exporters, to buy livestock on credit.

Seasonality is another factor that affects sales and purchases, and this can be seen as yet another strategy for both traders and pastoralists. The months between February and June are favored by most big traders as the time to make purchases because during this season there is a shortage of pasture in Somalia, and the Somalis supply animals in large numbers to Middle Eastern markets, which also affects domestic livestock markets in Ethiopia. The unfavorable season to purchase animals, especially for feedlot operators, is September through November. Even though this is the time when short rains make the grass grow, animal body conditions are poor and fewer households in Borana are willing to sell their livestock. However, if drought occurs, large numbers of animals are supplied to the market during these seasons. Feedlot operators often take advantage of drought seasons when livestock prices drop significantly.

On the other hand, local traders who mainly supply animals to butchers may see wet season (when animals are fat) more favorably for purchasing. These types of traders bear resemblance to feedlot operators who supply to the domestic market, but they do not run feedlots. Instead, they select animals that are in good body condition and are ready to be slaughtered. This strategy reduces the cost of feeding animals, treating them, and operating a feedlot.

Prices are affected not only by seasonal variation in livestock supply, but also actors' preferences and animal types. Animals such as goats and heifers are in demand regardless of the season, and their price is relatively higher even during times of drought. While goats are less affected by drought, heifers are needed for reproductive purposes even when their body conditions are poor.

Feedlot operators respond to domestic and international markets in different ways. The local market is good for castrated, bigger and older bulls (oxen), which have more fat, and there are feedlot operators

who fatten bulls purely for domestic consumption. Most of these types of bulls originate from farming and agropastoral areas, like Bale, where male cattle are needed for draft power.

On the other hand, international markets, particularly Middle Eastern markets, demand young bulls with short horns. Individual countries may also have particular specifications based on age, weight, color, and breed. With their well-built stature and short horns, the Borana cattle meet these demands and, as a result, many of the bulls that are destined for the Arab countries originate from the Borana area.

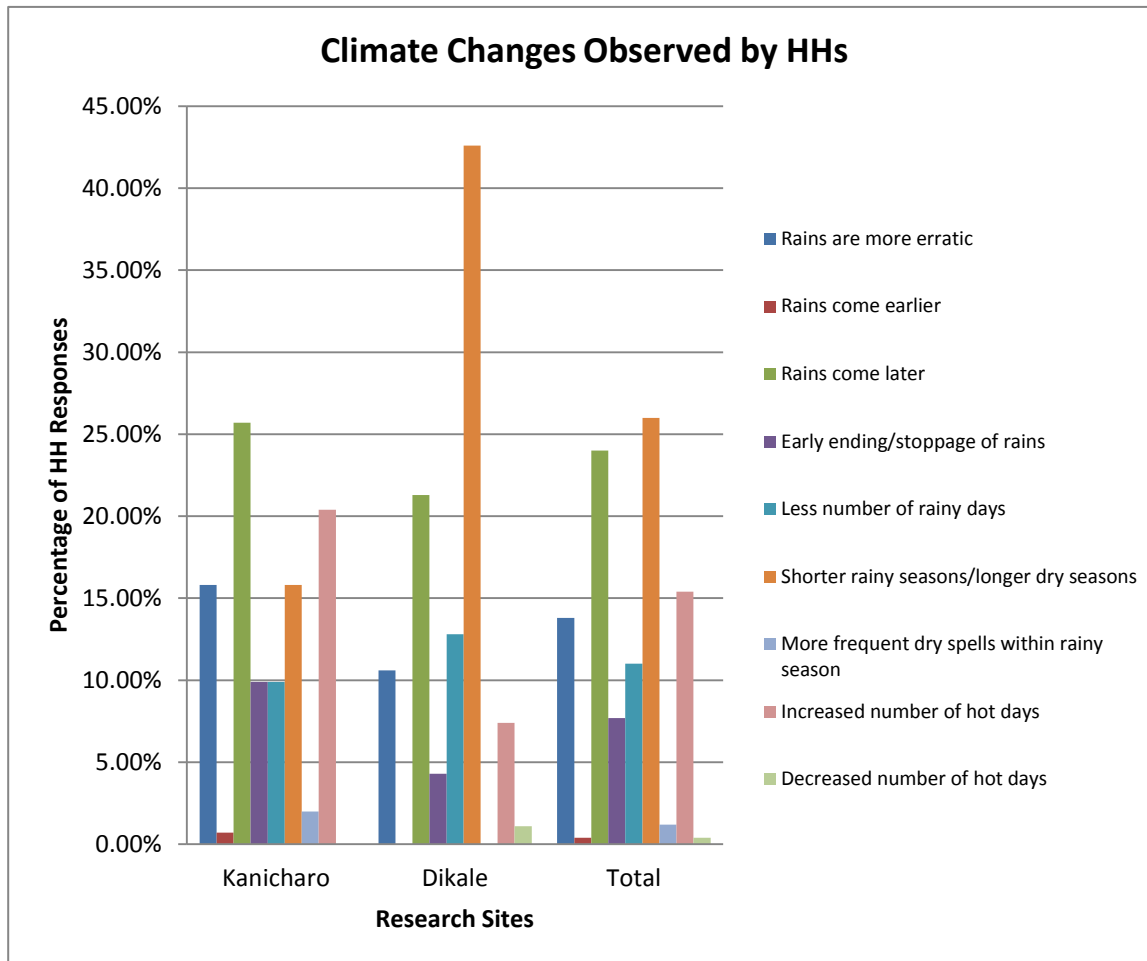
7. Livestock Production, Marketing, and Risk Management Strategies

Both the production and commercial aspects of livestock are intertwined and susceptible to similar, if not identical, constraints. However, producers are more prone to the impacts of climatic factors.

7.1. Livestock Production and Climate Variability

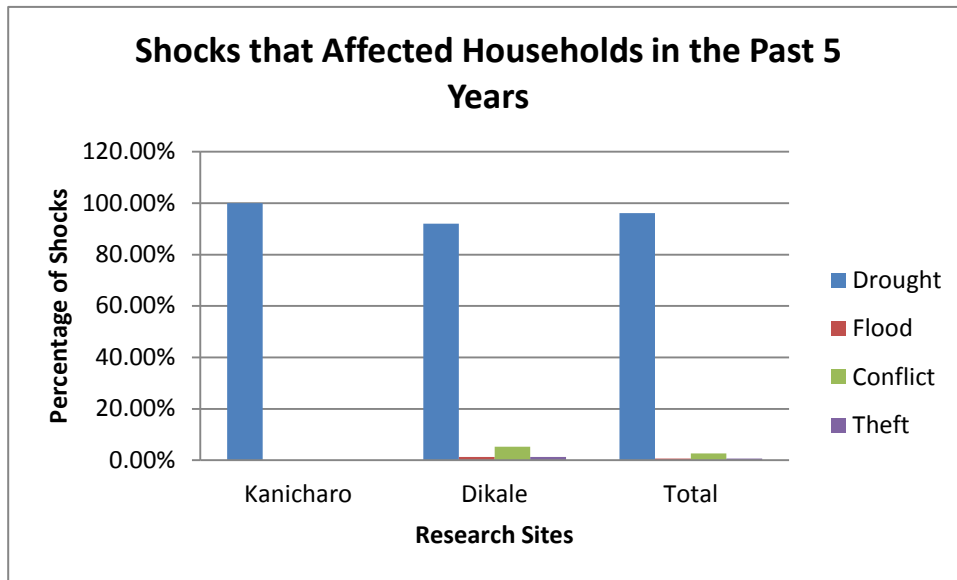
Borana pastoralists operate livestock production under the constraint of climate variability, the single most serious being drought. The majority of pastoralists believe that the rain pattern has changed in the past twenty years; that rains have become more erratic, and that there are fewer rainy days. They also believe that the number of hot days in a year has increased. Meteorological data for Yabello and Moyale woreda also support the perception households have about the increase in the number of hot days in a year (see Debsu, 2013).

Figure 1: Household Perceptions about Climate Change by Study Location



All households interviewed in Kancharo and 92% in Dikale identified drought as the most serious shock that affected them during the past five years, particularly the 2011 drought. This drought alone caused a decline in household animal herds by over 50% in some localities (Debsu, unpublished report). Women, children, and the elderly are the most vulnerable groups when such droughts occur.

Figure 2: Shocks that affected Households during the past 5 years by Study Location



Some of the shocks and risks mentioned by households are more localized and their impacts felt in those specific localities. These include conflict, flood, and theft, which were reported in Dikale as the next most serious risks in this order. Conflict was seen as a significant threat mainly because of the 2012 clash with the Gabra in areas bordering Dikale territory. Flooding also affected most parts of Yabello woreda, including Dikale, in March 2010 and this influenced household perceptions about the risk.

Current conflicts in pastoral areas can be seen as inter-and intra-group conflicts. Conflicts between two groups often ensue over administrative positions, territorial claims, and communal resources. For example, administratively Moyale town is split between the Somali and Oromia Regional States and there is frequent conflict between the Borana and the Garre groups over land ownership, administrative positions, regional borders, and the use of common infrastructure like schools and water points.

Serious inter-group conflict has negative consequences for livestock markets and trading activities in general. As a result of conflict, markets can be disrupted and marketing and trading activities suspended for an extended period of time. In July 2012, the conflict between the Borana and Garre groups caused the displacement of over 33,000 people from the two groups (Ingati and Mangera, 2012). This situation significantly affected both Moyale and Dubuluk livestock markets and was not normalized for several weeks. For example, during our field visit to Dubuluk market on 10 August 2012, there were only a few cattle, goats, and camels in the market as well as only a few local traders. The camels that normally are

supplied to the market from Moyale were exceptionally few in the market. There were virtually no traders from outside of the zone and, as a result, livestock prices were very low. Bulls that normally sold for between 7000 and 8000 birr were sold 1000 to 2000 birr lower.

Intra-group conflict is mostly over the violation of customary rules regarding communal resources such as water and pasture. The Borana have rules for rangeland and water use. The rules state that there are separate areas for grazing and separate routes for watering livestock; people own them in common, and there are no private pasturelands. When these rules are not respected by all members it could be a source of conflict between individuals and/or sub-groups (see Box 1 below).

Box 1: Conflict Case from Dida Hara Area, Yabello

The grazing land over which the current conflict erupted was developed last year in Hagayya (short rainy season). Originally three ollas used a pastureland in common, but one of the ollas was given another pastureland from a different place because it was not enough for all three of them. Then two ollas that had a grazing land in common, Siqqu and Warra Harwettu, decided to divide the pastureland into two. Soon thereafter a motor pump was installed in the pastureland owned by Warra Harwettu for use by all of the ollas. Then Warra Harwettu olla asked for more grazing land as compensation for the land that was taken by the motor pump. Without waiting for permission, Warra Harwettu built an enclosure around grazing land that was not theirs. The kebele administration told them to stop building enclosures. They stopped and asked for permission to use the grazing land, arguing that they do not have enough grazing area. Meanwhile, the other olla, Siqqu, appealed to the administration to dismantle the enclosure arguing that it blocked herding routes. Before the kebele took measures, Siqqu olla dismantled the fences and used the pastureland for grazing. Then the kebele penalized him for dismantling the enclosures. However, the olla refused to accept the penalty stating that the verdict was not fair. Finally, the case was brought to the elders' court. The elders revised the previous decision and ruled that both those who built enclosures and those who dismantled and grazed it should be penalized. However, the kebele administration blamed only the olla that dismantled the enclosure and imposed a cash penalty of 1500 birr each on four of the Siqqu olla residents. These are people who were found grazing the disputed land. When they refused to pay the fines, the administration imprisoned them.

