



**MAJOR CONSTRAINTS OF LIVESTOCK MARKETING IN RAYTU WOREDA, BALE
ZONE OF OROMIA REGIONAL STATE, ETHIOPIA**

A Research Paper

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Declaration

We declare that this researchwork entitled MAJOR CONSTRAINTS OF LIVESTOCK MARKETING IN RAYTU WOREDA;BALE ZONE OF OROMIA REGIONAL STATE OF ETHIOPIAis our own original work. As far as we know, it has not been presented nor submitted for any University/ institutions/ or any college for any fellowship or publication. We also declare that the resources and the sources used in this research are duly acknowledged in the text and in the references.

 Aliy Motona

Principal Investigator Director, College of Business and Economics Research Coordinator
Theme

ACCRONYMS

SPSS

Statistical package for social science

Shoat

Sheep and Goat

MaslMeter above sea-level

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ABSTRACT

Livestock is a key sector for economic welfare of livestock keepers. Ethiopia is believed to have the largest livestock population in Africa. Most of the livestock and livestock products were sold to cover family expenses for food grains and other essential consumer goods. The main objective of the study was to determine the constraints of livestock marketing in Rayitu Woreda Bale Zone of Oromia Regional state. Sample size was determined by using finite population correction factors formula assuming, 5% marginal error and confidence interval of 95%. A total of 107 Households were randomly selected and interviewed using a structured questionnaire. Both primary and secondary data sources were used. The study used a cross sectional single visit survey. Data were analyzed using statistical package for social sciences (SPSS) Version 20.0 and descriptive statistics based on the stated objectives. The major constraints of livestock marketing found in the area are lack of market chain, marketing facilities and inadequate infrastructure. Sparsely populated rural areas, remoteness from towns and high transport costs are physical barriers in accessing markets. This is associated with a number of complex and inter-related factors such as inadequate feed and water, prevalence of diseases, contraband, clan conflict and livestock theft. Therefore, it is crucial for the government to intervene and facilitate the coordination of livestock marketing activities and infrastructural services.

Key Words: Livestock, Livestock marketing, major constraints

CHAPTER ONE

1.1 Back ground of the study

Livestock is a key sector for economic welfare of livestock keepers (Mlote, 2006). In rural Ethiopia, as in much of Africa, most savings, especially by the relatively poor, are held in the form of real assets, the equipment or other capital goods used in agricultural production (Aryeetey and Udry 1995). In Ethiopia the savings asset of choice both for farmers and pastoralists is livestock. Livestock plays vital roles in generating income to farmers, creating job opportunities, ensuring food security, providing services, contributing to asset, social, cultural and environmental values, and sustains livelihoods. Ethiopia is believed to have the largest livestock population in Africa (Belachew and Jemberu 2003). The estimated livestock population of Ethiopia is 53.99 million heads of cattle, 25.49 million heads of sheep, 24.06 million heads of goats, 50.38 million heads of poultry, 1 million heads of camel and 5.21 million beehives (Mesele *et al.*, 2015). Livestock and livestock products are the major foreign exchange earners after coffee. However, the share of animal export earning is generally small and has declined in recent years due to decreased live animal exports, and an overall increase in the value of all exports (FAO, 1993).

The number of livestock owned per household varies from location to location depending on the diverse agro-ecological conditions. Livestock are closely linked with the economic, social and cultural lives of millions of poor farmers. Livestock and livestock product markets and marketing situations were crucial for enhancing incomes and livelihood of the smallholder livestock keepers (Solomon *et al.*, 2003). It is prominent that livestock products and by-products in the form of meat, milk, honey, eggs, cheese, and butter supply etc. provide the needed animal protein that contributes to the improvement of the nutritional status of the people. Livestock also plays an important role in providing export commodities, such as live animals, hides, and skins to earn foreign exchanges to the country due to surplus output and preferably of the breeds in the Middle East Countries (CSA, 2011). Ethiopia is a tropical African country in which mobile pastoralism is dominant in the arid and semi-arid areas in the eastern, northeastern and

southeastern parts of the country, while agro-pastoralism represents an increasing practice in the semi-arid areas in the northwestern, southern and eastern parts of the country (Amaha, 2006).

The country's agro-ecological zone is roughly divided into two major parts. The highlands with an altitude of over 1,500 meters above sea level and the lowlands with an altitude of less than 1,500 meters above sea level. In Ethiopia livestock production is undertaken both in highland and lowland areas (Seid, 2012). The highlands in Ethiopia comprise nearly half of the land area of the country and hold more than 85% of the total human population and about two thirds of the livestock population, which are dominantly crop-livestock systems areas and are recognized to be under stress because of shrinking cultivated areas per household, land degradation and reduced feed availability (Seid, 2012).

Among the total livestock number of the country 20% of cattle, 25% of sheep, 73% of goats and 100% of camels are found in the lowland pastoral areas (Alemayehu, 2007). Most of the livestock and livestock product were sold to cover family expenses for food grains and other essential consumer goods (Hailemariam *et al.*, 2009). Milk is the major livestock product in the lowlands. However, availability of milk is dictated by the shortage and erratic nature of the rainfall and fluctuations in availability of feed (Ketema and Tsehay, 2004; Seid, 2012). According to research report presented by (Montshwe, 2006) the marketing challenges faced by the livestock sector in developing areas include inadequate infrastructure, marketable livestock numbers, market information and poor condition of livestock. According to Metaferia *et al.* (2011), cattle, sheep and goats are the three most important livestock species that have a considerable important to the GDP of the country. Understanding the growth trend, spatial distribution and their relative access to market infrastructures of these livestock species is crucial in order to devise a feasible and geographically targeted livestock development policy.

