

Full Length Research Paper

The role of women in livelihood security at household level among pastoral and agro-pastoral societies of Ethiopian Somali region: The case of two selected districts from Fafen zone of Ethiopian Somali Region

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Received 17 March, 2018; Accepted 7 May, 2018

The study aims to explore the major roles women play in livelihood security among Ethiopian Somali Pastoral and agro-pastoral communities in selected two districts. Even though the study is more of qualitative, quantitative method was also employed to some extent to gather information that could not be captured via qualitative research method. A total of 722 women were sampled and participated on household survey by probability sampling technique. According to the findings of the study, women in both social settings, in addition to reproductive roles, largely participate on productive works especially in livestock production. Apparently, most of the tasks related to production of small ruminants, which are the largest in number and main source of income in pastoral and agro-pastoral areas, are the major activities of women. In both settings, the role of women in crop production appeared to be minimal (confined to feeding of those who work on farm) due to cultural outlook that sees women to be weaker than men. Petty trading of wide range of commodities including livestock and livestock product is the major supplementary activity that enables the diversification of livelihoods of pastoral and agro-pastoral women. There exists huge variability in terms of pattern of expenditure along gender line. In agro-pastoral areas, women spend 93.5% of their individually generated income on purchase of households' food items and the remaining 5.8% on other necessities such as children's health while men spend 44.9% of their individual income on households' consumption, 50.5% on personal needs, and spend only 3.7% of their incomes on children's clothing. A number of problems which obstruct women's pursuit of livelihood are identified in this study.

Key words: Livelihood security, women, livelihoods.

INTRODUCTION

Gender equality and women's empowerment is one of the three Millennium Development Goals and is

considered to be an essential component of sustainable economic growth and poverty reduction (MoFED, 2005).

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However, governments continue to struggle with their capacity to translate gender policies into effective, actionable programs. Ethiopia, where gender inequality remains a pervasive feature of rural livelihoods, is no exception. As a patriarchal society that keeps women in a subordinate position, the country is characterized by disparities in the economic, social, cultural, and political positions and conditions of women (Elizabeth, 2008).

Ethiopian pastoralists have traditionally been highly marginalized. Critical development challenges for pastoralists include resource degradation, worsening poverty, and lack of food security. While all pastoralists suffer from marginalization, pastoralist women suffer from double marginalization, being both pastoralists and women (Ridgewell et al., 2007). Pastoral women have less decision making power within the home, while at the same time bearing a disproportionate burden of tasks and responsibilities (Alemu, 2006).

Both men and women have vital roles in the continuation and adaptation of pastoral systems. Women play a central role as livestock keepers, natural resource managers, income generators, and service providers, tasks which, in of themselves, are influenced by gendered norms, values, and relations (Ridgewell and Flitain, 2007). However, in spite of women's contribution to pastoral life, they have only limited access to, and control over, key productive resources such as livestock and land. They also have limited access to healthcare, education, family planning, and reproductive health. Moreover, the fundamental role of pastoral women in agriculture and livestock production has been systematically ignored and undervalued (Flintan, 2006). Previous researchers indicated that limited access to productive assets and labor markets, unequal compensation, and limited opportunities for participation in household and community decision-making are the most significant constraints to food and livelihood security among Ethiopian women (Baulch and Umer, 2005; Haggman, 2006).

Researches on intra-household dynamics have shown that it is not only the total amount of household assets that determines development outcomes, but also who in the household controls the assets. Interventions that increase women's access to, and control over, assets have been shown to improve household food security and child nutrition and education as well as the wellbeing of women themselves (World Bank, 2001; Quisumbing 2003; Smith et al. 2003). Quisumbing and Maluccio (2003) also show that the greater a woman's asset holdings are at marriage, the larger the share of wealth the household will later spend on educating its children. In households where women have higher shares of assets, girls tend to have better health (Ridgewell and Flintan, 2007). By owning assets, women gain power and authority in their households and communities while lessening their risk of mistreatment (Flintan 2006).

Household livelihood security is defined as adequate

and sustainable access to income and resources to meet basic needs (including adequate access to food, potable water, health facilities, educational opportunities, housing, time for community participation and social integration) (Frankenberger, 1996). Livelihoods can be made up of a range of on-farm and off-farm activities which together provide a variety of procurement strategies for food and cash. A livelihood is sustainable, according to Chambers and Conway (1992), when it "can cope with and recover from the stress and shocks, maintain its capability and assets, and provide sustainable livelihood opportunities for the next generation..."

Research on livelihoods and poverty dynamics recognizes the importance of assets to the poor (Frankenberger, 1996). While poverty is often measured in terms of income or food security, a household's ability to meet its material needs is determined largely by its assets—the physical, human, social, financial and natural kinds of capital that determine what livelihood strategies a household can pursue and how well it can cope with risks and shocks (Ridgewell et al., 2007). Beyond material wealth, assets provide the basis of agency, or the 'power to act, to reproduce, challenge or change the rules that govern the control, use and transformation of resources' (Quisumbing, 2003).

Traditional gender roles can be magnified in disasters. Often women are assigned responsibility to care for family members, stocking supplies and maintaining the household under challenging conditions. Usually it is the women who must stay at home and feed themselves, the children and the old and infirm in times of scarcity (Ridgewell et al., 2007). Women may find themselves burdened with greater responsibilities and work centered on the household, so they are less able to leave and/or move away from the area in crisis. Constant moving to find new water and grazing sources means that houses may need to be dismantled, loaded, unloaded and reconstructed. Men will have to walk further with the livestock and security is more threatening due to heightened competition for resource (Quisumbing and Maluccio, 2003).

Therefore, the roles that women play in pastoral societies should be identified and acknowledged. Not only their roles of course but also their potential problems that constrain them in pursuing their livelihood should be uncovered and become an input for policy makers. Thus, this study tries to explore the major roles that pastoralist women play in order to secure the livelihood of their respective households in two selected districts of Fafen Zone, Somali Regional State of Ethiopia.

Statement of the problem

No question that women comprise the significant proportion of the total population in Ethiopia in general

and that of the rural society in particular. In areas where the majority of households rely on agricultural activities for their livelihoods, many researches showed that women play a paramount role in this livelihood activity (Gittinger, 1990; Saito, 1994). Pastoralist women, who are living and working in arid and semi-arid environment, are also expected to play a significant role in livelihood security at household level.

