Journal of Culture, Society and Development
ISSN 2422-8400 An International Peer-reviewed Journal
Vol.35, 2017

The Role of Women in the Traditional Cattle Fattening and Marketing Activities in West Hararghe Zone, Oromia, Ethiopia

Daniel Taddesse[1] Gebeyehu Goshu[2] Mengistu Urge[3] Zemelak Goraga[4]
1.Department of Dairy and Meat Technology, Oda Bultum University, Chiro, P.O.Box 226, Ethiopia
2.College of Veterinary Medicine and Agriculture, Addis Ababa University, Bishoftu, P.O.Box 34, Ethiopia
3.Haramaya University, School of Animal & Range Sciences, Dire Dewa, P.O.Box 138, Ethiopia
4.Ethiopian Biotechnology Institute, Addis Abeba, Ethiopia, P.O.Box 32853

Abstract
The objective of this study is to evaluate the involvement of women in the traditional cattle fattening and marketing in West Hararghe, four selected districts, namely Habro, Gemechis, Chiro and Tullo. For the purpose of this study, two *kebeles* (the smallest administrative unit) per district were selected. Data was collected with the help of structured questioner, focus group discussion (FGD), key informant interview (KII) and personal observation. Woredas and kebeles were selected purposively while 160 respondents were selected using systematic sampling and these respondents were directly involved in the structured interview. The result of this assessment showed that only 2.5% of 160 households who participated in the survey were females. However, the involvement of women in the routine management activities had a paramount importance in the study areas. Educating females so that they can understand gender equity and easily adopt to new agricultural technologies and organizing them in saving and credit associations and assisting them with financial credit services is recommended.
Keywords: Fattening, women, cattle fattening

1. Introduction

1.1. Background and justification

Over 85 per cent of Ethiopian women reside in rural areas, where peasant families are engaged primarily in subsistence agriculture. Ethiopian women traditionally have suffered sociocultural and economic discrimination and have had fewer opportunities than men for personal growth, education, and employment (Lemlem *et al.,* 2011). A common perception in the developing countries is that women are more likely to own small stock, such as chickens, sheep and goats, than larger animals, such as cattle, water buffaloes and camels although this custom differs from region to region (Kristjanson *et al*., 2010). In mixed crop-livestock and pastoral production systems women play a significant role in livestock production (Asfaw *et al*., 2011). Cattle are regarded as being largely in the male domain, but there are many exceptions to this rule. Undoubtedly, in sub-Saharan Africa, among the cultures that form the cattle complex, men are owners and decision-makers with regards to cattle, although widows also own and manage cattle. In mixed crop–livestock systems in Ethiopia, men and women both own cattle, goats and sheep, though men own more (Yisehak, 2008).

Although women have no or limited access to agricultural resources, they make significant contribution to the agricultural sector (Lemlem *et al*., 2011). Ownership of fattening cattle for women is uncommon in West Hararghe situation (Tsigereda *et al.*, 2016). About half of the population number in West Hararghe are women, most of them residing in the rural areas (WHZFEDO, 2013). The rural women in West Hararghe play a significant role in cattle fattening routines. They are highly involved with feeding and watering and cleaning the shade. In addition to these, they also share activities such as health care and marketing to some extent with their spouse. However, the majority of the marketing activity is solely kept by their husbands. This eventually has made them to be dependent on the income which men has to bring from the sale of fattened cattle. Todd (1998) reported that women given credit for investing on poultry were able to capitalize on and move to goats and eventually to milking cows. According to Kristjanson *et al*. (2010), in Uganda, Kenya and Nigeria, most of the urban cattle farmers were women. Capacity building training and Micro-finance institutions providing credit for women play a good role in creation of assets and income generation.

1.2. Objective

To assess the women's role in fattening and marketing of cattle.

