

## **Factors affecting women's triple gender roles: The case of Awura Woreda, Afar Region, Ethiopia**

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### **Abstract**

*Pastoralist women have enormous roles but not recognized yet. Thus, this issue becomes field of inquiry because pastoral women provide economic values for non-pastoralists. Hence, this study intends to assess factors affecting women's tripled gender roles in Awura Woreda. The study employed concurrent design with a mixed approach. The quantitative data were collected from 196 systematically selected women whereas the qualitative information gathered from purposively selected participants. Descriptive and advanced statistical tools were employed to analyze the quantitative while thematic analysis for qualitative data. The study found that (29-39 women's age group, married, family size 3-5, 6-8) were positive factors; climate variability, drought, inter-conflict, violence, gender relation, and social-service inaccessibility were negative factors. Harassment, low decision-making power, and poverty were challenges. Access to property, traditional healers, and food aid were opportunities. The study recommends that governmental and non-governmental organizations should work on service delivery, training on income-generating potential and awareness-rising.*

*Keywords: Pastoralist, Tripled Gender Roles, Women*

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### **Introduction**

Pastoralism is a land-use system, an economic mode of production, and way of life; and the finely-honed symbiotic relationship between local ecology, domesticated livestock and people in resource-scarce, climatically marginal and highly variable conditions (Getachew et al., 2003; Oxfam, 2011; Okratli & Swift, 2014). Today, nearly 200 million nomadic and transhumance pastoralists throughout the world generate income and create livelihoods in remote and harsh environments where conventional farming is limited or not possible. Pastoralism makes a significant contribution to the gross domestic products in many East African countries through providing livestock production and rangeland management including biodiversity conservation, and wildlife tourism (Hatfield and Davies, 2006). Men and women's pastoralists play pivotal roles through income-generating and natural resource management systems (Ellis, 2000).

Flintan (2011) emphasized that especially pastoralist women are engaged in triple gender roles; i.e. productive, reproductive, and community managing roles. But, their participation in decision-making processes is limited or totally absent.

Decisions regarding herd mobility, planning, conflict resolution, and relations with neighboring groups are usually made by older men. Despite pastoralist women's role is at least equal to that of men, their contribution remained undervalued and widely ignored. Besides, pastoral women faced a number of challenges that hinder their way of life and stifle their ability to adopt changes in their external environment. For instance, worsening poverty, food insecurity, climate variability, gender-based harmful traditions and lack of asset ownership are the major ones (Flintan, 2011). However, issues of pastoral women can be a matter of debate worldwide; otherwise, one can simply extrapolate their dangerous

future lives. Accordingly, it is worthwhile to study women's triple gender roles in empirical settings. Hence, this study intends to assess factors affecting women's triple gender roles in Awura *Woreda*, Afar Regional State of Ethiopia. The study further documents challenges and opportunities regarding women's roles.

### Statement of the problem

Pastoralists comprise a major group living in dryland areas and sustain their lives in areas where rainfall is unpredictable from season to season. They live in marginal environments with little or no access to infrastructure and little or no income alternatives apart from livestock production. Also, the climatic conditions of aridity and rainfall variability together with a weak socio-economic and political environment made them vulnerable to poverty. Women especially suffer more because their livelihood invariably depends on the environment than males. Besides, they face lots of challenges such as disproportionate exposure to drought, hunger, epidemic diseases and lack of asset ownership rights. In turn, these situations deter their triple gender roles (Aklilu et al., 2002; Veslemoy, 2006; Oxfam, 2011).

Nevertheless, limited researches have been conducted worldwide. For instance, Iffat (2004) studied women's role in the use and management of rangeland resources in the semi-arid mountains of the pastoralist community, a case study from Karak District, North Pakistan. Kipuri & Ridgewell (2008) studied the exclusion of pastoralist women in the East and Horn of Africa. Ongoro & O'Gara (2008) carried out a study on the impacts of climate change and gender roles in community adaptation, in Samburu East District, Kenya. Furthermore, Elliot et al. (2006) investigated on effects of pastoral sedentarization on children's nutrition, growth, and health among Rendille and Ariaal of Marsabit, Kenya. Mbogori (2008) carried out a study on factors influencing women empowerment among pastoral communities: a case of Gabra Community of Marsabit, Kenya. Adugna & Sileshi (2013)

studied double marginalized livelihoods and invisible gender inequality in pastoral societies. Honey et al. (2008) studied pastoral women's property rights in the Afar and Oromia regions, Ethiopia. Aklilu et al. (2013) conducted research on climate change impacts on pastoral women in the Southern lowlands of Ethiopia. Besides, Tewodros (2011) studied gender dimensions of pastoralists' adaptation to the consequences of climate change in Amibara *woreda*, Afar Region. Samuel (2013) studied the role of Hamar women in the transition. Elizabeth (2008) carried out her research on gender role and pastoralist women's involvement in income-generating activities of women firewood sellers in Shinile district, Somali region, Ethiopia. Also, Tigist et al. (2014) undertook a study on women's workload and role in livestock production in pastoral and agro-pastoral communities of Ethiopia: the case of Afar. Notwithstanding all these empirical studies concerning women's role in the pastoral community so far, it was possible to find out certain gaps. These gaps could be categorized into two major themes which are methodological and conceptual ones.

