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Revisiting the status of pastoral women's access to and control over livelihood assets; evidences from Fafan zone, Somali region, Ethiopia

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This paper focuses on assessing the status of pastoral women's access to and control over livelihood assets in Fafan zone of Somali region, Ethiopia. In this study, the emphasis was given to the study populations' level of access to and control over livelihood assets, factors affecting pastoral women's asset ownership and the effects of pastoral women's access to and control over livelihood assets. The study has employed a convergent parallel research design. Survey questionnaires, in-depth interview and focus group discussion (FGD) guides were used as instruments of data collection. The research revealed that the pastoral women have limited access to and control over productive assets such as land, big livestock-camel, cattle, sheep and goat. The pastoral women's access to socio-economic infrastructures and services such as schools, health care services, extension services, microfinance services and communication technologies is also very limited. However, the research has also revealed that many pastoral women were actively engaged in livelihood diversification in response to the livelihood vulnerability in the area. The changing trends in access to market and commercialization of livestock and livestock products in the study areas have improved socio-economic status of many women. Even though majority of the pastoral women have poor access to and control over livelihood assets, few women who have been actively engaged in livelihood diversification and markets of livestock and livestock products have experienced significant improvement in socio-economic wellbeing and decision making ability..

Key words: Pastoral women, livelihood assets, access and control over assets, Somali region

INTRODUCTION

The livelihood wellbeing of individuals and/or households is determined by the level of the individual's and/or the household's access to and control over livelihood assets. Being able to access, control and own basic productive livelihood assets enable people to lead improved and stable livelihood (Sen, 1997; Sparr and Moser, 2007; World Bank, 2001; Quisumbing, 2003; Smith et al., 2003; and Carter and Barrett, 2006). According to Carter and Barrett (2006), the set of opportunities available to individuals within households is determined by the assets that they own-human, physical, financial, natural, and social capital. However, women in many societies do not enjoy equal rights with men in accessing and having control over productive resources.

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Women's equal access to and control over livelihood assets is critical for the achievement of gender equality and the empowerment of women and for equitable and sustainable economic growth and development (World Bank, 2004). However, as argued by Carter and Barrett (2006), women's share of the total value of assets is lower than their share among asset owners, which indicates that even when women own assets, they are often of lower quality and value than men's assets. This inequality of opportunities in access to and control over resources is very high among pastoral and agro-pastoral women and this condition expose them to poverty and gender discrimination than men (Dawson, 2007).

According to Sikor and Lund (2009) the existing politico-legal institutions might not guarantee all forms of access to resources that are an essential elements of peoples' livelihood. In Ethiopian pastoral communities, where gender inequality is deep-rooted, customary laws on gender role and relationship have an influence on women's livelihoods (Watson, 2010). Ethiopian pastoralist women have traditionally been highly marginalized in decision making power within the household, while at the same time bearing a most of the burdens of household tasks and responsibilities (Adugna and Sileshi, 2013). A study conducted by WIBD Consult (2005) shows that Somali pastoral women's access to and control over basic livelihood assets such as livestock, land, information, and nutrition is very limited. Devereux (2006) also revealed that there is pervasive intra-household discrimination and gender bias in the Somali region.

Although some of the above studies were concerned with pastoral women's livelihood in Somali region, the studies were conducted before a decade and might not indicate the current dynamic livelihood conditions of women in the study area. For instance, Devereux (2006) analysis of women's livelihood was mainly emphasized on the socio-economic and political status of women in the region. WIBD consult (2005) also studied pastoral women's' socio-economic conditions in the region. However, these researches pay little attention to the interacting multidimensional factors: the institutional, social and cultural factors affecting intra-household asset ownership and usage; and the impacts of assets ownership and control on women's livelihood.

This study, however, attempted to investigate the pastoral women's level of access to and control over the basic livelihoods assets-natural, physical, human, financial and social assets in light of the sustainable livelihood framework. This research highlighted recent changes in access to assets such as increasing commercialization of livestock and livestock products, livelihood diversification and market opportunities. The study also assessed the institutional, social and cultural factors affecting intra-household and community level access to and control over assets. The research has also investigated the effects of access to and control over assets on pastoral women.

Somali pastoral women's livelihood conditions

Somali pastoralists, like pastoralists in the other parts of the continent, lead vulnerable socio-economic and political life. However, pastoral women of the region are doubly marginalized since they experience the marginal and vulnerable livelihood, living in remote and under-serviced areas (Kipuri, and Ridgewell, 2008). Pastoral and agro-pastoral women's vulnerability in Somali region is mainly caused by their limited access and control over key productive resources. This limited ownership of assets might explain why women have less of a stake in the pastoral economy and are therefore more willing to contemplate a future outside pastoralism than men, who own all the income-generating assets and derive most of the income from them (Devereux, 2006).

Studies indicate that pastoralist woman have restricted ownership of livestock, especially large stock, which in Somali culture are traditionally the property of men. Even if a woman owns animals before she gets married, when she gets married, the animals become her husband's property. In farming communities, women do not own land in their own right. Tradition dictates that men control access to all land, which legally belongs to the state (WIBD Consult, 2005; Devereux, 2006).

In Somali pastoral society, men (especially male head of household) are responsible for the final decision on disposing of an animal by sale, gift or slaughter (WIBD Consult, 2005). However, women (that is, wives and even daughters) may need to be consulted and can influence the decision over the origins and status of the individual animal. This indicates that though the final decision is up to men/husband, pastoral women have informal power in their households.

Processing livestock products such as milking and milk processing are generally carried out by women and girls in most Somali pastoral groups, and are under control of the women. Thus, women decide on the distribution of milk and milk products for family consumption, sale and gift. Male heads of a household may influence levels of milk off-take to ensure that livestock which indicates the 'ownership' of livestock products is a mix of access and mediated control between women and men.

However, women exercise more control over livestock products than over livestock themselves. This allows pastoral women to control the cash income obtained from sales of milk. At the same time, cash income from the sale of livestock such as camel, cow and goat is controlled by men (Devereux, 2006).

