

Research article

Women's contributions versus Men's patriarchal status among Afar pastoralists in the Lower Awash Valley

Bisrat Teklesilassie Yazew

Addis Ababa University, College of Social Sciences and Humanities, Centre for African and Asian Studies, Ethiopia

ARTICLE INFO

Keywords:

Responsibilities
Networks
Reciprocities
Patriarchal
Society
Roles
Status

ABSTRACT

This study examined women's unrecognized roles in facilitating socio-economic interactions and clan networks in a patriarchal society. A qualitative research methodology was chosen. Situational observations, key interviews, and group discussions were applied as data-gathering tools. A thematic descriptive analysis method was used to examine the data that had been gathered. Accordingly, the study found that women are not participating in leading customary institutions and publicly due to the traditional patriarchal domination. However, the customary law shields women from various presumptions. It has been noted women's participation in maintaining social order, economic reciprocity, and resource sharing. Most importantly, women's continual control of household responsibilities and income-generating activities is essential to Afar society's survival. The study recommends that multifaceted interventions should be made to maintain women's role in supporting their traditional methods of engaging in maintaining clan networks. An intervention should mostly be better focused on women's activities as it will help to explore additional mechanisms that uplift either women by themselves or by the initial intervention system. Therefore, the study recommends incorporating pastoral women's roles into more extensive women's enclave empowerment policies and removing the existing sociocultural limitations to allow them to contribute more to pastoral livelihoods.

1. Introduction

1.1. Background of the study

Pastoralism is a livestock production practice that follows specific grazing activities across spatiotemporal scales [1]. Pastoral life involves raising various livestock species while adhering to the proper mobility patterns in diverse ecological settings ranging from lower altitudes (dry rangelands) to the highest altitude (mountainous alpine grasslands). Around the world, this practice provides a living for 500 million people [2]. In addition to their direct participation in pastoral livelihoods systems, women have performed related household activities like milking cows, taking care of calves and sick animals, preparing fodders for animal foods, managing ponds and river water sources, fencing the household compound and constructing a mobile house and producing other animal by-products [3]. Traditionally, pastoralist men have been portrayed in literature as natural leaders and decision-makers. This puts women who have typically been described as culturally subordinate to patriarchal foundations. In research and discussions within academic circles and practices, pastoral women's roles remain invisible and not acknowledged [4,5].

Women are the backbone of society, making different activities and contributions. In African societies, patriarchy is a social status,

E-mail address: bisrat.tsilassie@aau.edu.et.

<https://doi.org/10.1016/j.heliyon.2024.e34469>

Received 4 July 2023; Received in revised form 4 July 2024; Accepted 10 July 2024

Available online 11 July 2024

2405-8440/© 2024 The Author(s). Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

authority and control of household properties and family conditions. In the pastoral livelihoods system, the most prominent works of men are being heads of social groups, clans, and other figurative associations. In a patriarchal culture, men enjoy more discretionary power, proficient status, and resource access. Compared to their female counterparts, they are regarded as cleverer, have professional prestige, are wise, and skilful, and possess better personal qualities [6]. At this juncture, currently, patriarchy is a hierarchical structure in which women are expected to perform household labour, be mothers, and be consumers [7]. Men have greater opportunities, privileges, and influence over property ownership in patriarchal societies than women have. Men define and shape cultural norms and ideas [8]. Men are positioned as superiors and women as subordinates in this male-dominated society, which leads to social inequality, discrimination, and injustice [9,10]. It also describes the distinctions between the status, opportunities, duties, and responsibilities of men and women [11]. Given that women constitute half of the population, it is crucial to take their socioeconomic development and empowerment into consideration [7,9].

Feminist scholars have been debating the idea of patriarchy in current gender discourses as a means of explaining the asymmetrical status of men and women. According to these remarks, patriarchy means that women are subservient. For women, the patriarchal system establishes standards and self-definitions. These norms constrain women only as wives and mothers. Additionally, the patriarchal system generously rewards all women who acquire their designated roles through passive means. In a patriarchal system, being a wife and other are both idealised [12]. In addition to receiving societal condemnation, these roles are also extolled in the area's literature, religion, and folklore. For women to fully participate in assuming their social positions there should be support and uphold the patriarchal social structure. Patriarchy has both beneficial and detrimental effects [13]. Because patriarchy limits women's rights, liberty, and freedom, and is considered an obstacle to the socioeconomic progress of women [10].

Feeble narratives and shallow depictions of pastoral women as victims of patriarchy, denied property ownership, and burdened with excessive unpaid labour have been permitted to continue due to a lack of critical analysis and contextual investigation. Too little has been known about gender issues and the social challenges that accompany pastoral livelihoods [14]. In most previously conducted research, the gender component is only marginally considered in pastoral contexts, leading to conclusions that suggest that women are subservient, doubly marginalized, or located at the lower margins [15–19]. As a result, pastoral women are categorized as oppressed, not celebrating social status, un-participant, weak and voiceless [20,21]. Meaning, this speculation discourages women from going further to find alternatives and better life paths.

Like other pastoralists who reside in Ethiopia, in Afar pastoral livelihood nature, women take a share of the larger workforce, particularly in rural and home settings. International organizations like [22–24] agree that mainstreaming pastoral livelihoods requires a gendered approach. The socioeconomic roles of women in some specific places were partially stated in the earlier work. This study demonstrated gender divisions as a critical analytical view for comprehending the structure of Afar pastoral livelihoods. However, the literature that is now available ignores or explicitly addresses pastoral issues from a male perspective, excluding the challenges and difficulties faced by women. For instance, a figure count research [25–33] has dealt little with gendered differences in Afar pastoral women contexts. However, pastoral women's vital roles in facilitating socio-economic activities such as managing the division of labour and resources, carrying household workloads, utilizing access to resources, making decisions regarding mobility and marketing, and securing household incomes have not yet been recognized in works of literature, contextual examination, critical analysis, and policy planning. The recurrent drought affected pastoralists' reciprocities and sharing habits. The desporadic conflicts halted their mobility. The household burdens and lack of income have forced the males to share the work division, which was the only responsibility covered by women. A struggle for survival has changed the patriarchal nature of men through participating in household duties and finding income. Taking these scenarios, gender roles and characteristics, as well as disparities, change as situations are alarmingly evolving from time to time. Women's roles in the pastoral Afar context have deviated from the override previously done reports and works of literature. The reason is that human and naturally-made impacts have changed pastoralists' socio-cultural and economic trends.

In a patriarchal society, in certain circumstances, women have not become clan leaders and participate in negotiation issues at the court and public level. However, their decision-making process resides more in cases of household issues, such as engaging in the marketing of selling goats or sheep and buying goods and food items. As the recurrent drought harmed more of the livestock, no livestock was sold. This creates an impact on finding additional income for households. As they performed in the previous times, freely making mobility has now become impossible. It is the impact of conflicts that exacerbate everywhere in the locality. In line with this, the Afar pastoralists are now afraid of moving to other localities to get water and pasture for their livestock and access household commodities. This indicates that the long-lasting trend of society moving from one place to another for access to the market while following seasonal change has affected their overall pastoral livelihoods. The patriarchal nature of men has now changed, and they have become ready to share the burdens of the household. The needs of both the husband and the wife are not a matter of social status; instead, they are in critical need of food and household incomes. Therefore, these current scenarios indicate that both the wife and the husband have begun to consult more on making household decisions, settlement, marketing, food items, goods, and mobility matters.

This study re-assesses gender-disaggregated information about pastoral women and focuses on a qualitative methodology. Qualitatively collected data was analyzed considering social network features such as clan groups, people, and nodes, network ties, networking events, social links, and maintaining relationships with others who can be helpful in the socio-economic reciprocity processes. It is the reason that network ties serve as links between players, while networking events foster communication and social networking based on shared interests [34–36]. At this point, it was proposed that social networks could be a helpful way to explain the reasons for the constraints, status of patriarchal dominance, and cultural challenges that women face in Afar society's contexts. In discussing selected literature, the study brings to light the social relationship perspective and the roles of pastoral women and challenges the presumptions that they are doubly marginalized and disadvantaged. The study suggests various interventions while maintaining policies and critical analysis in understanding and addressing the complex relationship between pastoral women and their

roles through social networks. Therefore, the researcher intends to explore pastoral women's socioeconomic roles about the male dominance of Afar pastoralists.

Both the administrative hierarchies and level of social structure are the manifestations of the Afar people. Afar's clan social organization superficially reflects male patriarchal dominancy. However, the Afar society's women's roles versus men's patriarchal status should have been given due consideration. Accordingly, this research explored women's contributions to pastoral livelihoods and women's constraints in Afar society. This study finds the main connection between social networks, resource distributions, seasonal mobility, and socio-cultural practices. The combination of various socio-cultural values, economic components, and pure qualitative research methodologies were applied. The combination of such variables' contributes more to keeping the novelty of the study. According to the findings of an earlier study, Afar pastoral women were fully denied social standing and economic property rights. However, this study both confirms and corrects previous research on women's roles in preserving the socio-economic relationships within Afar society. Through social networking, women play a significant role by regulating and promoting various reciprocities. Women's social status and economic importance have been protected by the applications of traditional legal procedures. It shows that women pastoralists' interests should have been explored from methodological preference perspectives. Therefore, it is now a significant discovery that aids in reimagining the distorted beliefs about Afar pastoral women's responsibilities in the distant setting from several perspectives.

1.2. Study significance

Literature indicates that rural women have concentrated on marginalized and deprived socio-economic rights. However, this study highlights the importance of women's responsibilities in remote and rural pastoral societies. They facilitate and sustain social contacts from individual to community levels. Consequently, the study's conclusions will be added to and used as an additional supply for already written documents in any of the related disciplines. Therefore, this study will recommend that society, governmental non-governmental and social actors re-examine the socio-cultural and economic nature, characteristics and worth of pastoral women and propose to establish various sustainable pastoral community-based projects.

1.3. Theoretical and conceptual framework

1.3.1. Social network approach and practical analysis

This study follows the theoretical framework preferences of Bisrat and Getachew [37] and makes the necessary conceptualization based on the study objective. Many social science study domains have widely utilized the social network approach. Depending on how one views it, the definition could change. The reciprocal assistance between persons who are connected inside a social group is known as social ties, which can help define the extent and kind of social support required to generate social capital among groups. Numerous research traditions have impacted this approach in its current state. Several studies used this approach and studied parent-child interactions (networks) [38], social networks associated with the field of social networks [39], and utilisations as to how to identify patterns within social networks. Other studies have also focused on finding out what affects the balanced triad of network ties and the links and the roles that various obstacles coup up by effective social ties activities.

Social network is the foundation for social network analysis and an essential tool for understanding social structure. Its technique can help to measure the interactions between users in social networks. Some network ideas invade social structure study as more scholars focus on it and consider social life's 'network structure.' Stated differently, individuals and content have a symbiotic relationship that allows them to find each other [40]. As highlighted by social network analysis, the structure is crucial in characterising the social environment [41]. Currently, there are two methods for investigating social networks: *sociometric analysis*, which takes connections among all network participants into account, and *egocentric analysis*, which concentrates on networks of interpersonal interactions. On the other hand, sociometric linkages can concentrate on a range of social contacts, such as romantic partnerships, friendships, people with whom an individual uses resources and associated activities between social service agencies [3].