Methodologically, except for Elizabeth's (2008) study, the rest studies were conducted qualitatively. Hence, they couldn't generalize issues under investigation because they failed to capture statistical data. But the present current study sought to address both quantitative and qualitative data via applied mixed approach with concurrent design. The researcher tries to provide a better understanding of research problems. Thus, this study might help generalize issues on the topic under study as it could capture statistical data through both computed descriptive and inferential statistical analysis techniques. The other methodological gap pertained to participant selection limitations. The aforementioned researchers did their works without considering the gender perspective of participants. Thus, the majority of their target groups were predominantly men pastoralists. Accordingly, these male participants neither expected to clearly point out the

challenges women faced nor represented the total population of the study sites. But the current study fills this gap by taking concerned and representative sample women from both male and female-headed households. Conceptually, except Tigist et al.'s (2014) study, the remaining researches weren't holistic in nature; rather they merely oriented on specific issues. Half of them focused on pastoral women's single role i.e. management and involvement in livestock production while the rest launched on impacts of food assistance, sedentarization, conflict and climate change on women. These studies neither emphasized the overall triple gender roles nor considered factors, opportunities, and challenges of women regarding their roles. But the present study is holistic as it holds all the aforementioned issues under its content. In a nutshell, these empirical studies so far had methodological and conceptual gaps. They didn't address the overall triple gender roles, determinants, challenges and opportunities of pastoralist women regarding their roles. The present study aims to fill both methodological and conceptual gaps via addressing the research objectives and questions below by adopting a mixed approach with concurrent design.

### The objective of the study

#### General objective

The general objective of this study is to assess factors affecting women's tripled gender roles in the case of Awura *Woreda*, Afar Region, Ethiopia.

#### Specific objectives

To identify the types of roles women play in the pastoral community of Awura *Woreda*;

To explore challenges and opportunities of pastoral women in the study area; and

To examine factors that determine pastoral women's roles in the study area.

### Research Questions

1. What are the types of roles pastoral women play in the study *Woreda*?

2. What are the challenges and opportunities of pastoral women in the study area?
3. What are the factors that determine pastoral women's roles in the study area?

### Review of Related Literature

#### Concepts of Pastoralism

Pastoralism is any predominantly livestock-based production system that is mainly extensive in nature and uses some form of the mobility of livestock. It is an economic and social system well adapted to dryland conditions and characterized by a complex set of practices and knowledge that has permitted the maintenance of a sustainable equilibrium among pastures, livestock, and people (Hatfield & Davies, 2006; UN, 2007). This source also highlighted that pastoralism is an adaptation to marginal environments, characterized by climatic uncertainty and low-grade resources. It has considerable economic value and latent potential in the drylands and is central to the livelihoods and wellbeing of millions of the world's poor, but the state of knowledge regarding this sector of the economy is weak. Pastoralism is not something to be tolerated until a modern alternative can be found to replace it. It is a sophisticated system of production and land management that has itself been modernized in many countries and is irreplaceable in extensive environments. Accordingly, the term *pastoralist* can be used to indicate both cultural identity and livelihood system. Pastoralists are people who derive more than 50% of the gross incomes of households from pastoralism or more than 15% of households' food energy consumption involves dairy products (Okrotli & Swift, 2014).

#### Economic Values of Pastoralism

Pastoral communities rely on livestock production to sustain the household economy. They get milk and meat for domestic consumption. The income earned from the sale of pastoral products (meat, milk, skins, and hides) enables pastoralists to afford other basic needs. Pastoral animals are also used for transport and ploughing while the droppings are

used as fuel and manure. Predominantly, the livestock provides insurance against shocks and used for ceremonial purposes, especially gifts and dowry. Pastoralism also employs varieties of actors involved in direct production and the value chain of pastoral products. Also, pastoralists make significant contributions to the national economy; general achievement of development goals; and maintenance of the ecosystem in the rangelands. The economic values of pastoralism consist of both direct and indirect values (Hatfield & Davies, 2006).

According to these authors, direct values include direct measurable values (livestock sales, meat, milk, skin, and hides) and direct unmeasured values (employment, production, and environmental management skills). Indirect values include indirect measurable values (honey, medicinal plants, tourism services, agriculture input, and market linkages) and indirect unmeasured values i.e. ecological services like aesthetic landscape, animal maintenance of grasslands, water cycling, habitat protection, biodiversity, nutrient cycling, and energy flow.

### **Gender roles in the pastoral community**

According to ILO, (2008) the concept of gender roles denotes that activities ascribed to women and men on the basis of their perceived differences. Gender roles refer to the rights, responsibilities, expectations, and relationships associated with men and women. Such roles are socially determined, change over time and space and are influenced by sociocultural and environmental factors characterizing a certain society, community or historical period. Gender roles aim at setting boundaries between what is perceived as appropriate for women and for men in the society with regards to public and private domains. These roles are accepted as natural and internalized by girls and boys from a very early age by the gender models they learn through their social environment. In most societies, men's roles in the productive domain are prominent whereas their reproductive role is just a subsidiary. Men's productive work usually takes place outside the home allowing them

to perform their roles sequentially rather than simultaneously. In most countries, men are more involved in decision-making processes within political activities. They are holding greater political power and being able to exert a stronger influence on their communities. They usually hold greater economic power compared to women. Men's contribution to domestic activities is often limited, but women usually have managed various tasks simultaneously i.e. reproductive, productive and community managing tasks (ILO, 2008).

Likewise, despite the role of women in pastoralist societies is usually quite distinct from that of men, they play significant roles in livelihood development. Within pastoralist societies, the use of labor is highly gender-specific. The division of pastoral labor responsibilities is organized by sex and age. Hence, women engaged in socioeconomic and cultural activities, and in the conservation and sustainable management of natural resources. The great majority of pastoral societies continue to be dominated by men, and women's participation in decision-making processes is limited or totally absent. Decisions regarding herd mobility, planning, conflict resolution, and relations with neighboring groups are usually made by older men. With some exceptions, men own animals and have sole rights to dispose of them through sale and slaughter (Care International, 2014). Pastoral women play a vital role in livestock production, particularly as concerns the responsibility of women for the household food supply. Though this role is overlooked by development planners and government officials, women have been called the hidden hands of pastoral production. In the pastoral community, women are highly concentrated at the lower levels of livestock value chains where they undertake to care for smaller, young and sick stock around homesteads; responsible for milking and minimal milk processing (production of ghee and yogurt), and also responsible for milk marketing at the household level. Women often manage sheep and goats as they tend to be kept closer to the

homestead (ILO, 2008).