Studies also indicate that pastoral women's human capital is very poor. According to Flintan (2008) and Watson (2010) although pastoral women have good knowledge and skills on animal health and husbandry and livestock management, still statistics on their level of education and the health status do not indicate good picture. Boys shave more chance to visit health center when sick. Women's access to health care is hindered

by cultural norms. According to CSA (2007) adult women with no education constitutes 89% in the region. In addition to accessibility, cultural attitudes towards educating girls, heavy workloads at home, early marriage, female genital mutilation (FGM), and parental concern for the girls' personal security are constraints to girl's education (WIBD Consult, 2005).

Contrarily, Somali pastoral and agro-pastoral women have good social capital since their production systems highly depend on cooperation and joint management of shared resources. They have informal communication networks to share information with each other and within the local community (WIBD Consult, 2005). Regarding the use of natural resources decision is generally made through indigenous clan based institutions (Devereux, 2006). He argued that this condition limits pastoral women's direct decision making power over the use and management of natural resources such as land, pasture, forests and water.

One of the limited capitals among pastoral communities is access to physical capitals especially public infrastructures (Kipuri and Ridgewell, 2008). Access to public infrastructures such as roads, means of transportation and communications systems is constrained by their remote location (Devereux, 2006). This affects all pastoralists, although women's access may be further constrained by cultural norms and social expectations.

Woman's hut construction can also represent a social and personal space symbolizing her control over the food supply. Other physical capital such as milking tools and processing equipment, gourds, containers and jewelry, may be used as financial capital for sale, and may also confer social status. Where 'modern' or non-pastoral physical assets such as mobile phones and radios are acquired by pastoralists, they are generally controlled by the men, as among other livelihood groups (WIBD Consult, 2005).

Somali pastoralists' women are also vulnerable to and bearer of burdens of key shocks and trends such as drought, market change and loss of basic assets (WIBD Consult, 2005). According to Watson (2010) drought is the common cause of migration and/or splitting of the pastoral household.

Drought often leads to shortage of pasture, lack of grazing land and death of basic livestock. To minimize death of livestock men often move away with the livestock which reduce women access to livestock products and; its income, social status. This reduces women access to food, increase their workload, and reduce their social status. Sometimes men may migrate for wage labor as a drought strategy which left women with burden of managing and keeping livestock. This however increases temporary women's decision making power and social status. At the same time migration and separation can increase women's vulnerability to violence, raid and abuse.

Change in market trend has also impacts on pastoral women's access to and control over capitals. Access to market and commercialization of pastoral assets such as livestock and livestock products enhance women's status and wellbeing. However, this trend is not always positive. Sometimes husbands may oppose increasing women's economic status and financial independence or take over the income generating activities dominated by women (Watson, 2010).

Diversification of livelihood is another opportunity for pastoral women. Especially in urban vicinities, women engage in diverse livelihood activities such as sale of firewood, handicrafts and petty trading (WIBD Consult, 2005; Watson, 2010). Diversification sometimes leads to sedentarisation of households, and which is a growing trend that can have both positive and negative impacts on pastoral women. Opportunities such as access to health, education, extension service, water and other infrastructures are common. Additionally, there are more opportunities for income generation in urban and peri-urban settings.

Theoretical and conceptual framework of the study; The sustainable livelihood approach

At the center of sustainable livelihood approach analysis is livelihood assets stocks of financial, human, natural, or social resources that can be acquired, developed, transformed, improved and transferred across generations (Chambers and Conway, 1992). Assets can be tangible resources such as land, housing, financial capital, tools, machinery, jewelry, or intangible resources such as education, skills, information, socio-economic networks and extensions (Figure 1).

Access to and control over livelihood assets

According to Doss (1996), access to or ownership of livelihood assets may not indicate the existence of decision making power over assets. Sikor and Lund (2009), argued that the existing politico-legal institutions might not guarantee all forms of access to resources that are essential elements of peoples' livelihood. Access then refers to the ownership and the legal rights that an individual/household may have or claim over use of a present or a future asset within household or community. Access to assets may be supported by formal legal provisions, that is, the laws that regulate the use, transfer and ownership of assets from one person to another, within the household or family members, or within the community or the nation in general. Control on the other hand indicates the ability to make decisions regarding the disposal of the asset through sale, mortgage, bequest, or gift and the ability to make decisions regarding the use of the asset, including leasing it out or self-managing it and

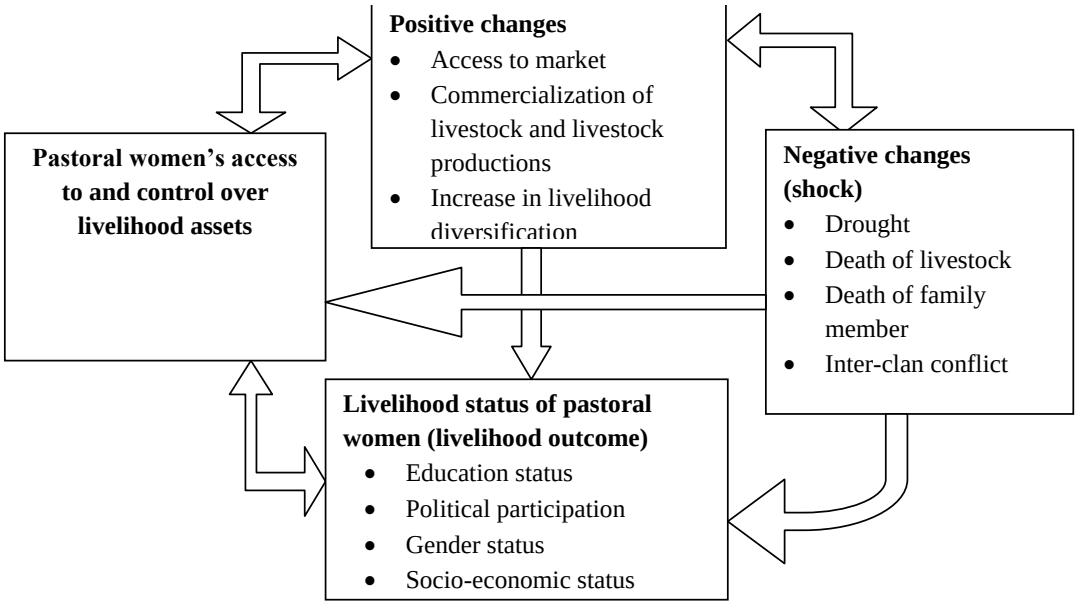

Figure 1. Conceptual framework of the study.

disposing of its produce or returns if any (Doss, 1996). Even when women have legal ownership over some kinds of assets, they may still lack the decision making over the asset.

