

Assessment of Marketing Livestock and Meat in Hawassa Southern Ethiopia

Tsegay Lijalem¹, Mohammed Beyan² and Sandip Banerjee²

¹Department of Animal and Range Sciences, Agriculture College, Wollaita Soddo University P.O. Box, 138
Wollaita, Ethiopia

²School of Animal and Range Sciences, Agriculture College, Hawassa University, Hawassa, Ethiopia

Abstract

The present study was conducted to study the marketing of animals (cattle, goat and sheep) and meat (beef, chevon and mutton) at vicinity of Hawassa city, Southern, Ethiopian. The marketing price of cattle, goat and sheep (livestock) was collected from observations at three different livestock markets places and the data from price of meat was collected from individual restaurants, butchers and hotels. The results indicated that the price of the livestock fluctuated between seasons and also depended on the various attributes such as coat color, sex, age, body condition, holiday etc. The price of the livestock were significantly higher just prior to the festivals and also during the holiday season. The study also indicated that the price of the roasted chevon and beef are higher than the raw ones this may also be attributed to the cost involved in the roasting process and the profit made by the restaurant owners themselves.

Key words: beef; cattle; chevon; goat; mutton; sheep

Introduction

Ethiopia is heavily depending on agriculture sector which play a major role in overall development of the country's economy. Livestock are one of the major importance's of agriculture sector which take part in a potential pathway out of poverty for many smallholders in Ethiopia. The livestock use in generating income to farmers, creating job opportunities, ensuring food security, providing services, contributing to asset, social cultural and environmental values, and sustain livelihoods. In Ethiopia, livestock contribute 15 -17% of Gross Domestic Product (GDP) and 35 - 49 % of agricultural (GDP), and 37- 87% of the household incomes (Samson and Frehiwot, 2014). Of the livestock species; cattle, sheep and goats are the most considerable important to the Gross Domestic Product of the country (Metaferia et al., 2011).

Ethiopia accounts the tenth largest livestock in the world and first in Africa. An estimate indicates that the country is a home for about 54 million cattle, 25.5 million sheep and 24.06 million goats. From the total cattle population 98.95% are local breeds and the remaining are hybrid and exotic breeds. 99.8% of the sheep and nearly all goat population of the country are local breeds (CSA, 2013). Although, Ethiopia has huge livestock number but the benefits which gain from that sector is still very low even in compared with that in other East African countries. Due to inconsistent marketing price, poor reproductive performance, limited access to feed and water; social factors discouraging sale; lack of functional animal health services; and demand for draught power.

Marketing situation of livestock is a determinant factor for types of production systems would practice in the world wide in general, in particular at national level. More ever, marketing system of livestock matter of benefit gain whereby producers exchange their livestock and livestock products for cash. The cash is used for acquiring goods and services which they do not produce by themselves.

Therefore, information of the livestock and livestock products marketing is indispensable input for improvement of livestock production sector in the region in general, in the country in particular. Because livestock marketing situation can demonstrate the processing, selecting, using, evaluating and culling of products and services, so as to satisfy their needs and decisions. However, there was no any documented information on marketing of livestock (price of meat and meat animals (cattle, goat and sheep)) at Hawassa city in Southern Regional State of Ethiopia. Thus, it is necessary to generate valuable information for livestock producers, traders, policy-makers and consumers on price of meat and meat animals (cattle, goat and sheep) in the region. Hence the study was undertaken with following objectives:

- To assess factors, affecting marketing price of meat and meat animals (cattle, goat and sheep)
- To determine marketing price of meat and meat animals (cattle, goat and sheep)

Materials and methods

Description of the study area and data collection

The study was carried out from December 2013 to February 2014 in Hawassa city, which is the capital city of Southern Regional State of Ethiopia. It is situated 270 km south of Addis Ababa via Debre Zeit between 7.05° N to 7°3'N latitude and 38°28' E to 38.467° E longitude. Hawassa city had a total population of 183,027 residents, of whom 94,366 were men and 88,661 women, it is expected that since then the population has escalated significantly. The city has an area of 157.21 square kilometers which of course has increased since

then. In the year 2007, the Hawassa city had 45,823 households, with an average of 4.22 persons per households, which also increased over time (Hawassa, 2007 unpublished report).

Data was collected from both primary and secondary data sources. The primary data was collected using structured and semi-structured questionnaire and pre-tested before the actual data collection so as to evaluate the appropriateness of the design, clarity of the questions, and interpretation of the questions by the respondents and time required for an interview. The result from the pre-test was used to implement for the final questions. The interviews were conducted by trained research assistants under close supervision by the researcher.