2. Material and methods

2.1. Study Area

The study was conducted in four districts of West Hararghe zone, Oromia Region, Ethiopia in 2015. The data was collected from 160 respondents who were directly involved in cattle fattening. Detailed physical description of each study district was illustrated in Table 1. Personal observation, focus group discussion (FGD) of relevant individuals of the community and Key informant interview (KII) was conducted. West Hararghe has 14 districts

(3 of them pastoralists) with a combined population of 1,871,706 of whom 912,845 (48.7%) are women. These districts were selected based on cattle potential and abundance fattening practice in consultation with the zonal livestock and fishery resource office experts.

Table 1. Physical description of the study districts

Study Districts	Geographical Co-ordinates	Annual Temperature (^{0}C)	Altitude (m.a.s.l)	Annual Rain Fall (mm.)
Habro	7°55′–9°33′N latitude and 40°01′ and 41°39′E longitude	20-22.5	1200-2590	650-1050
Gemechis	40^0 49’ 46’- 41^0 11’ 26’’ E longitude and 8^0 40’ 25’’- 9^0 3’ 42’’ N latitude	15-30.0	1300-2400	850
Chiro	34^0 18’43” – 43^0 04’ 33” E longitude and 10^0 09’ 24”- 30^0 18’43’’ N latitude	27-38.5	1500-2800	900-1800
Tullo	9^0 1’ 45’’- 9^0 18’ 48’’ N and 40^0 58’ 24’’ 41^0 16’ 49’’ E longitude	23-32.0	1500-2797	800

2.2. Sampling Procedure

From the four districts selected, a total of 8 rural *kebeles*, that is 2 representative rural *kebeles* per district were selected purposively. Sample size was determined based on the formula recommended by Arsham (2007) for survey studies:

$$\mathbf{N = 0.25/SE^2}$$

With the assumption of 4% standard error, a total of 156 households were taken for the study but four relevant respondents were added and totally 160 respondents were participated in the survey. The potential woredas and kebeles were selected using purposive sampling method. First a list of farmers who practiced fattening of at least one cattle in the rural kebeles (sampling frame) were identified and listed and then respondents were selected using systematic sampling method. In this manner, the number of respondents were 40 from Habro, 39 from Gemechis, 45 from Chiro and 36 from Tullo woreda based on the available number.

2.3. Data Collection and Statistical Analysis

Personal observation by a single farm visit was made to support the data about feeding, communal grazing land, feed conservation systems and other management practices of the households. At the same time different pictures were taken from the study districts. Focus group discussions (FGD) was conducted and facilitated in the selected districts using a checklist prepared for this purpose. A group of 10 participants per *kebele* in each districts were involved for this purpose to gather qualitative data. The group was intended to include men and women, young and elderly representing all the wealth groups in the area having knowledge and experience about cattle fattening practices. Issues such as involvement of women in the routine activities of cattle fattening was discussed to collect important information.

Data gathered from the field through FGD and personal observations was analyzed after categorizing and narrating based on the study objective. The data collected through structured questionnaire were coded and entered into Microsoft Office 2007 computer software and analyzed using statistical package for social sciences (SPSS) version 20. Descriptive statistics (Percentile and chi-square were used for socio- demographic data).

3. Results

3.1. Socio-Demographic Characteristics of Respondents

The socio-economic characteristics of interviewed farmers are shown in Table 2. Sex, marital status and family size had no significant association ($P>0.05$). Whereas, the age, education level and experience of fattening of respondents had significant association ($P< 0.05$) with the four study woredas. In the study woredas, out of the total households (N=160) involved in interview, 97.5% of the households were male headed and only 2.5% were female headed. Marital status of the house hold heads 91.2 % married, 6.2 % single, 1.2 % widowed and 1.2 % divorced.

Education level of household heads included 31.9% illiterate, 22.5% reading and writing, 25.6% elementary school, 5.6% junior secondary school, 11.9% secondary school, 1.2% above secondary school and 1.2% spiritual education. Fattening practice is lucrative in the study woredas thus, the 11.9% respondents were mostly drop outs from high school education and engaged in cattle fattening. Overall four to six number of family size is the most dominant in the study woredas. The majority of respondents (68.1%) had started fattening in the past ten

years which shows how fattening became attractive work in these areas.