The sustainable livelihoods approach is a core instrument in the sustainable livelihood approach and helps to study poor people's livelihood. The framework has emerged as a conceptual approach to understanding and analyzing rural development debates (DFID, 2000). It gives insights on how rural households depend for their security not only on agriculture, but also on a diversity of other natural resources. DFID has developed a standardized framework which involves important elements such as vulnerability context, livelihood assets, transforming structures and processes, livelihood strategies and livelihood outcomes.

Vulnerability context

Access to and control over various types of livelihood assets is affected by various factors that are beyond the capacity of the household's control. It forms the external environment in which people exist and gain importance through direct impacts upon people's asset status (Devereux, 2001). These external factors include; Shocks (that is, human, livestock or crop health shocks, natural hazards, like floods or earthquakes, economic shocks, drought, conflicts) and seasonality (that is, seasonality of prices, products or market opportunities) and represents the part of the framework that lies furthest outside stakeholder's control. It is important to understand that not all trends and seasonality must be ended in the negative outcome, they can also move in favorable directions, too. Trends in new technologies or seasonality of prices could be used as opportunities to secure livelihoods (FAO, 2003).

Livelihood assets

The livelihoods approach is concerned first and foremost with people. According to FAO (2003), understanding of people's strengths is crucial to analyze how individuals/households are able to convert their assets into positive livelihood outcomes. People need varieties of capitals to achieve their livelihood goals. However, there is no single capital endowment which is sufficient to yield the desired outcomes on its own. Researchers often interested study assets in order to ascertain, if those, who were able to escape from poverty, started off with a particular combination of capital, and if such a combination would be transferable to other livelihood settings (DFID, 2000). The livelihood capitals identified in SLF include:

Human capital

DFID (2000) defined the term human capital as the skills, knowledge, ability to labor and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives. This type of asset is very important to make use of any other type of assets. Indigenous technical knowledge relating to natural resource management, livestock health and harvesting is

a form of human capitals.

Physical capital

Assets of this category include the basic infrastructure and goods needed to support livelihoods and affordable by households/their members, such as transport, secure shelter and buildings, adequate water supply and sanitation, clean, affordable energy and access to information. This capitals influence livelihood sustainability and affect individuals/households access to the other asset categories (Ellis, 1999). For instance poor infrastructure can hinder education, access to health services and income generation.

Natural capital

Natural capital is the term used for the “natural resource stocks from which resource flows and services (such as land, water, forests, air quality, erosion protection, biodiversity degree and rate of change, etc.) useful for livelihoods are derived” (DFID, 2000). It is very important for those who derive all or part of their livelihoods from natural resource-based activities. This framework indicates the interrelationship between natural capital and the vulnerability context and many of the destructive shocks for the livelihoods are natural processes that destroy natural capital (e.g., fires, floods, earthquakes). Land for cultivation, pasture, water and forests are natural capital concerned here.

Financial capital

Financial capitals comprise the financial resources that people use to achieve their livelihood objectives and it includes the important availability of cash or equivalent, that enables people to adopt different livelihood strategies (Ellis, 1999). There two basic sources of financial capital. Available stocks comprising cash, bank deposits or liquid assets such as livestock and jewelry, free from liabilities. Regular inflows of money include income obtained through pension, remittances, labour which are mostly dependent on others and need to be reliable. Financial capitals can easily be converted into other types of capitals or it can be used for direct achievement of livelihood outcomes. However, this asset is the least available for poor people.

Social capital

There is no agreement about what exactly constitute social capitals. In SLF the term social capital is taken as the social resources upon which people draw in seeking for their livelihood outcomes, such as networks and connectedness, that increase people's trust and ability to cooperate or membership in more formalized groups and their systems of rules, norms and sanctions (Ellis, 1999). It is important for households or individual members of households because it has direct impacts on access to and control over other capitals, by improving the efficiency of economic relations or enhances mutual trust and obligations between members. It is also a place of refuge for people in a state of crisis and/or poverty.

Transforming structures and processes

Transforming structures and processes represent the institutions, organizations, policies and legislation that shape livelihoods. In this framework structures include the private and public organizations that set and implement policy and legislation, deliver services, purchase, trade and perform all manner of other functions that affect livelihoods (DFID, 2000). Lack of effectively working structures often hinders sustainable development and makes asset accumulation difficult, obstacle diversification of livelihoods resulting in negative livelihood outcome. In contrast to other approaches, where scarcity and underdevelopment were thought to be a problem of people not having enough due to lacking capital endowments, the SLA analyses it as a problem of access and the possibility to control the available resources that are often sufficiently at disposition (Sen, 1981). Processes are also another determinant factor of livelihood condition. According to Sen (1981) it determines the way in which structures and individuals operate and interact. The most important processes for livelihoods include; policies, legislation and institutions, culture and power relations. They determine the way people make choices; and access and control.

Livelihood strategies

Livelihood strategies comprise the range and combination of activities and choices that people undertake in order to achieve their livelihood goals. According to DFID (2000), livelihood strategies are a dynamic process in which people engage in varieties of activities (combine activities) to meet their various needs at different times and on different geographical or an economic levels, whereas they may even differ within a household.

