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ASSESSMENT OF CATTLE MARKETING PRACTICES IN GURADAMOLE WOREDA, BALE ZONE OF OROMIA REGIONAL STATE, ETHIOPIA

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Abstract

This study was conducted to assess cattle marketing practice in the crop-livestock production system areas of the highland, mid-altitude and pastoralists in the lowlands of Guradamole Woreda of Bale zone of Ethiopia. That is conducted from July 2015 to 2015 March. Cattle marketing practice were assessed based on market monitoring and questionnaire survey in each altitude. A total of 100 farmers were selected randomly from 10 peasant associations which are selected from each altitude based on proportion of peasant association in each altitude. Market monitoring was done at two livestock marketing places of Rayitu town and Jibri, which is capital city of Guradamole Woreda. Cattle marketing varied considerably across the peasant associations and marketing places. Cattle supplied to markets include calves, heifers, bulls and oxen, dry and lactating cows. Who often supply cattle to marketing places are farmers and pastoralists from Guradamole Woreda and neighboring ethnic societies. Livestock market infrastructure and management are among the key constraints to the development and sustainable management of livestock markets. Long trekking distances to markets are a significant impediment to pastoralists' ability to profitably sell their cattle. During drought periods, animals lose weight on the journey to market, which significantly lowers their value. In some cases, animals are too weak to embark on the homeward journey, forcing producers to sell at very low prices. Poor and uneven access to market information remains a major constraint for market actors and producers in particular. Observations at market sites point to an imbalance in the bargaining power of traders and producers. Traders collude and jointly determine prices ahead of market day and producers have very little or no ability to negotiate prices.

Keywords: Cattle, Fluctuation, Information, Marketing and Season

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Introduction

Livestock serve a variety of livelihood, risk management and income-generating functions in the developing world. Where market access is possible, livestock can act as a potential pathway out of poverty for rural producers and other actors throughout the marketing chain, as such access increases the potential scope for sales and makes livestock activities more remunerative (Rich and Perry, 2009). Ethiopia holds the largest livestock population in Africa, estimated at about 50.88 million heads of cattle, 25.98 million sheep, and 21.96 million goats, 0.807 million camels, 42.05 million chicken, 2 million horses 4.72 million asses, 0.37 million mules and 4.6 million bee colonies (CSA, 2010). According to Solomon (2004), the livestock sector in Ethiopia plays a vital role in the overall development of the country's economy especially cattle production plays an important role in the economies and livelihoods of poor farmers and pastoralists. Cattle produce a total of 3.2 billion liters of milk and 0.331 million tons of meat annually (CSA, 2008). In Ethiopia, the current per caput consumption of milk and meat is 16 liters and 13.9 kg/year, respectively; being lower than the African and the world per capita averages, which are 27 kg/year and 100 kg/year, respectively (FAO, 2009).

A report by NEPAD CAADP (2005) indicated that generally, East African livestock trade is characterized by illicit (informal) trade between neighboring countries and the inflow stocks are used either for domestic consumption (Kenya and Uganda) or for re-export and domestic consumption (Somalia) or re-export alone (Djibouti) (Umar and Baulch, 2007). Illicit trade seriously affects Ethiopia. A large number of livestock and livestock products valued at 917 billion Birr annually are lost via the flow into the neighboring countries. Data from livestock marketing authority (LMA, 2001), revealed that an estimated 325,800 cattle; 1,150,000 sheep and goats, 300,000 skins and 150,000 hides go through illicit cross-border trade from Ethiopia.

Yet, the existing income generating capacity of livestock as compared to its immense potentials in the country is not encouraging. Enhancing the ability of poor farmers to reach markets and actively engaging them is one of the most pressing development challenges. Remoteness results in reduced farm gate prices, returns to labor and capital and increased input costs. Sparsely populated rural areas, remoteness from towns and high transport costs are physical barriers in accessing markets (Holloway and Ehui, 2002). For market development, dynamic relationship between demand and supply is a prerequisite, but the smallholder livestock production is not market oriented. Thus, the demand for animal products is expected to increase substantially with the projected growth in human population, rapid urbanization and growth in per capita income.

Market information is a vital to minimize information gaps and uncertainties that exist in the agricultural sector to exchange commodity between producer and traders. The lack of easy accessible and formal market information such as end market quality and quantity requirement, prices and delivery timing needs might be available to limit market participant. However, in order to ensure greater market access, such an approach requires indigenous local systems throughout the supply chain for those at the lower level particularly for the producer; lack of the formal market information could result in mistrust and weak relationship along the chain and might be contributing factor in decreasing the efficiency of transactions (ACDI/VOCA, 2006). Cattle production and marketing has consequently been included as one of the intervention areas in the current commodity-based specialization and commercialization plan. Therefore, the study was proposed with the general objective of assessing cattle marketing practice in Guradamole Woreda.