Somali pastoralist's women inhabit in the arid and semi-arid low land of the eastern part of Ethiopia. However, little is known about their role in livelihood security at household level. This is because previous researchers were very busy in analyzing and understanding socio-cultural problems that the women of the Ethiopian Somali pastoralists are suffering from in the community. Hence, available literatures on the women of the Ethiopian Somali mainly concentrate on the prevalence and impacts of traditional harmful practices such as female genital mutilation (FGM), early marriage, and violence against women.

Other aspects of Ethiopian Somali pastoralists' women are overlooked by earlier researchers. Among these aspects, the roles those women play at household level in securing livelihoods of their families' come in to the forefront. Furthermore, the various Socio-economic problems of Somali pastoralist and agro-pastoralists women face in pursuing their livelihood activities are not well investigated. Therefore, the prime concern of this particular study is to ascertain the major roles that the pastoralist and agro-pastoral women of the Ethiopian Somali play in livelihoods security by taking the case of women of two districts from Fafen Zone of Somali Regional state. Therefore, this study attempted to answer the following basic research questions:

- (1) Who contribute more in income generating for the household? Are they women or men?
- (2) In what types of supplementary livelihood activities women of Somali pastoralists and agro-pastoralists are engaging in their endeavor to secure their livelihood?
- (3) What are the major constraints that face women of pastoral and agro-pastorals are facing in pursuing their livelihood security?

The main intention of the study is to explore the major roles that pastoralist and agro-pastoralist women play in order to secure the livelihood of their respective households in Somali Regional State of Ethiopia:

- (1) Determine the main source of livelihood sustainability (women/men) among pastoral and agro-pastoral households of the study site.
- (2) Investigate the major supplementary livelihood activities in which women of the Somali pastoralists agro-pastoralists are engaged in the study site.
- (3) Assess the prevailing discrepancies in terms of access to and control over basic livelihood assets between men and women in the study areas

- (4) Explore the major constraints of women to pursue their livelihood activities in the study site

The relevance of the study

The general intention of this particular study is to uncover the overall roles that the women of the study area perform in order to ensure sustainable livelihood security both during normal and crisis situations. Apart from this, the study also has explored the major socio-economic and cultural barriers that are constraining to the day to day activities of pastoral and agro-pastoral women in the study areas. By doing so, the findings of the research hopefully be an important input to policy makers so as to alleviate these challenges of pastoral women to some extent. As well the results of the study also could serve as baseline in an endeavor to encourage pastoralist and agro-pastoralist women to build their livelihood asset bases and then attain food security and finally livelihood security. Besides, the study also could be used as an impetus for those who have an aspiration to conduct further investigation in this area.

RESEARCH METHODS

The study design and approach

With regard to study design, the researchers applied the cross-sectional survey design. This is mainly because data were collected from the respondents only at one time. Indeed, while it is cost effective, such type of design does not portray changes over time in term of the issue to be studied.

In terms of its approach, more qualitative and less quantitative data were gathered via mixed research method as the researchers intended to address issues that are beyond the control of qualitative method. With qualitative approach, various types of information related to the issue to be studied were collected and analyzed. Among these, data related to types of supplementary livelihood activities in which pastoral and agro-pastoral women engaged in order to reduce household's vulnerability, the different types of livelihood resources that women have and lacked, major socio-economic constraints of pastoralist and agro-pastoral women of the study site to pursue their livelihoods, and other related issues were the dominant ones that covered by this approach.

The study employed quantitative research method as well to some extent to grasp some information that cannot be fully gathered via qualitative approach. To accomplish this, both open-ended and closed-ended survey questionnaires were prepared and distributed to sample households that were randomly selected. Socio-demographic characteristic of the respondents which includes educational status and other variables were among the major information that was addressed via this research method.

Sampling technique and procedure

In order to select the respondents and informants of the study, both random (probability) and non-random (non-probability) techniques were employed by this particular study. The non-random sampling technique was useful to select informants for unstructured (in-depth) interview while the probability (random) sampling technique

Table 1. List of sample Kebeles and sample size drawn.

District	Sampled kebeles	Total household	Sample size	Remark
Kebri-Beyah	Miragacho	225	144	-
	Labashaq	186	127	-
	Guyo	250	153	-
	Total	661	424	-
Harshin	Lankereta	240	150	-
	Aranarey	236	148	-
	Total	476	298	-
Total		1.137	722	-

Sources: Household survey (2016).

was employed for the selection of respondents for household survey. The advantage of the latter technique is to give equal chance of being selected and included in the sample for each member of the total population of the study.

Selection of study sites

Three stages of sampling procedures were used to select study sites. First out of nine zones in Ethiopian Somali Regional State, Faafan, was selected purposively due to its accessibility and also inhabited relatively with both "pure" pastoralists (those who derive at least 50% of their household revenue directly or indirectly from livestock and livestock related activities, J. Swift, 1988) and agro-pastoralists (those communities that combine livestock raising with crop production). In the same fashion, two woredas/ districts, Kebri-Beyah and Harshin that represent agro-pastoralists and pastoralists respectively were selected as study site. These woredas (districts) are divided in to kebeles (smallest administrative units). In consultation with district administrators, five (5) easily accessible (Table 1) kebeles from each district were purposively selected and respondents/informants from each kebeles were selected by the techniques depicted below.

Sample size for household survey

The actual sample size was determined using the National Education Association formula (indicated below), which is commonly used by social and behavioral sciences. Accordingly, a total of 722 respondents were selected through simple random sampling technique for household survey. The sampling frame for this strategy was fresh list of households from each sample woreda or kebele. Using this list, from the selected household for survey, women members of the household were surveyed.

$$S = X^2NP (1-P)/d^2 (N-1) + x^2P (1-P)$$

Where:

S = required sample size

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841)

N = the population size

P = the population proportion (assumed to be 0.50 since this would provide the maximum Sample size)

d = the degree of accuracy expressed as a proportion (0.05)

In case of in-depth interview, 8 informants (2 from each kebeles), both male and female, were purposively selected and interviewed in detail regarding the issues under study. In addition, by selecting women alone, 4 focus group sessions were conducted (Table 1).