Livelihood outcomes

This framework also concerned with the households’ livelihood outcomes, in terms of their state of wellbeing. In this approach a livelihood is sustainable if people are able to maintain or improve their standard of living related

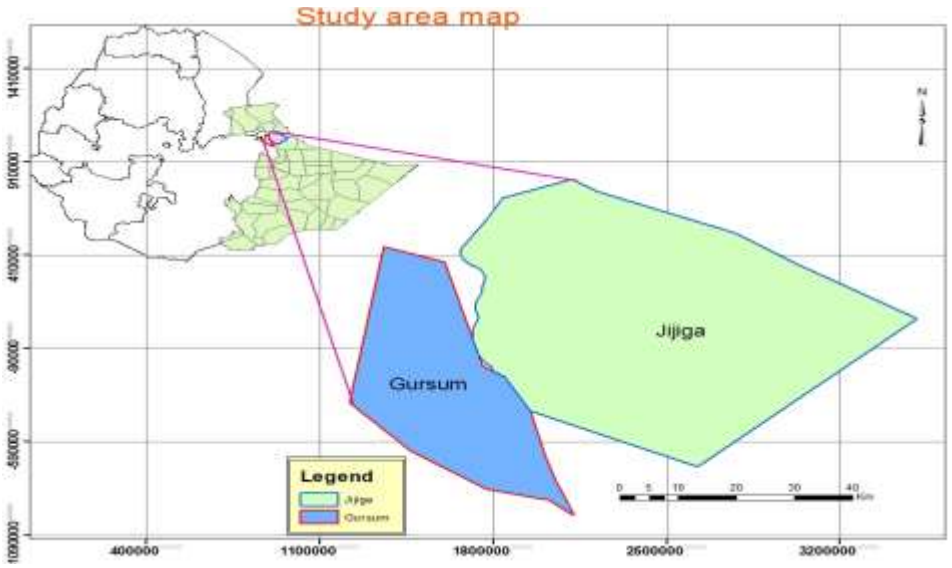

Figure 2. Map of the study area.

to wellbeing and income or other human development goals, reduce their vulnerability to external shocks and trends, and ensure their activities are compatible with maintaining the natural resource base–in this case the water point, grazing land and pasture aspects of the dry-land ecosystem they are using (DFID, 2000).

Thus, livelihood outcomes are the results of livelihood strategies, such as more income (e.g., cash), increased well-being (e.g., non material goods, like self-esteem, health status, access to services, sense of inclusion, participation, gender status), reduced vulnerability (e.g., better resilience through increase in asset status), improved food security (e.g., increase in financial capital in order to buy food) and a more sustainable use of natural resources (e.g., appropriate property rights) (Doss, 1996).

One of the advantages of this framework is that it is flexible and researchers can contextualize and adapt the framework analysis to the local realities. It is also allows researchers to focus on some of the elements of the framework based on the research objectives. Thus, this research is more focused on livelihood assets, vulnerability context and transforming structures and processes (factors affecting access to and control over assets) and the effects of access to and control over livelihood assets (livelihood outcomes).

For the purpose of this research, the pastoral women's level of access to and control over livelihood assets, positive changes (access to market**,** commercialization of livestock and livestock productions and increase in livelihood diversification), negative changes or shock (drought, death of livestock**,** death of family member**,** inter-clan conflict) and livelihood status of the pastoral women (education status political participation gender status socio-economic status) are emphasized.

METHODOLOGY

Description of the study areas

The study was conducted in 2016 (from April to December) in Jigjiga and Gursum districts of Fafan zone, Somale region, Ethiopia (Figure 2). The two districts are located at the northeastern part of the region. According to CSA (2007), Jigjiga and Gursum districts have total households of 334,674 and 32,846, of which 157,582 (47%) and 15,572 (47%) are men and women, respectively. The area is mainly known livestock production such as camel, cattle, sheep, and goats (Sisay, 2015).

Methods of data collection and analysis

This research was conducted by using a convergent parallel design. Survey questionnaires, in-depth interview and FGD guides were used as instruments of data collection. The survey questionnaires focus on demographic and socio-economic characteristics of respondents and the quantitative aspects of assets ownership and control among pastoral women. In-depth interview and FGD were employed to explore the intensive and rich experiences of the pastoral women regarding access to and control over basic assets, factors affecting pastoral women's access to and control over basic assets and the effects of access to and control over assets on their livelihoods. In-depth interviews were conducted with sixteen pastoral women (ten in depth interview in Jigjiga and six in depth interview Gursum districts), and key informant interviews were conducted with six local elders (three key informant interview in Jigjiga and three key informant interview in Gursum), two administrators and two extension workers were selected from the two districts. In addition, four FGDs were conducted with the pastoral women. Two FGDs with ten discussants were conducted in both Jigjiga and Gursum districts.

Both random and purposive sampling techniques were used to select the respondents. Key informants such as local elders, extension workers, and administrators were selected in the sample population by using purposive sampling. The sample survey respondents of the study were selected from a wife or adult pastoral women of randomly selected households from both districts.

Table 1. Access to and control over basic pastoral livelihood assets.

Assets	Access						Control					
	01A		01B		01C		02A		02B		02C	
	F	%	F	%	F	%	F	%	F	%	F	%
Land	288	72.9	-	-	107	27.1	344	87.1	-	-	51	12.9
Income from livestock sale	265	67.1	-	-	130	32.9	327	82.8	-	-	68	17.2
Income from livestock products sale	-	-	289	73.1	106	26.9	-	-	344	87.1	51	12.9

Note: 01A: More accessed by men, 02A: More controlled by men, 01B: More accessed by women, 02B: More controlled by women, 01C: Equally accessed by men and women, 02C: Equally controlled by men and women
Source: Own Survey Result (2016).

The study targets pastoral women and the sample was not selected from urban areas of the two districts. To determine sample size for the sample survey, Yemane (1967) formula at 95% confidence level, 0.5 degrees of variability and 5% level of precision was employed. Based on CSA (2007) data, Jigjiga and Gursum districts have 30,082 and 4,868 rural households respectively. Therefore, 34950 total rural households from the two districts were considered as the study population (N) and the sample size of the survey participants was calculated as follow.

$$n = \frac{N}{1} + N(e^2)$$

$$n = \frac{34950}{1} + 34950(0.05^2) = 395$$

where, n is the sample size, N is the population size and e is the level of precision.

To select representative *kebeles* (the smallest administrative unit) from each district and sample households from the selected *kebeles,* both stratified and simple random samplings were used. Accordingly, two and six *kebeles* were randomly selected from Gursum and Jigjiga districts respectively. Thus, 296 respondents were selected from Kojare, Jamadhle, Dadhi, Shabalay, Harofedhi and Ambero kebeles of Jigjiga district and 99 respondents were selected from Bombas and Adade kebeles of Gursum district. The sizes of these strata were calculated proportionally to the size of the total households of the two districts. Simple random sampling was used for the selection of households for a survey questionnaire while stratified sampling was used to select and/or determine kebeles and the respective size of sample households from the selected kebeles. For qualitative data analysis, both framework analysis and thematic network analysis were used. The qualitative data was first coded, organized into themes for analysis and interpretation. Descriptive statistical analyses were used to summarize and describe quantitative data and; graphs and tables were to be used to analyze quantitative data. Finally, the qualitative data was analyzed textually while descriptive statistics results were drawn using SPSS version 21.