Furthermore, women tend to be left responsible for the home herd of cattle and camels when men take others on migration. Men link households with the market to obtain input supply and sell the live animals in addition to their substantial engagement in production activities of herding and watering of large livestock like cattle and camels. Most of the men's activities also involve long periods away from the homesteads in satellite camps in search of pasture or markets (ILO, 2008).

### **Challenges and Opportunities of Women In Pastoral Community**

Ethiopian pastoralists are traditionally downgraded. They are deterred by resource degradation, food insecurity, climate variability, and social service inaccessibility. Despite all pastoralists suffered, but women's pastoralists suffered by double marginalization because being both pastoralists and women. They have only limited access to, and control over key productive resources. They also have limited access to reproductive healthcare services, education, and family planning advice. Women played in milk handling and processing, but it is little or no training on quality control, sanitation and value addition. Their work usually goes uncompensated, systematically ignored and undervalued. Also, early marriage, female genital mutilation, and beating are widespread in pastoral areas. Women themselves are often reluctant to report such violence since doing so is considered a sign of weakness (Getachew et al., 2003; Oxfam, 2008; Adugna & Sileshi, 2013; Care International, 2014).

### **Determinants of Women's Roles in Pastoralist Community**

Mongi (2005) & Macha (2011) noted that customs and traditions determined women's roles which might be influenced by the custom and taboos of the pastoralists that give priority to men than women. In decision-making, women have no right to decide on anything even to own family properties. Similarly, Stephen et al. (2014) disclosed that women are important contributors to

pastoral livelihoods but have limited access to and control over resources. As Kandusi and Waiganjo (2015), socio-cultural discrimination has put women in a disadvantaged position due to the asymmetrical power relationship between men and women over control of these resources. Moreover, patriarchal attitudes placed pastoralist women in marginalized positions. They bear disproportionate tasks compared with men. As Watson (2010), culturally accepted violence against women (Female Genital Mutilation, marriage-by-abduction, early-marriage, enforced cross-cousin marriage and widow-inheritance) would affect pastoral women. Besides, domestic violence (physical, sexual and psychological) is common and had impacts on women's roles in pastoral areas. This survey also showed that gender relations determined women's role in pastoral areas. Men and women experience different power relations within members of the village community. Flintan (2011) also stipulated that social capital (norms, social relations and organizations) enable people in a society to coordinate action to achieve their objectives. But women generally have limited access to social capital. It is subject to a number of variables (age, husband social standing; the number of children; and ability to speak and exhibit wisdom). Also, poor deliveries of social services (healthcare and access to education) could determine pastoralists, particularly women.

Additionally, following climate variability (occasional erratic rainfall, flooding, and windstorms); malaria and other infectious diseases increased in pastoral areas, especially among children and pregnant women. This also determined women's roles in pastoralist areas (Oxfam, 2011). Besides, UN (2007) highlighted the growing environmental factor of the pastoral systems in Ethiopia i.e. recurrent drought had devastating effects on rangelands, livestock and the general livelihood of pastoralists. Drought and desertification threaten the livelihoods of more than one billion people in 110 countries in the world generally and pastoral areas particularly. However, men and women didn't share the burden

equally. As desertification takes hold in dryland areas, women's already limited access to productive assets (land, water, and livestock productions). Furthermore, Kipuri & Ridgewell (2008), & Oxfam (2011) underlined that conflicts largely stem from resource competition where the traditional tolerance, sharing and conflict resolution mechanisms fail to mediate the competition. However, not only does conflict lead to disasters (loss of life and asset), it also contributes to inefficient range lands resource use. Hence, women are not only victims but also catalysts of violence. However, they always suffer greater hardships during the conflict. It also increases domestic burdens on women when men go to war. Fratkin et al. (2004) & Ali (2014) brought another environmental factor that determines pastoral women's roles; i.e. the negative health consequences of pastoral migration include poorer nutrition, inadequate housing, lack of clean water, and higher infectious disease. It is an increasing phenomenon affecting all sectors of pastoral society. It increases domestic and income-generating burdens of women and girls.

Moreover, Behnke (2006) described that the role of women in pastoralist societies is usually quite distinct from that of men, and women often have limited decision-making power than men since pastoral customary institutions highly influence women's decision-making participation, access to power and control over resources, and environmental management processes. Similarly, Oxfam (2011) indicated that in customary law and culture, the focus is on social cohesion and the preservation of the family rather than on the safety and wellbeing of the individual. In most pastoral culture, there is a perception that is shameful to raise marital problems in public. Family cohesion is emphasized, reconciliation favored, and separation is discouraged. Several aspects of customary laws are incompatible with women's rights. Consequently, unjust gender relations perpetuate. Further, Behnke (2006) emphasized the influence of religion, political institutions and women

association on pastoral women's role. Moreover, education for pastoralists is dire, particularly for women and girls. Few attempts have been made to adapt educational services to pastoralist and in some remote areas, schools are still virtually unknown (Kipuri & Ridgewell, 2008; Ali, 2014).