1.3.2. Social networks, gender differences and social capital theory perspectives

Gender difference has been the topic of multidisciplinary study in numerous disciplines. Studies have already examined the nature of gender disparities, where they came from, and how they affect people's lives. Academics disagree on how to interpret the difference between men and women that has been seen. All agree, however, that behavioural variations stem from distinct biological roles and are strengthened by societal norms and cultural beliefs [42,43]. Gender roles impact the subtleties in the formation and development of these social connections, which can only be fully understood through studying social networks [44]. More broadly, it can aid in recognizing and comprehending these differences. Institutional and social variables may influence organizational approaches to gender diversity, as they address concerns related to gender equality or inequality in the place of work [16,45].

Connecting and uniting social groups or organizations is mostly dependent on networking. As previous research has shown, networking is an essential source of knowledge [46]. Networks are an opportunity set that aids society in gaining access, according to existing literature [47]. According to numerous studies, women identify more family members as confidants when discussing significant issues; women in similar social situations as men typically have more networks of relatives [48]. Specific research has concluded that women are at a disadvantage because of gender disparities in network makeup [49]. Social network structure variations based on gender may affect the kinds of assistance to be received. For example, research on social cooperation has demonstrated that women are more probably than males to look for and offer emotional attachments. In contrast, men are more supposed to do the opposite [50].

In general, social capital is expressed as follows: (1) the capacity of connectors to obtain financial advantages through participation in a social ties process [51]; and (2) the capacity to obtain actual or potential resources, such as information, trust, and social norms, that influence people's social interactions [52]. The social network resource and structural approaches are the primary theoretical frameworks in social capital theory that provide the foundation for gender inequalities in social networks. The network structure approach is mainly concerned with comprehending the networks' structures and dynamics that influence how individual interpersonal interactions can be transformed into economic or financial gains [20]. A social network's size, density, range, diversity, and composition are among the characteristics used to quantify its structure. The network resource method examines the types of resources that are part of a network and could help with the growth of microenterprises [53]. Indicators, including network participants' quantity, quality, variety, and socioeconomic standing, are used to quantify the resources within a social network [5]. In line with this, the two techniques are integrated, and while Lin [54] claims that the social network resource approach has essentially superseded the social network structural approach, a more helpful theoretical framework for examining gender disparities is evident. Furthermore, this can aid in elucidating how a network's content and configuration affect the calibre of resources integrated within networks. To put it another way, there are alternative methods for examining gender disparities in social networks: *structure and resources*. Thus, this study left a gap for further studies focusing on the impacts of gender differences on societal social network roles.

As a patriarchal society, Afar pastoral men have the full mandate of power to control the available assets of the household and make a decision for it, as it has already been taken as a tradition. It has to be clear that women's role in deciding household level is like that of male encounters. Such social status has now begun to change because of natural and human-made bad consequences on their livelihoods. In contemporary times, both males and women of household heads are doing more to access lost household assets and find other income opportunities. From the experiences of the society that considered male dominance, it seems difficult for the influence of men to convert easily. Therefore, women have now become in a position to control household productive assets, which is a result of men starting to help their women search for firewood, fetch water, and take care of household food security. Women still have duties that include caring for infants, gathering firewood, cooking, carrying heavy loads of water daily, and going to the mills despite their difficulties during the drought season [55].

The patriarchal nature of society has gradually changed and males become participants in sharing household burdens and responsibilities. For instance, as Fig. 1 above depicts, pastoral women are becoming more concerned about solving the household food shortage, getting better health services for family members, and being much busier in preparing firewood. Since then, men's focus has been on the safety and continuity of the household income, either finding money through employment or getting from near friends or relatives. Through time, pastoral women have, on the other hand, commenced to engage or participate in local business, such as petty trading, selling firewood and charcoal, and doing domestic work to obtain further household incomes. As the challenges of humans naturally made disasters against their livelihood status, both women and men of the household began to share the burden and the responsibilities of marketing commodities and taking care of the children and livestock.

Taking into consideration the above facts, gender relations, characteristics, nature, and disparities change as situations are

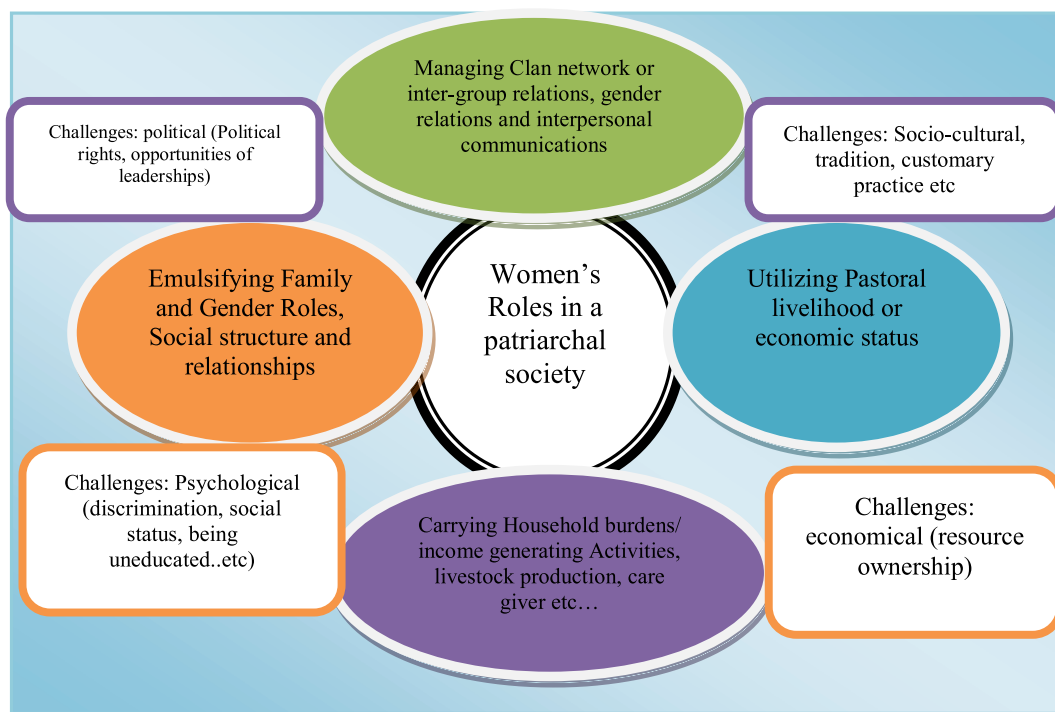


Fig. 1. A conceptual framework: women's roles in pastoral livelihoods.

alarmingly evolving from time to time. Women's roles in pastoral Afar context have deviated from the override previously done reports and works of literature. The previously disaggregated gender information, reports, and literature about pastoral women have to be re-assessed, and policies and critical analysis should be maintained. Accordingly, this study keenly explored women's roles and contributions to pastoral livelihoods and identified the constraints Afar women face.

2. Methodology

2.1. Description of the research setting

The total population data of the Afar region based on a projection from the 2007 census is about 2,093,612. The capital of the region is Semera. The region has six administrative zones [with the newly added Yanguidi Rassu], 37 woredas, 339 kebeles, and five city administrations. Afar land comprises about 100,860 sq. km, and extends from the Middle Awash River Valley to the Red Sea coastal territory [56]. The Afar people have also been settled in Djibouti and Eritrea (Fig. 2) [57].

The Afar population is predominantly nomadic, with most still practising transhumant pastoralism for subsistence. The people are alienated into clans [25]. From the highland areas, the *Awash*, *Waima*, *Mille*, *Gulina*, and *Awra* rivers drain to the Afar lands. In the Awsa [Zone 1] territory, the Afar societies have long been established and have participated in cultivating crops and other fruits. Located in a triangle, the great Danakil depression, with camel saddle-like hills and low lands below sea level, keeps large volumes of water during the rainy seasons. The level of the depression gradually decreases, that reaches to 700 m above sea level. Sometimes, this place gets rain, even during the dry season [57].

Pastoralism is a traditional African way of life experiencing shortages of rainfall; performing livestock productions, and seasonal mobility systems [25]. According to the CSA [58] reports, 19.1 % of cities and 80.9 % are pastoralists. The largest population settled in rural areas. The pastoral societies have implemented different mechanisms to cope with the desert environment and livelihood activities [8]. The study area, the Lower Awash River Valley, consists of both the highest elevation of 1837 m above sea level and the lowest elevation is about 23 m below sea level (Fig. 3).

2.2. Research approaches

This study follows the methodological preferences of Bisrat and Getachew [37] and reproduces the methodology sections with the

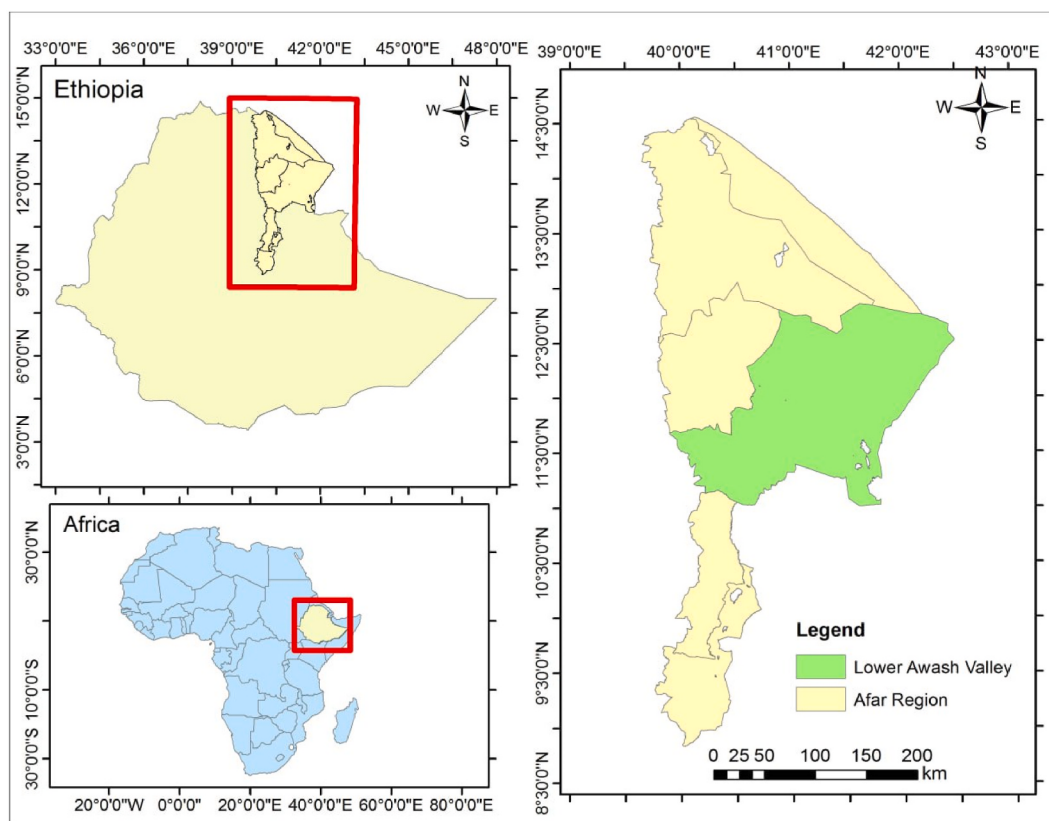


Fig. 2. Location of the research setting.