Increasing farming activity as a coping mechanism and associated private pastures are realities in pastoral areas. These practices are, however, against the accepted rules of common resources and

harbor tensions. Crop damage and grazing in one's private *kalo* can easily lead to conflict, and if such a case is filed, it carries a cash penalty of 1500 birr in some localities.

Another emerging tension over grazing areas is regarding traders' animals. In some areas, such as Dida Hara, there aren't many traders' animals. However, there are many individuals who buy animals for resale, and they may ask permission from elders to use communal grazing areas for a season, usually 3 weeks to one month. This means they get permission to exclusively use communal land for a certain period of time. As a result, conflict over grazing land is rare in this area.

On the other hand, tensions over traders' animals are common in major market areas, such as Haro Bakke and Dubuluk. The sheer volume of livestock transactions in these locations has an impact on grazing land, and pastoral communities have begun to complain about this impact. An informant from Dubuluk area reports that:

Traders bring goats from Goray and keep them for weeks in our pastures. Cattle traders also do the same, and this destroys our rangeland. Big traders have big private *kalo* which they exclusively use for their livestock. People have openly complained about these traders and many have even gone to the woreda and zone administration to appeal to authorities (Key Informant Interview, August 2013).

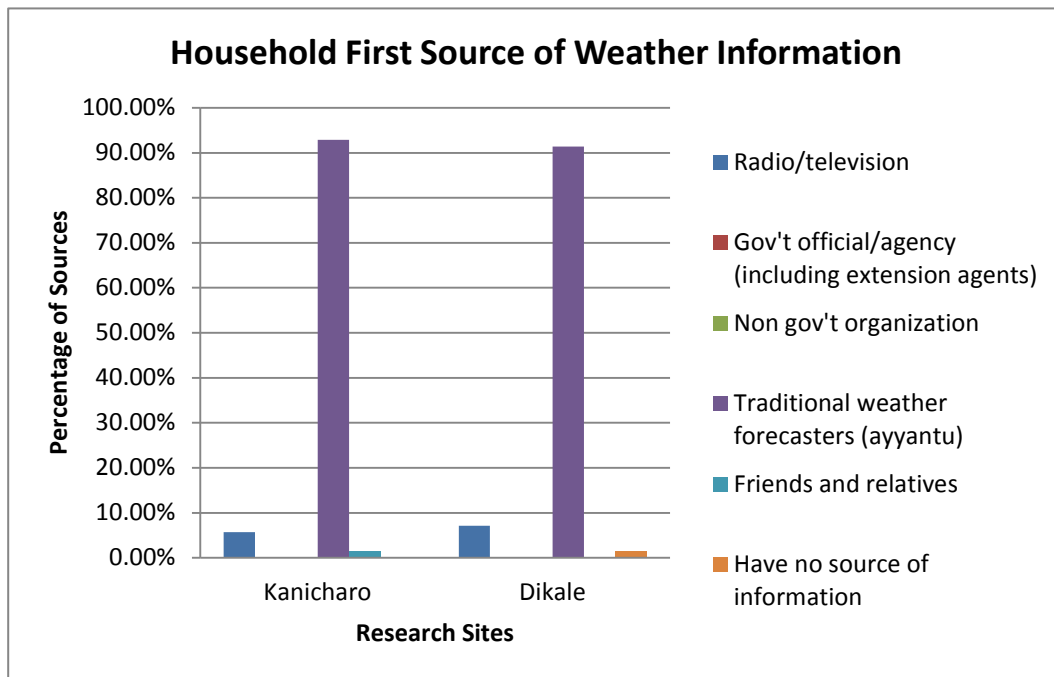
However, local traders always have ways to get around these complaints. A local trader who often buys livestock from Bakke and Elwaya markets, reports that:

Pastoralists may say do not bring traders' animals to our area; you are putting too much pressure on our pasture. But I have good relationship with the community and they do not complain much about my animals. For example, I buy a milk cow for a poor household in one community and then entrust about 5 bulls to that household. Then people say he is a good guy, he helps poor people, and they do not complain about your cattle. After a year or so you add more animals (Interview with ZN, Yabello, August 2013).

The most common way for traders to access grazing land is, however, through purchasing grazing rights for a season. Some traders buy *kalo* from individuals for a small number of animals, usually not more than 10. Buying grazing rights started during the current government, but there is no law which says you can sell or buy grazing rights, and people do these things underground. Local traders can graze their animals in non-restricted communal areas without any complaints from the community.

Households pursue various risk management strategies to overcome weather- and pasture-related risks. The source of weather and climate information for pastoralists remains traditional forecasters. Over 90% of the studies' households said traditional forecasters are their number one source of information.

Figure 3: Household Source of Weather Information by Study Location



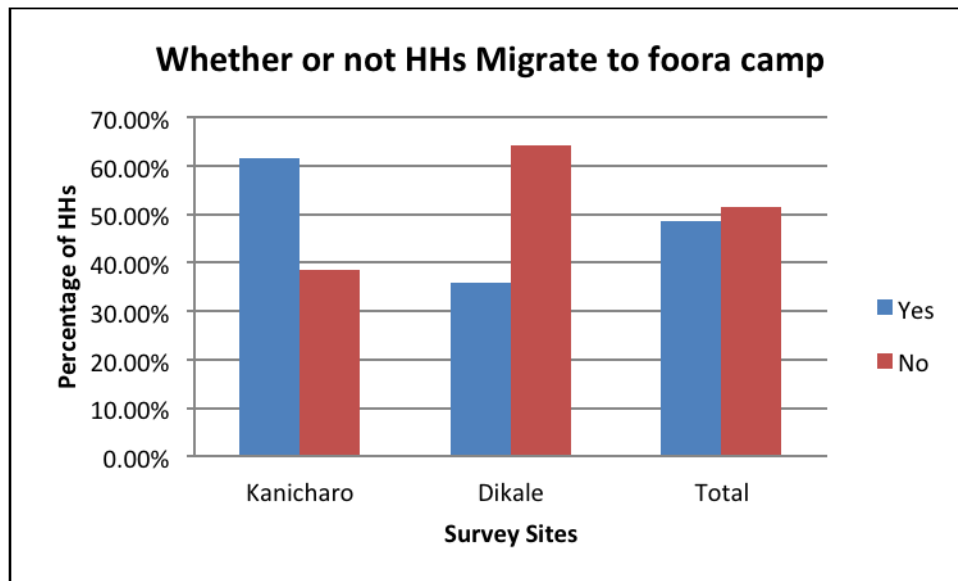
They trust the traditional source, and it is readily available to them when they need the information. Trust, however, largely depends on the past experiences of the person forecasting the weather. The short-term actions that households take depend on actual, not forecasted, weather events. For example, they migrate only when droughts occur rather than taking a proactive measure based on those forecasts.

Other risk management strategies include migration to other areas in search of better pastures, water or wage labor, participation in food/cash for work programs, or being recipients of food aid. While mobility as a herding strategy is best adapted to the dry environment of the region, it does not sit well with the marketing needs of pastoralists. Pastoralists have to make difficult decisions about whether to move to distant places or stay closer to market centers (see Little et al, 2012).

A significant number of households (61.4%) from Kancharo still migrate to *foora* with their livestock compared to only 35.7% of households from Dikale. Major reasons that the remaining households do not go to *foora* include small herd sizes, insufficient labor, and the settlement of *foora* areas. Some

households also mentioned the availability of sufficient pasture and water at *warra* camp as another reason for not going to *foora*.

Figure 4: Household Foora Migration by Study Location



Interestingly, the availability of sufficient pastures and water at *warra* camp was mainly mentioned by Dikale households (23.2%) when compared to only 3.7% of households mentioning it in Kancharo. Moreover, settlement of *foora* areas as a problem was mentioned by 2.4% of households in Kancharo while it was not mentioned at all by households in Dikale. This may be because of the recent relocation of households out of *foora* areas in Dikale by the decision of *gada*/PA officials.

7.2. Borana Cattle Breed, Climate Variability, and the Market Effect

The Borana believe that their cattle breed is being mixed, if not disappearing altogether, with other less desirable breeds. Participatory discussions with local pastoralists reveal that increased livestock sales and exchange practices with other neighboring groups have contributed to the dilution of the Borana cattle breed. Borana cattle are distinguished from other breeds by their grey and white colors, big stature, and short horns.

Some NGOs buy the Borana breed to distribute to other groups and people respond to these demands by selling in large numbers. Especially when there is a food shortage, they sell heifers for a good price.

Traders also prefer to buy the Borana bulls. Sometimes herders sell a Borana bull and buy two other bulls, which are cheaper and of a different breed (Konso and Guji), for resale, and these animals mix with Borana cattle.

On the other hand, the high price of Borana cattle has a positive effect on how people select good breeds for reproduction and sale. There are bulls and heifers supplied by Adami Tullu Agricultural Research Center, and some people are buying these animals. There is high demand for these animals, but their number is limited and only one or two households from a PA get the opportunity to buy them. Pastoralists also understand the importance of the Borana breed and buy select animals from the market for reproduction. Other breeds do not have a good market price and people are eager to preserve the Borana cattle breed.

Therefore, markets opened up new opportunities and people are conscious about the bulls they use for breeding. However, decisions to maintain livestock breeds are influenced not only by their quality and market demand, but also their ability to resist drought⁷. According to an informant from the Dubuluk area,

Cattle around Guji are small, and people do not use bulls from such cattle for breeding. Instead they use bulls from *loon qorxi* (*good breed*). However, small animals are drought resistant, and *loon qorxi* need good feed. So people also keep these small breed since they better adapt to drought. Small Borana animals are mostly found around Teltelle and areas bordering Guji and Konso (Interview with BB, Dubuluk, August 2013).

The second reason they are mixed with other breeds is because of the migration to other areas, such as Konso, Hamar, and Guji, especially during drought. As one informant put it, “now the Borana cattle are beginning to look like Arsi cattle, i.e., they have mixed colors.” (cite?) Thirdly, there is a practice of livestock exchange between individuals from different groups. Those who want the Borana breed, such as the Hamar, Arbore, and Gabra, bring higher price bulls or oxen to exchange for heifers. Even though these bulls are meant for sale, they stay with the household herd long enough to breed with them.

Geographically, the good Borana cattle breed (*qorxi*) is found in limited areas, such as Elboro (more specifically Gof, Ley, Wachile, Erder, Salole, Walena, Borbor, Ballan, including Moyale area and among the Gerre), where there is good grass for grazing. The Borana say, “*Loon marruma baasa*,” meaning

⁷ A veterinarian informant from Adama argued that the best Borana breed no longer exists because of the effect of drought. According to him, over time droughts select the best adaptable animals, not the best breed.