#### Materials and Methods

#### Research Methodology

Using an applied research approach is a key step to achieve the study objectives. Hence, this study employed a mixed research approach since the objectives of the research would demand to generate both quantitative and qualitative data. Likewise, Greene et al. (1989) and Creswell (2012) noted that the rationale to employ mixed approach is that it helps to use multiple data collection methods, provides a better view of reality, remove weaknesses and address research problem accurately.

#### Research Design

The study employed concurrent research design for the reason that it permitted the researcher to gather the information that uses the best features of both quantitative and qualitative data collection methods. In analogy, Creswell (2012) delineated that concurrent research design help to give equal priority to both quantitative and qualitative data; and it enables the researcher to compare the results of quantitative and qualitative analyses to determine if the two databases yield similar or dissimilar results.

#### Sampling Techniques

Women from both male-headed and female-headed households were used as the primary unit of analysis. Hence, the study employed multi-stage sampling techniques. In the first stage, purposive sampling techniques were employed to select the study Woreda. In the second stage, a random sampling technique was applied to select the study kebeles. Then, a stratified random sampling technique was used to select male and female-headed households from each kebele considered there was a woman in male-headed households.

### Framework of The Study

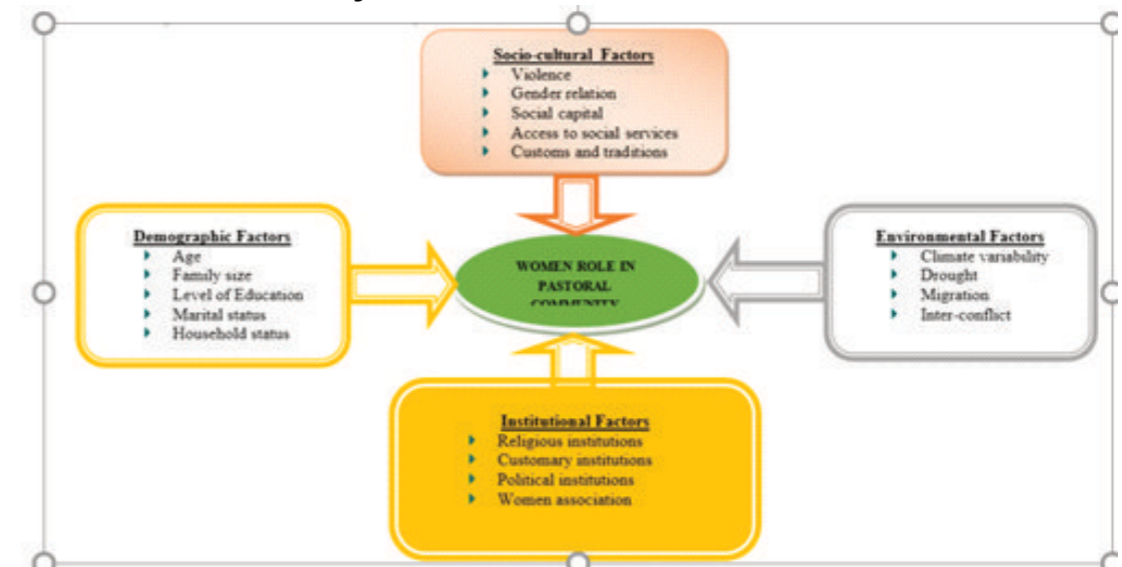


Figure 1 Aschematic diagram showing the relationship between dependent and independent variables