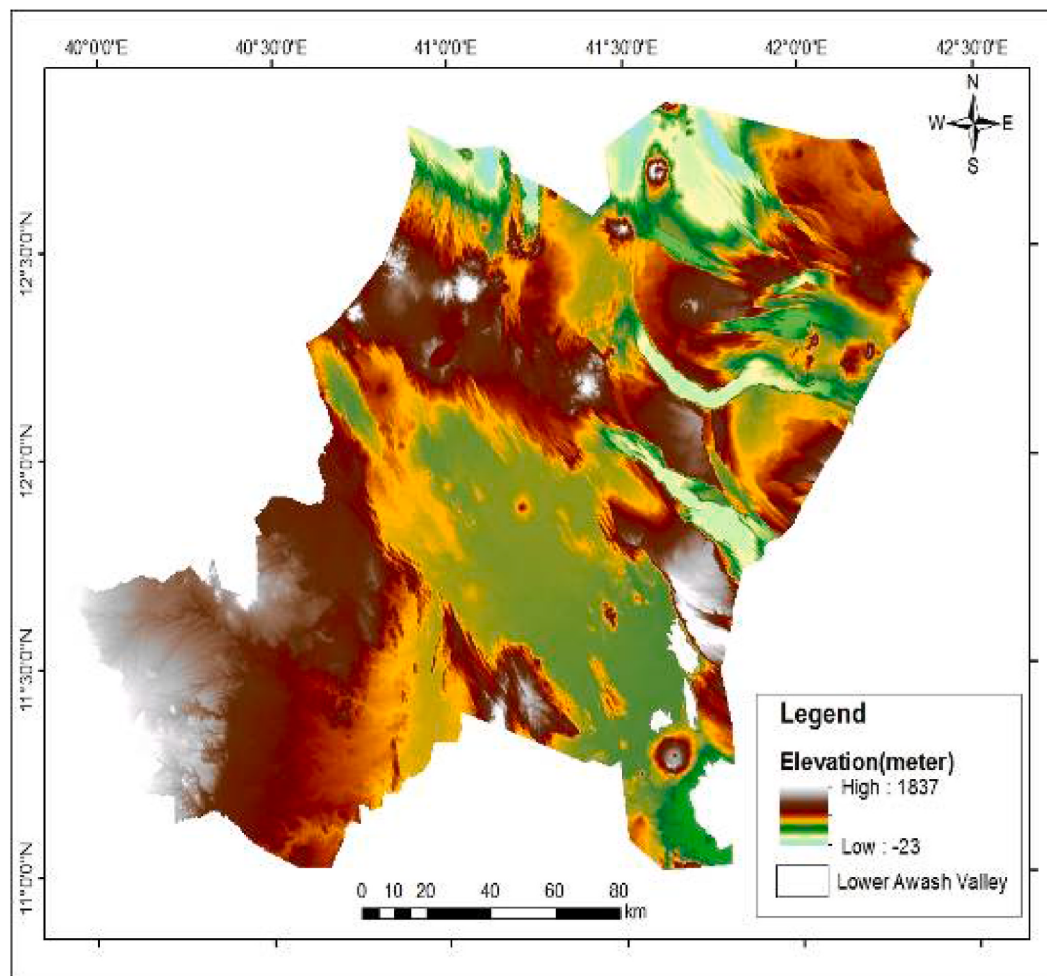


Fig. 3. Physical map.

necessary applications based on the study objective. With a phenomenological design, the qualitative approach was applied to collect the necessary information. Thus, the research explored the phenomenon of women's socio-economic contributions within a patriarchal Afar society. The data collection process was generally managed in settlement areas with participants' villages, customary spots for religious and public gatherings, and participants' gates. The primary data was gathered through focus group discussions, participant and non-participant observations, and key informant interviews.

In addition, qualitatively assumed connections were prepared to assess respondents' activities with various flows of communications, social relationships, settlement patterns, and economic reciprocities. The reason is that social network analysis can be applied to explore socio-cultural interactions and other communication systems that connectors perform [39,59]. Therefore, while analyzing the social network process, connections of social relationships and cooperation would be the most significant components of network ties.

3. Sampling procedures

The Afar clan groups and study participants were purposely selected. Thus, Zone One, Awsi-Rasu and participants were selected from settlement areas of *Afambo*, *Asayita*, *Dubti*, *Elidar*, *Mille*, and *Samara-Logia* (Fig. 4). While applying the purposive sampling technique, careful procedures should be applied by making the selected samples tolerably reliable and avoiding distorted views at times of data collection periods [60]. Accordingly, government officials, community members, women, community or religious leaders, social, justice, pastoral livelihood, tourism, and information experts were selected for key informant interviews and to be group discussion participants. During the pilot study phase, ninety-six research participants were contacted.

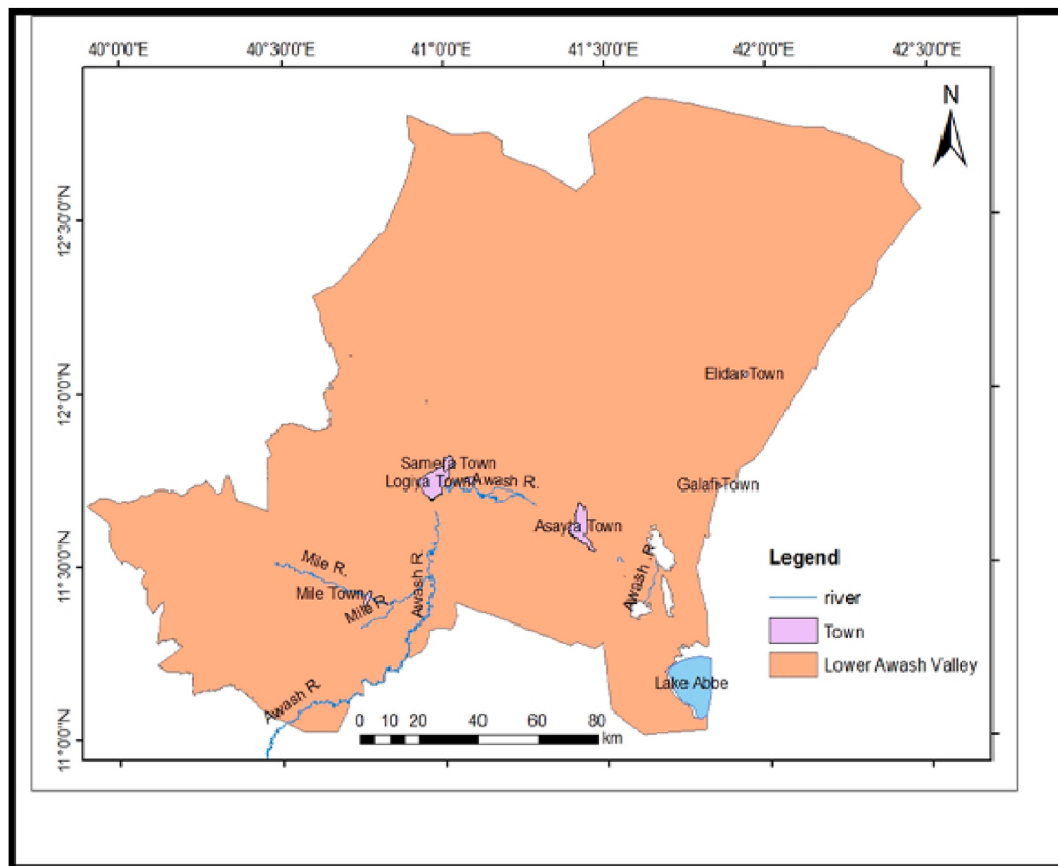


Fig. 4. The research settings and settlement patterns.

3.1. Data collection tools

The study applied different methods of gathering and collecting information from mainly individuals using deep interviews and focus group discussions. For such an open-ended type of research, qualitative methodology is preferable [61].

3.1.1. Focus group discussion

To give freedom to research participants and clearly state the information they are asked for, group discussions contribute many opportunities for all participants to express sociocultural, economic and other applications of various variables [60]. The participants were arranged in different groups of categories. This arrangement would fulfil the ideal size for multiple discussions [62]. The lists of questions were prepared in Amharic and Afar local languages. The discussions were facilitated by both the principal researcher and an interpreter, and all data at the chosen study areas were recorded on digital devices. To cope with the hot climate and arid nature of the study areas, a consent letter for cooperation to make the discussions at night at their living compounds made the process very effective.

3.1.2. Key informant interviews

The research applied interview techniques to make the participants respond flexibly. Female community members and experts participated as the male key informants did. Key informants were contacted to communicate in Amharic to avoid missing important notions and ideas of the question. Thus, an optimum number of interviews with informants from each research site were conducted. Most interviews are conducted in the key informants' respective villages, and the rest are conducted at the participants' offices. The interview processes were recorded on digital devices and interpreted from the local languages to English.

3.1.3. Situational observations

In the situational observation technique, the researcher observed women's activities and roles in community interactions, environmental and resource utilization, religious festivity and other socio-economic reciprocities (for instance, *dessoo*, *deeraa*, *aaella*, *duu'qqaa*, and *sada'qqaa*). In addition, non-participant observations of the overall situations that had occurred in the study area were conducted.

3.2. Data analysis method

What people speak, communicate, interact and perform can be collected qualitatively [61]. This study used a thematic interpretation technique for analyzing recorded audio files, texts, related materials, and field visit minutes. Then, meanings from participants' responses were thematically organized and discussed based on the study's objective.

3.3. Qualitative approach in social ties triangulation and interpretations

Social network analysis is used to investigate social groups' shared values are vital for functioning in cultural domains [63,64]. Cultural values correlate with meaning, networks, and connections; many lend themselves to qualitative network analysis [17]. According to Bottero and Crossley [65], the networks function as social tie maps and methods of various connections within artistic production. This type of analysis using the production approach was used to link this idea to the current investigation. This strategy considers all connections and links in the environment [66]. Additionally, this production approach is utilized to evaluate how the environment interacts with social repercussions and acknowledges the significance of process aspects within knowledge production networks [17]. Thus, through the combination of making qualitative tie maps, social structural patterns, interpersonal relationships, and network features linking diverse cultural values [4,67].

Accordingly, in this study, the gathered data through focus group discussions, interviews, and observation techniques were arranged, categorized, thematized, and interpreted based on their nature and contents. Then, the cultural networking practices and the main connectors connecting the social groups are thoroughly identified regarding how they interact. This process is represented in double arrow lines, circles, directions, and other network indicator lines. These representations are drawn on a map to depict the social network connections. This process helps to validate the connection procedures and interpretations of the gathered data based on the participant's response with the necessary articulation of network ties. Currently, the qualitative features of the created network drawing can depict the interconnections' flows and content, regardless of whether the interactions are direct, indirect, or reciprocal. In addition to these fundamental components, the network drawing encompassed essential actors relationships, including message flow and additional socio-economic activities. Consequently, the created network maps in this instance would undoubtedly depict women's roles in the exchanges of socio-economic reciprocities within the environment.

4. Results

In the following result sections, issues are subdivided into five parts, with the rationale of considering the nature of the objective, gathering data based on the storylines, and organizing the thematic manner of the investigated subject so far. This means the central and sub-parts were discovered and summarized during the research process and data tabulation, thematizing, and triangulation periods. The cultural perspectives, challenges and constraints women face their efforts and contributions, and related issues, were analyzed qualitatively and presented as follows.