The specific objectives are:

- To assess way of obtaining marketing information
- To assess reasons for cattle price variation across marketing system

Materials and Methods

Study area

The study was conducted in Guradamole district is one of twenty districts of Bale zone of Oromia National Region State. It is bounded by Goro district to the north, Dawe Kachen district to the north east, Berbere district to the north-west, Guradamole and Goro Bakeksa districts of Somalia Region to the south, Madda Walabu, Mena and Arena Buluk districts to the west. Most of the targeted kebeles have the low land and agro ecology weather condition. The capital of the district (Jibri) is found at distance of 115 km and 545 km from zone capital, Robe and national capital, Addis Ababa, respectively. The rural population accounts 95% and all belong to Oromo Ethnic group. The community major livelihood (80%) relies on pure pastoral, and the remaining 20 % on agro- pastoral the livestock population of the study area includes; 74,456 cattle, 35,075 goats, 120115 sheep, 134 horse, 3,871 donkey, 243 mules, 84,886 chicken and 8,800 bee colonies (BOARD, 2008).

Study design

Sampling procedures

Multi-stage sampling procedures (purposive and random) were employed to select the study sites, peasant associations (PAs) and households (HHs) of the "Woreda" for questionnaire survey. Three altitude zones were selected purposively based on altitude. Peasant associations were selected based on proportion of peasant associations exist in each altitude. HH was selected randomly from selected peasant associations based proportion of HHs in each PAs. Accordingly, two peasant associations were selected from highland, six peasant associations were selected from mid-altitude zone of mixed crop-livestock production area and two peasant associations were selected from lowland areas. From each selected peasant associations, 8-14 HHs were selected randomly based on proportionality. Thus, a total of 100 households were included in the survey.

Data collection

Both qualitative and quantitative data from both primary and secondary sources were collected. The techniques included were reviewing secondary data, questionnaire survey and market monitoring.

Questionnaire survey

Questionnaire was administered to a total of 100 household heads in three altitude zones. Questionnaires having open-ended and closed-ended questions developed with main focus on cattle marketing practices.

Market monitoring

Market monitoring were done at two livestock market places of Rayitu town of communal market for Guradamole, Goro, Meliyu and Woreda and Jibri town market for Guradamole, Barbare Woreda of Bale zone of Oromia region. Issues presented in discussions include ways obtaining market information, marketing places, reasons for selling livestock, price determinants, seasons of cattle price variation and reasons for cattle price variation across months/seasons in the study area.

Statistical analysis

The collected data were coded and entered into Microsoft Excel (2010) computer software program and analyzed using statistical package for social science (SPSS) Ver. 16 (SPSS, 2007). Survey results were summarized using descriptive statistics like mean, range, standard error of mean and percentage values of various parameters. To make comparisons among different group's chi square test and one way ANOVA were employed. Differences were said significant when $P < 0.05$.

Results and Discussion

Socio-economic characteristics

Cattle marketing practices of the study area were characterized based on different parameters. One of the tools used was socio-economic aspects of households. These include sex, and family size of households (HHs), educational level and cattle holding together with other marketing practices. Household's sex, family size and educational level were as shown in (Table 1).

Table 1. Households sex, family size and educational level.

Parameter		Altitude zones				P value
		Highland	Mid altitude	Low land	Overall	
Sex of HHs	M	75	76.7	100	81	0.015
	F	25	23.3	0	19	
Average family size	Maximum	13	16	17	17	
	Minimum	6	5	7	5	
	Mean ± SE	9.0±0.5	9.4±0.3	11.1±0.5	9.65±0.25	
Level of education (%)	Illiterate	65	53.3	55	54	
	Basic education	20	15	15	16	
	Elementary school	10	18.3	25	20	
	Junior secondary school	5	8.3	5	7.0	
	High school	0.0	5	0.0	3.0	

In the highland, about 75% of the respondents were male farmers, while 25% were females. In the mid-altitude 76.7% and 23.3% of the respondents were males and females, respectively. Average family size in lowland and midland area were higher than that of highland. The educational level of HHs under investigation was found to be 54.0% illiterate, 16.0% basic education level, 20% elementary school, 7.0% junior secondary school and 3.0% high school in descending order of magnitude (Table 1).