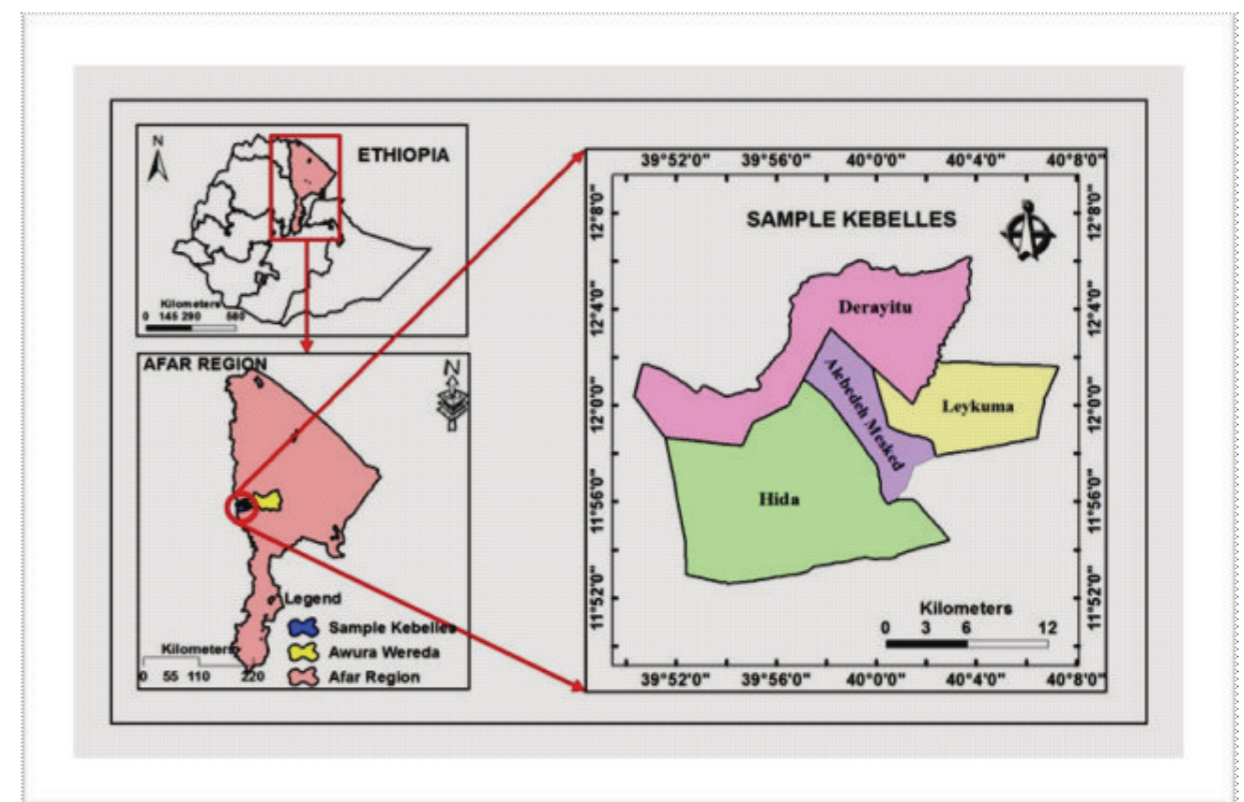


Figure2: Map of the study woreda; source: WGS-1984UTM-Zone 37N

Table 1: Summary of sampled women by kebeles

Sample kebeles	Number of households in each kebele			Number of sample women taken from each kebele		
	MHH	FHH	Total	MHH	FHH	Total
Derayitu	692	8	700	53	1	54
Leykuma	837	9	846	63	1	64
Hida	494	6	500	37	1	38
Alebedeh Mesked	517	7	524	39	1	40
<b>Total</b>	<b>2540</b>	<b>30</b>	<b>2570</b>	<b>192</b>	<b>4</b>	<b>196</b>

Source: field survey, 2019.

Source: field survey, 2019.

After this, a proportional stratified random sampling technique was used in accordance with the size of the kebele. Here, each kebele's list of male and female-headed households was used as a sampling frame. Further, a systematic random sampling technique was applied to select sampled women from the four kebeles. Finally, a purposive sampling technique was employed to select the participants to obtain qualitative data.

### Sample Size Determination

Cochran (1963) cited in Israel (1992) outlined that formula is needed for a questionnaire survey study sample size determination when the population is large, and the needed sample is to analyze proportion. By the same fashion, to determine the representative sample size, the study employed sample size determination formula given by Cochran (1963) cited in Israel (1992). The formula is:  $n_0 = (z^2 pq)/e^2$ , where,  $n_0$  = required numbers of sample size,  $z$  = selected critical value of desired confidence level,  $e$ =

margin of error,  $p$ = estimated proportion of attribute that present in the population, and  $q=1-p$ . Thus,  $n_0 = ((1.96)^2 \cdot 0.5(1-0.5))/((0.07))^2 = 196$ . So, the required sample sizes of this study were 196 women.

### Data Sources and Data Collection Instruments

The study employed both primary and secondary data sources. Primary sources were survey respondents, key informants, and FGDs whereas secondary sources were relevant books, documents, journal articles, and related researches. Hence, survey questionnaires, key informant interviews, and FGDs were data collection instruments.

### Data Analysis Techniques

The study employed quantitative and qualitative data analysis techniques. Finally, the combination of data analysis methods was carried. Particularly, descriptive and inferential statistics were used to analyze the quantitative

data. Upon the data collection task completed, the data were encoded edited and entered into the SPSS software version 20 and analyzed using both descriptive and inferential statistics. Hence, tables, frequencies, and percentages were used to run descriptive statistics whereas Pearson Chi-square test and multinomial logistic regression were used for inferential statistics. Besides, qualitative analyses were performed by identifying major and sub-themes in each context. Then, triangulation took place between quantitative and qualitative data.

### Model Goodness-of-Fit

To examine the adequacy of the model, Deviance and Pearson were employed. As the regression analysis publicized, the model fitting information had a Chi-square value of 109.929 with 22 degrees of freedom and significant at  $p < 0.05$  (Table2). It denotes that the selected predictor variables have a combined effect in predicting the outcome variable.

### Issues of Validity and Reliability

To assure the reliability of the study, a reliability test was carried out. Pre-testing and piloting were used. Cronbach alpha was employed to measure the internal consistency of the instrument. Also, the findings were triangulated with the literature review and previous studies for the purpose of analytical generalization.

### Ethical Consideration

This study was conducted with adherence to research ethics including the statement of confidentiality, refraining from deceptive practices, reciprocity, and maintenance of anonymity of participants.

### Results and Discussion

This section presents the findings of the study. The findings are summarized and grouped into three major themes i.e. women's triple gender roles in the pastoral community; challenges and opportunities of pastoral women regarding their roles; and factors that determine pastoral women's roles in the study

settings.

Table 2

Options	Responses		Percent of Cases
	N	Perc ent	
Productive roles	155	33.4	79.1
Reproductive roles	196	42.2	100
Community managing roles	113	24.4	57.7
<b>Total</b>	<b>464</b>	<b>100</b>	<b>236.7</b>

Source: survey data, 2019. NB: the total is not 100% because of multiple responses.

### Women's Triple Gender Roles in Pastoral Community

A single table was created based on respondents' responses to women's tripled gender roles. Accordingly, 100% of responses are located on reproductive roles, 79.1% on productive roles, and 57.7% on community managing roles. This indicates that pastoralist women vigorously engage in tripled gender roles to retain the household economy.

Similarly, the participants stipulated the qualitative facts as pastoral women are highly engaged in productive, reproductive and community managing roles. This finding was passionately correlated with a survey output found by Elizabeth & ILO (2008). Accordingly, activities have a feminine face that is they are regarded as women's activities as it might be due to the strongest linkage with the sex role of women for child-bearing and these are the main duties of girls and women in pastoral communities. Pastoral women usually have various reproductive tasks simultaneously with productive and community managing roles.