The Oromo pastoralists and their livestock have been an integral part of the Bale landscape for many centuries. A system of seasonal movements known as *godantu* was the traditional method of livestock management in Bale (BeleteA and Aynalem T. 2017). The Godantu systems were practiced in the zone both in highlands (Bale Mountain, Dinsho, Harena forest) and low lands (majority of low land woredas). (BeleteA and Aynalem T. 2017). In pastoral areas, livestock are usually sold to meet family needs for cash income, which is used to buy food grains and industrial products such as clothing. Occasionally, seasonal shortage of rainfall through its

impact on feed availability forces higher supply to market. The pastoralists' forced supply is constrained by their inability to plan sales in accordance with market need (time and quality) (Belachew and Jemberu, 2003). Therefore, this study was aimed to identify major constraints of cattle, sheep and goats marketing in Raytu district of Bale zone which comprises highland and lowland agro-ecologies and the finding of the study will also contribute for an efficient market mechanism marked with good performance that has an impact upon the income of herders, traders, exporters and other market participants in particular and the national economy in general.

1.2 Motivation and Statement of the problem

Livestock plays vital roles in generating income to farmers, creating job opportunities, ensuring food security, providing services, contributing to asset, social, cultural and environmental values, and sustain livelihoods. Livestock sector perform multiple functions in the rural household economy. Besides employment, livestock provides protein rich food, income for everyday expenses and social obligations, near liquid assets, a store of wealth for savings, manure for crop production and soil fertility, and transport (ILRI 2011).

This sector can also be a major contributor to poverty reduction by improving the livelihoods of rural people. Approximately 85% of Ethiopia's population is rural based, and livestock supports the livelihoods of about 80% of rural people (ILRI 2011). However, the income of 30% of the rural population is below the poverty line (MoFED ,2013). Sparsely populated rural areas, remoteness from towns and high transport costs are physical barriers in accessing markets (Holloway and Ehui, 2002). This is associated with a number of complex and inter-related factors such as inadequate feed and nutrition, widespread diseases, poor genetic potential of local breeds, market problem, inefficiency of livestock development services with respect to credit, extension, marketing, and infrastructure (Benin et al. 2003; Jabbar et al. 2007; Negassa et al. 2011; Solomon et al. 2003). Livestock has been an integral part of the Bale landscape for centuries. However, remoteness of the market results in reduced farm gate prices, returns to labor and capital and increased input costs. In many instances, livestock can also be one of the main avenues for the rural and urban poor to get out of the poverty trap (Alive, 2004). Nevertheless, in

absence of well-functioning markets, agricultural production can experience severe drawbacks (Somano, 2008). Its impact is more serious in areas where livestock are the dominant source of livelihood of the community. In rural areas, animals are marketed in small numbers by a large number of producers in a non-organized manner that usually involves moving animals over large distances; these farmers are mostly located far away from the conventional markets. Apart from a policy environment that still does not adequately address the needs of small-scale livestock farmers; other factors also contribute to their current state of well-being. Therefore this study intends to identify the major constraints of livestock marketing system in Raytuworeda Bale zone of Oromia regional state of Ethiopia. The findings would be useful in research, planning and minimizing the constraints of livestock marketing in livestock sector.

1.3 Objective of the study

1.3.1 General objective

The primary objective of the study is to identify the major constraints of livestock marketing

3.1.2 Specific objectives

- To investigate the major constraints of pastoralists livestock marketing
- To pinpoint determinants of livestock marketing in the study area

1.4 Research Question

- What are the major constraints affecting livestock marketing?
- What are the major determinants of livestock marketing

1.5 Significance of the study

The finding of this study would be significant for both livestock keepers and traders as it provided valuable finding regarding livestock marketing constraints. This helps the government and other stakeholders to plan, evaluate and solve problems related to livestock marketing inefficiency. Moreover, the study would serve as reference for further researchers in the area.

1.6 Scope of the study

The scope of this study mainly focused on major constraints of livestock marketing. Because of geographic scope, time and budget constraint, this study was limited to Raytu Woreda, Bale zone of Oromia Regional state of Ethiopia. With regards to the content scope, this study was mainly focused on identifying major constraints of cattle, Goat and sheep marketing in the target area. With respect to methodological scope, the study employed descriptive statistics.

1.7 Limitation of the study

During conducting this research, the researchers faced with time and budget limitation and lack of willingness to give information on the side of some respondents. Lack of access to transportation in the study area was also challenging too.

CHAPTER TWO

2. THEORY AND LITERATURE REVIEW

2.1 Livestock Marketing System in Ethiopia

Marketing involves all activities involved in the production, flow of goods and services from point of production to consumers. Marketing includes all activities of exchange conducted by producers and middlemen in commerce for the purpose of satisfying consumer demand. All business activities facilitating the exchange are included in marketing (Lemma *et al.*, 2005).

Agricultural marketing has a great potential in creating employment opportunities, increasing production and distribution of income by involving majority of people, reducing unemployment and fostering national security (Matola, 2005). According to Ajala and Adesehinwa (2007) specific ways in which efficient marketing systems play a leading role in economic development have been widely documented.