For conducting the field survey, four enumerators and two supervisors who have the knowledge about the area and well acquainted with the culture and can speak local language were recruited and “trained” on the methods of data collection and contents of the interview.

Notice that the study was focused on three meat animal types cattle, goat and sheep and their meat (beef, chevon and mutton) because the other meat animals types; camel, rabbit and swine are totally inaccessible in the study area. Moreover, meat of fish and poultry are insignificantly consumed by the community in the study area.

Focus group discussions

To cross check and complement the information collected using field survey and to obtain data which were difficult to obtain using field survey, four focus group discussions comprising five to ten participants were held with from all districts (kebeles, sub cities) and in each seasons and marketing places. In addition, experts, development agents, animal and meat trader, animal producers, meat consumers, restaurants, hotels and butchers owner and key informants were selected for group discussions.

Market monitoring survey

Market monitoring survey was carried out to collect data on the number of cattle, sheep and goat supplied, sold, sellers person, selling prices. The three major marketing places were Tkrwaha, Datu and Tulla. Each market place was visited in different market events (during normal/non-festivity, Christmas, fasting period of Orthodox Christians,) from December 2013 to January 2014. A total of 325, 301 and 281 observations were made for cattle, sheep and goats, respectively, in the three market places of the city. Data were collected through interviews in the market when sellers and buyers come into agreement using market data collection sheet. In the same manner, marketing price of each meat type (cattle meat, goat meat and sheep meat) were collected across cities comprising different restaurants, hotels and butchers and was visited in different market events during normal, Christmas, fasting period of Orthodox Christians from December 2013 to January 2014.

The secondary data were collected from different sources such as books, research publications, journals, office reports of cities and sub cities, Inter-net etc.

Data Analysis

The data were analyzed statistically using SPSS v-17 for Windows. The qualitative data were assessed using the descriptive statistics (percentage values). While the quantitative data were analyzed using General linear model (GLM) and the means were compared using Duncan's multiple range test. The values were considered significant at $p < 0.05$.

Result and Discussion

Factors affect marketing price of live animals

Major factors affecting of the marketing price of livestock are presented in Table 1. According to the respondents' the major factors affecting the price of the meat animals are age of the animal, sex, body condition, festivals, color type, season and the market from where the animals were purchased.

As indicated during discussions with respondents (traders and consumers) across city, most households prefer mature (castrated) animals having good performance (fatty) and of red color. Thus, those types of animals are usually costly while animals like female, old age, young, thin animals and those with black color are less preferred. Likewise, livestock price rises up during Christian and Muslim holidays because at that time the demand of meat also increases. The price of meat animals are usually higher during the winter while opposite was true during the summer because in winter season coffee is harvested by farmers in the study area and they have enough cash at their hand. As a result the farmers would not supply their animals to the market, the price of animals is cheaper when purchased from areas in proximate to the farmers (villages). In line with this study result (Adugna and Aster, 2007) also reported that the price of animals is affected by the size and condition of the animals, the season of the year and the distance from the main marketing centers, similarly, (Getachew, 2008) also reported that the consumers prefer fattened, mature and castrated in good condition animals because such animals bears muscling and marbling meat. Thereby those animals are having good meat quality when compared to the non castrated animals. Fattened sterile females are also preferred by consumers since those type of animals have a higher fat proportion and have a higher carcass proportion than the non-sterile females, as a result the price of these type of animals are usually expensive.

The results in Table 1 are in accordance with the observations of (Solomon) and (Berhanu and Samson, 2007). However, (Tsedeke, 2008) reported the price of small ruminants too vary according to the season and the demand. They also suggested that the variability in sales is affected by festivals, seasons and years, especially during the times of natural calamities such as drought. Thus, during the major cultural and religious holidays, demand for animals, increases which out matches the supply by the producers and thus prices of animals increases. The present observation is also similar to that of (Belete et al.,2010) who also reported that the farmers preferred to sell their animals especially during the festival markets. Results of a study by (Yakob, 2002) and (Elias et al.,2007) also indicated that the domestic market is affected due to fasting and feasting, in regions predominated by both Muslim and Orthodox Christians. In addition, (Hailemariam et al., 2009) reported that the domestic market (in Ethiopia) price of livestock is affected by season (wet or dry season). A livestock price is depressed during dry seasons as compared to the wet seasons (in pastoralists). This is because pastoralists cannot feed them during this season due to lack of forage conservation systems in these areas.