4.1. Women's social roles: from pastoral socio-cultural practices perspectives

4.1.1. Women's social and educational status

The Afar region has over a hundred clan families, with men leading hierarchies and structures. Women contribute to livestock rearing, environmental protection, income-generating activities, and public works. Women face difficulties due to low economic incomes, development interventions, and drought. Their contributions are often overlooked for society's survival, leading to low social status and marginalization. In addition to issues seeking implicit or explicit attention, the Afar people have never been negotiating in *three things*. At this point, one of the participants remarked that:

The Afar People have never been in an argument over three things: Women, the country [Afar Land], and Religion. Even when we look at women's roles in communal networks, they are mothers, sisters, wives, and friends consulting multiple issues with all social members. [KI7, female-6, age 31, Women and Children experts, Logya-samara area]

Among the group discussants, one further elaborated on the positive and some miscalculations about women: *Afar society has respected women and accepted their roles as the backbone*[FGD2, male-1, age 43, Asaita area]. Furthermore, the primary data gathered revealed that historically, women were brave enough to consult their husbands on how to defend, live, administer, and lead. Over time, this is evidenced by some changes, and girls have begun to enrol in school. Society began to recognize that sending girls to school equals teaching the nation. For more, one respondent outlined the reasons:

Most women have lost chances of enrolling in formal education. When other social groups began to live with the society, they began to accept that women could learn, lead, administer, and manage public works and be authoritative in social, political, and economic perspectives. This has led to a significantly increased rate of girls being sent to school compared to previous assumptions. [KI22, male-3, age 52, Dubti area]

Women's participation has increased alarmingly by employing themselves in different educational institutions, regional bureaus, and other infrastructures. It helps them realize that they are economically independent and secure their household income. In pity trading, most women have begun to sell camel milk, which was *not done previously*, even providing goats to market by themselves. These changes in pastoral systems and their evolution could positively affect gender relations as well.

As key informants and FGD participants outlined, women who completed a university degree were employed in governmental and non-governmental organizations. These opportunities provide an advantage for community awareness about women's roles and rewards from endurance learning from their pastoral lifestyles. Currently, women represent their communities across several important platforms. Some symbolic women politicians struggle for the Afar people's identity and national, economic, and political participation. There are women in Samara-Logya and Addis Ababa who continued their second and third university degrees. Regardless of the hostility of several influential social groups or individuals, these women are well known for their leadership in navigating strong patriarchal environments to bring up various socio-economic issues in public arenas. In doing so, most educated Afar women dispel the myth that pastoral women lack speech and agency. Women in many government sector bureaus are participating and able to safeguard Afar Pastoralism. Besides, this keeps the Afar society's identity and valuable livestock breeds and preserves traditional knowledge and customary practices.

Most importantly, the consultations with clan leaders and community mobilizers create economic empowerment for women, prepare conditions for education, and prevent challenges disempowering them. In addition, one of the Key informant respondents encountered this issue:

This has resulted in many women in administrative posts, educational institutions, health facilities, and political positions. For example, my teachers and colleagues in my family supported me in continuing my education, leading to me becoming the executive head of the Ombudsman Bureau of the region. [KI7, female-6, age 31, Logya-samara area]

Traditionally, to keep the hierarchical status of men, women know more about every household resource than men do. Thus, the role of women in patriarchal society significantly picks a golden position in many perspectives. The Afar girls [women] have never been refused. Among the community members, the one stated:

It has never been accomplished to facilitate or strengthen social relationships without women's participation, permission, and interest. They are a spice for every interaction in Afar land. [C4, male-5, age 35, Mille area]

4.1.2. Women and customary law protection

The *maa'da* is an essential part of the Afar people's sociocultural, economic, and traditional governmental structures. The customary law provides high protection and security for women. Girls/women deserve two basic safety and security rights during social relationships and life paths. In support of this, a significant reply provided a clear explanation as follows:

The first one is that before getting married and being protected by society and customary law, those stand to protect their highest position and responsibilities. The second is that after getting married, all the responsibilities reside with the woman and her husband. Thus, if someone abuses the woman, more effort is expected from the husband to follow and resolve the issue. [KI11, male-2, age 48, Logya-samara]

Thus, women in this sociocultural interaction oversee and manage various everyday jobs. As described by one of the prominent respondents:

The customary legal preconditions connect women with social and inter-clan networks and apply to the people's way of life, cultural practices, economic situations, and historical concerns. [KI7, female-6, age 31, gender expert, Logya-samara area]

Sexual abuse and rape status are at a 'zero' level and added that abusing girls/women and even touching with no persuasive reason may result in punishment. The issue in detail explained that:

Similarly, if a girl/woman provides an appeal that she is being discriminated against or sexually abused, she would not be forced to provide testimonies. The burden lies upon the suspect to explain and defend such an appeal to be free. [KI16, male-3, age 44, Mille area]

Based on social life and customary law, there is a belief that a girl, with false testimony, even provides an appeal against the perpetrator. If she does, her life and marriage will be destroyed. Only the girl/woman is getting acceptance and consideration at this level. As one of the key respondents stated:

As society's belief indicates, a girl/woman is accepted, believed, and respected more than men in this case. If she appeals, the suspect/perpetrator takes all the responsibilities and burdens to be free from such disputes. Thus, I would certainly believe that, from early periods to contemporary times, the level of abusing girls remains "zero." [KI7, female-6, age 31, Women and children experts, Logya-samara area]

The social status of women has primarily been respected in this way. However, some claimed and argued that "sexual abuse of girls/women is not at 'zero' level" and reasoned out, comparatively, that while the practising of customary law [*maa'da*] decreases from time to time, the practice and prevalence of modern law have increased dramatically. For this, one of the key respondents claimed:

The 'modern justice' practices and acceptances have been largely dominated over the local ones. Thus, at least in some instances, some cases reflect the onset of sexual abuse actions in some localities; and it begins to change the 'zero' level status. The protection and security status given by the customary law for women is not always being heard. [KI12, male-5, age 36, Social affairs expert, Logya-samara area]

Furthermore, if homicide, knowingly or unknowingly, is suspected in a woman, the perpetrator will pay the amount of punishment twice as much as committed to a man. As one of the FGD participants, how severe the penalty will be if someone commits a crime

against a woman's life: *Even committing a crime against women may result in the most brutal punishment a man deserves [FGD6, male-8, age 42, Dubti area]*. However, others disclaimed that this assumption is wrong and stated that fighting, disregarding, and acting masculinity up on women is strictly unethical and forbidden. According to customary law, if a woman is in touch with or fighting against a man, he would not reply but instead keeps silent. As clarified the reasons by one of the important respondents:

The society accepted that a woman can not respond unless someone disregards and misleads her personality. If a man tried to reply to her action, he would be penalized. [KI11, male-2, age 48, Logya-Samara]

4.2. Women's economic roles: from pastoral livelihood and household decision-making perspectives

4.2.1. Gender diversion of tasks in clan's territory

Afar pastoralists have their place of birth and the permanent area known as *Allee-Gehena*; a specific location is called *Guubb*. Women can cross-check the target pasture areas in the nearest clan territory to ensure they are reserved or protected [*Desso*]. This can be either in clan territory or out of confined places and directly connects with the change of seasons. During seasonal mobility, men are only selected by youth-age bounded group leader [*fimma abba*], and community elders or clan leaders [*kedoo abba*] draw the livestock to get water and pasture. While women, children, elders, and lactating animals stay in the settled clan territory or villages [*Guubb*], looking after the female cattle, sheep, camel, or goat. They are also significantly responsible for socio-economic reciprocities in their localities.

Women manage sacred places and are important in administering ponds and spring water sources. The nature of the environment increases pastoralists' knowledge and skills in using and preserving the ponds, known as *Deera*, and preserving by digging a hole, referred to as *Aella*. When using ponds and spring water for animals, getting the service is determined by people's quips or the length of the line. The number of people within the line determines a time limit of one or two days after getting water. If the number of people increases, they are forced to keep their turn, and if not, they must wait until the next turn comes. This is *Daayu*, and animals will stay one or two days without water. Pastoralists use *Daarra* and *Ella* during dry seasons and *Dugguggul* and *Daayu* during rainy seasons. They also use *Maygarraa* to serve water to animals. Women have more labour to accomplish when seasonal mobility occurs because, as a coping mechanism, they relocate their home on donkeys or camels and rebuild it at the settlement site while also taking care of household tasks. Women's roles in managing the services are under their supervision in all these processes. The overall responses from FGD2 and KII participants from the Asaita area indicate:

The Afar pastorals are now afraid of making mobility to other localities to get water and pasture for their livestock and access household commodities. This indicates that the long-lasting trend of society to move from one place to another for access to the market and while following seasonal change has affected their overall pastoral livelihoods. Both husbands and wives are in critical need of food, sharing, and reciprocity for survival. As a result, they consult more on household decisions, settlement, marketing, food items, goods, and mobility matters. Although the patriarchal nature of men has evolved, the current situation allows them to share household burdens.

Currently, saving and borrowing are mostly decided jointly. Drought seasons provide an opportunity for women to show their saving skills. The overall FGD 3 and 4 results from the Samara-logya and Mille areas, revealed that:

Women perform dual activities, such as livestock production and pity trading, selling charcoal, firewood, and livestock outputs like camel milk. They collect firewood and charcoal-making inputs from the Mille River and its tributaries. By sharing tasks with their male counterparts, women on the Ethiopia-Djibouti highway also demonstrate their control over home finances and sustain seasonal mobility. The social standing and autonomy of women are enhanced by exposure to urban living and animal rearing [most of these women are from the Arapta Asabakeri, Hamedu Siret, and Hadal maa'his clan groups].

The overall Key informant respondents from the Asaita area indicated that:

In Dubti, Asaita, Afambo, and Eli'dar areas, women actively engage in camel, goat, cow, and shepherding, providing financial and animal care to their men. The Awash River basin has drained the area from Asaita to Afambo and then to the Djibouti border. Thus, livestock-rearing, giant camel and cattle-rearing groups, such as in Awsi-Rasu zone-Hadela, Gemeri, Geneti-Desso areas, Gali-Fage [Asaita] pastoralists from Eibno [a border area] and Aseaela [border area] commonly use these areas for pasture sources. Here, the participation of women is significantly essential. Most are from Mogorro, Dahimela, Geleila, Gemeri, and Asabakeri clan groups. Because of its proximity to the Ethio-Djibouti border, trading activities are done mainly by men. However, local and local marketing exchanges are usually managed by women. For instance, in Asaita Market every Tuesday, women handle the interactions with highland merchants to finalize transactions of animals, salt, cereals, flour, detergents, spices and other commodities.

During field visits, women performed exceptionally well in managing money matters and related issues to facilitate economic independence. The livestock production varies from district to district. The general information of FGD 1 and FGD2, from Afambo and Asaita area, responses remarked:

In the Upper Awash River Valley's agro-pastoral of the Southern Afar community, only men carry out all animal husbandry-related tasks while the herds are in seasonal mobility. Women do not migrate with the packs. While taking the Northern Afar, pastoralists raising camels, goats, and cattle migrate with their family member [burra] or Clan members [kedoo].

These variations in livestock production methods, mobility patterns, and intersectional and sociocultural elements make them unique to Afar pastoral livelihoods. It profoundly affects the roles of Afar pastoral women.