Ethiopia has the largest livestock population and the highest draft animal population in the continent. There are approximately 35 million cattle, 39 million sheep and goats, 8.6 million equines, 1 million camels, and 55.4 million chickens in the country¹ (FAO 1999). Generally, sheep are the predominant livestock in areas over 3000 metre above sea level (masl) and at altitude over 3500 masl farmers keep only sheep. Cattle are common below 3500 masl. Livestock are most common in the 1500 to 2800 masl range. Cattle, camels and goats are prominent domestic animals in the lowlands below 1500 masl. Chickens are ubiquitous in all production systems.

The Ethiopian Central Statistical Authority (CSA) estimated 35.1 million cattle, 12.2 million sheep, and 9.5 million goats only in the highlands (1,500 meter above sea level, masl) and mixed farming systems, home and 75–80% of cattle and sheep and 30% of goat population in the country (CSA 1999a). Between 1974 and 1998, human population increased by 78% while cattle population increased by 31%, and small ruminant population decreased by 5.6%, annual growth rate for human population was 2.5% while that for cattle and small ruminants was 1.1 and – 0.2%, respectively. During the same period meat, milk and skins and hides production have increased by 23.8, 42.7 and 5.7%, respectively (FAO 1999). Despite the large number of livestock, there has been a decline in national and per capita production of livestock and

livestock products, export earnings from livestock, and per capita consumption of food from livestock origin since 1974, in comparison to other African countries (Assegid 2000).

2.2 Livestock Market Structure

Different studies conducted in highland of Ethiopia showed that livestock account for 37–87% of total farm cash income of farmers. Despite the contribution of livestock to the economy and to smallholders' livelihood, the production system is not adequately market-oriented. There is little evidence of strategic production of livestock for marketing except some sales targeted to traditional Ethiopian festivals. The primary reason for selling livestock is to generate income to meet unforeseen expenses. Sales of live animals are taken as a last resort and large ruminants are generally sold when they are old, culled, or barren. In the highlands, large numbers of cattle are kept to supply draft power for crop production whereas prestige and social security are the predominant factors in the lowland pastoral (Eyob and Zewdu, 2016).

The export market is relatively old but highly variable depending on production condition of the country, change in consumer preferences and greater demand for high quality products with adequate guarantees of food safety. The livestock market is structured so that the marketable livestock from the major producing areas reaches to the final consumer or end user passing through complex channels along the supply chains involving various actors in livestock product marketing, broadly classified as: livestock producers, traders, processors, retailers, food service providers, and consumers. Private and public livestock inputs and service providers are other important market actors (Zewdu and Sintayoh, 1987).

Livestock marketing operations are generally small-scale family businesses. The live animals are either transported in trucks or herded over long distances to feedlot operators, export abattoirs, or major markets. These final market destinations are far away from supply sources, and the transportation costs associated with getting live animals to markets can result in significant weight loss and even death; stock routes are characterized by lack of adequate feed, water, and resting places. It can be argued that the long supply channels lead to high costs and reduce the competitiveness of live animal or meat exports (Eyob and Zewdu, 2016).

2.3 Major constraints of livestock marketing in lowland part of Ethiopia

2.2.1. Contraband Trade:

Contraband trade that have major impact on the livestock marketing system through loss of foreign exchange; income taxes and its impact on legal livestock trade (Eyob and Zewdu, 2016). Also had impact by price fluctuation, there are no predictable spatial price differences (price ratios) that can be linked to this trade pattern and there is no market integration, making it difficult to prescribe policy interventions to combat this trade (Tekaet *al.*, 1999)

2.2.2 Clan conflicts

The Ethiopian pastoralist community is composed of several clans and ethnic groups. These groups compete for limited land and water resources. Conflicts arise as a result of competition for resources and some other reasons. The problems in such pastoralist areas are directly manifested in the livestock markets. Whenever there is clan conflict in the area, the market is disrupted and the number of animals brought to markets decreases (Adina and Elizabeth , 2006).

2.2.3 Weakness in understanding the existing social structure of Pastoralists

Pastoralist communities are composed of clan-based social organization. Most of the activities of these communities are linked to their clan structure. For example, the Somali pastoralists that are available all along the eastern lowland areas of the country have a clearly visible clan-based marketing behavior. They take their livestock to the market collectively in groups (whose members are from one clan) and hand over the animals to a broker that belongs to their clan. This broker is the one who has better market information relative to individual producers and he is also a price maker. No other broker (non-member of the clan) can mediate the transaction of their livestock in the market. Brokers in this case act as representatives of their clan in the market. Understanding this sort of social structures and their marketing behavior is imperative in the effort made to boost livestock supply to the market (Getachewet *al.*, 2008).

2.2.4 Absence of Market Information System

Market information system needed to disseminate current market information to keep all livestock market participants at the same level of access for market information (price, time specific demands, quality information etc). This enables all market participants to make

wellinformed decision in making transactions. Since the market information system is not well developed in pastoral areas, information kept as secret in order to make use of the ignorance of competitors and sellers as an advantage. Of the total shoat and cattle transactions, 66% and 80% respectively were transacted by those who have access to domestic market information. Along this the result indicated that traders who have access to information about the domestic market paid significantly lower prices in both shoat and cattle markets than those who don't have any (Gezahegneet *al.*, 2006; Hailemariamet *al.*, 2009). Access to domestic market information about livestock is very important for setting prices. However, no reliable source of information on the country are livestock number, export demand, annual off-take, productivity, and consumption levels to producers, traders, exporters and support giving institutions. This creates problems in planning and designing of policies to enhance the sector's development (Belachew andJemberu,2003).