Tools for data collection

The brief description of the tools selected for data collection, the specific issues each concern about, and to whom they were administered is delineated below.

Survey questionnaire

Household survey questionnaires were prepared and distributed to 722 sample households (women in the sample households). The questionnaires include both open-ended and close-ended questions. To avoid language barrier and get reliable and valid data that best suit to the objectives of the research, questionnaires were translated in to Somali language. Then, data collectors (those who are literate in all skills of Somali language) were recruited and trained for two days on how to fill the questionnaires.

In-depth Interview

This tool was utilized to dig out detail information from informants about the role of women in securing household's livelihood among pastoralists and agro-pastoralists of the study area. For this case, general questions (interview guides) were prepared and administrated to informants. Based up on the answers given for the initial questions, the interviewers framed the subsequent question. Hence, elders, district officials, religious officials, clan leaders, and etc., were among target individuals for interview. A total of 8 informants were selected and approached as in-depth interview informant.

Focus group discussion (FGD)

In addition to the above two tools, FGD was employed to generate firsthand information. From each kebeles, accessible women were selected and form focus group discussion group. Then, the researchers provided them with unstructured questions and inquired the participants to voice their feelings, experiences, and attitudes about the issue under scrutiny. Each group

Table 2. Summary of actual Sample size, sampling technique, and instruments/tools of data collection.

Tool for data collection	Sample size	Sampling strategy	Remark
Household survey	722	Simple random sampling	This actual sample size was determined by the sample size determination formula indicated above
In-depth interview informants	8 (2 from each sample kebele)	Purposive	Individuals whom researchers believe to have rich information have been selected and interviewed
FGD	4 sessions of FGD	Accidental (accessibility)	-

encompassed 8 to 12 members and all of them were homogeneous (were women) in terms of some socio-demographic characteristics. Four focus group discussion sessions were conducted (Table 2).

FINDING AND DISCUSSION

Who makes more livelihoods among pastoral and agro-pastoral communities of the study sites: Is it a man or a woman?

One of the objectives of this study was to identify, between women and men, in pastoral and agro-pastoral communities of the study area, that take lion's share in securing livelihood (ensuring access to basic necessities) at household level. Hence, various data gathering techniques have been used to obtain relevant information to answer this objective. In all sample kebeles of Keberebeyah (agro-pastoral) and Harshin (pastoral) districts, FGDs were held with community members specially women. With regard to source of livelihood at household between males and females, in both pastoral and agro-pastoral districts, the FGD discussants anonymously disclosed that females play a significant role in contribution to the livelihood security of households. In line with this, one of in-depth interview informants of the study from Harshin district depicted that in areas where community are living in very close proximity to such as areas of kebele administration, schools, health post and etc, it is a woman that engage in supplementary income generating activities such as tea vending, 'chat' selling, and small shopping. With this, according to this informant, a woman covers almost all the expenditures of the household consumption and appears to be the major sources of livelihood security at household level especially during livelihood shocks (See section 4.2.1 below). Generally, the roles that pastoral and agro-pastoral's women play in both crop and livestock production are identified by the study and delineated in detail in the subsequent section.

Roles of women in crop production and animal raring

In crop production

Whether it is crop production or animal raring, it entails

deployment of labor force. For instance, in agricultural communities, studies have proven that women that comprise the largest portion of the rural community are inefficiently utilized so as to boost production per unit (SOFA Team and Cheryl Doss, 2011). According to FAO, (2011), women comprise about 43% of the global agricultural labor force and of that in developing countries, but this figure masks considerable variation across regions and within countries according to age and social class. Women comprise half or more of the agricultural labor force in many African and Asian countries, but the share is much less in some. This is clearly observed by this particular study in agro-pastoral communities of the study site (Keberebeyah). In case of this district, the study respondents clarified that women are not supposed to participate in agricultural activities particularly crop production. The main reason that these respondents presented for such ignorance of women from such activity is attributed to physical weakness of women. According to them (respondents), women are physically too weak to undertake activities such as digging, plowing, weeding, and harvesting. The overall tasks in this regard rest on the shoulder of males. Consequently, according to data on this issue, women, pertaining to crop production, remain at home and take the role of cooking food for those who work on field (spent their time in farming activities). This current study also found out that such culturally imposed discrimination of women from farming activities could be among contributing factors for low production and failures to attain food security at household level. This is mainly due to the fact that it reduces size of labor force that should have been engaged in production but increases the size that consume what is produced by few.

In livestock production

According to data obtained from different sources, in both communities (pastoral and agro-pastoral), women's role with regard to livestock production was found to be confined to looking after of small ruminants such as sheep, goats, calves and sick large animals around the homestead while able bodied males take the responsibility of protecting large animals such as camels



Figure 1. A woman from Keberibeya district watering her emaciated cow due to drought (2016).

and cattle.

To stress the relationship between women and small ruminants, one of the respondents in Kebri-Beyah district said that “sometimes males don’t have any information about size and situation of sheep and goats of households as it is the concern of women”. He added that, women look after them at the day time, takes them to areas where there is good pasture, water them when necessary, supervise their health situation, and clean their place where they rest during night time.

Apart from these, as observed during data collection field work, women shoulder additional role in taking care of large animals such as camels and cattle that are either sick or become weak due to drought and unable to follow the flock to the field. At this time, women, in addition to usual chores, are responsible in providing fodder and water for the sick or weak animal around homestead (Figure 1). What this woman said about her every day routine activities in relation to this cow and other animals is:

I am the one who is responsible to take care of this cow since the current drought in addition to the remaining sheep and goats of the drought. In addition to caring for my children and husband, I provide water and fodder

every day for this cow. Most of our livestock (sheep, goat, and camel) are died of the drought. I am striving to rescue the life of this cow even though it is heavy burden to me. Shortage of water and fodder is critical problem in my attempt to save the life of the cow. Now we are returned back to dinging the roots from underground as bushes and grasses are already dried and ceased to be used for fodder. It is me who carries the roots while my husband digs it (A Woman from Kebri-Beyah district).