Table 1: Major factors affecting market price of live animals by respondents (%)

Parameters	Response	Over all
Animal age	Yes	62.8
Animal sex	Yes	51.1
Animal condition	Yes	91.2
Holiday	Yes	94
Animal Color type	Yes	18.1
Season	Yes	59.5
Purchasing place	Yes	38

Marketing price of live animals

The results of the study as presented in Table 2 revealed that the price of the cattle was influenced by season and the market the price of cattle ranged from 2500-17000 Birr averaging around 5919.3 Birr. The results from Table 2 indicated that the price of cattle was significantly ($P < 0.05$) influenced by the season and also the market place. The results indicated that the price of cattle, goat and sheep was lower in the month of February as compared to the other times of the year. This is because the period corresponds to the long fasting period of the Orthodox Christians when they refrain from consuming any food products of animal origin. Hence, the demand of livestock is lower till Easter. These observations are in accordance with that of (Solomon, 2004) and (Berhanu and Samson, 2007).

The result of a report from (CSA,2012) indicated that the price of a beef cattle (ox) sold in the current study area is similar to that of Axum and Ambo areas of Ethiopia while the price of ox of similar age was higher in Awash Sebat Killo area of Addis Ababa(Ethiopia). The price of goat in study area was similar to the livestock markets of Mekelle and Dilla cities of Ethiopia, but it was higher than that of Jigiga and Assosa areas of Ethiopia. Similarly, the price of sheep was similar to the areas of Gonder and lower than that of Jimma and Dilla cities of Ethiopia. In addition, reports from (CSA, 2012) indicated that the price of livestock varied across regions and thus the price of beef cattle in Gambella regions of Ethiopia were similar to the result of present study area.

Similarly, the price of goat in the current study was similar to what was prevailing in Tigray, and Gambella regions. While the price of sheep in Hawassa area, was similar to the areas of Amara, Afar regions (Ethiopia) and to the average of the country. However, it was higher than the average price prevailing in SNNPRS and lower than Tigray (in Ethiopia) (CSA, 2012).

In general, the study indicated that average price of livestock is not consistent to in all regions and also varies in cities across the country. This difference may be because of the fact that the livestock market prices in most parts of the country are characterized by season and there is prices variation of live animals. Supply of the livestock does not occur at a uniform pattern, supply fluctuates from time to time and from place to place during the peak and also lean period sales of animals were at least twice as high as in the off-peak period (Gezahegne et al., 2006).

It is the fact that prices of livestock depend mainly on supply and demand, which is heavily influenced by the season of the year and the occurrence of religious and cultural festivals (Daniel, 2008). Nearly in all parts of the country, there is no regular market information on prices and supplies, nor are there any formalized grades and standards of sheep and goats and other livestock (Ayele et al., 2003). Availability and price of live stock are very volatile as there may excess supply of animals beyond demands in some seasons and in contrary to, during other seasons there is less supply to market (Daniel, 2008). There is less supply of animals to the market during rainy season as farmers are usually engaged in other farming activities at these times hence the price is usually high during that period. Availability of good pasture is also another factor contributing to low supply of animals

especially during rainy seasons. (Gezahegne et al., 2006)) Also indicated that input constraints like feed and water shortage could significantly affect the supply and sales of animals.

Results as reported by (Tsedeke,2008) and (Belete et al.,2010) indicated that the price of the live animals vary according to season and hence the price sometimes fluctuates erratically and may vary significantly between hours within a day and mostly between days. In the recent times there has been an escalation in the price of live animals across all places of the country as a whole this is beneficial for the national economy as there are large scale exports of livestock both live and slaughtered (chilled) carcass. However, the common household is unable to procure meat because of the price and hence many of the families have to do without meat for most of the time in a year thereby affecting the nutritional status of the communities as a whole. Unfortunately, it is not the producers who are benefitting from the increase in price, but the middlemen are making huge profits at the expense of the producers and consumers (Hailemariam et al., 2009).