Table 2. Socio-demographic characteristics of respondents conducting traditional fattening (%) in the study woredas

		Woreda						
Variables		**Habro**	**Gemechis**	**Chiro**	**Tullo**	**Overall**	**X^2**	**P-value**
		N=40	**N=39**	**N=45**	**N=36**	**N=160**		
		%						
Sex	Male	97.5	97.4	100.0	94.4	97.5	2.53	0.469
	Female	2.5	2.6	0.0	5.6	2.5		
Age								
	20-35	55.0	41.0	24.4	47.2	41.2	21.75	0.001*
	36-51	45.0	30.8	62.2	36.1	44.4		
	52-70	0.0	28.2	13.3	16.7	14.4		
Marital status	Married	82.5	94.9	97.8	88.9	91.2	16.57	0.056
	Single	15.0	5.1	2.2	2.8	6.2		
	Divorced	0.0	0.0	0.0	5.6	1.2		
	Widowed	2.5	0.0	0.0	2.8	1.2		
Family size	1 to 3	17.5	17.9	17.8	16.7	17.5	5.07	0.534
	4 to 6	47.5	61.5	60.0	44.4	53.8		
	7 to 10	35.0	20.5	22.2	38.9	28.8		
Education	Illiterate	17.5	35.9	46.7	25.0	31.9	45.50	0.000*
	Read and write	25.0	20.5	33.3	8.3	22.5		
	Elementary school	20.0	35.9	4.4	47.2	25.6		
	Junior secondary school	12.5	2.6.0	4.4	2.8	5.6		
	Secondary school	20.0	5.1	8.9	13.9	11.9		
	Above High school	5.0	0.0	0.0	0.0	1.2		
	Spiritual education	0.0	0.0	2.2	2.8	1.2		
Experience in fattening	31 to 40	2.5	2.6	0.0	2.8	1.9	26.52	0.002*
	21 to 30	0.0	10.3	2.2	19.4	7.5		
	11 to 20	10.4	15.4	28.9	36.1	22.5		
	1 to 10	87.5	71.8	68.9	41.7	68.1		

Level of significance at P<0.05; N=Number of respondents.

3.2. Sources of Income For Households

In West Hararghe zone, mixed farming of crop and livestock was a dominant and common practice in all study woredas. The major sources of household income (96.3 %) were crop and livestock production when looking the overall respondents of the study woredas. With the shortage of grazing lands, cattle fattening activity is highly linked with crop production. According to personal observation and discussion with focus groups, participation of women in petty trading of agricultural products (fruits, vegetables and cereals), sell of Khat (*Catha edulis*) and majorly small ruminant animals is a very common source of income in the study area. Fuel wood sell and engaging in daily labor work in the near towns is common phenomenon at times of food scarcity all of them serving as source of income in the study areas.

3.3. Family Labor Distribution

Almost all members of house hold in the study woredas were partaking in different activities of cattle fattening in West Hararghe zone. Responsibilities of family members is depicted in (Table 3). Feeding and watering of the fattening cattle was in one way or another the responsibilities of all family members (41.9%) however, husband and wife (24.4%) were more dedicated to this work than other family members. Whereas, wives (22.5%) and wives and children (25.6%) were more involved in the cleaning of manure and collection leftover feeds from the shelters. The responsibility of selling and purchasing of fattened and replacement cattle, respectively was in the hands of husbands (86.9%) in the family. This was especially so in the marketing of fattened cattle however, according to focus group discussion, women were mostly involved in marketing of calves, heifers, sterile cows, goats and sheep in the study areas. Members of household in multiple response include husband, wives, children and partners that involve in routine fattening activities alternatively.