2.2.5. Inadequacy of Infrastructure

Road is one of a very important infrastructure in the livestock marketing system. The type of road connecting an area determines the type of buyers that can get access to its market. It also affects the profitability of most of the participants in the livestock market. The sources of livestock for export are pastoral areas that are far from the center. The Afar and Somali Regions, parts of Borena in Oromiaare lowland areas forming internal boundary to neighboring countries. The Borena area is connected to the center/terminal markets with asphalt road passing from Addis Ababa to Moyale. The most important livestock markets like Dubuluq, Mega, and Harobeke are located on this asphalt road. There are also a number of primary and secondary markets located in 25 km radius from this road. This enables exporters to easily transport animals to their quarantines stations or abattoirs at relatively lower cost of transportation and very minimum level of weight loss and mortality rates relative to inaccessible areas. Still there are potential areas considered as sources of shoat but remained unexploited due to lack of road network. In most lowlands areas very rough gravel road which is very difficult to frequently penetrate and transport livestock for the export market. Shoats collected from extreme lowland markets such as Telltale have to reach the abattoirs in few days' time and get slaughtered before they are affected by the environmental change which otherwise can lead them either to emaciate or die (Adina andElizabeth , 2006;Getachew *et al.*,2008).

2.2.6 Absence of Market centers

Market centers and their associated infrastructures are important factors that have to be considered in the move to increase the supply of livestock for both domestic and export markets. Due to the wider geographical location of pastoralists, some important sources of livestock are very far from market centers. Pastoralists from the border areas need to travel for a week or more to reach these market areas. This influences the marketing behavior of pastoralists that they either have to keep their animals unsold or they have to go to nearby informal markets in the neighboring countries (Gezahegneet *al.*, 2006).

Producers directly sell their products to consumers or unlicensed traders or retailers through mutual price negotiation (Antenehet *al.*, 2010). There is no license to operate and no checks on quality in the informal system (Yilma *et al.*, 2011)

In many African countries (e.g. Ethiopia and Nigeria) the occurrence of major religious (Christian and Muslim) holidays has a market effect on supply, demand and prices of livestock, especially those of small stock. Demand is high during these holidays and prices can be 80% more than the annual average price (Okali and Obi, 1982) as cited by Bekure and Tilahun (1983).

"Livestock market" means any location where livestock is assembled and sold at public auction or on a commission basis during regularly scheduled or special sales (FLS, 2008). The term "livestock market" shall not include private farms or ranches or sales made at livestock shows, fairs, exhibitions, or special breed association sales (*ibid*). A market for a particular commodity exists when producers and consumers exchange the commodity at mutually agreed prices (Massawe, 2007).

A market for a particular commodity exists when producers and consumers exchange the commodity at mutually agreed prices (Massawe, 2007).

Mahabileet *al.* (2002) report that lack of marketing facilities imposes serious constraint on the marketing of livestock. According to NDA (2005) most of the beneficiaries (livestock keepers) are located in areas remote from major markets, where there is serious lack of both physical and institutional infrastructures. NERPO (2004) reports that in South Africa, lack of marketing facilities such as sale pens and loading rumps are some of the numerous factors that impose a serious constraint on small-scale farmers' ability to market their cattle.

According to Musemwa *et al.* (2007) remote location of most communal cattle producers coupled with poor road networks; result in high transactional costs (especially transport costs) reducing the price that traders are prepared to pay for the cattle. Mahabile *et al.* (2002) found that even if farmers are in areas with good road linkages, the distance from the markets tends to influence transaction costs.

Bailey *et al.* (1999) report that none or poor provision of agricultural information is a key factor that has greatly limited agricultural development in developing countries. According to Coetzee *et al.* (2004) farmers' information needs are those that enable them to make rational, relevant decisions and strengthen their negotiating ability during transactions with buyers and consequently prevent possible exploitation by better informed buyers. Jabbare *et al.* (2008) narrated that the livestock market was characterized by non-standardized products and lack of information in the public domain about supply, demand and prices. Bailey *et al.* (1999) further report that information needs for communal farmers range from information on prevailing production techniques, quantity, price and to market opportunities. Montshwe (2006) indicates that radio and personal communication are still used as main sources of information.

Lack of time and reliable information is severe particularly in the communal areas (Montshwe, 2006). The poor transfer of knowledge, skills and information is further manifested by limited interaction between farmers and extension officers due to poor road networks and resource (Coetzee *et al.*, 2004). Staff (extension agents) morale is low and availability of extension services is limited to the urban and peri-urban abodes of the agents (Manyanget *et al.*, 2005).

Musemwa (2008) further argued that poor condition of livestock results in farmers getting low farm-gate prices especially during dry spell. The poor condition of livestock can be caused by either shortage of feeds or disease infestation. Rahmann and Seip (2007) reported that infestation with endo parasites can have severe consequence for animals as well as for livestock farmers leading to economic loss.

Lack of operating capital also impedes livestock marketing. Jabbare *et al.* (2008) reports that most traders used own capital as formal credit was limited. Alam (2008) reports that transport of livestock is often by trekking, or in open top trucks and trains in the most inhumane ways, lameness and the inability to walk are common signs shown by the animals.