Furthermore, respondents of household survey revealed that (in both communities), in addition to ‘generative reproduction works’¹, which is mainly exceptional to women, women are responsible for the majority of household’s routine chores, which again scholars named as ‘regenerative reproduction’, that comprises the activities necessary to restore an exhausted labor forces like provision of foods, drinks, shelter, clothes, physical and psychological healthcare and care for sick, aged and disabled people. According to this particular study, women of pastoral and agro-pastoral communities of the

¹ ‘Generative Reproduction I defined as the biological “production of new producers”, including begetting, pregnancy, birth and care of infants (Grawert, 1998).

study area also bear such huge responsibilities and then play the lion's share in livelihood security at household level. Similar studies conducted on pastoralists in general confirmed that women take the lion's share in livelihood security at household level. Let me quote the findings of one of these studies with regard to pastoral women's role in livestock production besides reproductive roles;

Pastoralist women and girls tend to lactating animals and small ruminants around the homesteads, fetch water, seek and carry forage for home feeding and manage the health of nursing calves. Women also process and market dairy products make and sell mats and engage in petty trade. They work with men during herding, watering, marketing dairy products and constructing corrals (PFE, IIRR, DF, 2010: 130).

In addition, available literatures on role of women on livelihood security delineate that they play critical roles during mobility in caring for the ruminants and milking cows that remain at the homestead (PFE, IIRR, DF, 2010). They move with livestock if the whole family travels, construct huts and manage water collection and forest usage. Under certain circumstance, women are involved in veterinary care, harvesting and processing wild foods (Belay² and Gamachu, 2016; PFE, IIRR, DF, 2010).

Major supplementary livelihood activities of pastoral and agro-pastoral's women of the study sites

Petty trading

As of information from household survey, in-depth interview, and focus group discussion, the majority of women in pastoral and agro-pastoral community rely on different forms of petty trading to rescue their family members at different occasions apart from their major livelihood (pastoralism and crop production). According to in-depth interview respondents from Harshin, especially around some settlements where roads cross the settlement and kebele administrative offices are located, 90% of businessmen are women. With this regard, one of in-depth interview respondents said:

Here, mainly during drought and scarcity of rainfall, men became almost totally idle. They will be confined to home and simply chew "khat". (locally grown stimulant plant). The main responsibility rests on women to generate income to support family members. Of course, when good days return (rain comes), males will go to field to work and generate income from different earn wage

² Belay Womber is MA holder in Rural Livelihoods and Development. Conducted a research on "Challenges and prospects of Livelihood security for pastoral and agro-pastoral communities of Ethiopian Somali pastoralists" in collaboration with OXFAM-GB from May-June, 2016 (with fellow staff Gamachu Fufa, MA in Social Work).

(A Woman from Aran Are kebele, Harshin).

As witnessed by the study respondents and observed during field work, all most 'khat' (locally grown stimulant plant) vendors in all sample kebeles³ of both districts are women. Women buy 'khat' from other places and vend it in all rural kebeles of the studied districts both during normal and livelihood crisis. With the income generated from sale of 'khat', both food and non-food commodities will be fulfilled for household members.

Furthermore, it has been confirmed that the entire shop owners in all sample kebeles are women. According to FGD participants of Lankerta kebele of Harshin district, shop sailing is the duty of women in their locality. Commodities such as onion, tomato, oil, spaghetti, rice, sugar, and so forth are among the dominant ones those women buy and sell in their shops.

In addition, women that participated in interview in both districts depicted that some women engage in slaughtering and selling of meat of small ruminants, especially goats as extra means of income generation. However, they underscored the tremendous impact of drought on such activity in reducing the number of goats and scaling up their prices.

Trading of small ruminants (sheep and goat) is another activity of women which is being identified by this study. Pastoral and agro-pastoral women buy sheep and goats around homestead and take them to the nearby market for profit most of the time. Nonetheless, the study participants in both districts anonymously confessed that they are suffering a lot from unavailability and underdeveloped market in their locality. Such and other problems in relation to pastoral and agro-pastoral women's livelihood are detailed in the subsequent section of this document.

Apart from these, the study found out that women of pastoral and agro-pastoral societies of the study districts largely engage in trading of livestock products mainly milk. Interview respondents claimed that women around settlements which are closer to main road collect (buy) milk from fellow pastoralists/agro-pastoralists and take it to the nearby town for sale. Those who have an access to transportation may use cars unless the majority of them travel long distance by their foot carrying milk. In addition, women living around center of kebeles (where kebele administrative offices, schools and other institutions are located), also participate in preparing and selling of tea. According to informants, most of the time, the preferred tea is the one which is prepared from either goat or camel's milk. During data collection field work, I have witnessed this and I tested a cup of tea which is made of goat milk. The price paid per cup is relatively costly as compared to normal tea. In all sample kebeles, sizable numbers of women have been observed

³ Kebeles are the smallest administrative unit next to woreda (district) in Ethiopian context. In some areas, kebeles are further sub-divided in to communities, 'gots', and etc for the sake of easy administration.



Figure 2. Agro-pastoral woman vending milk to the nearest town, Kebri-Beyah district.

preparing such tea in their residence home and generating significant amount of money per day from such activity (Figure 2).

Patterns of expenditure along gender line (men versus women)

In the aforementioned section, the most significant supplementary livelihood activities in which women of pastoral and agro-pastoral communities take on are described in detail. From these activities, as women participants of the study portrayed, they generated significant amount of income every year (most of them failed to remember the actual amount in figure due different reasons). Of course they didn't dent that males also generate income from different activities such as sale of livestock, crop, and daily wage labor. During normal time, men also can be productive in engaging in such activities and support their families. However, according to in-depth interview informants from Harishin district, males will be obsolete during severe drought and become dependent on their wives.

Here, the objective is to ascertain the most spenders on household's basic needs between women and men in the study areas. According to information gained from FGD, and in-depth interview, women spend almost the entire income they generate on fulfillment of households'

basic needs which include staple food items (sorghum, spaghetti, maize, etc) and non-staple food items such as sugar, salt, oil and so forth. In addition, women also cover the expenditures of household and animal health. There also respondents that reported that women, most of the time, cover the expenses of habits of their husbands which include, among other things, "*kchat*" and cigarette both during normal and severe drought seasons. On the other hand, as disclosed by respondents, men also spend their income generated from different sources on household's basic needs and personal daily needs ("*Kachat* and cigarette). In conclusion, as of information obtained from respondents in both districts, as compared to men's expenditure on households' consumption, women expend more income than men.