Another single table was produced based on respondents' responses to productive roles. Thus, 92.9% of responses are located on livestock production, 77.9% on weaving, 76% on trading and 40.3% on other activities. It denotes that pastoralist women play key roles in trading, weaving and livestock production, and other activities like income-generating tasks (basket making, firewood and charcoal selling).

Table 3

Table 3:

Options	Responses		Percent of Cases
	N	Percent	
Trading	117	26.5	76
Waving	120	27.1	77.9
Livestock-production	143	32.4	92.9
Others	62	14	40.3
<b>Total</b>	<b>442</b>	<b>100</b>	<b>287</b>

Source: survey data, 2019. NB: the total is not 100% because of multiple responses.

Likewise, one discussant clearly reflected the qualitative information as:

*I am a pastoralist woman. I am living here. Believe or not, I am working on numerous productive tasks alongside reproductive and community duties. I am striving to produce goods and services for household consumptions. I am the only one who is responsible for the household food supply. Mostly, I am tending to engage in livestock production roles in this hostile environment. I am highly engaging at higher and lower levels of livestock value chains. I am looking after smaller, young and sick-stocks around my home. I am also responsible for the home herd of cattle and camels when my husband takes others to search pasture and water. You see my roles in livestock management are basic. Besides, I have important roles in trading (lower livestock sale, meat, milk, skin, and hides). Not only these but also others such as weaving and income-generating activities like basket-making, firewood, and charcoal-selling. For your surprising, despite having such roles, my husband gives less value and less recognition for me. And then, I haven't properties right and decision-making ability in the home.*

Key informants also shared the information as in the pastoral community, except decisions on herd mobility and planning; almost all indoor and outdoor productive activities are done by women. Hence, the study identified that pastoralist women have greater responsibilities in productive activities (livestock production, waving and trading) and

others like basket making, firewood, and charcoal selling. This finding was consistent with the study results found by Care International & Tigist et al. (2014). Hence, women's workload in livestock production is usual in pastoral and agro-pastoral communities of Afar. Women also have greater involvement in income-generating activities in firewood selling. But, Elizabeth's (2008) research revealed that most productive roles are the main activities of men rather than women. This was highly incompatible with the finding of the current study because this study asserted that most productive roles are the main activities of pastoral women than men.

A single table also made based on respondents' responses to livestock productive activities (housing, feeding, watering, healthcare, and keeping). The majority (100%) of responses are located on housing whereas 99.3% of responses are located on feeding, watering, healthcare and livestock keeping. It shows that pastoralist women have a significant contribution to sustainable livestock development.

Table 4

Options	Responses		Percent of Cases
	N	Percent	
Housing	143	20.1	100
Feeding	142	20	99.3
Watering	142	20	99.3
Healthcare	142	20	99.3
Keeping	142	20	99.3
<b>Total</b>	<b>711</b>	<b>100</b>	<b>497.2</b>

Source: field survey, 2019. NB: the total is not 100% because of multiple responses

Similarly, participants of a women's FGD yielded interesting findings. A participant said.

*Indeed, women living in the pastoral community have multiple tasks in livestock production. For example, we are preparing houses for sheep, goats, donkeys, camels, and cows. We are also moving and keeping animals in grazing areas. Just*

*looking-after and feeding animals; and splitting herds are our daily tasks. We are also moving animals towards rivers. Moreover, rainwater harvesting for livestock; protecting herds' hygiene via cleaning of droppings, and finding traditional medicines are usual tasks that are given for us. To tell the truth, our husbands are not helping us despite we are tiring so.*

Besides, Key informants suggested that pastoral women are the hidden hands of pastoral communities. They play vigorous roles in livestock production and management processes. Consistently, Tigist et al. (2014) agreed that women are the most active laborers in the pastoral community by engaging in livestock production activities like cattle keeping, feeding, and watering.

Moreover, a single table was formed based on respondents' responses to reproductive roles. Hence, 100% of responses are located on cooking, washing, cleaning, and housekeeping, 95.4% on fetching-water and fuel-wood gathering, 89.3% on childrearing and childbearing, 88.8% on house maintenance whereas 69.9% on grain grinding. This shows that pastoralist women play pivotal roles in reproductive tasks inside and outside of the home to ensure the household wellbeing.

Table 5

Options	Responses		Percent of Cases
	N	Percent	
Child-rearing and child-bearing	175	16.4	89.3
Cooking and Washing	196	18.4	100
Cleaning and house-keeping	196	18.4	100
Fetching water and fuel wood gathering	187	17.6	95.4
House maintenance	174	16.3	88.8
Grain grinding	137	12.9	69.9
<b>Total</b>	<b>1065</b>	<b>100</b>	<b>543.4</b>

Source: survey data, 2019. NB: the total is not 100% because of multiple responses.

The participants also raised similar concepts in line with statistical facts. Hence, the finding revealed that all activities necessary for the maintenance and

survival of pastoral lives are done by pastoral women. This finding was consistent with a report provided by ILO & Elizabeth (2008). This report claimed that pastoral women usually have various tasks simultaneously because of their tendency to perform multiple roles within the reproductive, productive and community managing spheres. Elizabeth (2008) noted that the reproductive tasks done by women in the pastoral community are mostly domestic chores which include food preparation, fetching water, firewood collecting, house-cleaning, construction and maintenances of houses and fences, support children, elderly and sick members of the household.

Additionally, a single table was sketched based on respondents' responses to community managing roles. Accordingly, almost all (100%) of responses are located on all community managing activities whereas 93.1% on provision and maintenance of resources. This shows that most community managing activities are done by pastoralist women for community care.