RESULTS AND DISCUSSIONS

The pastoral women's access to and control over livelihood assets

According to Table 1, 72.9 and 87.1% of the respondents perceived that land is more accessed and controlled by men, respectively. While the remained 27.1 and 12.9% responded that access to and control over land is equal for men and women.

Similarly, 67.1 and 82.8% of the survey participants responded that income from livestock sale is more accessed and controlled by men respectively. Contrarily, 73.1 and 87.1% of the respondents have more access to and control over income from the sale of livestock products respectively. 26.9 and 12.9% of the respondents showed that both men and women have equal access to and control over income from the sale of livestock products, respectively.

In-depth interview and FGD data collected from both districts also indicated that the manner of access to and control over land is determined by the community norms and values which give direct decision-making power to men. Land-related resources such as water, firewood, and charcoal are accessible to women. However, the decision over the manner of use of these resources is still in the hand of pastoral men. Likewise, a study conducted by Devereux (2006) revealed that pastoral women's access to land and land-related resources is linked to their relationship with a male household member.

Data collected through in-depth interview and FGDs from Gursum and Jigjiga districts revealed that pastoral women have not only access to livestock products and income from its sale, but they also have decision-making power over the use and investment of the income. However, big livestock use, transfer, sale, and slaughter are determined by men household heads. Especially decision over the sale and use of income obtained from the big livestock such as camel and cattle are often managed and controlled by adult men.

Table 2. Access to social infrastructures and services.

Access to social infrastructures and services	Availability and access to the social infrastructures and services					
	03A		03B		03C	
	F	%	F	%	F	%
School	27	6.8	368	93.2	-	-
Health care center	25	6	370	94	-	-
Extension services	34	8.6	-	-	361	91.4
Market	187	47.3	208	52.7	-	-
Microfinance services	3	0.7	-	-	392	99.3

Note: 03A: We have access to this service in our village, 03B: We have access to this service but it is far from our village, 03C: We have never accessed this social service.
Source: Own Survey Result (2016).

Even when women are allowed to use the cash from big livestock sale, the amount of money, the purpose of the expenditure and when to use the money are determined by the male household heads.

The data collected through in-depth interview and FGDs also revealed that though the traditional dominance of men over a household main source of income is still common, income from livelihood diversification through petty trade, a sale of charcoal, firewood and trade of chat is increasing the financial capacity of many women. According to FGD conducted in Gursum district, currently, significant numbers of women are experiencing improved access to and control over household income as they engage in varieties of income-generating activities. The discussants indicated that, recently, the recurrent drought and decrease in livestock size forced many women to engage in available income generating activities such as *khat* trade, sale of charcoal and firewood, trade of milk and meat. These income generating activities are seen as women activities. The income generated through these sources is controlled and managed by women. This trend has signifying a notable increase in pastoral women decision making power and intra-household power dynamics in many households. In line with this, one of the discussants said; “Today many husbands have no money and they depend on their wives. They spend the whole day chewing khat while wife run the whole day to get money to subsist her family. Some husbands even wait for their wives to get money for purchasing khat”.

Another critical source of the financial asset is access to microfinance such as saving and credit services. Majority of the respondents (99.3%), have no access to micro-finance services at all. Participants of FGDs in the two districts were also indicated that there is no any such kind of microfinance services in their localities. As can be observed from Table 2, basic social services such as school, healthcare center and market are also accessible but far from the residential village of the majority of the respondents. The survey indicated that 93.2, 94 and 52.7% of the respondents have access to education, health care centre and market services but far from their village respectively. The other important service related to development and level of human capital is access to extension services. Table 2 shows that 91.4% of the respondents have never accessed extension service. Informants also added that except during the time of child vaccination and disease outbreak, regular extension service does not exist in the rural areas of the two districts.

Results of FGDs also revealed that women have low access to education and health care services due to lack of these services at nearby. Cultural values and norms in the study areas also hinder the pastoral women’s access to and use of services such as school and health care. One of the key informants said that; “Birth delivery at health centers is not accustomed and the use of family planning is very low. Due to the remoteness of the health center and schools, and traditional beliefs and norms, women in the area still have low access to health care services and education.”

The data collected through survey results, FGDs, in-depth and key informant interviews shows that the pastoral women’s access to basic social services is affected by both lack of access the services at nearby and traditional social values and norms that discourage the pastoral women’s education and health seeking behaviors.

This in-turn affected the human capitals of the

Table 3. Respondents access to and use of mobile phone and radio.

Material	I have this technology and I use it regularly		I can access this technology but it is not mine		I have no access to this technology at all	
	F	%	F	%	F	%
Mobile phone	11	2.8	87	22	297	75.2
Radio	-	-	198	50.1	197	49.9

Source: Own Survey Result (2016).

communication technologies due to their remote location (Wudie, 2006). According to Table 3, privately or jointly owned means of information technologies such as radio and phone are not accessible for the majority the pastoral women. Only 22 and 50.1% of the survey participants have access to mobile phone and radio, respectively. The remained 75.2 and 49.9% of the respondents have no access to mobile phone and radio at all, respectively.

Though many pastoralist men's access to and use of mobile phone is still very low, results of the key informant interview also indicated that pastoral men generally use mobile phone and radio than women (Wudie, 2006). According to an in-depth interview, pastoral women own physical capitals such as milking tools and processing equipments, containers, and jewelry. Jewelry is also used as a financial capital for sale and may confer social status. On the other hand, results of in-depth interview and FGDs indicate that information technology related to physical capitals such as mobile phones and radios are not common. Even when these equipment are women and achieving gender equality in pastoral available, they are often used and controlled by men.