“good grass produces good animals.” Konso and Guji cattle breeds are small while Borana animals are big and produce more milk and meat.

7.3. Livestock Markets and Marketing

Historically, the Borana produced livestock for household needs such as milk, meat, and ritual purposes. Households rarely sold animals due in part to the inaccessibility of markets and a low demand for cash. Before livestock sales began, the Borana sold salt instead of livestock. They travelled to the Konso and Gedeo areas to sell salt and buy sorghum, maize, and coffee, and slaughtered animals for food. Their main source of food, however, remained milk. They stored butter and also collected wild food such as buri and gumbi.

The Borana started selling animals during the imperial regime of Haileselassie, but livestock marketing increased during the *derg* military government.

Selling animals started during the Haileselassie regime. In those days people took their animals to Dilla and Yirga Chafe for sale. Animal price was very low, but in those days the money could buy many things. A big ox was sold for about 60 birr and you could buy a quintal of maize for just 3 birr and 0.50 cents. Animals were trekked from areas as far as Moyale and Hiddi Lola to Gedeo area for sale. Gradually traders started to come to Hageremariam and Finchawa areas. Trucks came with tobacco, maize, and coffee to Moyale from Dilla once a month or so. There were a few livestock traders in Dubuluk, and major towns at the time were Yabello, Mega, and Moyale. Especially people went to Moyale to sell skins and hides and buy things like clothes. Moyale town grew earlier than the rest and it was in the hands of the British at the time. However, the demand for livestock was low there and they were trekked to the Ethiopian side. Overall sales were very low, not more than 50-60 in a year (Interview with BB, Dubuluk, August 2013).

Livestock sales increased during the *derg*, following increased drought cycles and interventionist policies of the government. On the one hand, the government imposed a ban on bush burning, which was a customary mechanism for controlling bushes. The expansion of bushes has a remarkable impact on rangelands and created a shortage of pastures. On the other hand, the frequency of droughts increased, exacerbating the problem of pasture and water. The end result was a shortage of milk for Borana households, and an increase in livestock sales to buy food.

A series of events led to increased livestock sales and changes in Borana livelihood from pastoralism to agro-pastoralism. Declining milk productivity meant that pastoralists had to increase their livestock sales in order to buy food grains and/or produce them. Increased taxes and cash needs for other requirements also contributed to an increase in livestock sales. The *derg* government also intervened to

encourage/coerce people to sell their animals, resulting in it being the main buyer in those days. It imposed a quota system on pastoralists to sell their animals, sometimes up to 20 bulls per household.

Livestock sales increased during the *derg* period. Selling livestock in kilos also started during this time. The government forced people to sell their animals, sometimes up to 20 bulls from one household. They told us to sell them and build good houses and people started building houses with iron sheet. I myself sold 10 bulls and bought food and clothes for my family. Since then we always sold animals (Interview with GG, Kancharo, August 2013).

Regarding forced livestock sales during the *derg*, another informant adds that,

A quota system was imposed per kebele, for example, 500 bulls for Dubuluk kebele, 300 for Higu, and 400 bulls for Madhacha. Then each kebele distributed the quota on each household according to its livestock wealth. Many pastoralists sold their male animals in this manner. At that time the price of bulls was 400-500 birr, and the price per kilo was 1.25 birr (BB, Dubuluk, August 2013).

This practice of mandatory destocking was common in East African countries during the colonial era (Little and McPeak, 2006). The government assumption was that pastoralists were not selling their animals because of cultural reasons. However, the Borana state that there were no cultural restrictions against selling their animals.

Only those who sell their animals without good reasons are disapproved by the Borana. There is no problem selling animals for necessary things. When a person has no any animal, the clan members are obligated to contribute, and that is why clan members frown upon unnecessary livestock sales. It is acceptable to sell 2-3 animals per year to buy food or even 20 or 100 if they are sold for good reasons, such as to buy camels, or for trading" (Interview with GG, August, 2013).

However, customarily, there are animals that cannot be sold or given as gifts. According to informants,

In Borana culture, there are animals that cannot be given as gifts or sold, known as *loon horto* (*highly reproductive cows*). These are purely for reproduction. It is believed that if one of them are sold or given away, they lose their reproductive capacity. In the past, even male offspring of such animals were sold after they were castrated⁸ (Interview with KD, Dikale PA, August 2013).

There are also some rituals for animals before they are sold:

Earlier the Borana pulled up a single hair from the tail of an animal they want to sell for good luck. Then the hair is tied to a rope used for tethering cows. It is believed that doing this would ensure the continuation of reproduction by the remaining animals. This ritual is no longer practiced today (Interview with GG, Kancharo PA, August 2013).

Despite government efforts to coerce people to sell their animals, markets were not well developed and were only found in limited areas. Today's big markets in Borana, such as Elwaya, Bakke, and Dubuluk,

⁸ The belief is that if the male cattle is sold and reproduces elsewhere, the remaining lineages will die off.

were just bush markets during the *derg* government. There were no exporters other than the government since individuals could not have more than 500,000 birr in capital. Even if they had more than this amount, they hid it in their houses and couldn't use it as capital for trading due to restrictions on capital ceilings.

Many of today's major livestock markets developed very recently. Dubuluk livestock sales began by accident around the water wells where many animals came to drink water. Mega market met on Saturdays, and traders came to Dubuluk on Fridays to buy animals for Mega market. Gradually in 1993, Dubuluk became a market that meets weekly on Fridays. According to an informant from Dubuluk,

Mega, Arero, Moyale, Teltelle, and Yabello livestock markets started the same time during the Haileselassie regime. Further away, other big markets at the time were Finchawa, Hageremariam, and Yirga Chaffe. It continued this way during the *derg* government and recently three big markets—Bakke, Dubuluk, and Elwaya—were added. It is not more than 13 years since Elwaya emerged. Earlier it met on Fridays, and latter changed to Thursdays to avoid overlaps with Dubuluk. So, recent markets are the ones which are more developed. Now Yabello is a small livestock market because of Bakke, and Mega because of Dubuluk. Mega, Arero, and Hiddi Lola livestock markets meet on Saturdays, but they also are small (Interview with BB, August 2013).

Bakke market started because of the Surupa market, which meets on Monday. Surupa existed before Bakke, and when people would take their animals to Surupa, traders bought on the way at Bakke pond, gradually making it a market. Separate pens for cattle, camels, and goats were constructed more recently.

The emergence of livestock markets in different locations in pastoral areas has a ripple effect on the expansion of other businesses, especially around major marketplaces like Bakke. The Bakke livestock market emerged in a rural area, but it gradually took the form of a town due to growing businesses around the market, such as taverns, mobile phone charging shops, barbershops, and many others. This provided additional employment opportunities for pastoral communities. On market day, the research team estimated that there were about 250-300 local beer shops, 25 food services, two dozen tea houses, two flour mills, 15 mobile phone charging shops, three tailors, two beer distributors, and about 300 open-space shops selling items like clothes, shoes, food items, medicine, etc.



Therefore, the continued price and market improvement for livestock will have a positive effect for a significant number of pastoral populations.

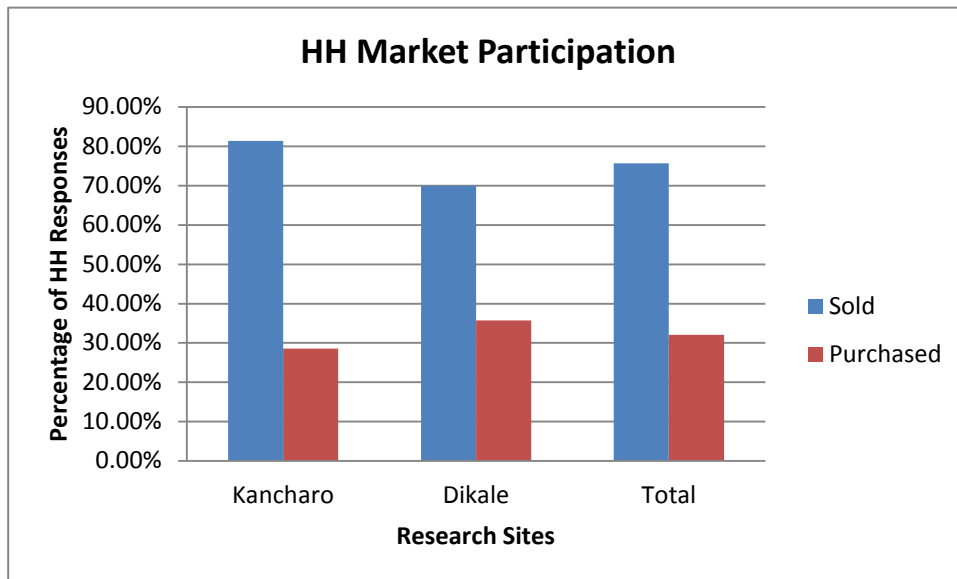
In the event of external shocks, pastoralists may not only sell their animals as a response to improved prices and markets, but also may be forced by circumstances such as prolonged dry seasons or drought. Based on their study in Northern Kenya and Southern Ethiopia, Barrett, Bellemare, and Osterloh (2006) found that “most households participate in the livestock market and that they participate most actively when prompted by environmental stress, albeit almost entirely as sellers rather than buyers” (p.18).

Kancharo pastoralists still have the problem of gaining access to livestock markets. Currently, they sell animals at Dillo, Elwaya, and Dubuluk, but these markets are distant. In Dillo market, which is accessible to many of the pastoralists in the area, traders do not offer to pay good prices and sellers are forced to take their animals to Dubuluk and Elwaya markets, where prices are relatively better. An informant from Kancharo PA says,

We have a big problem regarding market access and prices for our animals. Traders are coming to our area from Yabello and Dubuluk and they have to trek their animals to Dubuluk or Elwaya. There is no good water source and feed in our area and many animals die on their way. The only water source around Dillo is the crater (booqee), and weak animals cannot go down the crater. If water is made available then we can get better price. They also lose weight and do not bring good price for them. Traders calculate the cost of truck rent and transportation and bring down livestock price. Therefore, they do not pay us good prices for our livestock (Interview with QD, Kancharo, August 2013).

In spite of the poor access to markets, overall livestock sales in 2012 were higher in Kancharo where households entirely depend on animal sales to buy food. Generally households in Kancharo have more herds than those in Dikale, and this might be one of the reasons for the former households' greater participation in the market as sellers. Barrett, Bellemare, and Osterloh (2006) argue that households with larger herds are more likely to actively participate in livestock markets. In Dikale, where livestock rearing is supplemented by crop production, livestock sales are relatively lower.

Figure 5: Household Livestock Marketing Activity in the past 12 months by Study Location



Even though households in Kancharo have more herds on average and sell more livestock, they haven't fully benefited from improved pricing. While the market has provided new opportunities with the increase in livestock pricing, poor market access makes it difficult for them to reap the benefits. Poor market access coupled with a lack of economic diversification has disadvantaged pastoralists in Kancharo.