During the imperial era grazing lands were effectively declared as belonging to the state (ye mengist merit). The livestock pastures were seen as a no-man's lands alienated for other purposes. In an attempt to generate taxable resources systematic land measurement (qalad) began in the 1950s, privatizing what had been commonly-held resources and marginalizing those with less means to influence the land registration process (Mindaye 2005). This was a major contributing factor to the first Bale Uprising of 1963 to 1970. The Uprising also contributed to a reducing livestock population in the region as animals were stolen by combatants and even bombed from the air (Ayele 1975). During this time landlords tended to control access to grazing, particularly where the area was also suitable for agriculture. The system at the time put 'good' agricultural land under a private landlord and charged the users for any access.

More recently Watson (2007) found that agriculture was the primary work activity for 84% of households in Mena, Goba and Dinshaworeda. Livestock was regarded as the secondary livelihood activity for 64 per cent of households. However, she also found that 99 per cent of households kept some livestock "...for both non-consumable (transport, ploughing and reproduction), and consumable purposes (milk, skins, selling and eating).

CHAPTER THREE

3. Materials and Methods

3.1 Description of the study area

The study was conducted in Rayituworeda Bale Zone of Oromia Regional State. It is bordered on the south by the Somali Region, on the west by Ginir, and on the north and east by Seweyna; the Gestro River (or Weyib River) defines the southwest boundary. Bale is one of the Zones in the Oromia National Regional State which comprises highland and lowland agro-ecologies. It is the second largest zone in Oromia National Regional State after Borena zone with a total area of 63,555 km². Majority of land cover of the zone were categorized as lowland 69%. The Bale Mountains Eco Region has a rich history of livestock production. Despite a number of challenges livestock remains the mainstay of the majority of livelihoods in both highland and lowland areas. The zone has about 2,825,215 cattle, 528,746 sheep, 1,105,715 goats, 300,077 horse, 49,657 mules, 170,153 donkey, 244,073 camels and 747,662 chicken. Sedentary (mixed crop–livestock production) and mobile livestock production systems are practiced in the Zone. The Godantus system (mobile livestock production systems) were practiced in the zone both in highlands (Bale Mountain, Dinsho, Harena forest) and low lands (majority of low land woredas). (Belete A. and Aynalem T. 2017).

3.2 Study design

This study was explanatory in nature. A cross sectional single visit survey was used. This design allows collection of data at one point in time, i.e. during November to February 2021. The study opted to use descriptive type of research considering the desire to acquire first hand data from the respondents so as to formulate rational conclusions and recommendations for the study.

3.3 Sample size determination and sampling technique

Sample size was determined by finite population correction factors formula assuming, 5% marginal error and confidence interval of 95%. Five kebeles (Haragurra, Hara Dube, Bokoli, Finco and Hara Adi) were randomly selected out of nineteen kebeles. The total number of households heads reside in five kebeles are 2321. Sample size was determined using probability proportional sample size-sampling technique Cochran's (1977, as cited in Bartlett *et al.*,

2001). Fifty percent proportion has been preferred by the researchers to increase the sample size. The final sample size determined for the study (**n1=107**) since study population is less than 10,000.

$$no = \frac{Z^2 * (P)(q)}{d^2} \xrightarrow{n_1} \frac{no}{(1 + no / N)}$$

Where;

no = desired sample size when population greater than 10000

n1 = finite population correction factors (Cochran's formula, 1977) less than 10000

Z = standard normal deviation (1.96 for 95% confidence level)

P = 0.05 (proportion of population to be included in sample i.e. 5%)

q = is 1-P i.e. (0.95)

N = is total number of population (2321)

d = is degree of accuracy desired (0.05)

Accordingly the sample size calculated to be 107.

Proportional allocation formula was used to select sample households from each kebele.

Table 3.1 Proportional Sample size allocation

Name of Selected Kebeles	Number of Households			Proportional sample size	
	Male	Female	Total		
Bokol	342	267	609	$107 \cdot 609/2321 =$	28
Ardakalo	308	264	572	$107 \cdot 572/2321 =$	26
Hara Dube	210	218	428	$107 \cdot 428/2321 =$	20
Hara Adi	155	138	293	$107 \cdot 293/2321 =$	14
Finco	218	201	419	$107 \cdot 419/2321 =$	19
Grand Total 2321				Total sample size	107

Source: Survey 2021

3.4 Data Collection and Sources of data

Self-administered structured questionnaire were developed by the investigators based on literatures and modified for this study. The questionnaire was prepared in English and translated in to Afaan Oromosince the majority of the livestock owners in the study area speak Afaan Oromo. Pre-test was performed and some questionnaire modification, order of tools was corrected based on pretest result. The questionnaire was designed to obtain information on educational status of the respondents, major constraints affecting livestock marketing & determinants' of livestock marketing.

3.4.1 Sources of data

Both primary and secondary sources of data were used for the study. The primary data were collected through a face to face interview with randomly selected household. Secondary data were obtained from previous journals, books and other published and unpublished sources. Personal observation was also used as a reliable data collection method to get in-depth information about the issues related to major marketing constraints.

3.5 Methods of data analysis

Data were analyzed using the Statistical Package for social sciences (SPSS) version 20 and Descriptive statistics were used.

3.6 Reliability and Validity of the Instrument

The level of an instrument's reliability is dependent on its ability to produce the same score when used repeatedly. Validity on the other hand refers to whether an instrument actually measures what it is supposed to measure, given the context in which it is Applied (Bless & Higson-Smith, 1995). The instruments were developed based on research questions and research objectives.

3.7 Expected outcome

The finding of the study might contribute for an efficient market mechanism marked with good performance that has an impact upon the income of herders, traders, exporters and other market participants in particular and the national economy in general. It also stimulates academics, practitioners, and professionals to conduct further research.