Social capital is very important for pastoralists as it play a critical role in reducing vulnerability and enhancing resilience (Watson, 2010; WIBD Consult, 2005; Wudie, 2006). However, the data collected through FGDs and in-depth interviews show that pastoral women's decision making in traditional social networks is very limited. Clan and/or village-based social networks are dominated by men. For instance, the decision over whom to help, when to help and how to help people during a crisis is up to men decision. Similar to Wudie (2006) finding, even if women have the right to benefit from the community's social networks, the role of women in the decision-making is informal, through their influence on their husband. Data collected through in-depth interview and FGDs indicated that the pastoral women have women-based social networks. However, these women-based networks are more oriented to labor sharing and helping one another during a wedding, funeral and other important ceremonies. The FGD results show that recently women social capital has been significantly contributing to economic status the pastoral women. Women who sell milk, firewood and charcoal have social a network where the pastoral women collect the item to be sold and send one woman to a nearby market and it help them to save time and energy. For instance, neighbor women who have a milk for sale collect their milk in the morning, and one of the women take the collected milk for sale to the market place. This sell of milk and other products by sending representative seller goes on a turn by turn basis.

This indicates that pastoral women's social networks are very important as it contributes to easing access to other assets. Although the pastoral women have no significant decision making power in men dominated social networks at a clan and village level, they have women based socio-economic social networks.

Factors affecting pastoral women's access to and control over livelihood assets

Government policies, institutions and processes

Currently, the Ethiopian government has recognized that pastoral women are highly marginalized and occupied a poor socio-economic and political position in their communities. To reduce the livelihood marginalization of pastoral women, the government has designed policies, strategies and programs that are targeted to achieve pastoral community development. These policies, strategies and programs are also gender sensitive and focus on improving the status of communities by improving women's access to resources, eradicating/reducing illiteracy, improving women's health, protecting their right and up scaling their participation. However, the ultimate goals of the policies, the selected strategies and designed programs fail to be implemented either due to lack of recognizing local realities such as community norms, values and religion or lack of institutional, human,

technological and financial capacities.

Among the key targets of current pastoral policy is expanding basic social services such as school, health centers, extension services, transportation, drinking water provision, and microfinance and; linking women to markets, promoting women's participation and gender equality. In the study areas however, the coverage of these basic infrastructures and services is very poor. Determinants of human capital such as access to education, health, extension services, trainings coverage are very poor. Moreover, the available schools, health centers and urban centered extension services are not effectively functional due to human resource and financial limitations. Women's financial capital in the study areas is also affected by access to market, saving and credit, road and transportation.

Data collected through FGD and in-depth interview also indicate that modern political structures such as local government are mainly male dominated and women's participation is almost absent. One of the key informants said "*In every kebele, women are totally absent from administration structures. Women are even not allowed to sit on meeting with men before. But now they often participate in local village level meetings though the decisions are made by men*."

Government has also legal instruments such as constitution, civil codes, property and family laws which state the right of women, criteria of property access, accumulation, control, and transmission. These property regime related legislations and legal codes define and ensure women's property rights including inheritance right of women which allows an equal share of property among children, irrespective of their gender. However, studies indicate that these legal provisions face difficulties with regard to implementing them on the ground. Even though these legal instruments have the potential to protect pastoral women property rights, these tend to fade when it comes to implementation. In the study areas, indigenous customary law allows men to control properties and decision making regarding resource usage and the role of statutory law is very limited.

Customary institutions and religion

Customary institutions and religion are social institutions that shape and guide community and family norms, especially gender relationships in pastoral and agro-pastoral communities. These institutions also shape marriage, property rights (including inheritance) and ultimately the socio-economic status of women. In the study areas, customary institutions and religion play a crucial role in shaping and determining women's access to and control over basic livelihood capitals. This leads pastoral women to deprivation of basic human rights, lack of access to basic human needs, lack of equal share of household and community resources, lack of inheritance right, and suffering from the socially accepted gender-based violence.

Natural resources such as land, grazing lands, forests and water point are controlled by men while women gain access to their relationship with a male relative (Watson, 2010). In the study areas, key properties are held communally. The access, control and ownership of the key livelihood assets largely remain in the domain of male privilege. This shows that patriarchal structures of power and control over community resources. In line with a study conducted by Watson (2010) and WBD Consultant (2008) the majority of women in the study areas, access to key assets such as livestock and land is strongly linked to their relationship with husband or a male family member. The traditional customary institutions of the community exclude women from public decision-making processes. Data collected through in depth interview indicates that majority of the women still believe that their role is confined to house chores and livestock production while public matters, household decisions over the sale, use, purchase of key livestock, land and other communally held resources is left to men responsibility. This indicates that the traditional institutions not only limit women's access to resources but it also socializes them to accept the low socio-economic position attached to them.

In the study areas, marriage, inheritance and divorce are determined by *Sharia* law and the community norms. In the community, women can't inherit her husband or family properties in order to keep 'household' property within the husband's family. It is believed that if she inherit properties when she marries or remarries the property would most likely pass out of her clan and into that of her new husband/new husband (APD and Interpeace, 2006).

For instance, in case where the husband is dead, the property is inherited by adult son and if male child is absent the property will be taken by the deceased brothers or relatives. Daughters are not allowed to inherit family property because they believe to be the property of another clan after they get married. These traditional values and norms allow harmful traditional practices such as female genital mutilation, wife-beating, polygamy and widow inheritance. As a result, they have limited right to voice their concern; express their views, opinions, wishes and desires.

Mainly due to the marriage transactions, the social status of women transfer from the clan they were born into the clan of the husband, because of the widespread dowry payment carried out in animal heads among the majority of the pastoralist societies. Therefore, they are deprived of property ownership rights, denied participation in traditional leadership, made to have limited rights to decision making on issues critical to their livelihood.

Moreover, the harmful traditional believes and attitudes

toward education, health care services and overall women's status hindered the pastoral women's human capital development, knowledge and awareness of their right. It also hinders their access to and control over economic resources such as land and livestock and keeps them at poverty edge. Moreover, it hinders women's socio-economic and political participation, gender equality, and wellbeing improvement.

Access to market

Access to market is an essential factor that affect women's ability to accumulate, access and control assets. An attempt has been made to assess the pastoral women's access to the market and its influence on women's access to and control over other assets. The gender division of labor within households, the type of assets owned, availability of the market and transportation affect women access to the market in the study areas. However, women who are nearby to Harar-Jijiga-Gode main road and other small towns have better access to market. They commonly engage in sale of milk and milk products, meat, charcoal, firewood and *kehat*. The study indicates that women's increased participation in these trades increases income diversification and decision making power of women.