The finding of the study concedes with similar studies on the same issue at different time and place. For instance, Reshid (2004), in his study indicated that women in agro-pastoral areas spend 93.5% of their individually generated income on purchase of households' food items and the remaining 5.8% on other necessities such as children's health. Like this study, his study confirms the existence of disparity in terms of expenditure between men and women on food and related households' basic needs in agro-pastoral areas. Reshid (2004) also found out that men spend 44.9% of their individual income on households' consumption, 50.5% on personal needs, and spend only 3.7% of their incomes on children's clothing. Form these both primary

and second sources, it follows that women contribute a lion's share in securing livelihoods of households.

Discrepancies in terms of access to and control over livelihood assets among women and men in pastoral and agro-pastoral communities

Access to and control over basic livelihood assets, as proposed by Sustainable Livelihood Approach (SLA), is a key factor that either lead to livelihood security (in case of full access) or insecurity (in case of absence of access). It is not uncommon that resources/assets are unevenly distributed among individuals, social groups, geographic areas, and etc. Household members, especially husband and wife may have exclusive access to and control over specific livelihoods under certain circumstances and conditions in most societies. The ultimate consequence of such discrepancy in access to and control over livelihood resources is inability to attain livelihood security. Understanding this notion, this study has attempted to disclose the nature and situation of such discrepancies between women and men among pastoral and agro-pastoral communities of the study area. In line with this, basic livelihood resources such as land, livestock, access to education, and income are selected due to time and financial constraints and the nature of access to and control over these resources by women and men were examined visa-a-vise each other as follows.

Access to land

Land is one of the crucial livelihood resources that nature endowed human beings all over the world. Without exaggeration, land is the source of most of other assets. Due to this fact none can exist without piece of land that could be utilized for extraction of means of living in various ways. For instance, in agricultural activity, land is the top requirement for a household for cultivation and crop production. Similarly, for pastoralists and agro-pastoralists, land is the backbone of their economy as it serves as source of grazing pasture, water, and crop production, natural resource such as trees, wild animals, and so forth. The argument is having access to land of some sort means expanding opportunities for livelihood security.

Even though land tenure is one of the contentious issues in Ethiopia, every household (in all types of livelihood system) is expected possess a plot of land on which it has the right of utilization of land's resources. The prime concern of the study is to discover, who, between men and women (husband and wife), control over the land that belongs to the specific household.

Pertaining to this issue, data from household survey, in-depth interview, and FGD reveals that in pastoral and agro-pastoral communities, household's land is the

common property of both parties as long as they are residing together. However, upon divorce, according to informants of the study, two situations are commonly practiced in both social groups. The first case totally denies women's access to land. In this first case, a woman will be obliged to leave her husband's home and family leaving all properties including land and join her relatives (clan) up on divorce. Informants of the study also added that a divorced woman will receive only those assets that the husband gave her or promised to give during "*nikah*". This could either in cash or kind (for example, gold, camel, etc) and most of the time paid before marriage and rarely after marriage is concluded.

Second, according to in-depth interview respondents, under certain conditions, there is condition in which the husband leaves certain properties including land to wife during their divorce. One major condition that enforces the husband to do this is if they have child/children in common. Under this circumstance, the husband will leave the home including land for the wife and her child/children. At this time, a woman with her child/children can control the land. This is rarely practiced in both social groups (pastoralists and agro-pastoralists).

However, due to traditions and customary laws that has been exercised within the society for years, the issues of land is still among source of conflict between wife and husband among agriculturalists such as Amhara communities (Birtukan, 2016). Birtukan (2016) added that customary practices could not change the status of men as the owner and head of the household, who is supposed to exercise power over the use and management of household's resources mainly land, most valuable resources of the society. The same is true for pastoral and agro-pastoral communities of the study areas as such socially constructed traditions has excluded women from control over land. The difference is that women of pastoral and agro-pastoral will not take the case of land to either kebele or clan leaders or court up on marriage as they remain abide to their customary laws soon after their marriage.

Access to livestock

Pastoralists derive their livelihoods directly or indirectly from livestock production while agro-pastoralists combine crop production. Livestock is another crucial livelihood asset on which pastoralists and agro-pastoralists rely. In general, livestock that pastoralists produce mainly include sheep, goats, cattle, and camel. Households own all or some of these livestock so as to pursue their livelihoods. The question here to be raised is who have more power on the livestock in the household (male or female) among pastoral and agro-pastoral communities of the study sites. According to information gathered from different sources, to some extent, both male and female are endowed with equal sort of power and can pass decision

Table 3. Educational Status of Sampled Women.

Woreda	Total	Can read and write	Percentage (%)	Can't read and write	Percentage (%)
Harsgin	298	39	13.1	259	86.9
Kebri-Beyah	424	64	15.1	360	84.9

Source: Household survey (2016).

on their livestock as long as they remain loyal to their marriage. In relation to protection of livestock, women have intimate relationship with small ruminants while males appear to be responsible in protection of large animals. However, respondents of the study confirmed except some sort of discussion during sale of sheep or goat, males are dominant decision makers on the sale of livestock and control over the income. When livestock is sold up on agreement, according to informants of the study, the income will be invested on household consumptions while the remaining can be used to buy another animal either for breeding or future sell. Following divorce, like other assets, women will not take share of livestock except those assets she received during 'nikah'. This culturally bounded practice of divorce is one of the hindrance factors for pastoral and agro-pastoral women to have control over livestock resources.

Access to education

Without any doubt, Level of education is one of the determinant factors of livelihoods of an individual. Sustainable Livelihood Framework (SLF) proponents suggest that education contributes to livelihoods in equipping individuals with the necessary skill and capabilities (knowledge) to pursue efficiently the already tamed livelihood activity or seek alternative livelihoods (ADB, 2008). Data from both secondary and primary sources of the study reveals low educational status in general in both districts.