Table 3. Responsibilities of family members in the routine fattening activities (N=160)

Activities	Feeding and watering	Cleaning	Healthcare	Marketing
Family members			%	
Husband	5.6	15.0	64.4	86.9
Wife	9.4	22.5	0.6	0.0
Children	5.0	15.6	1.25	1.0
Partner	0.0	0.0	0.0	0.6
Single	1.9	3.8	5.0	5.6
Wife & children	6.9	25.6	0.0	0.0
Husband & wife	24.4	10.0	16.9	4.4
Husband & children	5.0	0.0	0.0	1.9
Multiple answer	41.9	7.5	11.9	0.0

N= Number of respondents

3.4. Ownership of Fattening Cattle

Ownership of the fattening cattle in the study woredas showed that both husband and wife were owners in Chiro (57.8%) and Tullo woreda (66.7%), respectively. In Gemechis woreda, all family members shared most of the ownership right. Unlike the other three study sites, in Habro woreda, the majority (57.5 %) of ownership went to the husband (Table 4). Overall the study woredas, joint ownership of spouse was the highest in number (49%) than the other types.

Table 4. Ownership of fattening cattle in the study areas (%)

Owners of fattening cattle in the HH	Habro (N=40)	Gemechis (N=39)	Chiro (N=45)	Tullo (N=36)	Overall (N=160)
Husband	57.5	5.1	4.4	19.4	21.3
Wife	2.5	0.0	0.0	5.6	1.9
Both	30.0	43.6	57.8	66.7	49.4
Family	0.0	48.7	35.6	5.6	23.1
Other (Single)	10.0	2.6	2.2	2.8	4.4

N= Number of respondents

3.5. Decision of Sell of Fattened Cattle

The decision of sell of fattened or purchase replacement cattle in the family, out of all respondents in the four woreda, the majority (59%) indicated the husband reached the decision by negotiating with their wives. This was done to avoid unnecessary argument in the family and to be more transparent because most of their wives had great contribution in the fattening process. While 30% of HHs indicated the decision was made by their own. They remarked no negotiation was needed as long as there was faithfulness among family members. The rest 11% said they raise the issue of selling as a discussion point and collect the view of most of the family members to reach final decision. This is because most of the family members contributed their effort to the fattening work and should fairly benefit from the income.

3.6. Fattened Cattle Market Participants

According to the woreda livestock marketing office experts and own visit, in Gelemso and Kuni town (Kuin is the capital of Gemechis woreda) livestock market, the market participants include producers, farmer traders, traders, brokers, broker traders, tax collectors, trekkers, and butchers. Thus, in addition to the male domain, there were women who were farmer traders and they were involved in buying and selling cattle for drought power but mostly heifers and calves from one market to the other. The number of females involved in farmer trader activity of cattle was increasing from time to time. A number of men, women and youngsters of different age are involved in this work.

4. Discussion

4.1. Socio-Demographic Characteristics of Respondents

Out of the total 160 sample households interviewed, the majority of respondents (97.5%) were male and the rest only 2.5% were female headed. This is due to the tradition that fattening of male cattle was mostly believed to be performed by male holders and the majority of respondents (88%) preferred to fatten male cattle which needs male HHs for handling their management. Similar reports support this fact (Tsigereda *et al*., 2016 and Estefanos *et al*., 2014). On random selection of respondents of livestock holders, only 4.8% were livestock holder in West Hararghe selected woredas (Dereje and Tesfaye, 2009). According to Leulsegged *et al*., (2015), female holders were mostly involved in the fattening of sterile cows, sheep and goats. There is a clear gender disparity in cattle

ownership in Ethiopia, with male holders having a 15 percentage point higher ownership rate over female holders. However, more ratios of female respondents were reported in Somali Regional State, Harshin distirict in that 15.6% of 45 sampled respondents were females who were directly involved in cattle fattening activity (Fikru, 2015). The majority (31.9%) of the respondents both male and female were illiterates in the study area which could obviously indicates how much illiteracy influenced women not to engage in cattle fattening by themselves.