Table 2: Marketing price of meat animals at three marketing places of Hawassa city Means(\pm S)

Parameter	Category	Meat animal type					
		Cattle		Goat		Sheep	
		N	Mean \pm se	N	Mean \pm se	N	Mean \pm se
Marketing PI place	Over all	325	5919.3 \pm 134.6	301	663.5 \pm 18.5	281	573.7 \pm 15.4
	Tkrwaha	109	6794.3 ^c \pm 222.4	73	713.9 ^b \pm 33	64	652.5 ^b \pm 32.3
	Datu	104	5990.3 ^b \pm 227.7	112	759.2 ^b \pm 26.6	101	548.9 ^a \pm 25.7
Months	Tulla	112	5318.3 ^a \pm 219.4	116	618.7 ^a \pm 26.2	116	599.5 ^{ab} \pm 24
	December	122	6124.3 ^b \pm 214.6	141	785.4 ^c \pm 23	106	689.4 ^c \pm 23.7
	January	131	6325.3 ^b \pm 207.1	119	643.1 ^b \pm 25	120	581.5 ^b \pm 22.3
	February	72	5326.3 ^a \pm 279.3	41	528 ^a \pm 42.6	55	504.2 ^a \pm 33

s.e= Standard error. Means within the same column, in the same parameters' with different super scripts letter are significantly different (p<.05)

The results from Table 3 pertaining to the location and the major occupation of the livestock sellers in Hawassa city indicated that most of the livestock traders live in Hawassa town. The study further indicated that most of the traders of cattle lived in Hawassa city while for goat and sheep the traders live in Hawassa Zuria (Sidama woredas). The results also indicated that the farmers themselves acted as petty traders in the town and there are seldom, if any who is a full time livestock trader. The study further indicated that most of the livestock sold were males of the species involved, however, that does not mean that animals of the opposite sex and the castrates are not sold, but, the preference is always for the intact males the finding are in accordance with the observations of Tsedeke (2008) and Belete et al. (2010) study, cattle, sheep and goats are marketed irrespective of their sex, weight and age in Ethiopia. Results of a study conducted by Ayele et al. (2003) at Addis Ababa in Ethiopia indicated that among all the cattle sold in the city, nearly, 96% were castrated, 3% were cows and 1% non castrated oxen. Similarly FAOSTAT (2004) reported that more sheep and goats in Ethiopia are most likely to be marketed for slaughtering.

Table 3: Percentage of profile of meat animal sellers in Hawassa city

Parameters	Ruminant meat animal type marketed			
	Cattle	Goat	Sheep	over all
Meat animal seller person residence(%)				
Hawassa town	44.9	23.6	24.6	31.5
Hawassa zuria (Sidama woredas)	18.5	32.2	33.1	27.6
Hawassa zuria (Oromia)	17.5	18.3	22.8	19.4
Other remotes areas (Oromia)	13.2	12.0	5.7	10.5
Not identified	5.8	14.0	13.9	11.0
Meat animal seller person occupation (%)				
Farmer	36.9	43.5	43.1	41.0
Trader	57.2	37.2	39.1	45.0
Not identified	5.8	19.3	17.8	14.0
Marketed animal type (%)				
Female	5.2	28.9	21	18.4
Male	94.8	71.1	79	81.6
Castrate	74.8	26.6	14.6	40.1
Non castrate	20	44.5	64.4	41.9

Marketing price of meat

The price of roasted beef was ($P \leq 0.05$) higher than those of raw beef. The price of the beef was higher than in the month of January than the other months (Table 4), this may be because it coincides with the Ethiopian

festival of Christmas and Epiphany when the demand of the meat increases manifold. The study also indicated that the price of the roasted chevon and beef are higher than the raw ones (Table 4), this may also be attributed to the cost involved in the roasting process and the profit made by the restaurant owners themselves. However, unlike beef there were no significant differences in price of mutton and chevon over the months (Table 4), which may be also because mutton and chevon are not preferred meat type as indicated ahead.

The result of a report from (CSA, 2012) indicated that the price of a beef in the current study area is higher than Gambella and Assosa areas of Ethiopia. In the same manner, (CSA, 2012) also reported comparable results to current result of beef price in Hawassa area to that of Oromia, and Addis Ababa (in Ethiopia) while higher than Gambella regions and lower than Harari and Dire dawa of Ethiopia. Other studies conducted in Addis Ababa by (Jannell, 2006) indicated that the price of beef depends on the quality of the carcass. The average price for low quality beef reported to be 8 Birr/ Kg while it was 25 Birr for the prime cuts from (steers in the same market). Irrespective of the class of animals for the price of chevon in the same market was 16.35 Birr per Kg meat. The values as presented are significantly lower than those of the present study which is attributed to escalation in the market price and also increase in demand for export purposes (Hailemariam et al., 2009).