However, the income obtained through the above-mentioned sources are invested in household consumption than saving. The data obtained through in-depth interview and FGD indicates that women who have access to market has more access to financial capitals, information, social capital and more improved decision making power in their household. However, women in the study areas access to financial capital (such as savings accounts and microfinance), physical capital (cell phones and road), or social capital (women's groups savings programs) is very poor and constrain their potential to utilize available markets.

Generally, the study indicates that women who have better access to the market have more capacity to accumulate and access other assets. Access to market increase women's access to information, improve their market skills, increase capacity to access education and health, and create a conducive environment for the existence of market based social network.

Shocks and trends; drought, livelihood diversification and Sedentarization

The existence of a humanitarian crisis affects pastoral women's access to and control over assets. During a humanitarian crisis such as drought, conflict and famine women are more vulnerable to disasters. Pastoral and agro-pastoral women mainly depend on livestock for their subsistence and men migration with livestock during drought seriously affect their income sources, nutritional status, and increase their workloads, increase female school dropout and reduce their social status. During drought and famine men move away with their livestock and women have reduced access to livestock products and may have to depend on firewood collection and other income generation activities (Watson, 2010).

The recurrent drought in the Somali region is one of the main sources of livelihood vulnerability in the study areas. Supporting Watson's (2010) study, this finding indicates that recurrent drought in the study areas resulted in reduced livestock assets which is the main source of living in the areas. In addition to the domestic burdens, women are more responsible to generate income to support family during drought. Women's access to financial assets, market, education, and health services also reduced during drought.

However, drought has also a strong relationship with involuntary livelihood diversification and sedentarization. Livelihood diversification and sedentarization are other factors that affect pastoral and agro-pastoral women's access to and control over livelihood assets.

Many women engage in diverse livelihood activities such as the sale of firewood, charcoal and petty trade. The engagement in such activities is associated with poor households with low social status. These means of income generating are challenging and time taking. However, it has significant impact on enhancing the economic status of women.

Sedentarization of households is a growing trend and has positive impacts on pastoral women (Watson, 2010). Opportunities such as access to health, education, extension service, water and other infrastructures are more available for settled pastoralists. Additionally, there are more opportunities for income generation in urban and peri-urban settings. The study indicates that due to drought and decreasing size of livestock, household dependence on livestock is not promising. This allowed women to engage in diversified livelihood activities to support their families. According to FGDs conducted in Gursum and Jigjiga districts, women provide significant income for family subsistence through the sale of charcoal, firewood and petty trade. Significant numbers of women also engage in chat trade in Gursum and Jigjiga towns. The increase in livelihood diversification among pastoral women of the study areas has significant impacts on women's socio-economic position in the community. Household subsistence is mainly on the shoulder of women.

The impacts of access and control over assets on pastoral women

The livelihood status of pastoral women is affected by the level of livelihood assets they access and control in their household and community. However, women in pastoral

Table 4. Women's perception of their own socio-economic status.

Category	Yes		No	
	F	P	F	P
Can you read and write?	18	4.6	377	95.4
Do you believe female children at school age are attending formal schooling in your household and in your village?	25	6.3	370	93.7
Have you ever participated in local government structure?	37	9.4	358	90.6
Did anyone in this family give girth at health center?	0.00	0.00	395	100
Did any female in your family get sick in the last 12 months?	386	97.7	9	2.3
Did she or they have a healthcare professional treatment?	102	26.4	284	73.6
Do you engage in generating income from non-livestock products such as petty trade, sale of charcoal, etc?	188	47.6	207	52.4
If you engage in livelihood diversification (diversifying source of income) do you decide on the use of income from these sources?	167	42.3	21	5.3

Source: Own Survey Result (2016).

communities have limited access to and control critical assets due to varies reasons as discussed in the previous sections. Table 4 indicates that the majority of the survey participants (95.4%) cannot read and write. Majority of the respondents believed that female children at school age are attending not in formal schooling. Majority of the FGD discussants also believed that sending girls to school is not accepted in their community because girls who attended school are believed to deviate from the cultural values and norms of the community. Some families do not send their daughters to school mainly due to a negative attitude towards female education, lack school at a village level, home task burdens and early marriage. According to the key informant interview, the high rate of illiteracy in the study population, has seriously affected their economic status, health status, gender status and participation in community matters. In many of the study villages, sending girls to school is believed not to be good for girls' security and behavior and; rather they prefer to send their daughters to Koranic schools.

The other indicator of low livelihood status of the pastoral women is low participation in formal political structures. This research indicates that 90.6% of the respondents have never ever participated in local government structure. Likewise, the health status of the pastoral women is seriously constrained by socio-cultural values of low health-seeking behavior and limited access to health care services at nearby. The survey result shows that none of the 100% of the responds family gave birth at health centers while 73.6% of sickness experienced female family members in the last 12 months didn't get any professional healthcare treatment. However, 47.6% the respondents have been engaging in livelihood diversification and 42.3% of them believed that engagement in income diversification has improved their socio-economic status and increased their decision making in their households.

Results obtained from FGD discussants also confirm that many of the pastoral women are actively engaging in livelihood diversification to respond to the climate change challenges. A Significant number of women are actively engaging in diversified livelihood activities creating multiple income sources such as sell off own milk and trade of milk, firewood, charcoal, *khat*, and meat. This in turn increased many women decision making power over household financial matters. However, they invest the income on family subsistence.

According to FGDs and in-depth interviews, poor health status among the pastoral women is mainly attributed to poor access to maternal healthcare service, prevalence of female genital mutilation (FGM), lack of access to and use of family planning, poor diet, and traditional birth attendance. According to key informants, FGM is still prevalent in the study areas though the practice is recently declining. Lack of education, awareness and cultural values keep FGM practice until today. One key informant also said; "Without genital mutilation girls are not needed for marriage even today. Sometimes people from health offices teach us that FGM is harmful to women and it's illegal to mutilate girls. Though some families stop genital mutilation of female today, still there are many households who mutilate their daughters."

Access to family planning and birth delivery at a health center is very low due to lack of access to the services, and religious and/or traditional

norms which consider the practices of family planning as against their religious values. Besides, many women prefer to give birth at home even when access to the health center is possible mainly due to cultural factors.