Table 6

Option	Responses		Percent of Cases
	N	Percent	
Provision and maintenance of resources	108	18.9	93.1
Cleaning dropping	116	20.3	100
Visiting the sick neighbors	116	20.3	100
Participating in social events	116	20.3	100
Participating in village organizations	116	20.3	100
<b>Total</b>	<b>572</b>	<b>100</b>	<b>493.1</b>

Source: survey data, 2019. NB: the total is not 100% because of multiple responses

Likewise, a participant from an FGD delineated the qualitative details concerning community managing roles as:

*Honestly speaking, we are highly engaged in community works. We are participating in social events. We are helping each other both in time of adversity and prosperity. We are also sharing in*

pastoral services-ceremonies and celebrations. We have holidays; we have traditional festivities; we have religious-oriented celebrations. Besides, we have burdens to maintain customs and traditions. Also, visiting sick neighbors and supplying food is our daily task. As well, we are highly participating in group and village organizations (Idir).

Key informants also reported the qualitative information as women in the pastoralist community to have numerous roles in community managing for community care. This finding was supported by the ideas of Moser (1993) cited in Ludgate (2016). Accordingly, the community managing role is used to describe activities carried out by women as an extension of reproductive role i.e. provision and maintenance of scarce resources of collective consumption.

### Factors, Challenges, and Opportunities of Pastoral Women

Multinomial logistic regression outputs

Table 7: Factors affecting pastoral woman's tripled gender roles (Next page)

Selected predictor variables, challenges, and opportunities of pastoral women's roles are simultaneously discussed below. The study employed a multinomial logistic regression model to identify determinant variables. Thus, 18 explanatory variables were selected, but merely 9 variables were identified as determinants of the dependent variable. Accordingly, the regression output indicated that being other variables constant, a unit increase of age (29-39), women's productive roles increase by the odds ratio of 3.033 as compared to a community managing role. Statistically, a significant relationship was also observed at  $p < 0.05$  (Table2). Besides, the qualitative data indicated that age can increase women's tripled gender roles. This finding was linked with previous research findings of Basnayake and Gunaratne (2002) and Macha (2011) i.e. age could be determinant of various human development stages accompanied by the ability to perform certain activities. The age of a person is usually a factor that can explain the level of production and efficiency.

Besides, being other variables constant, a unit increase of family size (3-5 and 6-8), women's reproductive roles increase by the odds ratio of 1.988 and 3.169 as compared to a community managing role. A significant relationship was perceived at  $P < 0.05$  in both cases (Table2). Similarly, the participants asserted that family size could increase the effectiveness of women's participation in tripled gender roles. This result was associated with a former study did by Nkurlu (2000). Hence, having more family members per household means more demand for food and other requirements which may increase women's burden inside and outside of the home. Moreover, being other variables constant, women with married marital status had more likely to participate in productive and reproductive roles by the odds ratio of 2.201 and 2.703 as compared to a community managing role. A significant relationship also observed at  $p < 0.05$  in both cases (Table2). Likewise, the qualitative result indicated that married women had better involvement in both productive and reproductive roles. Thus, the result was associated with Macha's (2011) research finding.

Model Fitting Information				
Model	Model Fitting Criteria	Likelihood Ratio Tests		
		Chi-Square	Df	Sig.
Intercept Only	117.114			
Final	7.186	109.929	22	.000

Goodness-of-Fit			
	Chi-Square	Df	Sig.
Pearson	1.572	110	1.000
Deviance	1.955	110	1.000

Pseudo R-Square	
Cox and Snell	.429
Nagelkerke	.905
McFadden	.872

Observed	Predicted			Percent Correct
	Productive roles	Reproductive roles	Community managing roles	
Productive roles	5	1	0	83.3%
Reproductive roles	1	178	2	98.3%
Community managing roles	0	0	9	100.0%
<b>Overall Percentage</b>	<b>3.1%</b>	<b>91.3%</b>	<b>5.6%</b>	<b>98.0%</b>

Triple gender roles	B	Parameter Estimates				Sig.	Exp(B)	95% C.I for Exp(B)	
		S. E	Wald	Df	Lower			Upper	
PR Intercept	-.365	.612	.356	1	.551 <sup>ns</sup>				
PR age=29-39	1.916	.030	12.356	1	.001*	3.033	1.648	5582.24	
PR Married	1.875	.017	9.108	1	.000*	2.201	1.41	1.256	
PR climate var.=yes	-1.521	.064	9.604	1	.015*	.641	1.051	3.861	
PR drought=yes	-1.067	.071	6.301	1	.042*	.108	.829	1.103	
PR conflict=yes	-.301	.011	11.03	1	.000*	.602	1.103	3.021	
RR Intercept	1.661	.008	7.968	1	.005*				
RR Married	1.160	.015	7.995	1	.008*	2.703	.705	3.084	
RR famsize=3-5	1.641	.048	8.264	1	.006*	1.988	3.057	1292.99	
RR famsize=6-8	1.154	.024	9.307	1	.003*	3.169	.902	3.983	
RR violence=yes	-1.901	.075	8.013	1	.007*	.901	.906	1.073	
RR gender	-2.347	.022	9.006	1	.036*	.972	.798	2.162	
RR r/ns.=yes									
RR social service.=no	-1.280	.116	5.839	1	.016*	.576	.602	1.948	

Source: survey data, 2019. NB: \* = significant at 0.05, <sup>ns</sup> = not significant, PR= productive Role, RR= Reproductive Role.

This survey showed that marital status can determine pastoral women's roles because many families in this community they bare many children hence more responsibilities for taking care of childcare.