Dikale pastoralists also have to travel about 35 km to the Haro Bakke livestock market, even though they have no serious complaints about the market being distant⁹. When they want to sell their animals, there are trekkers who are paid 20 birr per animal¹⁰. The Haro Bakke livestock market has a fence and pens for different animal species. Pastoralists say having a fenced marketplace is good because animals

⁹ Dikale is a huge PA and those who are located further away have expressed complaints about Haro Bakke and Dubuluk livestock markets being distant.

¹⁰ They have to pay 40 birr if the animal is not sold and has to be trekked back.

cannot escape. In addition, before constructing fences, there were multiple taxes charged by unauthorized collectors without receipts.

Households in Kancharo sell livestock for various reasons including to buy food (28.8%), to buy clothes for the family (13.7%), and to cover medication expenses for the family (13.7%). The corresponding figures for Dikale are 16%, 7.6%, and 5.2% respectively. Other reasons for selling livestock include children’s school expenses, tax payments, building a house, ceremonial expenses, water expenses (for livestock), feed expenses, farm tool purchases, loan repayment, etc. A male informant from Kancharo lists several reasons why he sells livestock:

Humans and livestock drink from water pump and we have to pay for water. We also buy food for the family and pay taxes. I recently paid 1000 birr for road construction which is going on in our area. I sold animals for the naming ceremony I had recently for my grandson. You need several things to sponsor such ceremonies. I bought several quintals of maize, 16 jerry cans of local drinks, a quintal of sugar, a big box of tea, 27 kilos of butter, and I spent a total of 37,000 birr. I slaughtered two cattle and several goats. Naming ceremony (*gubisa*) is a happy event. All the clan members are invited and they bring animal gifts. I received about 50 animals in total as a gift—10 cattle and 40 goats. In addition, we sell animals to build houses in towns. I have two houses, one in Dillo and another in Yabello. We also sell for children’s education; two of my children are going to school (Interview with QD, Kancharo, August 2013).

The difference between household livestock sales and purchases in the two research locations is significant. Household market participation in both sites, particularly in Kancharo, is mostly as sellers. Generally the number of purchases is less than that of sales by half.

Figure 6: Household Reasons for Purchasing Livestock by Study Location

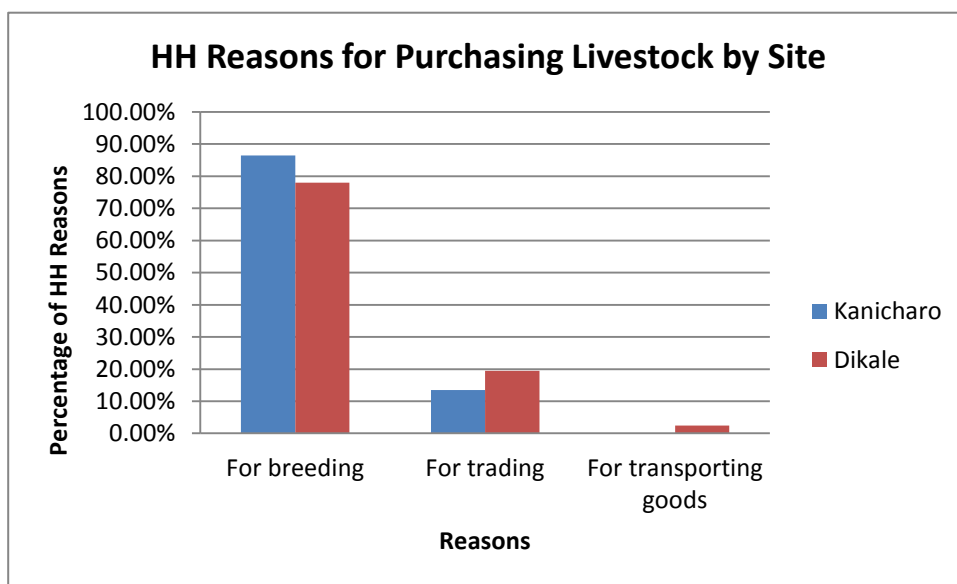


Figure 6 above shows that 86% of all livestock purchases from Kancharo and 78% from Dikale in the past year were for breeding. Only 13.5% of households in Kancharo and 19.5% of households in Dikale said they purchased livestock for trading purposes. This shows that the livestock sector is still subsistence based in the sense that fewer purchases are for resale.

The study results also show that livestock producers mostly sell their animals to local traders. 67% of all sales made by the study population in the past 12 months were to local traders and 25.2% of sales were to local pastoralists. A small number of households also mentioned buyers such as abattoirs (3.7%) and export traders (1.8%). This means that producers only occasionally bypassed local traders to sell directly to big traders and export traders.

Livestock sales can also be seen as a short-term response by households to drought and food shortages. In the short-term, a sudden and significant increase in livestock sales can be seen as a sign of an impending drought or an extended dry season. When drought hits, households first sell their small stock and then proceed to male cattle, and finally old cows. Even though fertile female animals are rarely sold in normal times, households, especially asset-poor ones, are forced to sell productive animals during droughts, often at low prices (Debsu, 2013).

In spite of improving current livestock prices, pastoralists still believe that they are not receiving a good price. This is mainly because of price fluctuations and high inflation rates in the country. KD, an informant from Dikale says, "There are times when prices are good, but it lasts only for a few weeks. Compared to the past, livestock prices are high, but the money can buy nothing." The complaint about low prices is, for the most part, in comparison to things they buy from the market.

When the Borana first started selling animals, the price of a big bull was 10 shillings. I myself know when a heifer sells for just 7 birr. That amount is equivalent to today's 7000 birr. Big bulls were sold for 100 birr during the gada of Jilo Aga (1977-1984), 150-200 birr during the gada of Boru Guyyo (1985-1992), 1000 birr during the gada of Boru Madha (1993-2000), and 2000-2500 birr during the gada of Liban Jaldessa (2001-2008). Now a big bull can be sold for 10,000-12,000 birr, but this amount of money cannot buy what 200 birr bought in the past. Clothes that we bought for 3 birr now we buy for 300 birr. In general, the price of livestock has continuously improved even though money has lost its value (Interview with QD, Kancharo, August 2013).

Overall, good seasons for pastoralists to sell their animals are associated with the availability of pastures and animal body conditions. There are six good months and six bad months in a year in relation to livestock prices. Good months include June, July, and August (together known as Adolessa in Borana), because animals are fat during this time. December, January, and February are also good months for this

same reason. Bad months to sell animals are September, October, November, March, April, and May because animals are thin.

The bad season for pastoralists to sell their animals does not necessarily mean it is a good season for traders to buy. The supply may be diminished for various reasons such as poor animal body conditions or a lack of buyers at certain seasons. Unless forced by circumstances, pastoralists try to avoid selling thin animals and wait until grass regenerates and the animal's body conditions improve. Weather conditions in the center, especially Adama, may also influence traders' decisions to buy. For example, feedlot operators suspend livestock purchases or minimize animal intake during the rainy and cold season in Adama. These complex decisions and factors determine what is either good or bad for all of the actors.

In order to maximize their share from livestock sales, pastoralists resort to various marketing strategies, including collecting market price information and cross-border sales. Sellers often visit nearby markets or ask about prices before they take their animals to the market for sale. If the price is too low, they often take back their animals and wait until prices improve even though this has an additional cost, such as paying for trekkers and taxes. Pastoralists around the border areas take their animals across the border to neighboring countries in search of better prices.

7.4. Livelihood Diversification and Food Security

Long-term adaptations to climate variability include livelihood and livestock species diversification. As a result, crop farming has increasingly become part of the Borana livelihood system and goats and camels part of their herds.

Traditionally cattle herders, the Borana today have diversified their herds, which include camels and goats. Climate change, land use patterns, and markets drove these changes. While goats have always been part of the Borana herd, they increased in number during the *gada* of Jilo Aga (1977-1984). Camels are more recent additions, especially during the *gada* of Liban Jaldessa (2001-2008), mainly for their adaptability and high prices. In the past, a few individuals owned camels and the Borana used to say "*loon guutuu, gaalli qulullu,*" meaning "*cattle are sacred and camels are wicked.*" According to some informants, the importance of camels now exceeds that of other animals.

In the face of increasing pasture scarcity, camels depend on bushes and can do without water for several days. Camels browse tree leaves and resist drought, bring in more money if sold, carry more

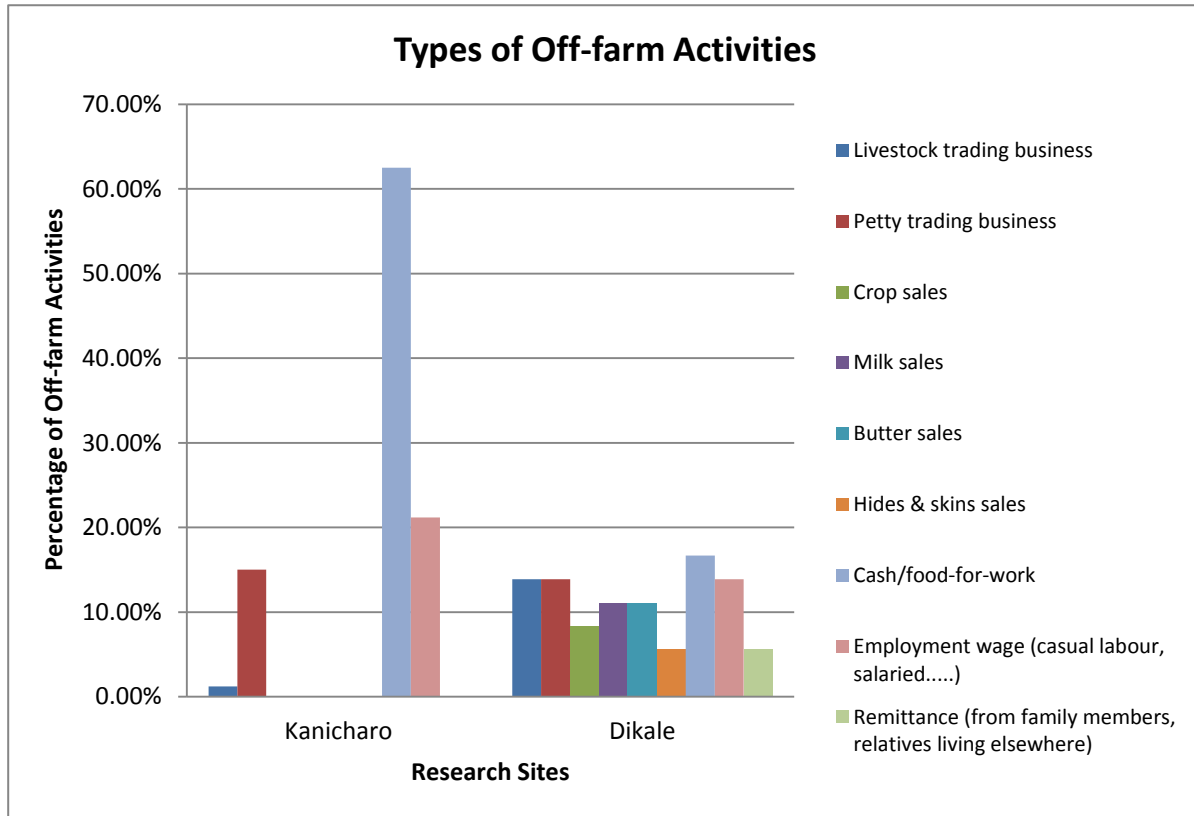
goods, give milk even in dry seasons, and can easily migrate to areas with better pastures. Herding camels does not require additional labor; in fact, it is easier to herd camels than cattle. Culturally, some *gada* officials and Borana clans, such as Oditu, and some Karayu lineages such as warra badii and warra qaalluu, do not drink camel milk or eat their meat. However, these officials, clans, and lineages may own camels to use as pack animals and to sell them¹¹. Goats also can live on leaves and breed fast.