In Harshin district for instance, of the total population above 15 years of age, only 15% of them can read and write. Out of this literate population, 76% of them did not complete first grade level, while only 13 and 11% of them attained primary school (1 to 6 grade levels) and above primary school respectively (WDRPP, 2012). With regard to gender parity, the ratio becomes larger in favor of males as the education level attained gets higher, which implies the majority of females discontinue their education even before completing first grade and many of the remaining leave school as the level gets higher (WDRPP, 2012). The household survey data in this district also portrayed that more than 86% of sampled women can't read and write (attend any formal education) (Table 3).

In the same fashion, in Kebri-Beyah district, studies have observed huge gap between male and female in terms of educational level. As indicated by the data from household survey, about 85% of sampled women in this

district also can't read and write. According to a study conducted by E. Jackson, 2011, the gross literacy for this district is tended to be 9.2% while male and female literacy was 12.4 and 3.8% respectively (Jackson, 2011). Realizing this huge disparity between men and women pertaining educational status, sampled women in both districts were inquired what they feel the impact of lack of adequate education on their lives in general and livelihoods in particular. All agreed up on that it has negatively affected their pursuit of livelihoods. Among other things, the response given by a key respondent woman from Kebri-Beyah district of Guyo kebele attracted me and I directly quoted what she said as follows:

I can't read and write. This means I am like someone who is living in a dark room. Educated person can create different alternatives in business because he/she has the skill. This is what I lacked. Again, even to sell my livestock, language is very important to transact. All these would be gained from education. There are many opportunities to families in our locality. But most of us didn't attend education. Generally, most women remain home and become dependent due to lack of education. Now a days to some extent schools are being constructing in our areas and as much as possible I will send my children to schools (including girls) because I don't want to see them being illiterate like me. I also urge government to facilitate the launching of adult education for illiterate women in our locality (An in-depth interview informant woman from Guyo kebele, Kebri-Beyah)

Besides, FGD participants from Harshin district witnessed that lack of education has negatively affected not only their livelihoods but also their social status. According to them, the problem of lack of appropriate education is manifested in different ways of life likes of animal health, child caring, food preparation, personal and environmental hygiene, and so forth. The cumulative effect of all these is low performance of women in the effort to secure livelihoods of a household.

Access to income

The study endeavored to examine the prevailing situation in terms of access to and control over household's income between men and women in the study areas. Evidently, the main source of income for pastoralists is sale of livestock while agro-pastoralists sale certain types

of crops during good rainy season. The main concern here is identifying the one who take responsibility of selling the animals and crop and manage the generated income. Pertaining this issue, information from survey and in-depth interview informants showed that in sale of livestock (mainly sheep and goat) and crops, both male and female will discuss and pass decision. With regard to control of the income, again information gathered on this issue revealed that both male and female will decide what to buy for household consumption (food and non-food items such as clothes) and the remaining will be used for buying another animal in the form of saving. However, women of pastoral and agro-pastoral communities engage in different livelihood activities likes of petty trading and generate their own income independently. By doing so, they can be live rescuers especially during severe drought that will end up in loss of livestock and idleness of males. Participants of the study confessed that women will cover the majority of households' needs by the income they generated from different livelihood strategies.

Major constraints of pastoral and agro-pastoral's women in pursuing their livelihoods

Socio-cultural constraints

In most societies all over the world there exist socially constructed practices that either degrade or upgrade social and economic status of women. In an attempt to identify such socio-cultural constraints of women of pastoral and agro-pastoral communities in their pursuit of livelihoods, the study has come with significant number of problems some of which are discussed below.

Gender-based division of labor

Like in all other societies, both agro and pastoral societies also developed tradition of gender based division of labor that ascribes distinct roles to males and females (Table 3). Data from secondary sources confirmed that women of pastoral and agro-pastoral communities of the study area are assigned double roles i.e., reproductive roles (domestic activities and are considered as the exclusive responsibilities of women and girls) and productive activities (which are related to production of livestock and can be performed either daily which includes milking, herding, etc, seasonally that includes excavation of wells, migration, etc) or occasionally veterinary care) (PEF, IIRR, and DF⁴, 2010). The primary data sources also evidently confirmed that women and girls in the study area are responsible for both reproductive and productive activities indicated

above. As could be seen from (figure 1 above), most of the time, women perform the two activities simultaneously, that is, the reproductive role (caring for children) and caring for livestock (productive role). According to FGD participants and in-depth interview respondents of all sample kebeles of the two districts, women and girls are occupied by such tedious and recurrent reproductive activities that consume their time that would have been spent on other either social and economic activities. Furthermore, productive activities has been found to be very severe burden coupled with reproductive activities on pastoral and agro-pastoral's women during drought season. Form observation and in-depth interview it has been found out that women's role becomes greater than that of men's as women involve in at least all activities including herding, collecting of fodder and forage, watering, veterinary care, and etc.

Polygamy type of marriage

The other socio-cultural impediment of pastoral and agro-pastoral women that has long lasting consequence on their livelihoods is the practice of polygamous marriage that allows a man to marry to more than one woman at the same time. Women who participated on this study in all sample kebeles anonymously the prevalence of such type of marriage together with its adverse effect on their livelihoods. While asked the specific effect of polygamous marriage on women's livelihood, a number of reasons were given by different respondents. But the responses given by one in-depth interview informants from Aranarey kebele of Harshin district is tend to be inclusive and quoted follows:

Women of pastoralists are suffering from many problems that hamper their livelihoods. Culture related problems have invisible roles. For example, having more than one wife is one of the challenges. If a man who is initially married to one wife marries other additional wife, this will lead to many social and economic crisis of the household. On one hand, he has to divide the livelihood assets (mainly the scarce land) to the new comer wife and on the other hand addition of wife means increasing family size (A Woman from Aranarey Kebele, Harshin)

From this it follows that the practice of polygamy profoundly affects not only the social status of women but also their livelihoods as it entails the further division of the most scarce and valuable assets among wives and children. Consequently, the significant diminishing and ultimately shortage of such valuable livelihood resources is imminent among polygamous communities.