4.2. Sources of Income for Households

In the study woredas, mixed farming of crop and livestock accounts for 96.3% and it was a dominant and common source of income followed by a small percentage (1.9%) of off-farm activity. This report is in agreement with other the works of Abdi *et al*. (2013), Estefanos *et al*., (2014) and Tsigereda *et al.* (2016). The off-farm income generation activities by women is increasing from time to time among rural population in the study woredas. Teshager *et al.* (2013) noted that in Ethiopia in both rural and urban areas, smallholder cattle fattening is emerging as an important source of income. Small to medium scale crop-livestock production is the dominant feature of highland (dega) and lowland (Woina dega) agro-ecology zones in Ethiopia where a wide range of crop and many species of livestock are kept for different purposes (Alemayehu, **2006).** According to personal observation and discussion with focus groups, and participation of women in petty trading of agricultural products (fruits, vegetables and cereals), Khat (*Catha edulis*) and majorly small ruminant animals is a very common source of income in the study area. Fuel wood and engaging in daily labor work in the near towns is common phenomenon in times of food scarcity. Therefore, according to ILO (2014) document, diversification of income in the rural areas help to reduce poverty, assist as coping mechanism for price volatility and improve food and livelihood security (ILO, 2014). Therefore, according to ILO (2014) document, diversification of income in the rural areas help to reduce poverty, assist as coping mechanism for price volatility and improve food and livelihood security (ILO, 2014).

4.3. Family Labor Distribution

The number of female households involved in cattle fattening in this study area were very small (2.5%). Thus, around 87% of the purchase and sell of fattened cattle was performed by the male households. Gebregziabher and Gebrehiwot, (2011) confirmed that the sell and purchase of cattle for fattening in Hararghe was the responsibility of the male house hold. This was primarily due to the gender disparity of the cattle ownership. Nationally, male holders had 15% point cattle ownership rate than female holders. This cattle ownership rate was 32.62, 8.79, 8.77 and 7.69 for Tigray, Oromia, Amhara and SNNP region, respectively (Leulsegged *et al*., 2015).

Women in livestock production are typically engaged in activities related to the safety and wellbeing of the livestock that are performed around the homestead, such as collecting dung and maintaining hygiene. The tasks of feeding and watering livestock are often shared and other household members may also participate (Lemlem *et al*., 2011).

4.4. Ownership of Fattening Cattle

There was variation in the study woredas in terms of ownership of fattening cattle (Table 14). The majority of households 57.8 and 66.7%, were both husband and wife who exercised ownership equally in Chiro and Tullo woredas, respectively while in Habro, it is the husband (57.5%) that owned the fattening cattle. But in Gemechis 48.7% of the respondents reported all family members had right on ownership of the fattening cattle. In this regard, Habro woreda was exceptional because ownership goes to husbands and the reason might attribute to the fact that this study woreda is the farthest (78 km) from the zonal capital where issues of gender equity might not be addressed well in rural kebeles so that asset building was still at the hands of males. Overall the study woredas the majority (91.2%) of the respondents are married. Therefore, shared ownership between spouses and all family members in the three woredas except Habro was a good start for assuring gender equity among the small holder farmers. Estefanos *et al*. (2014) reported that cattle ownership has the highest index (0.21) forhousehold head (husband) than spouse (0.12). Tewodaj *et al*. (2009) indicated that ownership of cattle by women alone is not common in Ethiopia. The trend of ownership in Tullo and Chiro woredas is similar to the presence of joint ownership of spouses found in many regions (Tewedaj *et al*., 2009). Women mostly market small livestock and poultry, as well as dairy products and eggs. However, the sale of cattle and other large livestock is for the most part in the male domain. Daniel (2008) in Borena, with the presence of the husband in the house, the role of the wife as the owner is less, which is only 5%. In general, ownership of cattle in Ethiopia is 30 percent higher for male than female holders, it is 9 and 7 percent higher for male than female holders in Oromia Regional State and SNNPR, respectively. Although, ownership goes dominantly to the male side, the spouse and most family members were engaged in the management of fattening cattle in the current study. Men owned ten times more cattle than women in Kenya and 18 times more in Tanzania. Mozambique had the lowest gender disparity, with women owning 0.8 head of cattle for every one owned by a man (Njuki and Samuel, 2013).