Households in Kancharo seem to have diversified only their livestock species and have done less to diversify into other types of livelihood options. While farming has become an important part of their livelihood for most households in Dikale (87.1%), the corresponding figure for Kancharo is only 20%.

Off-farm activity in Kancharo, except engagement in food/cash-for-work programs, which accounts for more than 60%, is also very low. However, there are a small number of livestock traders, and a relatively significant number of petty traders (15%) and casual laborers (21%). Some people are organized into credit and saving associations to buy animals for resale. These associations are especially successful for women rather than men, in which case they mostly dissolve. Females sell sugar, tea, soap, fuel, butter, etc. and receive in some cases NGO support.

¹¹ Even though these officials, clans, and lineages own camels, they do not keep them with their herds. Instead, they loan them out to relatives and acquaintances.

Figure 7: Household Involvement in off-farm activities by Study Location

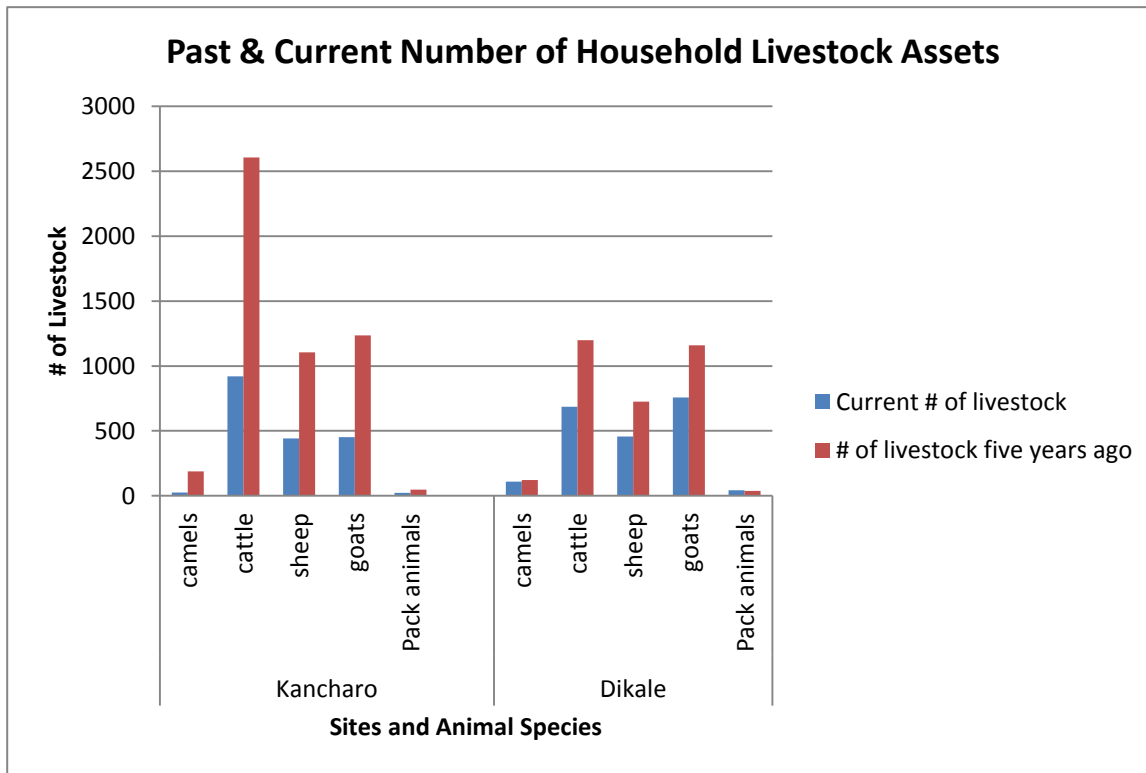


In contrast, activities are more diversified in Dikale, including animal dairy product sales, petty trading, livestock trading, crop sales, hides and skins sales, employment wage, and remittances.

They try to adjust to long-term changes by selling some of their animals and putting money in the bank as savings or investing in businesses in town. These forms of diversification are not used as a means to exit the pastoral sector, but instead to strengthen it (Aklilu et al, 2013).

However, livestock assets per household have declined over time. Frequent drought, the sale of animals for various household needs, and insufficient pasture and water are responsible for the household herd decline. Compared to five years ago, households own less animal assets.

Figure 8: Trends in Household Livestock Asset by Study Location

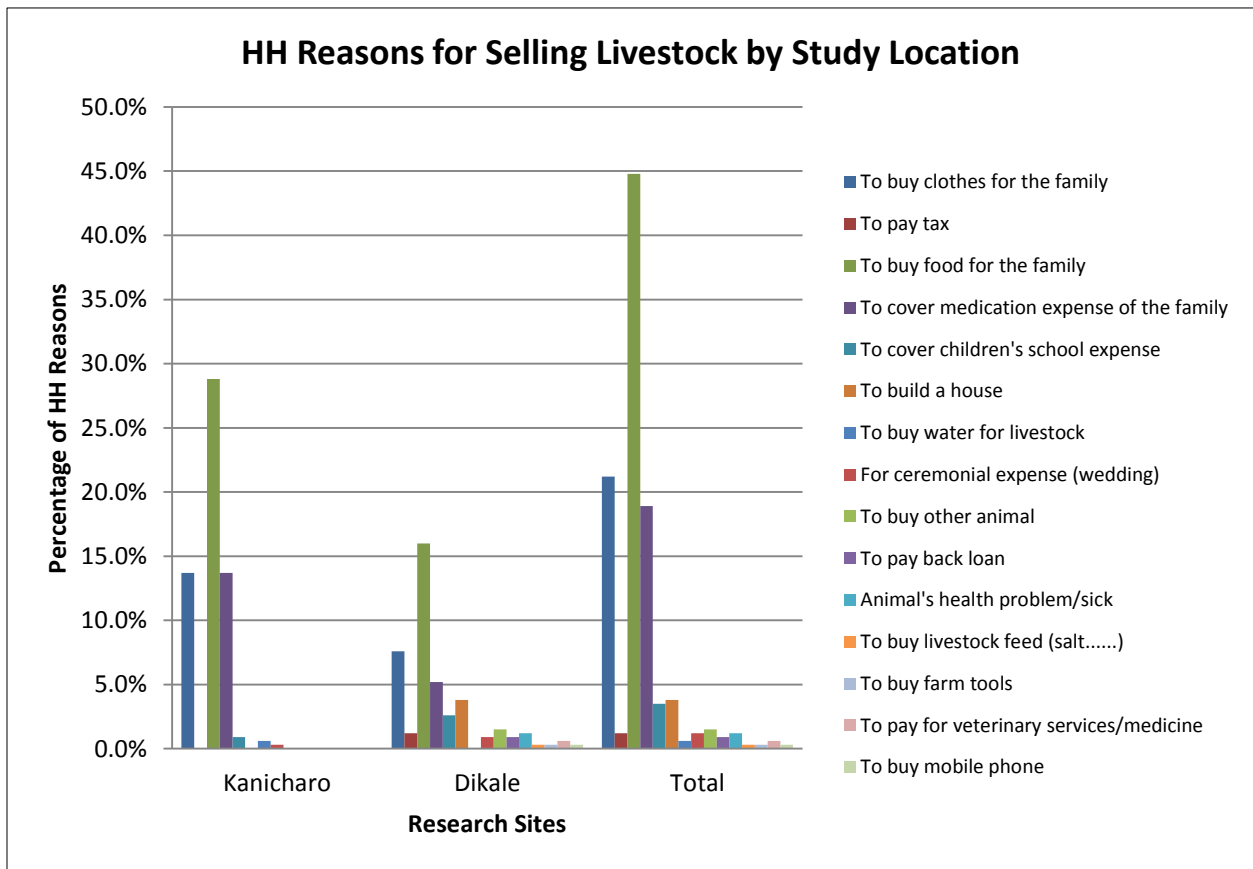


Several of the study results show that Kancharo households are more food insecure when compared to Dikale. Indicators for the household food insecurity include:

- The level of engagement in food/cash-for-work activities in the past 12 months
- Length of time households suffered food shortages in a year
- Sources of household income

As indicated in Figure 7 above, household sources of income are less diversified in Kancharo and mainly based on livestock sales. Livestock sales to buy food are, therefore, higher in Kancharo.

Figure 9: Household Reasons for Selling Livestock by Study Location



Twenty-nine percent of all livestock sales in Kancharo are for the purpose of buying food for the family while only 16% of livestock sales in Dikale are for this reason. This means that a continued improvement in livestock prices and market access play pivotal roles in ensuring household food security in Kancharo. Households in Dikale spend proceeds from livestock sales on a more diverse range of things, including buying mobile phones and building houses in towns. Higher per household livestock asset in Kancharo does not translate into household food security due to poor access to markets and less economic diversification.

Households were asked whether or not they experienced food insecurity in the past 12 months and 63% of households from Kancharo and 24% of households from Dikale replied affirmatively. This response alone shows a dire situation in both sites, especially Kancharo, in terms of household food insecurity. More revealing is the length of time households face food shortages. While some households from both sites face food shortages throughout the year, the percentage of those households from Kancharo is

much higher for each length of time. However, shorter periods of food shortage were reported by more households in Dikale.

Climate variability in East Africa may be one of the major obstacles to the commercialization of the pastoral economy. Increasing climate variability means that pastoralists are responding not only to the demand created by local and international markets, but are also having to adjust their production system to account for climate impacts. While in West Africa “Sheep have become several times more lucrative than cattle, and Sahelian pastoralists have changed the composition of their livestock holdings accordingly (Tyc cited in Ann Waters-Bayer, 2004: 6), pastoralists in the dry lands of east Africa have diversified into goat and sheep species as a coping mechanism for drought.

The Borana, traditional cattle producers, diversified their herds to include a large number of goats and camels not in response to high market prices, but as a result of increasing climate variability. The same can be said about the expansion of farming at the expense of herding, which shrinks the rangeland for livestock production. Even though there is a sharp rise in food prices both in domestic and international markets, there are greater rewards for investing in livestock production given current production technologies and rainfall amounts in the Borana pastoral area. The choice is, therefore, more about livelihood security.

Another challenge in connection with climate variability is the distance between wet season grazing areas and market locations. Often livestock are found at grazing areas (*foora*) that are distant from market centers during the wet seasons when they are in good body condition. Livestock are brought back to residential areas, and closer to markets, in dry seasons when there is shortage of feed and water for the animals and a shortage of food for humans. Therefore, supply is high during the hot, dry season when pastures and water are scarce, especially if short rains fail.