The major factors affecting the price of the meat in the study area included the festivals season, the quality of the meat sold by the butchers and restaurants/ eateries and quality of the meat being sold it. The consumers indicated that the price of meat fluctuates across days, months, seasons and years' (personal communication) the findings are a similarity with the observations of (Gezaheghe et al., 2006). The price of meat is lower during summer but higher during winter season. This may be because during the winter time the farmers in the surrounding areas have enough cash at hand because it coincides with the harvest of coffee, the major cash crop in the region.

The results as obtained in this study find consonance with the observations of (Belete et al., 2010) from Gondar zone of Ethiopia. However, (Adugna and Aster, 2007) reported that in the areas predominated by pastoral communities (in Ethiopia) the animal prices are higher during the rainy season and falls during the dry season as there is destocking the livestock due to shortage of fodder and water. The price of meat also coincides with the festivals and wedding seasons as it is a tradition to consume meat even by the most resource challenged group of the society. The observations are in accordance with the observations of (Getinet, 2007) and (Belete et al., 2010). The study also indicated that there are price variations between the eateries and butchers alike and that some butchers who sell meat for raw meat consumption usually sell those cuts for direct consumption at a higher rate than those who sell the meat for cooking purpose.

Table 4: Marketing price (in Birr) of raw and roast meat in three seasons (months) of Hawassa city (Means \pm s.e)

Parameter	Category	Meat type					
		Beef		Chevon		Mutton	
		N	Mean \pm s.e	N	Mean \pm s.e	N	Mean \pm s.e
Meat Type	Over all	81	95.7 \pm 2.2	66	104.1 \pm 2.2	55	107.7 \pm 2.2
	Raw	41	87.9 ^a \pm 2.9	30	96.2 ^a \pm 2.4	25	103.7 \pm 3
	Roast	40	103.7 ^b \pm 2.7	36	110.7 ^b \pm 3.1	30	110.9 \pm 3.2
Raw	Over all	41	87.9 \pm 2.9	30	96.2 \pm 2.4	25	103.7 \pm 3
	December	16	83.7 ^a \pm 5.2	11	91.8 \pm 3.3	9	98.4 \pm 5
	January	16	98.8 ^b \pm 3.2	12	100.8 \pm 4.2	9	110.3 \pm 5.5
	February	9	75.9 ^a \pm 4.1	7	95 \pm 5.2	7	102 \pm 4.4
Roast	Over all	40	103.7 \pm 2.7	36	110.7 \pm 3.1	30	110.9 \pm 3.2
	December	15	96.9 \pm 4.8	12	103 \pm 4.6	9	106.7 \pm 3.4
	January	15	111.3 \pm 3.9	15	117 \pm 5.2	13	115.2 \pm 6.3
	February	10	102.3 \pm 4.2	9	110.3 \pm 5.8	8	108.8 \pm 4.8

s.e= Standard error, N=sample size. Means within the same column, with in the same parameters' with different super scripts letter are significantly different (p<.05)

Conclusion

The price of the livestock fluctuated due to different attributes such as animal coat color, sex, age, body condition and also between seasons, holidays and marketing place. The price of the livestock were significantly higher just prior to the festivals and also during the holiday season. The study also indicated that the price of the roasted chevon and beef are higher than the raw ones this may also be attributed to the cost involved in the roasting process and the profit made by the restaurant owners themselves.

Acknowledgements

We would like to express deepest gratitude and appreciation to Hawassa households who responded to all questions with patience and gave me necessary information for this research work. Our special thanks also go to administrators of the respective cities and sub cities who give me relevant secondary and primary information for the work.