4.2.2. Economic decision-making and possessions rights

Most women are now more focused on covering food shortages, health services, and water and firewood. Men prioritize household income safety and continuity through employment or family connections. It is a fact that Afar pastoral men hold the power to control household assets and make decisions. Women have equal status in household decisions, but this has changed. In contemporary times, both males and women of household heads are working to access lost assets and find other income opportunities. Men now help their women search for firewood, fetch water, market commodities, care for children and livestock, and maintain food security. Most writers, politicians, and even educators claimed that marginalization appeared high on Afar women. Against this speculation, in supporting economic decision-making rights, one of the interviewees responded by claiming that:

However, when reality comes to the ground, from carrying household responsibilities to clan networks, women celebrate as much freedom as possible. This is the reason that most actions, duties, and accountabilities are connected to customary law and religious practices. [KI7, female-6, age 31, Women and Children expert, Logya-samara]

Afar women are entitled to both actual and nominal rights to own, access, and manage household resources, which their participation in the market has further expanded. Even the land is a common property. Concerning this, one of the interviewees stated the following:

After getting married, the woman remains with her family till she has one to three children. The husband repeatedly visits and communicates with her. The main reason is to minimize household burdens and support her with household activities. The collective provisions of properties or cattle, goat, sheep, or camel would remain in practical use for administering the household expenses. [FGD2, male-5, age 44, Asaita area]

At times of separation, all properties, including the cattle and livestock, would be given to her. The only things given to the husband are his clothes, knife [Gille], and some related materials. For instance, women's property rights at times of divorce stated by one of the key respondents as:

The animals remain untouched under individual proprietorships and children's properties, but the collective properties will be divided equally accordingly. It shows women can have the right to have personal and collective proprietorships and get and share benefits equally. [KI13, male-7, age 56, social affair experts, logya-samara area]

All of the above critical examinations illustrate the distinctiveness and diversity of pastoral settings, as well as the particular motivations and limitations that shape pastoral women's contributions individually and collectively. Their actions and decisions are crucial to protecting their pastoral interests and gendered opportunities because of their position within the pastoral livelihoods.

4.3. Women's role in the traditional social networking process

Tehaluff, *Affehinaa*, and *Negeltinuu* are the primary cultural practices that women's socio-economic participation levels have usually linked and activated. As one of the group discussants expressed the network types:

"Negeltinuu" is a mother-and-daughter interaction within the same. If a disagreement happens while they are interacting, no one interferes in this case; instead, they solve it by taking the case themselves. [FGD1, male-3, age 49, Afambo area]

Afar women are viewed as the link between social groups (*affehinaa*), families, and communities (*negeltinuu*), participating in animal rearing, co-decision-making, leadership, and livestock output reciprocities (*maykurri*), see Fig. 5 below. *Affehina* has taken as

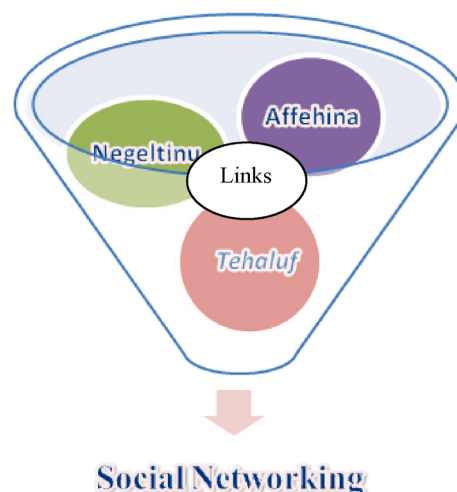


Fig. 5. Traditional social networking activities.

the other traditional networking system at least conducted by two clans. As for its functions, one of the Key respondents firmly described the following:

Affehinaa is used to establish connections and prevent conflicts. If a dispute occurs, the traditional institution with jurisdictional power, the Makaban can handle the case [elders or councils in the institution]. [KI5, male-2, age 70, community head, Asaita area]

Tehaluuf is a network of ties and clan group coordination at times of territorial claims. The contributions of women behind the curtain are very significant. Concerning this, among the Key informants, the one explained the issue as follows:

All clans connected through tehaluuf commonly fulfil the group's responsibility. The clan groups practice their individual clan member social ties. Consequently, all are guided by the rule of tehaluuf. For instance, 'Diibni' and 'Woiima,' 'Dahiimela' and 'Segeento,' 'Geleelaa' and 'Kebriito' demonstrate such network ties. [KI3, male-3, age 66, community officer, Afambo area]

As has already been stated earlier, the nodes usually represent actors, like individuals, clan groups, communities, social institutions, social groups and others. Thus, social networks have nodes or ties corresponding to some form of social interaction.

The network links between and among actors can be directed (*exchanging messages, and information and conducting socio-economic reciprocities*) or not directed (*being a clan group member*). According to Fig. 6 below, Clan Hassoba and Clan Ankala, Clan Ankala and Clan Maandita, Clan Maandita and Clan Beedal, Clan Beedal and Clan Ankala, Clan Beedal and Clan Hassoba communicate through *affehinaa* ties to each other. Such a network prototype is known as a *reciprocated tie*. Accordingly, double-headed arrows, represented in white, indicate 'mutual' or 'reciprocal' ties.

Furthermore, as Fig. 6 below depicts, various networks portray members' network ties and attitudes toward other clan groups. Accordingly, clan members are expected to perform socio-economic reciprocities. For instance, members should contribute during a marriage ceremony (*harraynaa kurraa*) and share resources during an emergency (*edebbontaa*). In all these connections, women's role in facilitating the process was found to be significantly high. From such speculations, clan groups' ties would certainly display the existence of a relationship. In this case, the *actors* (clan groups) or connectors are *natural triads*. Therefore, in Afar society's social network process, reciprocated ties and relations occur much more frequently than would be expected.

The network map (Fig. 6) was created using qualitative data from *dagu*, highlighting the importance of information for individuals relying on resources like peace, rain, disease, conflicts, water, and pasture for their livelihoods. As a result, the *network locations* in clan groups change due to levels of social interaction, practices of economic reciprocity and seasonal mobility. As one of the participants stated the connector's roles:

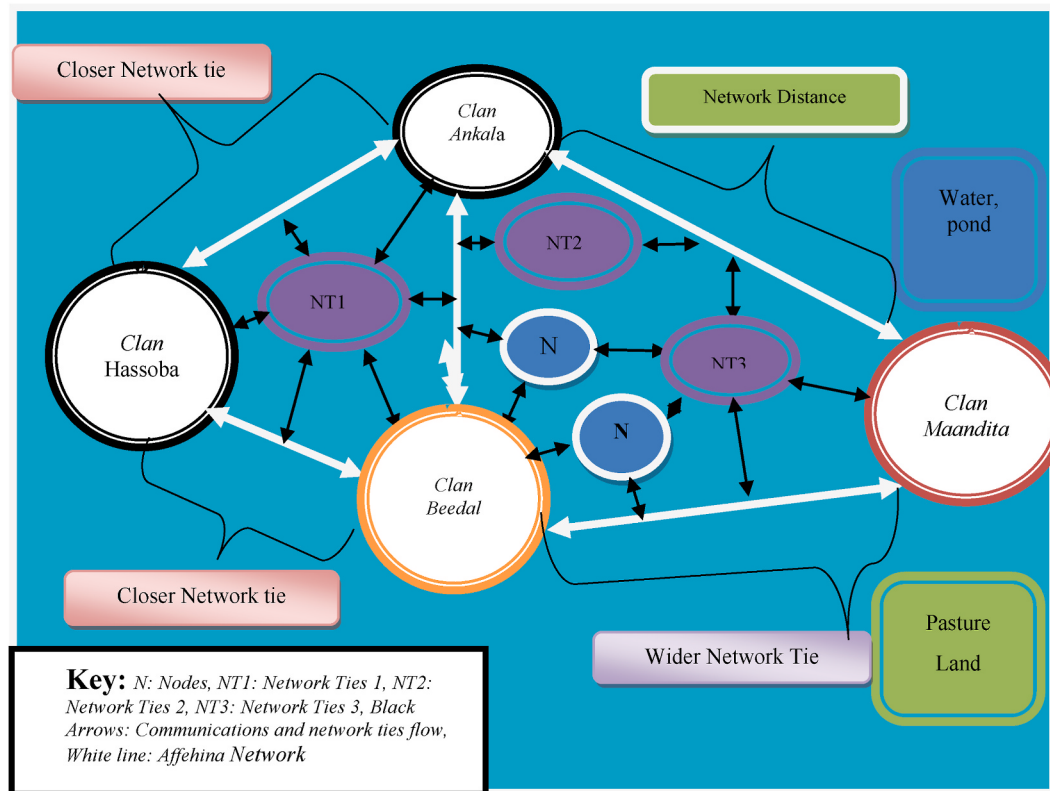


Fig. 6. Traditional networking ties through Affehinaa.

The connections would become more significant no matter how the closeness, the 'faagee' method and the customary legal procedures control the activities [KI16, male-3, age-44, mille]

The overall interaction indicated that the network ties are more frequently used to portray women's roles as well as members' social connectedness within clan group structures. Node participation, indicated with black double-headed arrows, fills structural holes. In the Network Ties areas, a social network consists of multiple nodes, and clan network ties (*affehina*). If a communication gap occurred, *dagu* would easily fill the disconnections.

4.4. Women's life in men's patriarch society

In patriarchal societies, women's decision-making roles are often less equal to men's, particularly in household issues. But, currently, the trend has changed, and no one thinks about getting an inheritance; rather, it's all about survival. The land has been allocated for alternative uses, and private landholding has been promoted to increase productivity. It is the reason that the land is *communal property*. Nonetheless, there are still many who maintain that the Afar is a place where women's land usage and access rights are determined mainly by customary norms, which are biased against women because of the inheritance system.

Since women in Afar traditionally have a lower social status than men, not as discriminating, writing is impossible without a complete understanding of the local issues, rights, access, knowledge, and power relations between men and women. Of course, the status of males appears to dominate women's rights and access to property. Still, Afar women and men have distinct entitlements and access to resources and control over them. For this issue, one of the interviewees remarked that:

According to earlier assessments of women's labour or production, men used to be in charge of women's work both within and outside the home. Throughout their life, women in the household offer a variety of services to their spouses, kids, and other family members. However, this does not imply that husbands and other household members completely appropriate women's labour in the home. Nowadays, housewives are seen as having no employment at all, and they are no longer reliant on their spouses. [KI7, female-6, age 31, Logya-samara]

In terms of decision-making processes, there are typically expectations within the society and inside households. For instance, women and young people are not allowed to make decisions due to prevailing social and cultural conventions, such as cross-cousin marriage-*absuma*. In addition, all decision-making authority belongs to men, parents, and other seniors. This impact on youths and women prohibits access to education and financial and material resources. In Afar, women believed they get or obtained equal status with men after marriage, which is called having *hilaly* or *dieto*. These qualities reach the height of social status and acceptance for Afar women. The qualification to get this social status was genital mutilation. Currently, society has determined not to commit female genital mutilation. This *hilaly* and *dieto* minimized women's social and health risks.