3.8 Ethical consideration

The researchers received official permit to conduct this study. Respondents were informed that the information is only needed for academic purpose and they can decline if they don't want to be interviewed. Information provided by interviewees will not be transferred to a third party or will not be used for any other purpose.

3.9 Dissemination Plan of the Research Result

Basically, the finding of this research is intended to reach all stakeholders in general and Bale Zone pastoral communities and policy makers in particular in order to help them to create efficient market that can improve the livelihood of herders, traders, exporters and other market participants. The final research report would be presented on annual conference and it would be published on reputed journals so that it can reach the wider community of scholars.

CHAPTERFOUR

4. DATA ANALYSIS, RESULTS AND DISCUSSION

This chapters deals with analyzing the collected data in line with the overall objective of the research undertaking, statistical procedures were carried using SPSS 20. During the survey a total of 107 participants were involved.

Table 4.1 Level of Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 No formal education	52	48.6	49.5	49.5
	2 completed primary school	30	28.0	28.6	78.1
	3 Junior school	18	16.8	17.1	95.2
	4 Secondary	5	4.7	4.8	100.0
	Total	105	98.1	100.0	
Missing	System	2	1.9		
Total		107	100.0		

Source: Survey 2021

The demographic information regarding the level of education about sample respondents who interviewed using structuredquestionnaire is illustrated in table 4.1 above. Regarding educational level of respondents; 52 (49.5%) had no formal education,30 (28.6%) had completedprimary education,18(17.1%) junior school, 5(4.8%)secondary school. This implies that most of the livestock owners have no formal education.

Table 4.2 Types of livestock kept

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Cattle	15	14.0	14.3	14.3
	2 Goats	49	45.8	46.7	61.0
	3 Sheep	32	29.9	30.5	91.4
	4 Others	9	8.4	8.6	100.0
	Total	105	98.1	100.0	
Missing	System	2	1.9		
Total		107	100.0		

Source: Survey 2021

According to the data obtained the number of goats, sheep and cattle together contribute to larger number of livestock in the study area. Table 4.2 depicted that when the respondents reply for the question what types of livestock you kept? The responses were 2(46.7%), 3(30.5%), 1 (14.3%),4 (8.6) are Goat, sheep, cattle and others respectively. According to this survey the number of goat is relatively more than the number of sheep and cattle in the study area.

Table 4.3 Reasons for selling livestock

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 To meet needs for cash income	25	23.4	23.8	23.8
	2 To meet needs for food	56	52.3	53.3	77.1
	3 need for industrial products	18	16.8	17.1	94.3
	4 For School fees	6	5.6	5.7	100.0
	Total	105	98.1	100.0	
Missing	System	2	1.9		
Total		107	100.0		

Source: Survey 2021

Livestock are sold when need arises for cash income or when shortage of feed and water occurs. Mainly the reason for selling livestock is to generate income to meet unforeseen expenses. According to table 4.3 the farmers primarily sold their livestock to meet family' needs for food (53%), to generate cash income (23.8%), to meet the needs for industrial products (17.1 %), to meet the needs for school fees (5.7%), respectively. Traditionally, livestock are seen as a wealth bank and status, thus might also contribute to smaller numbers being sold. This implies that the farmers sold their livestock when need arises for household consumption.

Table 4.4 Sources of market information

	Frequency	Percent	Valid Percent	Cumulative Percent
1 Mass media like Radio	9	8.4	8.5	8.5
2 Direct market visit	60	56.1	56.6	65.1
3 Fellow livestock keepers	37	34.6	34.9	100.0
Total	106	99.1	100.0	
Mis System sing	1	.9		
Total	107	100.0		

Source: Survey 2021

Market information regarding the market demand and price is vital for every marketing activity including livestock marketing. According to the above table 4.4 about (56.6 %), of the respondents obtain market information primarily through direct market visit, (34.9 %) of the respondents obtain market information from fellow livestock keepers and (8.5 %) of them got their market information from radio and other sources. More than 90% of the respondents obtained market information through direct market visit and fellow livestock keepers immediately after they took their livestock to the market where they are not certain about the price of livestock. This implies that most of the farmers have no access of getting on time market information which is very important for setting the current prices for their livestock.

Table 4.5 Season with more livestock sales

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 Dry season	70	65.4	66.7	66.7
2 wet season	22	20.6	21.0	87.6
3 Both wet and dry seasons	13	12.1	12.4	100.0
Total	105	98.1	100.0	
Missing System	2	1.9		
Total	107	100.0		

Source: Survey 2021

Seasonal availability of water and pasture in the area results in variation of price and supply of livestock. Table 4.5 depicted that about (66.7%) of the farmers sold their livestock during the dry season when compared with the wet season (21%). This implies that the market supply of both goat and cattle increases during dry season because of lack of water and pasture that forces producers to sell their livestock.

Table 4.6 Distance from the local market

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 25 km	20	18.7	19.0	19.0
2 30 km	54	50.5	51.4	70.5
3 40km	31	29.0	29.5	100.0
Total	105	98.1	100.0	
Missing System	2	1.9		
Total	107	100.0		

Source: Survey 2021

Road is one of the very important infrastructure that enhances any marketing activities in general and livestock marketing in particular. Table 4.6 depicted that distance from the market that the livestock travel to reach the market is 25 km (19.0%), 30 km (51.4 %), 40 km (29.5 %) radius from the local market respectively. This indicates that the relative distance from the market determines the type of buyers that can get access to the livestock market. Some of the important local livestock market like dadachabal'a and Anole are found in the area.