References

- Adugna, T., Aster, A. 2007. Livestock production in pastoral and agro-pastoral production systems of Southern Ethiopia. *Livestock Research for Rural Development*. 19(177): Retrieved December 29, 2012.
- Ayele, S., Assegid, W., Jabbar, M. A., Ahmed, M. M., Belachew, H. 2003. Livestock marketing in Ethiopia: A review of structure, performance and development initiatives. *Socio-economic and Policy Research Working Paper 52*. ILRI (International Livestock Research Institute), Nairobi, Kenya. 35 pp
- Belete, A., Azage, T., Fekadu, B., Berhanu, G. 2010. Cattle milk and meat production and marketing systems and opportunities for market-orientation in Fogera woreda, Amhara region, Ethiopia. *IPMS (Improving Productivity and Market Success) of Ethiopian Farmers Project Working Paper 19*. ILRI (International Livestock Research Institute), Nairobi, Kenya. 65 pp.
- Berhanu, G., Samson, J., 2007. Heading towards commercialization? The case of live animal marketing in Ethiopia. *Improving Productivity and Market Success (IPMS) of Ethiopian Farmers Project Working Paper 5*. ILRI (International Livestock Research Institute), Nairobi, Kenya. 73 pp.
- Central Statistical Agency (CSA). 2012. Report on annual average retail prices of goods and services July 2011 - June 2012 (Hamele 2003 - Sene 2004 Addis Ababa, Ethiopia, July 2012).
- Central Statistical Agency (CSA). 2013. Report on Livestock and livestock characteristics (Private peasant holdings). Federal Democratic Republic of Ethiopia; Addis Ababa, Ethiopia.
- CSA (Central Statistics Authority). 2007. The 2007 Population and Housing Census of Ethiopia: Results for the SNNPRS, Hawassa city. Analytical report on housing characteristics, Addis Ababa, Ethiopia.
- Daniel, T. 2008. Beef Cattle Production System and Opportunities for Market Orientation in Borena Zone, Southern Ethiopia. MSc. Thesis Animal Production presented to Haramaya University, Ethiopia.
- Elias, M., Berhanu, G., Hoekstra, D., Jabbar, M., A. 2007. Analysis of the Ethio-Sudan cross-border cattle trade: The case of Amhara Regional State. *IPMS (Improving Productivity and Market Success) of Ethiopian Farmers Project Working Paper 4*. ILRI (International Livestock Research Institute), Nairobi, Kenya. 41 pp.
- FAOSTAT. 2004. Food and Agricultural Organization of the United Nations. Retrieved July 15, 2004, from FAOSTAT on-line.
- Getachew, L., Hailemariam, T., Dawit, A., Asfaw, N. 2008. Live animal and meat export value chains for selected areas in Ethiopia: Constraints and opportunities for enhancing meat exports. Un published. [PDF] Live animal and meat export value chains for International.
- Getinet, H. 2007. A Project Report on marketing and sales strategies of elfora agro-industries PLC. A MBA Thesis Submitted to the School of Graduate Studies of Addis Ababa University, Ethiopia.
- Gezahegne, A., Mohammed, A. J., Hailemariam, T., Elias, M., Getahun, K. 2006. Seasonal and Inter-Market Differences in Prices of Small Ruminants in Ethiopia. *Journal of Food Products Marketing*. 12 (4): 59-78.
- Hailemariam, T., Getachew, L., Dawit, A., Asfaw, N. 2009. Determinants of Livestock Prices in Ethiopian Pastoral Livestock Markets: Implications for Pastoral Marketing Strategies. Contributed Paper prepared for presentation at the International Association of Agricultural Economists Conference, Beijing, China, August 16-22, 2009. 9-13 pp
- Jannell, A. 2006. Quick scan of the livestock and meat sector in Ethiopia Issues and opportunities Background information for a Trade Mission to Ethiopia collected on request of the Ministry of Agriculture. *Nature Management and Food Quality of the Netherlands and Wageningen International*. 33 pp.
- Metaferia, F., Cherenet, T., Gelan, A., Abnet, F., Tesfay, A., Ali JA, Gulilat, W. A. 2011. Review to Improve Estimation of Livestock Contribution to the National GDP. Ministry of Finance and Economic Development and Ministry of Agriculture. Ethiopia: Addis Ababa.
- Samson, L., and Frehiwot, M. 2014. Spatial analysis of cattle and shoaat population in Ethiopia: growth trend, distribution and market access. In Springer plus. Published online Jun 24, 2014. doi: 10.1186/2193-1801-3-310.
- Solomon, T. 2004. Performance of Cattle Marketing System in Southern Ethiopia with Special Emphasis on

-
- Borena Zone. MSc.Thesis. Submitted to School of Graduate Studies Animal production, Haremaya University, Alemaya , Ethiopia.
- Tsedeke, K. 2007. Production and marketing systems of sheep and goats in Alaba, Southern Ethiopia. MSc Thesis submitted to School of Graduate studies Hawassa University, Ethiopia.
- Yacob, A. 2002. An Audit of the Livestock Marketing Status in Kenya, Ethiopia and Sudan (Volume I).Community-Based Animal Health and Participatory Epidemiology Unit (CAPE) PACE Programme, OAU-IBAR. 85 pp.

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:

<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

Academic conference: <http://www.iiste.org/conference/upcoming-conferences-call-for-paper/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