Men are still at the highest hierarchical level in administering posts and political participation compared to women. This number does not mean that today, women are discriminated against. Previously, women did not marry those they loved because of the *Absuma* tradition [marriage with her mother's brother]. Currently, establishing a marriage alliance with a member of another clan group is quite possible. The cross-cousin marriage tradition has been gradually replaced by a girl's choice to prefer her life partner. Among the interviewees, one explained *Absuma* marriage as his or her preference:

Establishing a marriage outside of Absuma is possible now. So long as both have the same religion. This is a result of time and socio-cultural changes. There are some opportunities for girls to establish a marriage with whom they love, in incidents of incompatibility in sex and age. However, most members prefer Absuma marriage for many reasons. [KI4, male-3, age 65, pastoral experts, Asaita area]

The main aims of *Absuma* are strengthening social interactions and minimizing social and family relationship gaps. Someone whose *Absuma* is blind or physically handicapped would not say, 'I am not going to marry him/her.' One of the group discussants stated the reason as follows:

They must accomplish this marriage practice unless a critical mental health problem is identified. For them, Absuma will keep their psychological makeup and make them always be respected by members of society. These practices have contributed significantly to social cohesion and developed social trust and interactions in Afar society. This unique cultural practice keeps Afar society as the only manifestation of others. However, the age gap still creates challenges to its functionality. [FGD2, male-2, age 54, Asaita area]

The issue provided to the research participants, such as the patriarchal tradition, puts women at a lower decision-making status, and some claimed that nowadays, no men have *Control over Women's Sexuality*. The reason stated by one of the group discussion participants is as follows:

Women are free to fulfil their own needs and wishes when it comes to sexual services. It is a traditional belief that women's sexuality is controlled by their attire, conduct, and movement, all of which are closely supervised by their families and by social, cultural, and Islamic behavioural norms. [KI13, male-7, age 56, social affair experts, logya-samara area]

Most men in pastoral areas are leading livestock rearing, have no formal income-generating jobs, and earn production. The educated personnel has earned income from employment at government and non-governmental organizations. At the household level, as one of the FGD participants outlined:

The primary right and decision to choose a marriage alliance for her daughter have resided in women. If she disagrees and believes, allowing the daughter to have a marriage alliance with the other side is impossible. Women's consent must be first. [FGD1, male-7, age 52, Afambo area]

Furthermore, women's decision-making power also resides. If there is a need to change the settlement area, it will be accomplished easily if the women accept and permit. If not, changing settlement areas is impossible, as one of the community members replied:

It is because changing the settlement area, establishing a life, and constructing the house[Ari] and other burdens fall up on women's backs. [C4, female-5, age 34, community member, Mille area]

Pastoral Afar women have absolute power over their income, generating household income through investments in education and health. Supporting this, the gender expert stated:

Women work tirelessly to achieve better lives for themselves and their households by effectively utilizing all available means and opportunities in the market. [KI7, female-6, age 31, Logya-samara].

In Afar society, women can have the capacity to facilitate or control everything. The community believes that women are everything. She has been accepted as the one who contributes a lot to the continuity of the generation. Therefore, as the respect for women continues, female cows, camels, and goats are not arranged for market or carrying goods.

4.5. Challenges to women's socio-economic and environmental roles

Women in Mille, Dubti, Asaita, and Samara-logia are reducing their desire to adopt a seasonal mobility lifestyle due to interethnic conflicts, resource deterioration, governmental interference, relocation, and restrictions on pasture and grazing lands. The key informants and FGD participants claim that prior political marginalizations have prevented society from accessing education and other infrastructures. The previous political environment caused a large portion of Afar society not to enrol in formal education, not leading the women to at least accessing 10 % out of 100 % of formal education. As one of the FGD participants narrated the cases:

This was not only due to clan-based administration. Had at least one woman been exposed to formal education, there would have been as many educated women as in multiple disciplines. [FGD3, male-1, age 54, Logya-samara area]

Women may not be involved in clan leadership, court or public participation, or negotiation. The gathered information revealed that women traditionally do not become clan heads and leaders in public administrative posts. Some argued that it is due to the high probability of public exposure. For compliance, one of the interviewees put the reason as follows:

This fear has made women not publicly participate and lead social organizations as an authority, but all functions have been covered by their unreserved efforts. Additionally, women were believed to be the foundations of the household, family teachers, and consultants for every incident. [KI7, female-6, age 31, Logya-samara area]

The other participant added that:

Nowadays, the main challenge is giving women opportunities to participate in the public sphere. [FGD2, male-1, age 43, Asaita area]

Women have equal household decision-making rights as husbands, but traditional political and social systems limit their participation in leadership positions. Desert livelihoods decrease their meeting participation. As one of the Key informants replied:

Girls and women travel farther in these arid areas to gather water or graze livestock. If there are many responsibilities in the home, it may be justified to take time for meetings. However, this disparity in participation and decision-making suggests that women's private and public decisions should be distinguished more carefully. [KI9, male-4, age 59, Logya-samara area]

As a challenge, women are not participating in leading customary institutions due to the traditional patriarchal dominance of power in Afar pastoralist societies. As one of the Key informant respondents stated the scenario:

There were often complementary institutions in the past, but today they are not functioning well due to drought, degradation, economic recession, and loss of resources. Pastoralist women have informal authority over their husbands, but this does not quantify a standardized room for women. [KI7, female-6, age 31, women-children expert, Logya-samara area]

Furthermore, one of the FGD participants outlined that Afar Pastoral women are skilled but limited by environmental, cultural, and traditional beliefs and financial constraints. The drought has impacted livestock, preventing sales and affecting households' incomes [FGD6, male-1, age 36, Dubti area]. The lack of educational opportunities for pastoralists, particularly for women and girls, is a significant challenge for Afar women's lives.

Different projects at different times involved women's empowerment in pastoral areas, but a figure count succeeded in decreasing maternal mortality rates and improving animal health. The main reasons for their failure are stakeholders' efforts to immediately commence their work without identifying and giving recognition to what the women have been engaged in. There have been few attempts to adjust educational programs to fit pastoralist lifestyles, and in some isolated places, schools are essentially unknown. One of the key informants discussed the scenario:

The government and stakeholders' interventions have not been inclusive and mature, and the poor infrastructure provisions in the remote desert areas have hindered the expansion of education to the remote Afar society, leading to women not being enrolled in modern education. [KI13, male-7, age 56, social affairs expert, Logya-samara area]

External and internal economic exclusion affects pastoral women's role. Even though they have access to and ownership of cattle, Afar women in remote areas find it difficult to establish an independent financial standing. According to the explanation of one of the key informant respondents:

Despite playing diverse and frequently unrecognised roles in livestock production, they cannot even profit from the main output of the pastoralist economy. [KI9, male-4, age 59, Logya-samara area]

Furthermore, accessing finance and controlling resources are the main challenges for Afar women, which is the main issue that different governments have been unable to fix. As one of the FGD participants explicitly stated their roles, *Women are not clan leaders but are playing leading roles in facilitating social relationships and economic reciprocities. [FGD2, male-8, age 45, Aisaita area].*

Along the Djibouti-Ethiopian long vehicles and truck road passing, many women generate income in the Mille area by selling firewood and charcoal. Most of them are female household heads. The female household head and other clan members have become dependent on such activities for subsistence living conditions. However, income is not enough to cover all household expenses. For this, one of the community members stated the reasons:

As a result, they were more vulnerable to crises and recovered from them more slowly. One example of this was when they lost their livestock to flooding. They were compelled to relocate to Mille's periphery. [C4, female-2, age 38, Mille area]

According to the data presented in the sections above, as far as the pastoral community's gender roles and responsibilities are concerned, recurrent drought, high economic recessions, conflicts, and environmental degradation have impacted the change of patterns in gender role paths. The patriarchal nature of society has gradually changed, and males become participants in sharing household burdens and responsibilities. The gradual shift of women's roles to men and the sharing of household responsibilities result from men becoming aware of women's efforts and arguing about their roles that stay without helping the household impacted by socio-economic crises. Therefore, as for pastoral women's role, they should have been recognized by policy-makers, academicians, and literature for praising their accomplishments in all these activities with paramount knowledge, skills, and aspirations.

5. Discussion

5.1. Women's contribution to pastoral livelihoods

The pastoral community's gender roles and responsibilities have evolved due to drought, economic recessions, conflicts, and environmental degradation. In many regions of Africa, pastoralism is still a vital means of subsistence and a significant source of food security for women, mainly in parts of Eastern Africa [68]. While women "play a major role in managing and caring for animals," they seldom own or control livestock assets and are often prohibited from ownership of land and other resources on which they depend for survival [53]. It is crucial to concentrate on female pastoralists since academics and decision-makers often believe that pastoralist work is only a male occupation [11]. The study by Guyo found that academic interest in pastoral cultures' previously unnoticed reactions to shifting socioeconomic and political conditions has only lately started to grow. From herding small livestock to processing milk, meat, and hides for commercial purposes, women performed a variety of jobs and possessed significant power and influence over the trade exchanges [1112].

Table 1

Afar region: gender, child marriage and education enrolments.

Indicator	Zone Administrations					Remarks
	Awsi-Rasu	Kilbati-Rasu	Gabi-Rasu	Fanti-Rasu	Harri-Rasu	
Early Child Marriage	66%	66%	63%	71%	63%	
At-Risk Girls [aged 10-14]						
Poverty	7240	3791	6900	11700	9150	
Attitudes on Gender Inequitable	400	200	400	300	2800	
Decision-Making Status	20200	19500	9600	14900	5900	
Community Characteristics						
Total Population	466000	403000	239000	332000	249000	
Employed Women-aged-15-49	17%	18%	22%	14%	18%	89%
Women completed primary or higher education-aged 18-49	8%	11%	8%	4%	4%	35%

Source: Foundation [70].

This study found that Afar women are involved in livestock trade, marketing, and other local commercial activities, such as petty trading and the sale of charcoal and firewood. These findings are consistent with the experiences of other pastoral women in Eastern Africa. According to a related study, by addressing gender issues and the role that women play in pastoral production, these kinds of works would offer valuable insights into the experiences of women who work as pastoralists [69]. In this study, Afar pastoral women's roles in pastoral livelihoods were found to be significant when comparing their roles with men's patriarchal status. The results indicated that there should be a need to consider women's contributions beyond resource ownership, control, and access to understand their everyday activities and aspirations. Therefore, to conceptualize women's role, the dimensions of educational opportunities, market, property rights and inheritance, and customary legal protection would highlight this study's comparative results.

5.1.1. Educational opportunities

As can be seen from Table 1 below, most community members whose decision-making participation is weak are more likely at risk for child marriage than holding unfair attitudes towards gender differences [70]. Thus, the study area, Awsi-Rasu, is the second (66 %) from other zones in the Afar region where early child marriage is highly exacerbated. In the Afar region, over sixty-five per cent of women between the ages of twenty and twenty-four married when they were seventeen or eighteen. Thirty-nine per cent of young girls between the ages of fifteen and forty-nine were found to be employed in various economic activities. Five per cent of women between the ages of eighteen and forty-nine reported having completed their primary and secondary education.

5.1.2. Access to market and property possessions

In rangeland areas, both men and women need to have access to water and grazing for the livestock they are in charge of, as well as a variety of natural resources for use in pastoralist households. Social organizations, such as 'faagee', are responsible for overseeing the rights of pastoralist rangelands' occupants to available resources [11]. For pastoralist communities to continue to be resilient, their collective character is crucial. This includes promoting sharing during dry spells, efficient use of rangeland resources, dialogue, fostering peace, and other aspects of communal life. Both men and women gain from society's collective nature. Through mutually beneficial interactions, such as sharing food and household goods, women contribute significantly to the development of social support networks, which are crucial in these collective systems [8].

The widespread adoption of fair marketing techniques is necessary to guarantee sustainable livestock outputs. When it comes to selling large animals, men usually have the upper hand, but women can have a significant role in the selling of dairy products [6]. Even yet, market accessibility remains a significant obstacle for pastoralists living in rural places. The money from animal husbandry can be a reliable source of income, albeit a modest one, for the purchase of household items. It would be vital to manage this facet of pastoral lifestyles carefully [46]. Above all, women need to have access to cutting-edge knowledge and information as well as fair and accessible financial lending. As a result, practical development interventions should be more focused on minimizing the marginalization of women and enhancing their unreserved responsibilities in the pastoral economy [71,72].

5.1.3. Property rights and inheritance, decision-making and customary law

The Ethiopian Constitution (1994) in Article 35 (7) declares that women have equal rights with men to obtain, manage, organize, employ, relocate and inherit possessions. Similarly, the Regional Constitution of Afar (ANRSC) Article 34 (7) declares the same provisions for both men and women [73].