Table 4.7 Weighing scale

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 The weighing balances are not available	50	46.7	47.6	47.6
2 The weighing balances are not trust worthy	40	37.4	38.1	85.7
3 The weighing balances delay the selling activities	15	14.0	14.3	100.0
Total	105	98.1	100.0	
Missing System	2	1.9		
Total	107	100.0		

Source: Survey 2021

Lack of standardized unit of transaction in livestock markets in the study area is crucial element in a system where animals are collected from the market using visual estimation without weight scale. The survey results shown in table 4.7 described that 50 (47.6 %) of the respondents responded that the weighing balances are not available, 40 (38.1 %) of the respondents said that the weighing balances are not trust worthy, 15 (14.3 %) of the respondents also said that the

weighing balances delay the selling activities. According to this survey majority of the respondents i.e. about 50% said that there is no weight scale in the market place.

This implies that most of the livestock transaction takes place simply by using traditional negotiation and visual estimation where sellers and buyers are uncertain about the price and the weight of the livestock.

Table 4.8 Market chain

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1 Strong market chain	3	2.8	2.8	2.8
2 Weak market chain	94	87.9	88.7	91.5
3 No market chain	9	8.4	8.5	100.0
Total	106	99.1	100.0	
Missing System	1	.9		
Total	107	100.0		

Source: Survey 2021

The presence of well-organized market chain is very important aspects of marketing activities in general and livestock marketing in particular. According to Table 4.8 most of the respondents i.e. about (87.7 %) responded that there is a weak market chain where livestock marketing activities are generally small-scale family businesses. This implies the sources of livestock for export are pastoral areas that are far from the market and the market is structured in a usual way so that the marketable livestock from the major producing areas reaches to the final consumer or end user passing through weak market chain involving various actors in livestock product marketing which consists of local abattoirs, livestock producers and retailers.

Table 4.9 Other related constraints

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Theft of livestock	29	27.1	27.4	27.4
	2 Contraband activity	41	38.3	38.7	66.0
	3 Clan conflict	22	20.6	20.8	86.8
	4 Conflict, contraband and theft not exist	14	13.1	13.2	100.0
	Total	106	99.1	100.0	
Missing	System	1	.9		
Total		107	100.0		

Source: Survey 2021

According to Table 4.9 the prevalence of contraband activity constitutes (38.7%), followed by Theft of livestock (27.4%) and clan conflict (20.8 %). Around (13.2%) of the respondents responded that there is non-existence of conflict, contraband and theft. This indicate that there is cross Regional illegal livestock trading, arousal of conflict between or among different clan over water and pasture and theft of livestock.

Results and Discussion

The result and discussion part is needed to provide more clarification on the results found in the survey.

4.10.1 Level of Education

The demographic information regarding the level of education was depicted that about 28.6% of the household heads had primary education, (17.1% had junior education, (4.8%) had secondary education and (49.5%) had no formal educational background (Table 4.1). Mohammed et al (2013) indicated that the majority of participants in cattle marketing had no formal education (42.5%).

4.10.2 Types of livestock kept

According to the data obtained the number of goats, sheep and cattle together contribute to larger number of livestock in the study area. The types of livestock kept were goat (46.7%), sheep (30.5%) and cattle (14.3 %) and other (8.6 %) (Table 4.2). According to this survey the number of goat is relatively more than the number of sheep and cattle in the study area. This finding is in agreement with (Alemayehu, 2007), where he stated that among the total livestock number of the country 20% of cattle, 25% of sheep, 73% of goats and 100% of camels are found in the lowland pastoral areas.

4.10.3 Reasons for selling livestock

Livestock are sold when need arises for cash income or when shortage of feed and water occurs. The majority of farmers sold their livestock to meet family' needs for food (53%), to generate cash income (23.8%), to meet the needs for industrial products (17.1 %) and to meet the needs for school fees (5.7%). The finding implies that the farmers sold their livestock when need arises for household consumption. They may only be selling in emergency situations when need for cash arises as indicated by the results in Table 4.3. The finding is in agreement with (Belachew and Jemberu, 2003) they stated that the pastoralists' forced supply is constrained by their inability to plan sales in accordance with market need (time and quality).

4.10.4 Sources of market information

Lack of proper markets and market information in the vicinity of the farmers was given as a major challenge for marketing livestock. Furthermore, above (90 %) of the respondents obtained market information through direct market visit and fellow livestock keepers immediately after they took their livestock to the market where they are not certain about the price of

livestock (Table 4.4). This implies that most of the livestock owners have no access of getting on time market information which is very important for setting the current prices for their livestock. This can be argued by (Gezahegne et al., 2006; Hailemariam et al., 2009) traders who have access to information about the domestic market paid significantly lower prices in both shoat and cattle markets than those who don't have any.

4.10.5 Season with more livestock sales

Seasonal availability of water and pasture in the area results in variation of price and supply of livestock. Table 4.5 depicted that about (66.7%) of the farmers sold their livestock during the dry season when compared with the wet season (21%). This implies that the market supply of both shoat and cattle increases during dry season because of lack of water and pasture that forces producers to sell their livestock. This finding is supported by (Hailemariam et al., 2009) they stated that the price differences might be due to supply feature where shortage of feed and water force producer to sell their livestock in dry seasons which might increase the supply of livestock in the market.