4.5. Decision of Sell Of Fattened Cattle

In the study woredas the majority of HHs indicated that husbands reached decision by negotiating with their wives, decision made by their own and final decision was reached by family in their order of importance. According to Daniel (2008), in pastoral area of Borena, final decision for the sale and purchase of beef cattle was reached through negotiation, husband and husband and wife according to their order of importance.

4.6. Fattened Cattle Market Participants

In the current study, the livestock markets of West Hararghe comprises producers, farmer traders, brokers, tax collectors, trekkers, traders and butchers are found primarily. According to the woreda livestock marketing office experts and own visit, in Gelemso and Kuni town (Kuin is the capital of Gemechis woreda) livestock market, there were women who were farmer traders and they were involved in buying and selling cattle for drought power and sell of fattened cattle in a rare case. Similarly, in selected study areas in Ethiopia the market participants include producers, collectors, feedlot operators, big traders, medium or small traders, cooperatives, brokers and exporters (Getachew *et al.*, 2008). Belay (2013) indicated Legal traders, illegal traders and middlemen were major participants of the livestock market in Haramaya, East Hararhge zone. The same author added that, the market participants in East Hararghe are producers, consumers, legal traders, illegal traders, butchers and brokers (middlemen). Different from this area in Ethiopia, the market participants of fattening cattle (Shitahun, 2009) in Bure, Amhara region, were individuals/group consumers, local butchers and cattle traders.

5. Conclusions

Although the experience in cattle fattening is long and the trend in the number of participants was increasing from time to time, the number of female headed households was very small as compared to the male holders. This might be attributed to the high number of illiterate among the producers. The major source of household income was crop and livestock production. Due to the shortage of grazing lands in the area, cattle fattening activity is highly linked to the crop production. Women were active participants in the feeding and watering, cleaning of manure and shelter however, selling of fattened cattle was dominantly the responsibility of male households. In all study woredas joint ownership of spouse was the highest in number than the other types. The majority of husbands reached the decision of sell by negotiating with their wives. The number of females involved in farmer trader of cattle and non-farm activities was increasing from time to time.

6. Recommendation

Access to education, information, training, technologies and credit service is decisive in order to achieve gender equity and enhance women's cattle ownership of cattle for generating income and play their share in agricultural development.

References

Abdi E., Kemal K., Yassin E. and Muleta D. (2013). Cattle Production in West Hararghe: An opportunity and constraints assessments in Darolabu, Odabultum, Gemechis and Chiro Woredas, Oromia Regional State, Ethiopia. *Int. J. Livest. Prod. Res*. 1:(1), Pp: 01- 15.

Alemayehu Asfaw N., Shahidur R., and Berhanu G. (2011). Livestock Production and Marketing. Development Strategy and Governance Division, International Food Policy Research Institute – Ethiopia Strategy Support Program II, Ethiopia. ESSP II Working Paper 26. 40p.

Arsham, H. (2007). Questionnaire design and survey sampling. Retrived 24, April, 2016 from http//www.mirrorservice.org/site/hom.ubaltedu/ntsbarsh/Business-stat.

Belay D. (2013). Smallholder livestock production and marketing systems in the Haramaya district, eastern Ethiopia. *Bas. Res. J. Agri. Sci. and Rev.* 2(6): 122-129.

Daniel (2008). Beef Cattle Production System and Opportunities for Market Orientation in Borena Zone, Southern Ethiopia. MSc. Thesis. Haramaya University, Ethiopia. 139p.

Dereje T. and Tesfaye L. (2009). Livestock production systems in Darolabu, Habro and Boke districts of Western Harerghe. In: Proceeding of the 16th animal conference of Ethiopia society of Animal production (ESAP). Addis Ababa, Ethiopia. October 8 to 10, 2008. Part II Technical Session pp 179-186.

Estefanos T., Tesfaye A., Feyesa H., Gashaye W., Tatek W., Tesfaye B. and Osho T. (2014). Traditional cattle production in the highlands of Hararge: Case study for East and West Zones of the high lands of Harerge, Eastern Ethiopia. *B. Res. J. Agr. Sci. Rev.* 3(12): 122-130.