In fact, drought is a major environmental factor that causes desperate animal sales among the Borana and reduces their ability to negotiate good prices. The Borana can improve their negotiating power regardless of the season by improving fodder production, storage and management. Even though the Borana have one of the best rangeland use systems, they continue to depend on free range for their livestock. Growing fodder crops and cut-and-carry feed systems are less developed technologies. Improvements in fodder production, storage, and management are vital if pastoralists have to adequately cope with climate-related changes and an increase in livestock commercialization.

7.4.1. *Education as a Means of Livelihood Diversification*

Increasing climate variability and incidence of drought means that there is greater uncertainty about the future of pastoralism. Many parents have high hopes for their children in education and send them to school so that they will find opportunities elsewhere. An informant from Kancharo PA has strong views about education:

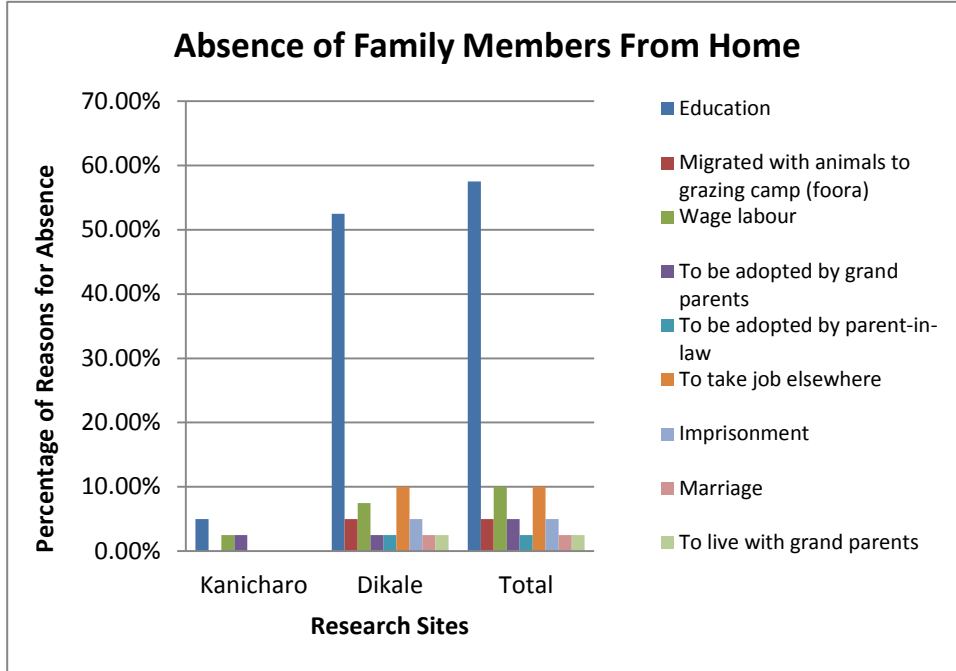
Many people think about educating their children. There is equal number of people who do not want to send their children to school, saying that they will lose their culture if they attend school. Until recently our area was under Dirre woreda and there hasn't been any school; the school you see here was built by the people without any government support. Before this school was constructed, students were going to Dillo town and they didn't have any food to eat or water to drink. Now Dillo is a woreda and we can teach our children like other human beings. We were left in a wilderness in the past (Interview with QD, Kancharo, August 2013).

Others still believe that pastoralism and/or farming are viable options for their children. For example, GG, an informant from Kancharo PA, plans to involve some of his children in farming and send others to school. Even though the area is dry, he thinks that people in his area have not made use of the existing agricultural potential, but he himself is not farming. An informant from Dikale also has a similar opinion about educating children:

Those who are in school have to succeed in their education. Those who are herders also have to be successful in herding. If you have two children, you send one to school and make the other a herder. I have six male children and I sent two of them to school, one herds goats, one is a farmer, one herds cattle, and one herds camels. I don't know which one of them will have better future because two of my children are still in school. I will know which one is better when those in school will find jobs. In general, diversifying opportunities between herding and education is better (Interview with HW, Dikale, August 2013).

Many household members from Dikale migrated elsewhere either for education, wage labor, or other economic activities meant to augment their pastoral economy. In contrast, only a few household members are currently living away from home in Kancharo, especially for education. Generally, in comparison to Kancharo, households in Dikale are more mobile.

Figure 10: Household Member Migration by Study Location

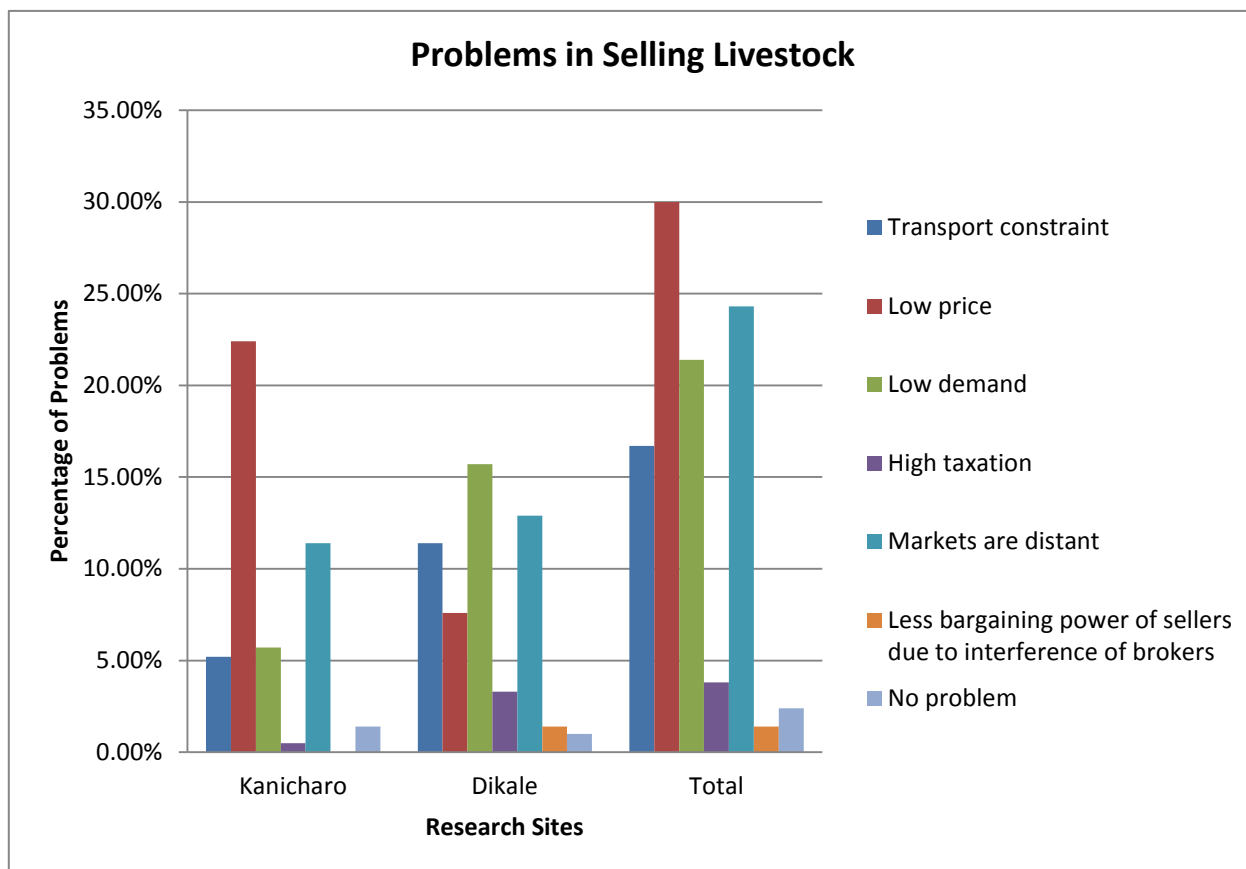


More than 50% of the absences from home in Dikale are related to education. Additionally, about 10% of absences in Dikale are related to migration in search for jobs elsewhere whereas only a few members migrate for these activities in Kancharo. In general, mobility in Kancharo is very minimal and the illiteracy rate is higher (80%).

8. Constraints to Livestock Producers, Traders, and Exporters

Several factors constrain the production, marketing, and trading of livestock in Ethiopia in general and the Borana area in particular. Specific problems mentioned by households that particularly relate to livestock marketing and trading include long distances from livestock markets, a lack of roads and transport facilities, low prices, low demand, and multiple (high) taxations.

Figure 11: Problems in Selling Livestock for Producers by Study Location



Other constraints reported include a lack of buyers for the animals producers wish to sell, high prevalence of disease, a lack of proper trucks for trade animals, climate variability, and an inadequate price information system. Moreover, a lack of proper veterinarian and quarantine services, and problems associated with taxation (such as multiple taxations) are additional constraints.

8.1. Lack of buyers

One of the main problems for most traders at all levels of the market chain as well as for pastoralists is the lack of buyers. This problem does not have a similar effect on all actors. For producers, it means a lack of cash to buy immediate necessities such as food, clothes for their family, and medication, or to invest in reproductive animals. For small traders, it means a loss of income as well as additional costs on feed, labor, and medication until there will be buyers. For big traders such as feedlot operators, the impact can be felt much more so if the animals are kept more than a certain amount of feeding periods. The market for Ethiopian livestock export entirely depends on the Middle Eastern countries, and this

makes livestock trade a risky business. If export traders cannot find buyers for their animals, there is limited local demand for export bulls because of the costs incurred in fattening.

Producers also face a similar problem in selling their animals. A lack of buyers is a particularly critical problem for pastoralists in Dillo woreda, including Kancharo residents. This problem is amplified by the absence of a road network in the woreda and long distances from other major markets. According to an informant from the area, on a market day at Dillo, the highest number of livestock sales very rarely exceed 200 for goats and 20-30 for cattle. The minimum amount of sales can be as low as 50 for goats and 3-5 for cattle.



Dillo livestock market at midday on a market day, Feb. 18, 2013

A big market for goats is Goray, which is about 17 km from Dillo town, and many of the traders hire trekkers to trek their goats to the Dubuluk market.

8.2. Shortage of Supply

Currently, meat exporters are complaining about the shortages of goat and sheep supplies limiting the markets ability to operate at full capacity. For meat exporters, the shortages exist in all seasons except in September when many Ethiopians sell their animals for the Ethiopian New Year and Meskel celebration. Traders prefer to sell to live animal exporters, especially contraband traders, who pay them better prices.

Two export abattoirs in the country were shut down due to the low supply and many of the remaining ones are operating 30-40% below their capacity. Another reason is the competition from live animal exporters, often contraband traders who pay higher prices. Meat exporters also complain about how expensive cargo space is to rent in Ethiopia while in the neighboring countries freight costs are much lower. According to one abattoir operator, “contraband animals to Kenya are profitable because processing and freight costs are lower for them.”