Another factor contributing to women's generally restricted access and control is the custom of traditional wealth inheritance (*warsa/negara*). Women in Afar are allegedly not entitled to any riches, not even what they have produced and earned, according to '*warsa/nagara*.' When it comes to inheritance, female offspring are either completely excluded at birth or receive only half as much as their male brothers. This inequality persists into adulthood [74]. Afar women face challenges in generating income due to climatic changes, environmental degradation, drought, inaccessibility, and lack of infrastructure [19].

Some productive resources are more easily accessed by women in Afar, indicating that access here solely pertains to the capacity to use domestic resources such as animals. Some countered that women have less access to assets since they don't use strategies that can be used individually or collectively, at least to gain control over productive assets [75]. Numerous studies demonstrate the potential to identify gender-based responsibilities and interferences within the current framework of conventional authority and to increase women's involvement in school enrolment. Analogous research investigated how involving traditional authorities in issues about women's land rights might lead to positive changes [43,55,76].

In addition, some others argued that male dominance had marginalized women. Some others, however, claim that women still deserve the protection of the constitution and the larger community. Some argued that Afar women receive a lower social status [16]. However, to the reverse, women can share and inherit common property and take their own. The main livelihood assets of a household contribute equally. To sell, slog, or provide to others as a gift would be settled in agreements. In addition to what the husband contributed, what the woman received from her family remains under the full rights and will of the woman [25]. Previously, men had the upper hand in the final decision-making concerning saving and credit [75]. Thus, this is not that complex an issue that should not have been taken as women receive lower status, but it is traditionally recognized.

Previously, some argued that Afar women receive less status and consideration than men. These are making them submissive and shy. However, fighting, disregarding, and acting masculinity up on women is strictly unethical and puts them in jail. Most social rights respect, and protections are resided and given to women [25]. Depending on the types of pastoral activities they have been practised, women in Pastoralism take on various roles [3]. The arguments, on the ground, imply that customary law protection concerning gender status also empowers women's decision-making status.

5.2. Women's network types

According to the social ties assumption, it is possible to measure player interactions in social networks. Structure plays a major role in characterising the social environment [49,70]. Structural equivalency may be the basis for the analysis, suggesting that a particular individual may play an equivalent function. To manage or coordinate disparate social entities, the idea of indirect connectedness is crucial [18,44].

In this context, the connections between social groups and their respective associates are called *networking relationships*. The ties or connections that exist between actors are frequently used as nouns. Various socioeconomic factors can lead actors to connect [45]. As in the case of the sultanate managing the clan leaders and the clan leaders administering members, an actor may be controlled by another actor. Additionally, connectors have dichotomous ties with other connectors, whether present or not, and can indirectly affect each other based on their closeness [40]. Connectors can also have an indirect effect based on their intentions [36]. Accordingly, clan ties would include formal or informal meetings designed for interactions between members, kebele administrators, clan leaders, clan councils, and age-bounded youth to develop interactions and opportunities for society in general.

According to Fig. 7 above, round the circle depicts connectors or nodes, consisting of people like clan leaders, elders, youths, women etc ...), specific clan group members, and other figurative social unit heads. In the end, the entire diagram is conceptualized to represent women's function through the social network of Afar society, and the lines joining the circles represent network ties. The study produced qualitative network types grounded in social networking perspectives in this conceptual ground. In this study, the overall method involved structured information gathering from research participants and their evaluation of the various interactions pertinent to formulating, outlining, and exemplifying socio-cultural and economic ideals. In light of this, community interactions involving collaboration, decision-making, and connections are impacted by diverse factors like gender, place of birth, ethnicity, experiences, etc ...

5.3. Theoretical and practical implications of the study

The Afar region's women's status can be viewed from socio-cultural, economic, and other benefits. Women benefit from certain household duties [75]. Some argue that pastoral women have low social status in conducting societal interactions and accessing social capital. However, the study argument goes on with similar results, stating that pastoral women are not passive but actively involved in various sociocultural practices [67]. Studies show that women's participation in gender-based interactions was identified to be very significant, but very low in other non-community-based activities. To make them participatory some projects implement participatory and inclusive income-earning activities, such as productive safety net programs, but unsafe working conditions [76].

Afar women face challenges in generating income due to climatic changes, environmental degradation, drought, inaccessibility, and lack of infrastructure [19]. Considering their centrality and strategic role, Afar women are said to be the invisible hands of the household economy. However, they remain unrecognized in state institutions' policies, laws, and practices [77,78].

Negotiations with the other sex over the division of work may occasionally take place [55]. Emergencies and periods of inflation greatly increase the likelihood of discussion and contact. When it comes to the allocation of work, educated women are more willing to

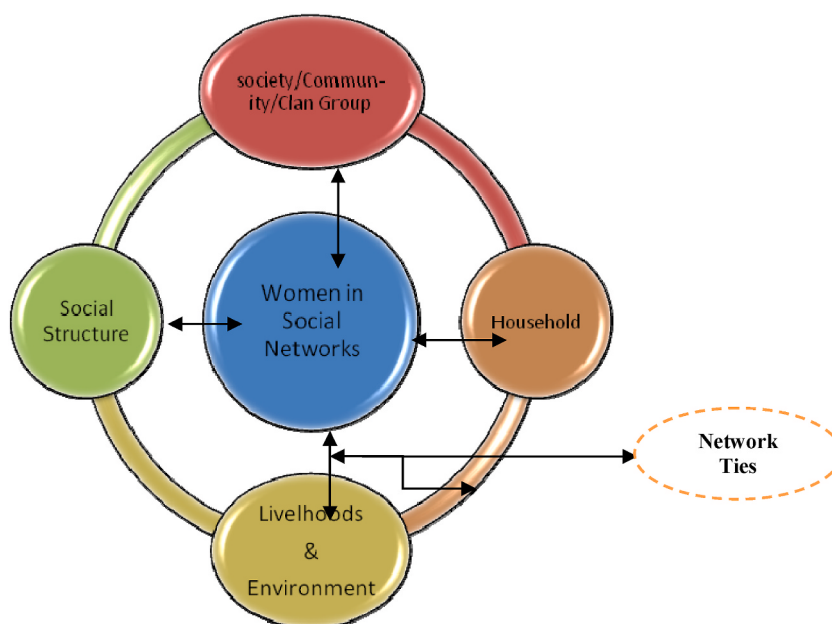


Fig. 7. Women and network ties diagram (adopted from Cote [77]).

bargain than their uneducated spouses. Conversely, educated men stated that when it comes to the division of work, they mostly communicate and bargain with their spouses. It was widely acknowledged that women should bargain for the freedom to engage in public activities. In addition to highlighting unique situations that alter the power dynamics, the gender analysis also reveals that most at-risk households collaborate with males to meet necessities and guarantees [63,72,79].

Afar pastoral women are better positioned to leverage kinship groups outside their primary one with their matrilineal kin. The lives of men in pastoral areas are highly dependent on women's performances [25]. Socioeconomic analysts, scholars, and policymakers should acknowledge pastoral women's skills, knowledge, roles, responsibilities, priorities, needs, and strategies for change.

Accordingly, possible interventions that try to help gender equity and pastoral women's recognition ought to begin with pastoral women themselves. The proper institutional framework and continuous support with viable mechanisms are vital to providing help to support women in getting recognition. Thus, women's place in the pastoral area and the community needs to be understood by policymakers, academicians, and stakeholders.

5.4. Limitations of the study

The participant view would certainly support showing local people's authentic culture and thinking. However, this study left a gap for further studies that will focus on the impacts of gender differences on societal social network roles by combining both qualitative and quantitative methodologies. Furthermore, the prevalence and influences of social changes, climate change, desertification, cultural value practice changes, and the impacts of new technology and globalization should have been covered in this study. However, the scope of the study only covered issues about women's roles and the impacts of patriarchy in the Afar case. Therefore, it will be profitable for future research to be conducted on such issues in network ties and social relationship processes compared to the types, nature, and characteristics of the changes occurring in rural and urban areas.

6. Conclusion and policy implications

This research explores contradictions that existed in some studies, literature, and reports from governmental and non-governmental organizations that depict Afar pastoral women as socially marginalized and accorded a lower social status. Conversely, although playing crucial roles in the pastoralist economy, institutions and policies do not treat and represent women fairly. Their traditional and patriarchal social arrangement should have been given attention. Most importantly, women contribute more to livestock production activities. Therefore, pastoral women face multiple challenges in achieving their potential, such as exclusive public policies, weak government interventions, and low community awareness of their roles.

In Afar society, men cannot exclude women from essential roles. Even though it might seem like it, Afar women have much influence over the household and public decision-making processes. Thoughts with their wives came before many decisions that appeared to be made by their husbands. The Afar men have now considered women capable of participating in decision-making. Based on many efforts, Afar women are taught to respect and submit to leadership positions. Instead of attempting to narrate about *male-dominated* issues, it would certainly be more fruitful for women that policymakers and works of literature introduce opportunities to create new spaces of involvement, participation, and representation.

Similarly, the result of the study showed that Afar women's roles in livestock production have contributed a lot in at least creating income for the household. It maintains food security and additional expenses. In this study, some strategies for recognizing women's roles have been proposed. Before working with communities, there should be a thorough understanding of gender relations. Before any interventions, the primary goal should be to identify and recognize the roles performed by pastoral women. Second, identifying the proper support and interventions would be made more accessible by recognizing the roles and responsibilities of Afar women in pastoral social and livelihood systems. Third, empowerment initiatives policies should be implemented, which are more effective and empowering when they originate from pastoral women.

Finally, it should be recognized that the proper institutional framework and supporting mechanisms are essential to recognize women's roles. Future studies ought to concentrate on figuring out how social relationships are disrupted and become obstacles that prevent women from participating in networks. Therefore, it is recommended that misconceptions about the significant contributions of Afar women be identified and taught to re-integrate the correct gender-role specification attributes in state policy formulation and public domain forum discussions.

Availability of data and materials

The gathered raw research data are appended to the Harvard Dataverse section for further details: view at <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/KOKWGX>) was published in Harvard Dataverse at <https://dataverse.harvard.edu/dataverse/harvard>). Thus, the raw data are available from the corresponding author upon reasonable request.

Ethics approval and consent to participate

All procedures performed in studies involving human participants were under the ethical standards of the author's institution with the international and national ethical guidelines and their amendments. The study was approved by the author's institution of post-graduate research committee (July 12, 2022; Ref. No: CAAS/104/2021-22).

Consent for publication

No participants were contacted without their permission.

Funding

The research was not funded by any agency/organization.

CRediT authorship contribution statement

Bisrat Teklesilassie Yazew: Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

This paper is part of the doctoral study entitled ‘Continuity and Changes on Social Relationships and Clan Networks among Afars along the Lower Awash Valley’.

Acknowledgement

I would like to acknowledge all research participants from district to regional levels. In addition, research supervisors and colleagues for their unreserved help and material provisions. Special thank goes to Dr Samuel Tefera and Teferi Mekonnen for financial, accommodation and expertise assistance.