Fikru S (2015) Assessment of Cattle Fattening and Marketing Practice in Harshin District of Somali Regional State, Ethiopia. *J. Adv. Dairy Res*. 3: 137.

Gebregziabher G. and Gebrehiwot H. (2011). Challenges, Opportunities and Available Good Practices related to Zero Grazing in Tigray and Hararghe, Ethiopia, DCG Report No. 66.

Getachew, L., Hailemariam, T., Dawit, A. and Asfaw, N. (2008): Live animal and meat export value chains for

selected areas in Ethiopia: Constraints and opportunities for enhancing meat exports. SPS-LMM, USAID, 69p.

ILO (2014). International Labor Office. Economic Diversification of the Rural Economy, Decent Work in the Rural Economy Policy Guidance Notes, 12p. Retrieved on 7 October, 2017 from: http://ilo.org/wcmsp5/groups/public/---ed_emp/ emp_policy/documents/publication/wcms_437176.pdf.

Lemlem A., Puskur R., Renard G. and Hoekstra D. (2011). Empowering women through value chain development: Good practices and lessons from IPMS experiences. ILRI KMIS. Retrieved on 24, September, 2017 from: https://cgspace.cgiar.org/bitstream/handle/10568/3758/gender.pdf;jsessionid=21B0825DF09B2AE33D1DC375186001AC? Sequence=1

Leulsegged K. Gashaw T. A., James W. and Caitlin K. (2015). Patterns of Agricultural Production among Male and Female Holders: Evidence from Agricultural Sample Surveys in Ethiopia. International Food Policy Research Institute (IFPRI) Addis Ababa, Ethiopia.

Kristjanson, P., Waters-Bayer, A., Johnson, N., Tipilda, A., Njuki, J., Baltenweck, I., Grace, D., and MacMillan, S. (2010). Livestock and Women's Livelihoods: A Review of the Recent Evidence. Discussion Paper No. 20. Nairobi, Kenya, ILRI.

Njuki J. and Samuel M., (2013). Gender, livestock and asset ownership. Retrieved on 21/10/2017 from https://www.idrc.ca/sites/default/files/sp/Documents%20EN/Understanding-the-Gender-Dimensions-of-Livestock-Ownership.pdf

Shitahun M. (2009). Feed Resources Availability, Cattle Fattening Practices and Marketing System in Bure Woreda, Amhara Region, Ethiopia. Msc. thesis. The School of Graduate Studies Faculty of Dry Land Agriculture and Natural Resources, Department of Animal, Range and Wildlife Sciences, Mekelle University, Ethiopia. 120p.

Tewodaj M., Marc J. C., Regina B., Mamusha L., Josee R., Fanaye T. and Zelekawork P. (2009). Agricultural extension in Ethiopia through a gender and governance lens. Development strategy and governance division, International Food Policy Research Institute –Ethiopia strategy support program 2, Ethiopia. 54p.

Teshager A., Belay D. and Taye T. (2013). Traditional Cattle Fattening and Live Animal Marketing System in Different Agro-Ecologies of Ilu Aba Bora Zone, Oromia, Ethiopia. *Glo.Vet.* 10 (5): 620-625.

Todd, H. (1998). Women climbing out of poverty through credit; or what do cows have to do with it. *Live. Res. for Rur. Devt.* 10(3), 1-10.

Tsigereda F. and Mengistu U. (2011). Assessment of traditional cattle fattening practices and feedlot performance of Hararghe highland Bulls. Pp.179-189. Review Proceedings 28th Annual Research and Extension, March, 2011, Haramaya University.

Yisehak K. (2008). Gender responsibility in smallholder mixed crop–livestock production systems of Jimma zone, South West Ethiopia. *Livestock Research for Rural Development*. 20:11. Retrieved on 24/09/2017 from http://www.lrrd.org/lrrd20/1/yise20011.htm.

WHZFEDO (2013). Unpublished Annual Report. West Harerghe Zone Finance and Economic Development Office.