Nature induced constraints

True, pastoralism and agro-pastoralism as way of life are taking place in areas where climatic condition is

⁴ PFE, IIRR and DF. 2010. *Pastoralism and Land: Land tenure, administration and use in pastoral areas of Ethiopia*



Figure 3: Bodies of sheep and goats that died of drought in 2016, Kebri-Beyah.

unpredictable and then rainfall is also erratic. Due to this, pastoralists' and agro-pastoralists' areas in Ethiopia are under recurrent drought most of the time. The current drought (2016), which was induced by '*Ilino*' and took the lives of sizable number of livestock in Ethiopian Somali Region, is the recent case in point. At the time of data collection field work, April to May 2016, it has been observed that the two districts (Kebri-Beyah and Harshin) are observed being highly affected by the drought as a number of sheep; goats, cattle, and donkey were died and lied down on the field everywhere (Figure 3).

Here, someone may ask the overall consequence of

such natural catastrophe on the livelihoods of pastoral and agro-pastoral women. The study has come up with multifaceted impact of such phenomenon in both social groups. On one hand, as clearly indicated in the above section, it crates additional burden on women and girls. This is to say that, women and girls will be forced to take on extra activities such as caring for sick and emaciated livestock (Figure 2 above) in addition to other household chores. On the other hand, such episode entails mobility of livestock in search for pasture and water by travelling long distance-sometimes crossing borders.

For instance, according to a study conducted by Belay

and Gamachu (2016), agro-pastoralists of *Kebri-Beyah* district witnessed that they move to distant areas (up to Somaliland) in an intension to rescue their livestock. The real effect of such mobility is that it splits the family in two (women and children remain around homestead while husband and able bodied members follow livestock). Under such circumstances, according to in-depth interview informants, pastoral women take on the overall responsibility of caring for the family and small ruminants and calves that remain around homestead. They added that, women will be confined to such activities and time would be very precious for them to engage in other extra livelihood activities until husband return back.

Besides, FGD participants confessed that for those women who carry out petty trade (as discussed above), the drought periods result in weak market as majority of population lost their means of income (livestock and crop) due to drought.

Other constraints

Apart from the aforementioned identified constraints, the study has ascertained the existence of other impairments to the livelihoods of pastoral and agro-pastorals' women. The main critical obstructions are selected and discussed in the subsequent section.

Poor infrastructures

Under this section, the nature and characteristics of the major physical infrastructures that directly affect the livelihoods of pastoral and agro-pastoral women is highlighted.

Absence of market places

Market centers are one of the physical infrastructures where people buy and sale or exchange commodities. The premise is that access to developed market means easy transaction of produced goods and service at faire price. Nonetheless, according the finding of the study, pastoral and agro-pastoral women of the study areas are not in position to have an access to such market. As of FGD discussants in most sample kebeles, most of the time they are traveling long distance by their foot to reach market places to sell their products such as small ruminants and dairy products. They also added that the available market centers are either too far from their localities or have no road for vehicles for transportations. Studies also indicated that while the government acknowledges the importance of the livestock trade to the national economy, little is done to develop market services (PFE, IIRR, DF, 2010; Belay and Gamachu, 2016).

Roads

Another physical infrastructure that supports human beings by providing simple and fast transportation is road. As it has been observed during field work and as well confirmed by respondents' of the study by themselves, roads that connect kebeles with kebeles and centers of the district are poorly constructed. Most of the roads in pastoral areas are only dry season roads that only serve when there is no rain. As a result of this, women in pastoral areas are obliged to travel long distance on foot carrying their commodities both on their back and hand. In line with this, PFE, IIRR, DF (2010) carried out a rigorous research on the physical nature of physical infrastructure and other source of pastoral areas in Ethiopia and concluded that most pastoralist areas are characterized by poor infrastructure including inaccessible roads and underdeveloped markets. Being the home of huge livestock resources, pastoral and agro-pastoral areas are neglected in terms of basic physical infrastructures the likes of roads. According to a research done by Belay and Gamachu, 2016, in Awabare and *Kebri-Beyah* districts, pastoral and agro-pastoral areas are under critical problem in relation to roads infrastructure. The number one victims of this setback are women who shoulder double responsibilities in the effort of livelihood security.

Lack of education (illiteracy)

As earlier mentioned, it is portrayed that illiteracy rate is higher for females as compared with their male counterparts in both districts under scrutiny. Women are denied access to education particularly during the past regimes due to cultural imposition. The cumulative effect of illiteracy could be manifested in lots of life of a women and then adversely affect their livelihoods. Women of Harshin and *Kebri-Beyah* district witnessed this fact in comparing themselves with "someone who lives in dark room". Women now a day understood that lack of education is no less than lack of skill and ability in field of livelihood diversification and then livelihood security. Cognizant of this, especially from *Kebri-Beyah* district, one in-depth interview informants urged the government to launch adult education not only in her locality but also for all women of pastoral and agro-pastoral communities.

Inaccessibility to saving and credit institutions

As explained earlier, women of pastoral and agro-pastoral communities play indispensable role in livelihood security at household level. However, according to the findings of the study, these women are suffering from a number of challenges some of which are described above. One of such critical challenges tends to be inaccessibility to saving and credit institutions. Of total

sampled and surveyed households in both districts, nearly all of them reported that they have no access to such institutions. In addition, in-depth interview respondents also portrayed that such institutions are not expanded in their locality. With regard to this issue, one in-depth interview respondent stressed the problem as follows:

Women of this locality (Harshin district) are far from the benefit of such institution (saving and credit). We heard that some people residing near to town are benefiting from the institution by receiving credits and saving their money. If we get these institutions in our area, we can get financial credit to run other livelihood activities in addition to usual ones (In-depth Interview respondent Woman, Harshin).

Expansion of saving and credit institutions in all areas will enable individuals to have an access to financial assets which in turn enhances the capability of livelihood security. Pastoral and agro-pastoral communities are not exceptional in this regard. Studies conducted by different scholars at different times also shows that pastoral and agro-pastoral areas of Ethiopia are characterized by short supply of saving and credit institutions that would have empowered women's access to financial resources (PFE, IIRR, DF, 2010; Belay and Gamachu, 2016).