Furthermore, being other variables constant, for every one-unit increases of climate variability, recurrent drought, and inter-conflict; women's productive role is more likely to decrease by the odds ratio of 0.641, 0.108 and 0.602 as compared to a community managing role. A significant relationship was perceived at  $p < 0.05$  in all cases (Table2). KIs also conveyed the qualitative details similar to the numerical facts. Findings from FGDs also reported the qualitative data as:

*Our lives get worse from time to time. Our livelihood is highly failed because of the availability of periodic shocks of drought. Frequent drought has been increasing from our locality because of rainfall variability. Then, migration becomes usual to search pasture and water as no rainfall availability, and water inaccessibility. Also, drought has the potential consequences of ecological destruction. Consequently, Cattles, camels, goats, donkeys, and sheep are dying. Overall, this leads to household chronic food insecurity and poverty. Not only have these but also have others such as property and human life loss. Such complication also restrains our roles.*

Likewise, Aklilu et al. (2013) and Oxfam (2011) emphasized that following climate variability (occasional erratic rainfall, flooding, and windstorms); malaria and other infectious diseases increased in pastoral areas especially among children and pregnant women. This also influenced women's roles in pastoralist societies. Moreover, Tewodros (2011) stated that climate change would place additional burdens on women by altering the roles and tasks they performed. Similarly, UN (2007) highlighted that pastoralism has been facing by recurrent drought with its devastating effects on rangelands, livestock and the general livelihood of pastoralists. Men and women do not share the

burden equally or in the same ways. As desertification takes hold in dryland areas, women's already limited access to productive assets such as land, water, and livestock productions. Additionally, Kipuri and Ridgewell (2008) stated that conflicts largely stem from resource competition where traditional tolerance and conflict resolution mechanisms fail to mediate the competition. Thus, not only does conflict lead to disasters, but it also contributes to inefficient rangelands resources. Here, women nearly always suffer the greatest hardships during the conflict. It also increases domestic burdens on women when men go to war. The regression results also showed that being other variables constant, for every one-unit increases of violence, gender power relation and social services inaccessibility; women's reproductive role is more likely to decrease by the odds ratio of 0.901, 0.972 and 0.576 as compared to a community managing role. A significant relationship was observed at  $p < 0.05$  in all cases (Table2). The KIs also provided the qualitative details alike the numerical facts. A participant from an FGD noted: also reported the data hereunder.

*We are living in a border area that is difficult for life. We are far from the center of the town. We are not lucky to get infrastructures. No health care centers available nearby us. Thus, service providers don't come here. We aren't getting professional supports from medical experts; no family planning advice; no ambulance service at the time of giving birth unless we are treating by traditional healers if not our destiny is dying. Affordable healthcare services aren't delivering. Hence, our health condition becomes alarming. Also, there is no access to education; we have only one school from grade one-four; we go distance areas to get education from grade five-twelve, but this is hard too; so, we obliged withdrawing schooling; no option evidence we are married. Here no access to clean water, electricity, and telecommunication. Despite NGOs like ADRA Ethiopia and GIZ provide food aid, clothing, and life skill training, they can't able to deliver timely. You can imagine how these challenges also deter our overall roles.*

Similarly, Watson (2010) outlined that beyond domestic violence (physical, sexual and psychological), culturally accepted violence against women is common in pastoral areas (female genital mutilation, marriage by abduction, early marriage, enforced cross-cousin marriage, and widow inheritance). Such violence is deterred women's roles. Furthermore, Kandusi and Waiganjo (2015) delineated that patriarchal attitude and sociocultural discrimination had put pastoralist women in a disadvantaged position because of the asymmetrical power relationships between men and women. Hence, pastoralist women bear disproportionate tasks and responsibilities compared with pastoralist men. Moreover, Watson (2010) sketched that poor delivery of social services determined pastoral communities particularly, women. Antithetically, the regression result showed that a significant relationship was not observed between women's roles, and migration, traditions, and customary laws. But the qualitative data indicated that these variables are challenges that impede pastoralist people, especially women. This finding was similar with the survey results of Frame & Fratkin et al. (2004); Mongi (2005); Behnke & Elliot et al., (2006); Watson, 2010; Oxfam & Macha (2011); Ali & Stephen et al., (2014); Kandusi & Waiganjo (2015).

## Conclusion

In a nutshell, this study shows that pastoralist women play pivotal roles to meet household needs, denoting that they are key agents of sustainable livelihood development. They engage in income-generating, socioeconomic and cultural activities. Pastoralist women also make a significant contribution to gross domestic products providing that livestock production and rangeland management. Mainly, pastoral women highly involve in triple gender roles. However, they are constrained by numerous factors (climate variability, recurrent drought, inter-conflict, violence, and services inaccessibility), but enjoyed limited opportunities. This condition makes their lives miserable and deters triple-roles. Hence, this issue

becomes a matter of debate worldwide.

## Recommendations

To tackle the identified problems, the government, and NGOs (i.e. Adventist Development and Relief Agency Ethiopia and GIZ) work cooperatively have to provide extensive training for both men and women together with reference to pastoral people's social capital to create smooth gender relations, to ensure women's access to, and control over resources, and to assert women's decision-making power and property rights. Also, the government and ADRA Ethiopia should jointly focus on pastoral women's awareness rising via sharing empirical evidence that concerns on wise deploying of available local resources to generate alternative income to sustain the household economy. This can help them to build self-confidence, networks and access to social capital. Besides, considering pastoral women, the government makes social service delivery available i.e. healthcare facilities, education and infrastructure development. Moreover, place-based educational planning norms should be adopted by recognizing distanced habitations; and acknowledge pastoral women's roles are suggestions forwarded for the government. Furthermore, Awura *Woreda* Women Affairs Office should provide professional guidelines for pastoral women to improve their income-generating potential for the betterment of their lives and cope with unexpected environmental and economic shocks. This, in turn, might pave the way for pastoralist women to play their roles functionally.

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