8.3. Livestock Disease

A contributing factor for a lack of buyers in Horn of Africa countries may include export bans due to outbreaks of diseases. The prevalence of disease, particularly RVF, restricted Ethiopian livestock export trade for many years. Especially in the 2000’s, Middle Eastern countries adopted stringent health and quality control regulations, which had several consequences for the Ethiopian pastoralists (Solomon et al, 2003). When export bans were imposed by UAE on Ethiopia following an outbreak of RVF in Kenya in 2007, Borana was one of the areas affected by the export ban (Aklilu and Catley, 2010). In addition, lack of veterinary services impacts animal export. For example, in 2011 there were no goats exported due to a lack of vaccinations. It is very likely that the drought of 2011 increased the incidence of goat disease.

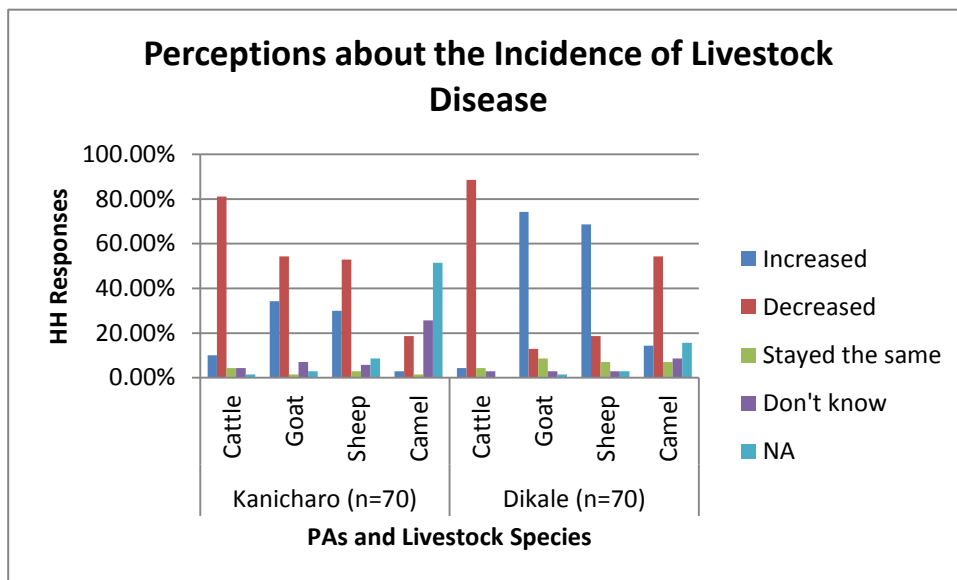
Producers believe that the incidence of cattle disease has not increased over the past twenty years, but that it has, in fact, declined. An informant from Dikale said, “in the past there were many diseases which affected animals, such as *dadhi*, *harka*, *silisa*, and *sombessa*. Today there are only a few cases of these diseases as a result of vaccinations” (interview with DG, Dikale, December 2012). Common livestock diseases in Borana include *harka* (*blackleg*), *silisa* (*B. Pastrolloisis*), *sombessa* (*CBPP*), *oyele* (*FMD*), *sirgo* (*Conuerosis*), *birte* (*Juandise*), *cirmale* (*Anthrax*), *gandi* (*Tyrpanosomiasis*), and *tumma* (*MCF*)¹².

Household survey results also support this observation. Eighty-four percent of respondents said that cattle disease had decreased while 4.3% believe it remained the same and 7.1% said it had increased. Those who said it had decreased attributed it to the improved vaccination and use of medicine for animals.

¹² One study ranked cattle and sheep diseases in Teltelle woreda in terms of their prevalence rate as *gandi* (*Tyrpanosomiasis*), *cirmale* (*Anthrax*), *tumma* (*MCF*), *harka* (*blackleg*), *birte* (*Juandise*), and *sirgo* (*Conuerosis*) in this order (CARE, 2009).

However, the overwhelming majority (54.3% for goat and 49.3% for sheep) believe that the incidence of shooat disease has increased. The reasons range from climate change and the shortage and low quality of feed and drinking water to a lack of medicine and veterinary services. This is a challenge both for producers and traders. For example, an informant who was both a pastoralist and a local trader from Dikale reported in December 2012 that disease is the major constraint to goat trading. He lost 15 goats in a month (November 2012) and also lost all of his capital, but was supported by his community (compensated 4000 birr and 7 goats). The disease that killed his goats is known as *sirgo* (Conuerosis).

Figure 12: Perception of Households about the Incidence of Livestock Disease by Study Location



Raising goats is complicated by disease like *sombessa* (*contagious bovine pleuropneumonia*), *sirgo*, *citto* (skin disease), and *qurtumale*. Some of these diseases (for example, *sirgo*) do not have treatment. Even though goats are better at adapting to drought situations, their productivity is constrained by disease.

Inadequate veterinary services coupled with a general lack of quarantine services in Ethiopia affects the export trade. In the absence of such services, traders depend on the quarantine services in Djibouti, but claim that they reject export animals without a sufficient reason and expose them to unnecessary expenses.

A new quarantine station is being built at Mille, Ethiopia, and is ready for operation, which may solve the problem. However, many traders argue that it does not solve their problem because of where the station is located. This is because it has not been constructed at the right place (located in the center of the country). In fact, traders will incur additional costs as a result of the new quarantine station being

located in an inconvenient place. Since it will not replace the Djibouti quarantine (i.e., trade animals will also be checked in Djibouti), traders have to load and unload animals twice, and buy additional feed.

8.4. International factors

The impact of political crises in the importing countries (such as the Arab spring since spring 2011), was heavily felt by the Borana pastoralists. For example, in 2011, because of the drought and the Middle East crisis, there was a sharp decline in livestock price, and a bull that sold for 5000 birr the previous year sold for only 3000 birr in 2011 (Debsu, 2013).

8.5. Multiple and High Taxation

There are several particular complaints by producers about multiple forms of taxation. Theoretically, unsold animals are not taxed, but there are several complaints about such practices. When animals are sold, sellers and buyers often negotiate over who should pay the taxes, but the buyer always carries the receipts.

The money collected from livestock taxes are used by municipalities, rural schools (hostels), PAs, and for sports. Even though tax regulations state that the amount of tax per animal be set at 15-20 birr (for cattle and camels), some municipalities charge far greater than this amount. PAs mostly use the money to hire teachers for satellite schools (adult education).

Discussions with the Borana zone and woreda revenue offices show that taxes are collected in two ways: 1) taxes that are collected by municipalities and 2) regular taxes that are applied to salaries, other income taxes, and VAT (value added taxes). The former tax varies from market to market since the amount is mostly determined by district councils and the money is used by the municipalities. Regular taxes, on the other hand, are fixed and are collected according to stipulated regulations and sent to the regional and federal governments. The federal government's earning from livestock trade is only through foreign exchange earnings.

For markets that are located outside towns and have no municipalities, such as Bakke, PAs mostly use the tax money from goats and a portion of the tax money from cattle and camels. A large portion of tax money from camels and cattle at Bakke market goes to sports/Yabello municipality. According to the head of the zonal revenue office, 70-80,000 birr is collected each week from the Bakke market alone.

Table 2: Livestock Tax Rates and Beneficiaries for Selected Markets

| Markets | Animals Taxed | Tax amount (birr) | Beneficiaries | | | |
|---------|---------------|-------------------|---------------|-------------------|--------|----------------|
| | | | PAs | Schools (Hostels) | Sports | Municipalities |
| Bakke | Cattle | 17 | 2 | 2 | 13 | - |
| | Camels | 17 | 2 | 2 | 13 | - |
| | Goats/sheep | 5 | 4 | - | 1 | - |
| Dubuluk | Cattle | 27 | - | 2 | 3 | 22 |
| | Camels | 42 | - | 2 | 3 | 37 |
| | Goats/sheep | 11 | | | | |
| Elwaya | Cattle | 20 | - | 2 | 3 | 15 |
| | Camels | 20 | - | 2 | 3 | 15 |
| | Goats/sheep | 7 | - | - | 2 | 5 |
| Moyale | Cattle | 10 | | 1 | 1 | 8 |
| | Camels | - | - | - | - | - |
| | Goats/sheep | 5 | - | - | - | - |
| Surupha | Cattle | 10 | - | - | 3 | 7 |
| | Camels | 10 | - | - | 3 | 7 |
| | Goats/sheep | 5 | 4 | - | 1 | - |

Source: Field Interview

The Urban Development office is responsible for printing receipts to collect these taxes. Additional taxes on livestock such as those for sports are determined by the Oromia Regional State, while for hostels and PAs it is decided by PAs.

Regarding complaints about multiple forms of taxation, the head of the zonal revenue office says there are committees who make sure that animals leaving the market compound are sold before they pay taxes. However, interviews with sellers indicate that they are forced to pay taxes for unsuccessful sales. Other studies in the zone also indicate that unsold animals across the border in Kenya Moyale are returned back to Ethiopia and owners are not refunded in the case of unsuccessful sales (Pavanello, 2010).

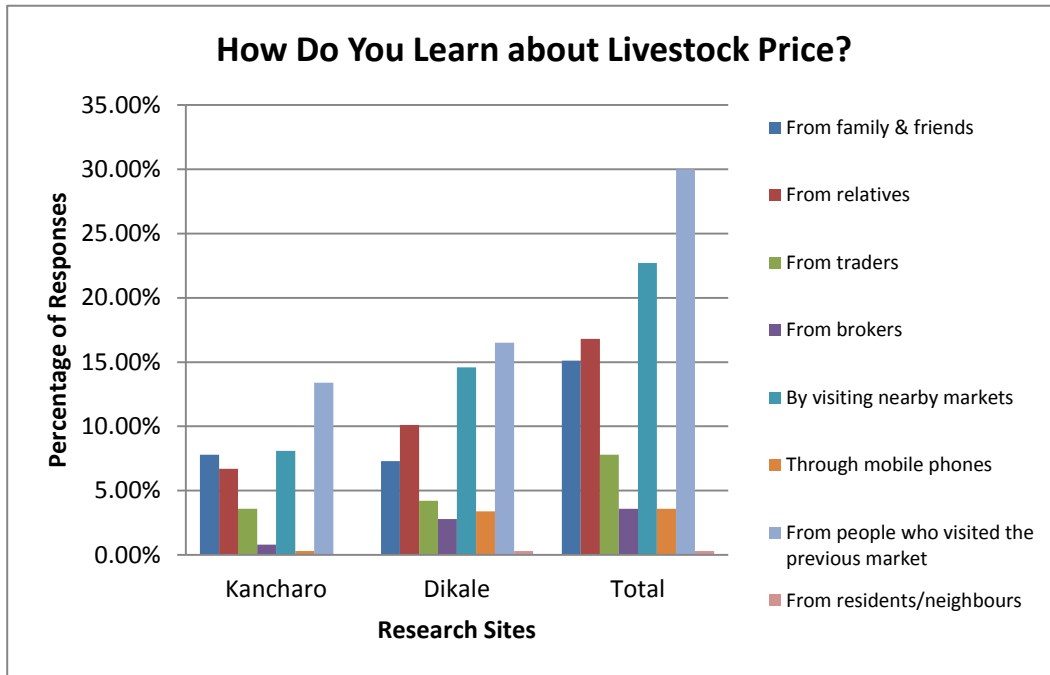
In addition, sellers complain about high taxation on animals they sell and try to evade taxes by taking their animals, especially shoats, to bush markets. For example, on February 22, 2013, it was a market day at Dubuluk and only 100-200 goats were brought to the market. The reason why they were so few is because of high taxes at Dubuluk (11 birr, 8 of which is for the municipality and 3 for sports). Therefore, many people choose to sell their goats at bush markets with lower taxes such as Muyat, Dofi, Simu, and Dharito.