4.10.6 Distance from the local market

The main road connecting Rayituworeda with the zonal town is very rough gravel road which is very difficult to frequently penetrate. Table 4.6 depicted that distance from the market that the livestock travel to reach the market is 25 km (19.0%), 30 km (51.4 %), 40 km (29.5 %) radius from the local market respectively. This indicated that the type of road connecting an area and the relative distance from the market determines the type of buyers that can get access to the livestock market. As cited by (Gezahegne et al., 2006) this influences the marketing behavior of pastoralists that they either have to keep their animals unsold or they have to go to nearby informal markets in the neighboring countries. According to (Eyob and Zewdu, 2016), the long supply channels lead to high costs and reduce the competitiveness of live animal or meat exports.

4.10.7 Weighing scale

The survey results shown in table 4.7 described that 50 (47.6 %) of the respondents responded that the weighing balances are not available, 40 (38.1 %) of the respondents said that the weighing balances are not trust worthy, 15 (14.3 %) of the respondents also said that the weighing balances delay the selling activities. According to this survey majority of the

respondents i.e. about 50% said that there is no weight scale in the market place. This implies that due to the absence of weighing balance transaction takes place simply by using traditional negotiation and visual estimation where sellers and buyers are uncertain about the price and the weight of the livestock. The finding is supported by (Getachew et al., 2008) where such system does not encourage pastoralists to supply more animals to the export targeted markets.

4.10.8 Market chain

Market chain is very important aspects of marketing activities in general and livestock marketing in particular. According to Table 4.8 most of the respondents i.e. about (87.7 %) responded that there is a weak market chain where livestock marketing activities are generally small-scale family businesses. According to (Mutibvu et al 2012), weak market chains for livestock and livestock products are some of the factors that affect livestock marketing.

4.10.9 Related constraints of livestock marketing

In most lowland areas of the country like Rayituworeda livestock marketing is constrained by a various factors. According to Table 4.9 the prevalence of contraband activity constitutes (38.7%), followed by Theft of livestock (27.4%) and clan conflict (20.8 %). This indicate that there is cross Regional illegal livestock trading, arousal of conflict between or among different clan over water and pasture and theft of livestock. On the other way (13.2%) of the respondents said that there is no conflict, contraband and theft. This also indicate the prevalence of contraband, conflict and theft vary from area to area. The presence of livestock diseases that affects the efficiency of livestock production (Belachew and Jemberu ,2003). Whenever there is clan conflict in the area, the market is disrupted and the number of animals brought to markets decreases (Adina and Elizabeth, 2006). Annual outflow of livestock through borders (illegally) at 325,800 cattle, 1.15 million shoats and 16,000 camels. Kapimbi and Teweldemedhin (2012) also added extreme climate conditions such as floods and droughts and manmade factors such as livestock theft and careless starting of fires.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

Since livestock marketing is constrained by several factors such the absence of marketing facilities like market location, weak market chain, lack of weighing scale, inadequate market information, Contraband, conflict over water and pasture, lack of infrastructure and transportation where the main road connecting the zonal town with the study area is very rough gravel road which is difficult to penetrate and transport the goat, sheep and cattle by vehicle.

5.2 Recommendation

- To improve the livelihood of the pastoralist community and the competitiveness of livestock, it is crucial for the government and other stakeholders to intervene in the provision of market support services, veterinary services and infrastructural services.
- There is a need to create forums of consultation and establishing a team work to develop market chain to bring together, producers, traders, abattoirs and the public sector by developing training project and providing so that everybody in the domain would have a clear understanding and contribute to the smooth functioning of the supply chains.
- Also further research is needed for further investigation.

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APPENDIX 1 Interview questions

List of interview questions

A: General information

1 Name of the primary livestock market-----

2. Village / kebele ----- Sex-----

3. Level of education

None	Primary	Junior school	Secondary	Diploma	Degree	Other (specify)

4. What are the types of livestock you keep

Goat ☐ Sheep ☐ Cattle ☐ Other ☐

5. Why do you keep livestock?

☐ To use as a draft power for crop production

☐ For prestige

☐ For social security

6. Are you planning to sell your livestock? Why?

☐ To meet family needs for cash income

☐ To meet the need for food

☐ To meet the need for industrial products

7. In which of the following season of the year you sold more livestock? Why?

☐ Wet season

☐ Dry season

☐ Both wet and dry season

8. Is the local market place close to your village? 1= ☐ Yes; 2=☐ No

9. How far is the road connecting to the livestock market?

☐ 25 km

☐ 30km

☐ 40 km

10. What are those problems associated with travelling far distance to reach the local market?

☐ Weight loss ☐ Lack of Feed and water ☐ Death of animal

11. What is the level of existing market chain?

☐ Strong market chain

☐ Weak market chain

☐ No market chain

12. Do you use weighing scale?

☐ The weighing scale is not available

☐ The weighing scale is not trust worthy

☐ The weighing scale delay the selling

13. How can you get market information?

☐ Cross check with middlemen

☐ Direct visit to the primary market

☐ Cross check with fellow livestock keepers?

14. Who are the major buyers of your livestock?

a) Butcher

b) Individual trader

c) c) Other livestock keepers

d) Whole sellers

15 Do you think is there any:

☐ Livestock contra banding activity around your locality

☐ Conflict

☐ Theft of animal

☐ None of them

16. How often does the conflict takes place ?

☐ Sometimes

☐ Frequently

☐ during shortage of water and pasture

☐ No conflict