Cattle marketing practice

Cattle marketing place

According to the focus group discussion indicated that the source of initial breeding stock for farmers were purchased from the nearby markets, gifts from parents and relatives. There were two major local livestock markets in the Woreda as Rayitu town of communal market for Guradamole, Goro, Meliyu and Jibri town market for Guradamole, Barbare Woreda of Oromia region. The primary markets in the Woreda were fenced in which the respective municipalities charged tax on buyers upon exit from the market. Some of the municipalities also charge sellers for unsold animals since they find it difficult to distinguish between sold and unsold animals (Table 2).

Table 2. Livestock marketing places.

Market place	Highland	Mid-altitude	Lowland	Overall
	N=20(%)	N=60(%)	N=20(%)	N=100
Jibri	0.0	25	0.0	15
Jibri and in villages	0.0	1.7	30	7.0
Rayitu	10	31.7	25	28
Rayitu and in villages	85	0.0	10	19
In villages	5.0	35	20	24
Farm gate	0.0	6.7	15	7.0

The most common day of the livestock marketing were Saturday, Tuesday and Thursday. Marketing days on Wednesdays and Fridays are not common. In some marketing places, marketing convene twice a week, while in a few (usually capital towns of the Woreda) marketing convened once a day in a week, although the largest gathering takes place in one or two days. Livestock were transported mainly by trekking. Similarly, 45% of respondents reported market

were an overriding constraint in both highland and midland areas due to poor road infrastructure in general was seen as a major constraint to efficient trade and rate of the transport is the highest cost for livestock trading. This finding is consisting with the report of Yakob Aklilu (2002) who stated that in Ethiopia the supply of livestock to the primary, secondary and terminal market is mostly done through trekking.

The survey result indicated that farmers market their cattle in near and long distance market area and most of the HHs travelled for marketing in nearest distance of 1.29±.14 km and longest market place 3.058±.28 km. The longest travelers were pastoralists as for nearest 3.14±.508 km and 6.05±1.12 km for longest market (Table 3).

Table 3. Average distance travelled in k.ms for marketing.

Altitude zones	Mean ± SE	
	Nearest market	Longest market
Highland	0.94±.080	1.79±.097
Mid-altitude	0.78±.052	2.47±.11
Lowland	3.14±.508	6.05±1.12
Overall	1.29±.14	3.058±.28

Market information

Survey result indicated that farmers depended on actual market day information or on market information obtained from relatives, friends or neighbors for prices and selling decisions. Regarding sources of market information, most of the HHs preferred neighbors' as 70% in highland, 58.3% in mid-altitude and 65% in pastoral areas. About 23.4% in mid-altitude and 10% in lowlands prefer relatives. Those 30% in highland, 18.4% in mid-altitude and 25% in lowlands prefer own market visit. In addition, respondents indicated that most of them have advised on cattle marketing from extension workers and how to produce marketable livestock for marketing time. According to the survey result 25% in highland, 50% in mid-altitude and 55% in pastoral have advised, while the other groups 75% in highland, 50% in mid- altitude and 45% in lowland areas have no advice on cattle marketing issue (Table 4).

Table 4. Sources of market information and price determinants.

Market information	Highland	Mid-altitude	Lowland	Overall
	N=20(%)	N=60(%)	N=20(%)	N=100
Relatives	0.0	23.4	10	16
Neighbors	70	58.3	65	62
Own market visit	30	18.4	25	22
Price determinant at market				
Seller	10	5.0	20	9.0
Broker	0.0	0.0	10	2.0
Negotiation b/n seller and buyer	90	95	70	89

Reasons for selling livestock

According to focus group discussion respondents indicated that livestock were sold to cover household food gaps, clothing, school and medical fees, social events, to buy other animals, and to purchase crop inputs. In pastoral area, since the area is drought prone, the main reasons for selling animals is to cover cash needs to buy food grains and to cope up seasonal feed shortage and disease problems. They also sold to replace the old one with young stock. In mid and highland altitude, filling food gap, loan repayment and forced sales during dry period and crop planting seasons were mentioned as the most important reasons for selling. Farmers and traders estimate the age of the animals by checking their teeth and visual estimation.

Price determinants

The survey result indicated that 90% in highland, 95% in mid-altitude and 70% in pastoral area, cattle price determined at the market places were through the negotiation between the sellers/producers and the buyers. About 10% in highland, 15% in lowland, 5% in mid-altitude areas indicated that they are the decision makers on selling of their cattle at the markets. Hence, 98% of the HHs stated that the brokers do not have any influence when they sell their cattle (Table 4). Sellers trek back their animals, if prices perceived to be too low. In all market, payment is performed in cash on spot at the market place.