Conclusion

The study intends to determine the role of women in livelihood security among pastoral and agro-pastoral communities of Ethiopian Somali Region. It was conducted on two selected districts of Faafan administrative zone. Specifically, the study has attempted to address a number of issues in relation to pastoral and agro-pastoral's women livelihoods. Generally, based on the findings of the study, the following conclusions are drawn.

According to findings of the study, women in both pastoral and agro-pastoral societies play indispensable role in securing livelihoods (ensuring the access of household members to basic necessities) at household level. This is because women of the study community not only engage in reproductive activities but also participate on productive activities (the common livelihood activities likes of crop and livestock production) like that of their male counterparts in both normal and livelihood crisis conditions. In addition, the study has ascertain that pastoral and agro-pastoral communities of the study area generate substantial amount of income from supplementary livelihood sources especially petty trading of different types of commodities. By doing so, women appear to be life rescuer especially during livelihood shocks in pastoral and agro-pastoral areas of the study districts. However, it has been made note that women's

role in crop production is minimal and most of the time confined to feeding role of those males male that are plowing, weeding, and harvesting on the field due to cultural imposition.

With regard to livelihood activity engagement, as explained earlier, women are actively participating mainly in livestock production. Activities like caring and looking for small ruminants such as shoats (which are main source of livelihood for pastoral and agro-pastoral communities) are undertaken by women in addition to repetitive household chores. Moreover, the study also has come across with that women of the study community assume variety of livelihood activities to supplement their major means of living. Petty trading is the most important extra livelihood activity in which women of pastoral and agro-pastoral communities are engaged in. sale of live small ruminants (sheep and goat), vending tea with milk, "kaht" vending, shop business, butchering, and so forth are some of the means of generating income for the majority of women in these areas as identified by the study. Apart from these, women of pastoralists and agro-pastoralists are responsible for building and maintaining of houses during mobility. As of the findings of the study, women expend more income on household's consumption than men.

One of the major findings of this study is the prevailing disparity in terms of access to and control over certain basic livelihood assets between pastoral and agro-pastoral women and men. According to the study, huge gap observed between the two parities in terms of human capital, that is, access to education. Such discrepancy induced by many factors. The first is attributed to cultural impositions that favor males to go to school at the expense of girls while the other is directly related to inadequacy of educational services in their locality during near past periods. Except this, women of the study area reported that more or less they have similar access and control over household resources such as income generated from sale of livestock and crop. With regard to land of household, as it belongs to the household, women also have the use right as long as she is residing with her husband. In case of divorce, women will have no right to take a piece of land from her husband. In very rare case, the husband is going to leave the land for both his wife and children/child following divorce. Under such circumstance, a woman has the opportunity to own land and extract its resources.

The current study also set to identify the major plights of that woman of the study communities' are facing while pursuing their major and supplementary livelihood activities. By this endeavor, the study has come across with a number of predicaments of women in the study area. First, socially constructed and ever practiced polygamous marriage is tended to be one of factors that erode livelihood assets of women mainly land. This is due to the fact that at the time of plural marriage, reallocation (division) of assets (such as land, livestock, etc) among

wives will eventually result in diminishing of those assets per household. Besides, plural wife means more children will be born from each wife and will escalate family size and this in turn will cost a lot on the entire family in terms of expenditure of income. Second, the study has revealed that women of the study area are under severe pressure due to nature induced catastrophes. Drought is one of such catastrophes that erodes the livelihood assets of pastoralists and agro-pastoralists in general and of women in particular. The real net effect of such episodes is that:

- (1) They over-burden women as women will be caught in extra activities such as caring for emancipated and sick livestock, carrying forage for animal feed, and so forth other than normal activities during drought season.
- (2) Drought entails mobility following livestock in search for better pasture and water as this in turn results in split of families in to two (women, children, and small ruminants will remain around homestead while males and able bodied boys follow livestock). In such cases, women become accountable for all roles in the household in the absence of husband bearing multifaceted roles.

Furthermore, in addition to the aforementioned predicaments, the study has identified other plights that substantially obstruct women's pursuit of both supplementary and major livelihood activities in the study areas. Under-developed and absence of market, poor infrastructure especially roads, and lack of education (high prevalence of illiteracy) are some of the hindrances to women's livelihood in the areas under scrutiny. Finally, as proposed by SLF, livelihood security can be attained by having access to and control basic livelihood assets as indicated in Figure 1. The framework proponents further argue that mere access to these assets doesn't guarantee livelihood security unless they are not mediated by proper policies, institutions, and processes. Drawn up on this framework, the study ascertained that women of pastoral and agro-pastoral communities, residing in vulnerable context (drought, climate change, and population pressure) lacked access to major livelihood assets such as land, human capital (low educational status), physical infrastructures, saving and credit, and so forth.

Recommendations

The study has already identified and delineated the major roles that women of pastoral and agro-pastoral societies are playing in securing livelihoods at household level. Moreover, the major challenges that women of the societies under study are suffering from are also ascertained. The point is those identified obstacles to women's pursuit of livelihoods should be curbed if women's social and economic status is needed to be

positively progressed. With this aim in mind, the following recommendations are forwarded for the concerned governmental, NGOs, or other philanthropic organizations to give undue attention in their intervention process.

- (1) With regard to plights induced by nature during severe drought, the provision of aids and the entire philanthropic activities should be in such a way that takes in to account women's problems and programmed to minimize their problems.
- (2) So as to reduce socially constructed problems mainly plural marriage and its associated problems, consecutive awareness rising education should be given by different government bodies such as Women's Affairs Office's workers expertise and other NGOs
- (3) As much as possible, undue attention should be given to the expansion of physical infrastructures such as roads that would ease the pursuit of both supplementary and normal livelihood activities for women in the study areas
- (4) In order to curb problems related to illiteracy, as requested by women of the study area, adult education that centered women should be launched not only in the study areas but also all pastoral and agro-pastoral areas in the region
- (5) To ensure women's access to financial assets, there should be fair distribution of saving and credit institutions and the rules and regulations associated with such institutions should be relaxed so that rural pastoral and agro-pastoral women can be benefited from the schemes.
- (6) The entire policies and projects that would be designed for pastoral communities should focus on the prevention and reduction of the effects of natural catastrophes before causing devastating damage on the livelihood assets in general and that of women in particular

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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