The overall status of pastoral women is basically affected by gender relations as seen above, shaped by community norms and religion. The negative attitudes towards women such as considering women as property of men, subordinate and inferior to men are still common. Supported by traditional norms and values, the patriarchal social relationship is still solid.

Pastoral women's participation in/at different administrative levels, village and community matters are very poor. Though women's sometimes called to participate in a village meeting, men often make decisions. As discussed before, religion, traditional norms, and values prevent women from participating in socio-economic and political matters of their community. Traditional social networks that are responsible to manage socio-economic matters of the communities are also often excluded women from participation and decision-making.

CONCLUSIONS

The study findings indicated that there is still high gender disparity in access to and control over livelihood assets in the pastoral community. The critical livelihood assets such as land, livestock, and household's financial capitals were more accessed and controlled by men. The level of access to and control over human assets by the pastoral women is very low as compared to other asset categories. However, women who engage in income diversification have relatively better socio-economic and have improved decision making power on households' socio-economic matters. The research also indicated that the increase of livelihood diversification in the study areas has an immense contribution to improving pastoral women's livelihood status. Finally, the study revealed the effects of limited access to and control over assets on pastoral women's livelihood such as economic dependency, poor health and educational status and negative attitude toward women and poor women's participation in community matters.

LIMITATION OF THE RESEARCH

This research was conducted in two districts of North West pastoral areas of Fafan Zone. The research finding might not represent the entire pastoral women's asset condition in the Somali Regional State as the data is collected from a specific geographical area. The area has relatively better access to market and other socio-economic services as it's located nearby to Somali Regional State capital, Jigjiga city. The areas are also bypassed by the main road in the region.

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AUTHOR'S CONTRIBUTIONS

BA is the author of the research and has carried out all the activities of the study. He has designed the research, collected data and analyzed the result.

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CONFLICT OF INTERESTS

The author declares that there are no author competing interests.

REFERENCES

Adugna E, Sileshi M (2014). Double Marginalized Livelihoods: Invisible gender inequality in pastoral societies. Societies *3*(1):104-116.

APD and Interpeace (2006). From Plunder to Prosperity: Resolving Resource-Based Conflict in Somaliland. Hargeysa: APD and Interpeace. www.apd-somaliland.org.

Carter M, Barrett C (2006). The economics of poverty traps and persistent poverty: an asset based approach, Journal of Development Studies 42(2):178-199.

Chambers R, Conway GR (1992) 'Sustainable Rural Livelihoods: Practical Concepts for the 21st Century', Discussion Paper 296. Brighton, UK: Institute of Development Studies.

CSA (2007). Population and Housing Census of Ethiopia. Population Projection for Somali Regional state. www.csa.gov.et

Dawson C (2007). Practical guide to research methods, a user friendly manual for mastering research technique and projects. Spring Hill House, Spring Hill Road, United Kingdom. Https://www.loc.gov

Devereux S (2006). Vulnureble livelihood in Somali Region. Brighton: Institute of Development Studies. https://www.researchgate.net/profile/Stephen_Devereux/publication/48265083_Vulnerable_Livelihoods_in_Somali_Region_Ethiopia/links/556d653908aefcb861d7f296.pdf

Department for International Develoment (DFID) (2000). Sustainable Livelihoods Guidance Sheets. Department for International Develoment. www.livelihood.org/info/info_guidancesheets.htm.

Doss C (1996). Women's Bargaining Power in Household Economic Decisions: Evidence from Ghana (No. 1701-2016-139213).

Ellis F (1999). Rural Livelihood Diversity in Developing Countries: Evidence and Policy Implications. ODI Natural Resource Perspectives No.40, ODI, London.

Flintan F (2008). Women's Empowerment in Pastoral Societies: World Initiative for Sustainable Pastoralism (WISP), IUCN, Nairobi https://www.iucn.org/sites/dev/files/import/downloads/gender_format.pdf

Kipuri N, Ridgewell A (2008). A Double Bind: The Exclusion of Pastoralist Women in the East and Horn of Africa Minority Rights Group International, London. ISBN 978-1-904584-79-7 https://www.refworld.org/pdfid/494672bc2.pdf

Michael R, Christopher B (2006). The economics of poverty traps and persistent poverty: An asset based approach. Journal of Development Studies 42(2):178-199.

Quisumbing A (2003). Household Decisions, Gender, and Development: A Synthesis of Recent Research. IFPRI, Washington DC.

Sen AK (1997). Choice, Welfare and Measurement. First Harvard University Press. Cambridge, Mass.

Sisay K (2015). Economic Contribution of Camel Milk to Pastoralists Livelihood and Assessment of Feed Resource Availability in the Context of Climate Change in Pastoral Areas of Selected Districts of Fafan Zone Eastern Ethiopia (Doctoral dissertation, Haramaya University).

Sikor T, Lund C (2009). Access and Property: A Question for Power and Authority. Development and Change 40(1):1-22.

Smith LC, Ramakrishnan U, Ndiaye A, Haddad LJ, Martorell R (2003). The importance of women's status for child nutrition in developing countries. IFPRI Research Report 131.

Sparr P, Moser C (2007). International NGOs and poverty reduction strategies: the contribution to asset-based approach. Working Paper #08, Brookings Global Economy and Development, Brookings Institution, Washington DC.

Watson C (2010). Gender Issues and Pastoral Economic Growth and Development in Ethiopia. DFID & Government of Ethiopia, Adis Ababa. https://pdfs.semanticscholar.org/bad4/43e394df2716fcdf05b34cef51b0b9ecf692.pdf

WIBD Consult (2005). Social analysis and indigenous livelihood strategies in Somali pastoral Communities. PCDP, Addis Ababa.

World Bank (2001). Engendering development: through gender equality in rights, resources, and voice. World Bank, Washington D.C.

World Bank (2004). Endangering development through gender inequality in rights, resources, and voice: World Bank policy research report. Management 1: Report No. 36546-MW. Washington, DC: World Bank.

Wudie B (2006). Gender Analysis of the Agro-pastoral System Households: The Case of Jig-jiga Woreda, Somali Region, Ethiopia. An M. Sc Thesis Submitted to the School of Graduate Studies of Haramaya University.

Yemane T (1967). Statistics: An introductory analysis, 2nd edition . NewYork: Harper and Row.

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