Seasons of cattle price variation

According to the survey result 83.3% HHs in mid-altitude and 100% in lowlands stated that cattle price increased during the crop harvesting seasons, mostly in summer and spring. Also 75% and 16.7% of HHs in highland and mid-altitude area stated that cattle price increased in spring and winter season. Thus, the number of cattle in the market declines and prices increase, but 40% HHs in highland 90% in mid-altitude and 100% in lowlands stated that cattle prices decreased during the winter seasons, and 55% of HHs in highland stated that cattle price decreased in summer and winter season (Table 5).

Table 5. Seasons of cattle price variation.

Season high	Highland	Mid-altitude	Lowland	Overall
	N=20(%)	N=60(%)	N=20(%)	N=100
Summer and spring	0.0	83.3	100	70
Spring and winter	75	16.7	0.0	25
Autumn	25	0.0	0.0	5.0
Season low				
Summer	5.0	0.0	0.0	1.0
Summer and winter	55	0.0	0.0	11
Winter	40	90	100	82
Winter and autumn	0.0	10	0.0	6.0

Reasons for cattle price variation across months/seasons

The reasons for the cattle price variation as stated by HHs, 80% in highland and 38.3% in mid-altitude indicated that seasonal fluctuation was the major reason for cattle price variation as long dry season followed by heavy rainfall. 100% HHs in lowland area indicated that seasonal fluctuation and severe drought were the reasons, which forces to sale cattle in cheap price. About 20% HHs in highland and 15% in mid-altitude indicated that shortage of grazing land during crop planting season as most grazing land covered with arable crop, which leads to shortage of grazing land and at the same time famine exist during plantation season as together leads to force the households to sale in cheap price (Table 6). About 43.3% of HHs indicated that seasonal fluctuation, shortage of grazing land and drought affect cattle price in the study area. In such an event, grass fails to grow; livestock are deprived of feed and lose their productivity, due to the typically uneven patterns of rainfall. In such cases, localized herders tackle this current situation by moving with their animals to an area where feed is relatively available. Also through focus group discussion, the respondents stated that market problems, such as trader's availability, lack of infrastructure and the socio-economic factors (fasting periods, holidays) and conflict also play a role in cattle price variation (Table 6).

Table 6. Reasons for price variation.

Reasons for price variation	Highland	Mid-altitude	Lowland	Overall
	N=20(%)	N=60(%)	N=20(%)	N=100
Drought and seasonal fluctuation	0.0	3.3	100	22
Shortage of grazing land	20	15	0.0	13
Seasonal fluctuation	80	38.3	0.0	39
All above factors	0.0	43.3	0.0	26

The survey result indicated that 73.7% HHs in highland, 93.3% in mid-altitude and 70% in lowland of the producers believed that the trend for cattle price in their area is increasing and most of them are happy with existing price except harsh conditions exist in the area. About 26.3% in highland, 6.7 % in mid-altitude and 30% in lowland stated that they were not happy of existing price especially in lowland area due to seasonal fluctuation and drought happened every year. There is remarkable seasonal variation in demand, supply and price of livestock and livestock products depending on times of holidays, crop planting and harvesting, drought and feed supply. During Ethiopian New Year (September), Christmas and Ester holidays, both demand and price of animals and their products increases, but during short and long rain planting seasons, drought and feed scarcity time the price were decline.

Conclusions and Recommendations

In this study, assessment of cattle marketing practices were conducted in two livestock production systems areas of mixed-crop livestock and livestock production system areas of lowland. Cattle are the most important livestock species of households for their day to day activities such as

cultivation, threshing, transporting, manure and income source. Greater efforts and more in-depth analysis are needed to assess how best to strengthen producers' bargaining power at markets and the steps required achieving positive changes in market structures, including collective action and more structured organization. These improvement measures will raise the household income and purchasing power of producers and local traders, which in turn will create positive impacts on the local economy. Overall, the main constraints of livestock marketing include existence of brokers, which has a power to determine prices and negotiated the price based on their benefit, infrastructure, lack of sufficient information on current cattle prices and lack of sufficient traders in relation to infrastructure. Therefore, to sustain consistent marketing system in the study area the following points are recommended:

- More efforts should be made to understand how to best disseminate timely and reliable information to redress bargaining power imbalances at market sites.
- Initiatives aiming at developing basic livestock market centers should be accompanied by joint efforts with government authorities and long-term development actors to improve services, infrastructure and capacity in pastoral areas.
- Market price information should be consolidated, analyzed and made available in mass media, thereby providing valuable information to producers.
- In generally there is a need from government to provide extension services with the capacity, support and physical means to expose small scale farmers to markets and by so doing, efficiency in market oriented production and marketing of cattle to achieve huge profit.

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