8.6. Inadequate Price Information System

The Borana Zone Trade and Market Development Department records supply and price information and sends it through SMS to the Oromia Trade and Market Development as well as to the National Livestock Market Information System (NLMIS). Information is collected from markets in the zone through interviews as well as observations.

In spite of the effort to create access for pastoralists to a price information system through mobile phones, the system is not well developed for various reasons. First, the information collected is less reliable because of the problems related to collecting and managing market data. Secondly, poor network connections mean that pastoralists cannot access price information when they need it. Third, with a low literacy and numeracy rate in pastoralist areas, only a few of them would benefit from the existing information. Eighty-two percent of the population in Kancharo and 74.4% in Dikale are illiterate.

Figure 13: Household Source of Livestock Price Information by Study Location



Therefore, most households depend on traditional sources for price information such as friends, relatives, and other acquaintances. Thirty percent of households learn about market prices from people who visited the previous market, while 22.7% get information by visiting nearby markets.

8.7. Other Constraints

Traders also are constrained by grazing areas and holding ground. Most traders depend on networks of kin and connections to officials to gain access to these resources. A local trader from Yabello acknowledges efforts made by the government to improve livestock markets and suggests that more needs to be done:

The government has already done some good things, such as organizing cooperatives and unions, but there are things that need to be done. For example, Haro Bakke is a big livestock market, but the water is not pure, there is no holding ground, and so on. In Addis Ababa, the slaughter houses have holding ground for traders until their animals are sold. The government charges them for the services. We want similar services for livestock markets in our area. If this happens, there wouldn't be disputes over pasture, crop destruction, etc between traders and Borana pastoralists.

Local traders mostly graze their livestock on communal grazing lands, but increasingly, communities are denying them access. Some traders graze ranches, paying 20 birr per animal per season while others buy grazing rights from private *kallo* owners. In some ways, the existence of communal grazing areas is an opportunity for local traders to access rangelands.

In some areas (such as Moyale) there are no marketplaces. People say that the lack of a marketplace for their animals is the major problem. Traders are not coming to the market and it is very difficult for pastoralists to sell their animals. There is no market infrastructure, including fences. Goats are sold on roadsides and traders repeatedly face theft and eviction. In other areas, markets are distant and sellers have to travel long distances to access them. This means that sellers risk a weakening of their livestock because of the long journey and have to incur additional costs associated with trekking and subsistence in the marketplace.

For many traders, credit defaults are serious problems. In the livestock business, buying on credit is a common practice, but not all credit is collected by sellers. Sales on credit are more common between traders than between traders and producers. During drought, however, credit exchanges operate at all levels to reduce the risk of animal death. In normal times, traders may also sell to butchers on credit if they personally know the buyers. Not only are traders cautious about selling on credit, but they are also careful about buying on credit. A trader informant from Adama said, "If you ask to buy on credit, sellers will inflate the price."

Many of the traders interviewed reported that they faced some kind of default. In fact, some traders listed selling on credit as the major problem associated with the current livestock trade. However, in general, sales on credit are based on trust and occur between actors who know each other. Similar

problems prevail in the export trade, but letters of credit (LC) minimize the problem of default. LC, with all of its problems, is seen as the best guarantee to avoid defaulting.

However, there is a lot of bureaucracy with LC procedures and the two banks in the importing and exporting countries have to do a lot of paperwork and correspondence before the money is transferred. The money is not transferred quickly if any of the terms and conditions of the agreement are not met (say, if one of the sheep dies). This inefficiency minimizes traders' dependence on LC as a money transfer mechanism.

Theft and security problems also constrain livestock markets. Many traders complain about the loss of animals during trucking or trekking as well as in the grazing fields. There are no proper trucks for animals during transportation. As a result, traders say the body condition of their animals deteriorates or in some cases, death may occur. For producers, a lack of transport during normal years does not seem to be a major problem since there are always people they can pay to trek animals to the market. However, during drought years, the animals become too weak to trek them to the market and transportation could be a big problem.

Feedlot operators also face several challenges, including water for livestock consumption and land for expansion. Most feedlots in Adama do not have enough water and have to truck it from the Awash River or other available sources.

9. Gender and Livestock Marketing and Trading

In Ethiopia, men generally control more lucrative commercial activities and employment opportunities. Women are culturally restricted from participating in livestock marketing or trading. Decisions to sell animals are not seen to be within a woman's domain and often they have to obtain approval from their husband to sell animals. According to one informant,

“Within a household the decision to sell animals is made through discussions between the husband, wife, and elder sons. The final say, however, rests with the household head. Borana women do not engage in livestock marketing or trading” (Dida Galgalo, December 2012).

When and if approvals are granted, Borana women have to seek help from their husbands or male relatives to sell the animals, especially big ones. During our field visits to the Borana livestock markets, virtually none of the traders were women. This means that livestock trading and marketing, two lucrative sources of income in pastoral areas, remain in the hands of men.

This, however, does not mean that women do not share in the benefits when livestock are sold or oppose unnecessary sales. To some degree, the Borana customary law and clan system provides women with strong protection from abuse and economic exploitation. Regarding women's role in livestock sales, HW says the following:

You sell animals and give the money to your wife. Also you consult with your wife before you sell the animals. You ask her "what should we sell?" She says "sell whatever has good demand." She can refuse to sell if it is not for good reason, such as to drink alcohol. If you decide to sell without good reasons, then she can appeal to local elders. It has been this way for a long time (interview with HW, Dikale, August 2013).

Unlike the Borana, Gabra and Garre women accumulate money for trading purposes by selling camel milk."The Borana women cannot do that because cows do not have much milk beyond consumption" (Dida Galgalo, December 2012). Moreover, Garre, and Gabra women are more mobile than the Borana, meaning that they have a lifestyle that is more conducive to trading (Interview with BJ, Moyale, August 2013). Because of these reasons, entry to livestock trading is easier for women from these two groups.

Even in cultures where women participate in livestock marketing and trading, they are limited to trading small stock and operate at the lower level of the market chain. They also face several challenges with their trading business such as a lack of access to credit facilities. For example, Somali, Garrie and Gabra women in Moyale are actively involved in small stock trading, but they are constrained by a lack of capital, lack of permission from their husbands to travel long distances, and disproportionate family responsibilities.



A woman goat trader in Moyale market

However, traditional credit associations and modern micro-credit services (though both are not well developed) are just beginning to provide new opportunities for women traders in Moyale and elsewhere in Borana. As the following case shows, credit and saving associations are providing the much needed capital for women to enter into the livestock trading business.

Box 2: Case Study of a Female Livestock Trader

DD has been in the livestock trading business for 12 years. Before starting livestock trading, she was selling tea on the roadside and barely supported herself and her family. Now she has her own house in Dida Hara and owns a shop. She says, "Earlier when I started trading business, the price of livestock was not high. First I bought one bull for 500 birr and sold it for 1000 birr after keeping it for a year. Again I bought another bull for 1500 birr and sold it for 2000 birr after a year. Later on I bought another bull for 5000 birr and sold it for 6000 after 2 years. Finally I joined a credit and saving association called Roba Nagaya and each member contributed 100 birr per month. Then I started borrowing from the association and returned with interest after 12 months. Last time each member borrowed 9000 birr each. With the 9000 birr I buy 2 bulls and keep them. When the credit repayment is due, I sell them from somewhere 11000 to 13000 after a year. So I do trading in this way. I do both selling and purchasing myself. I cannot graze my trade animals in community kalo, so I buy pasture for my animals mostly in the school compound. Sometimes I sell them in 6 months. I buy in September and in six months the price improves and I sell them. This is a time just before the main rainy season when animals are thin, but mine are in good condition. So I buy and sell twice in a year. I pay delalla both when I buy and sell. One week before I sell my bulls, I go to Bakke or Dubuluk livestock markets and observe the price of animals. In the market I stand next to any bull that is equal to mine and see how much it sells. Then I say to the buyer 'I have a bull similar to this one and will bring it next week, would you buy it?' This is just to check the trader's reaction, otherwise there are many buyers. If I think there is a profit, I will take it to the market next week. I also call traders I know using my mobile phone to learn livestock prices. I ask both those who come to sell and those who buy. For example, I ask 'what is the price of 5 years old bull, in good condition?' Earlier my husband was not happy with what I do. He said, 'dira nadheen dira dansaa miti dira hin dhaqiin,' meaning, 'market is a public place, don't go there.' But gradually he accepted the fact that I'm a livestock trader. Especially the fact that I'm a member in saving and credit association means that I'm responsible for paying back the credit and he does not complain."

Female livestock traders are rare among the Borana and DD is a special case. There are, however, a few traders like her, who do not travel far, but buy from nearby markets for resale after a few months or a year. Unlike DD, however, they are either from female-headed households or a household headed by inactive males.

It is worth noting that DD initially faced resistance from her husband and it was only gradually that he came to accept her as a livestock trader. Apart from opposition from husbands, the fact that female livestock traders are rare means that entry to the business is difficult for women due to cultural reasons.

KD, a male informant from Dikale says, “Borana women do not do livestock marketing and get involved in livestock trading because of our custom” (August 2013).

Another informant from Dikale compared Gabra, Somali, and Borana women and tried to explain the latter’s lack of involvement in livestock trading and marketing from a different angle. He argues that it is not because of cultural differences between these groups, but due to the species of animals they keep. He goes on to say that milk sales are in the womans domain and camels give more milk than cattle, and for this reason, it benefits Gabra and Somali women more than the Borana. According to this argument, the former groups are in an advantageous position to accumulate money from milk sales, which they then use for trading.

10. Conclusion

Livestock trading and marketing activities have increased tremendously over the past decade in the Borana and other pastoral areas. An increasing number of businesses, such as abattoirs, butcheries, livestock traders, feedlot operators, animal feed suppliers, and live animal exporters have emerged around these activities both at local and national levels.

Similarly, producers also participate in the livestock market not only as sellers, but also as buyers for resale. They are also actively participating as brokers, small traders, and agents of big traders even though wealthy pastoralists are beneficiaries of the increasing commercialization of the pastoral economy (Aklilu and Catley, 2010). The general trend, however, is one of win-win situation where most actors derive benefits but with significant variation of benefit margins.

The booming livestock market has ripple effects for other trading businesses outside of the pastoral sector, particularly small businesses that may benefit the lower strata of the population. The expanding businesses, in turn, can lead to the diversification of the pastoral economy. The availability of non-pastoral, alternative livelihoods would further improve pastoralist livestock marketing and contributes to household food security (Barret, Bellemare, and Osterloh, 2006).

Actors in the business of livestock trading and marketing, including producers, face different constraints and pursue various strategies to maximize their benefits from the burgeoning livestock market. Understanding the constraints and strategies of both producers and traders helps to design better policies to alleviate these constraints, including those related to market infrastructure and price information systems.

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