References

- [1] A. Eneyew, S. Mengistu, Double marginalized livelihoods: invisible gender inequality in pastoral societies, *Societies* 3 (1) (2013) 104–116, <https://doi.org/10.3390/soc3010104>.
- [2] P. Manzano, et al., Toward a holistic understanding of pastoralism, *One Earth* 4 (5) (2021) 651–665, <https://doi.org/10.1016/j.oneear.2021.04.012>.
- [3] USAID, *An Atlas of Ethiopian Livelihoods*, 2010. Wezel, A., Bellon, S., Doré, T., Francis, C., Vallod, D., David, C. (2009). “Agroecology as a science, a movement or a practice. A review”.
- [4] A. Oancea, *Interpretations and Practices of Research Impact across the Range of Disciplines Report*, Oxford University, Oxford, 2011.
- [5] T.Y. Kim, et al., The power of women’s and men’s Social Networks to catalyse normative and behavioural change: evaluation of an intervention addressing the unmet need for Family Planning in Benin, *BMC Publ. Health* 22 (1) (2022) 1–14, <https://doi.org/10.1186/s12889-022-12681-4>.
- [6] A. Hadi, Patriarchy and gender-based violence in Pakistan, *Eur. J. Soc. Sci. Educ. Res.* 4 (4) (2017) 297–304.
- [7] Yesuf Awol, “Afar Women in the Process of Socio-Economic and Political Development of Afar National Regional State”, B.A Thesis, Addis Ababa University, Department of Political Science and International Relations, 1999.
- [8] EEA-SDARAGP, *Socioeconomic Development in Afar Region Achievements, Gaps, and Priorities*, Ethiopian Economics Association, Ethiopian Economic Policy Research Institute [EEPRI], 2021, 978-99944-54-80-8 Printed in Addis Ababa, Ethiopia.
- [9] S. Ullah, An analysis of patriarchy, gendered socialization and its impact on the socio-economic status of women in district Dir Lower, *J. Sociol.* 2 (1) (2018) 62–72.
- [10] I. Kohler-Rollefson, Purdah, purse and patriarchy: the position of women in the Raika shepherd community in Rajasthan (India), *J. Arid Environ.* 149 (2018) 30–39.
- [11] Mohammed Habib, The History of Afar [adal] people. (Amharic version), in: Printed By 3H Printing Press, Afar, and Ethiopia, 2019, p. 266.
- [12] G.A. Makama, Patriarchy and gender inequality in Nigeria: the way forward, *Eur. Sci. J.* 9 (17) (2013) 115–144.
- [13] Martin, Lee, *Social Structures*, Princeton University Press, Princeton, 2015.
- [14] M. Roldan, et al., Professional and personal social networking and enhancement of social capital in young adults, *J. Int. Technol. Inf. Manag.* 26 (3) (2017) 46–80, <https://doi.org/10.58729/1941-6679.1311>.
- [15] J. Markakis, Ensuring the Sustainability of Pastoralism in East Africa Minority, 2004.
- [16] N. Kamenou, Feminism in Cyprus: women’s agency, gender, and peace in the shadow of nationalism, *Int. Fem. J. Polit* 22 (2020) 359–381.
- [17] Alis Oancea, Teresa Florez Petour, Jeanette Atkinson, *Qualitative Network Analysis Tools for the Configurative Articulation of Cultural Value and Impact from Research*, 26[4], 2017, Department of Education, University of Oxford, 15 Norham Gardens, Oxford OX2 6PY, England Research Evaluation, 2017, pp. 303–306, <https://doi.org/10.1093/reseval/rvx014>.
- [18] B.N. Onyima, *The Palgrave Handbook of African Women’s Studies*, The Palgrave Handbook of African Women’s Studies, December, 2020, <https://doi.org/10.1007/978-3-319-77030-7>.
- [19] E. Bayeh, The role of empowering women and achieving gender equality in the sustainable development of Ethiopia, *Pac Sci Rev B: Humanit. Soc. Sci.* 2 (1) (2016) 37–42.
- [20] K. Klyver, S. Terjesen, Entrepreneurial network composition: an analysis across venture development stage and gender, *Women Manag. Rev.* 22 (8) (2007) 682–688.
- [21] V. Bhasin, Pastoralists of Himalayas, *J. Biodiversity* 4 (2) (2013) 83–113, <https://doi.org/10.1080/09766901.2013.11884746>.
- [22] FAO, *Pastoralism- Making Variability Work*, FAO, 2021, <https://doi.org/10.4060/cb5855en>. *Animal Production and Health Paper No. 185*.
- [23] World Bank, *Ethiopia Gender Diagnostic Report: Priorities for Promoting Equity* (2019) 1–84.
- [24] UNDP, *Ethiopia’s progress towards eradicating poverty*, in: Paper to Be Presented to the Inter-Agency Group Meeting on the Implementation of the Third United Nations Decade for the Eradication of Poverty (2018 – 2027), April 18 -20, 2018, 2018. Addis Ababa Ethiopia.
- [25] M. Abdulatif, A. Ebro, Assessment of pastoral perceptions towards range and livestock management practices in Chifra district of Afar regional state, Ethiopia, *For. Res.* 4 (144) (2015).
- [26] T. Yaynshet, T. Kelemework, Indigenous rangeland resources and conflict management by the Northern Afar pastoral groups of Ethiopia, in: *The Dryland Coordination Group (DCG) Report*, 2004, p. 31.
- [27] Said Ali, *Resource use conflict in the Middle Awash Valley of Ethiopia: the crisis of Afar pastoralism*, in: R. Hogg (Ed.), *Pastoralists, Ethnicity and the State in Ethiopia*, Haan Publishing, London, 1997.

- [28] Muauz Gidey Alemu, A Critical Analysis of ISSA-Afar Violence in Ethiopia and the Imperative for Constructive Transformation, A Ph.D. Dissertation, University of Pretoria, 2018. URI: <http://hdl.handle.net/2263/70597>.
- [29] Mohammed Yasin, Regional dynamics of inter-ethnic conflicts in the horn of Africa: an analysis of the Afar-Somali conflict in Ethiopia and Djibouti, in: Submitted in Partial Fulfilment of the Requirements for the PhD Degree, University of Hamburg, Germany, 2010.
- [30] Getachew Kassa, Settlement among the Afar pastoralists of the Awash Valley, in: A. Pankhurst, F. Piguët (Eds.), *Migration, Resettlement and Displacement in Ethiopia*, ESSSWA, Addis Ababa. Ethiopia, 2004, pp. 222–242.
- [31] Kelemwork Tafere, Conflict and alternative dispute resolution among the Afar pastoralists of Ethiopia, *Afr. J. Hist. Cult.* 3 (3) (2011) 38–47. Sandfors, Sandfrod University Press.
- [32] A. Belay, Women Are Land Rights: Customary Rules and Formal Laws in the Pastoral Areas of Ethiopia – Complementary or in Conflict? Rangelands Initiative Research Report 4, ILRI, Nairobi, 2020. <https://hdl.handle.net/10568/114248>.
- [33] E. Namubiru-Mwaura, Land Tenure and Gender: Approaches and Challenges for Strengthening Rural Women's Land Rights, 2014.
- [34] H.K. Mohajan, Four waves of Feminism: a blessing for global humanity, *Stud. Social Sci. Human.* 1 (2) (2022), <https://doi.org/10.56397/sssh.2022.09.01>.
- [35] R. Cote, The evolution of social network theory: perceived impact on developing network king relationships, *Lindenwold Univ. Am. J. Manag.* 19 (3) (2019).
- [36] S. Borgatti, P. Foster, The network paradigm in organizational research: a review and typology, *J. Manag.* 29 (6) (2003) 991. Retrieved from Business Source Complete database.
- [37] T. Bisrat, K. Getachew, Punishing criminals indigenously: perspectives from customary law and social relationship practices of Afar pastorals along the Lower Awash Valley, *Cogent Social Sci.* 9 (2) (2023) 2273337, <https://doi.org/10.1080/23311886.2023.2273337>.
- [38] L. Bernardi, A. Klärner, Social networks and fertility, *Demogr. Res.* 30 (2014) 641–670, <https://doi.org/10.4054/DemRes.2014.30.22>.
- [39] C.M.S. Ma, Relationships between social networking sites use and self-esteem: the moderating role of gender, *Int. J. Environ. Res. Publ. Health* 19 (18) (2022), <https://doi.org/10.3390/ijerph191811462>.
- [40] C. Crozers, Analyzing social structures, in: *Sociological Landscape, Theories, Realities, and Trends*, Auckland University of Technology, New Zealand, 2012. Available at: <https://www.researchgate.net/publication/224829004>.
- [41] E. Rice, A. Yoshioka-Maxwell, Social network analysis as a toolkit for the science of social work, *J. Soc. Soc. Work. Res.* 6 (3) (2015) 369–383, <https://doi.org/10.1086/682723>.
- [42] A. Callinicos, Social theory: a historical introduction, in: A.T. Callinicos (Ed.), *Anthony Giddens: A Contemporary Critique. Theory" and Society* 14 (1985), 2nd ed., Polity, Cambridge, 2007, pp. 133–166.
- [43] I. Psylla, et al., The role of gender in social network organization, *PLoS One* 12 (12) (2017) 1–21, <https://doi.org/10.1371/journal.pone.0189873>.
- [44] C. Crozers, Analyzing social structures, in: *Sociological Landscape, Theories, Realities, and Trends*, Auckland University of Technology, New Zealand, 2012. Available at: <https://www.researchgate.net/publication/224829004>.
- [45] I. Wallerstein, *World-Systems Analysis: an Introduction*, Duke University Press, Durham/London, 2004.
- [46] A. Greve, J.W. Salaff, Social networks and entrepreneurship, *Entrep. Theory Pract.* 28 (1) (2003) 1–22, <https://doi.org/10.1111/1540-8520.00029>.
- [47] F. Dorcas, The effect of social networks on women entrepreneurs in Nigeria : a case study of Ado- Ekiti small scale enterprise, E-mail: oke.dorcas@yahoo.com, *Intern. J. Educ. Res.* 1 (11) (2013) 1–14.
- [48] Y. Yang, N.V. Chawla, B. Uzzi, A network's gender composition and communication pattern predict women's leadership success, *Proc. Natl. Acad. Sci. U. S. A.* 116 (6) (2019) 2033–2038, <https://doi.org/10.1073/pnas.1721438116>.
- [49] L. Renzulli, H.E. Aldrich, J. Moody, Family matters : gender, networks, and entrepreneurial outcomes, November, <https://doi.org/10.1093/sf/79.2.523>, 2000.
- [50] Tadesse Berhe, Adaye Yonas, Afar, the impact of local conflict on regional stability, in: *The Institute for Security Studies at the Center for Policy Research and Dialogue*, Capture Press, Pretoria, 2007.
- [51] S.M.K.&M. Sherraden, The impact of gender and social networks on microenterprise business performance Ramapo college of New Jersey, *Sociol. Social Welfare XLI* (30) (2014).
- [52] M.S. Granovetter, The impact of social structure on economic outcomes, *J. Econ. Perspect.* 19 (1) (2005) 3–50.
- [53] S.E. Seibert, M.L. Kraimer, R.C. Liden, A social capital theory of career success, *Acad. Manag. J.* 44 (2) (2001) 219–237.
- [54] N. Lin, Inequality in social capital, *Contemp. Sociol.* 29 (6) (2002) 785–795.
- [55] CARE Ethiopia, A Regional Gender Analysis Brief. Ethiopia, 2022. Afar Region. September 2021.
- [56] ANRS, Afar National Regional State Constitution, 2008.
- [57] ANRS, Afar Regional Council, Annual Report, 2022. Semera: Non-published.
- [58] CSA (Central Statistical Authority), Agricultural Sample Survey. Volume II Report on Livestock and Livestock Characteristics (Private Peasant Holdings), Central Statistical Authority, Addis Ababa, Ethiopia, 2016.
- [59] History and development of sociology, in: C. Crothers (Ed.), *Encyclopedia of Life Support Systems [EOLSS]*, Developed under the Auspices of the UNESCO, Eolss Publishers, Oxford, UK, 2010. <http://www.eolss.net>.
- [60] J. Cresswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, SAGE Publications, Inc, USA, 2014.
- [61] Donilee and Spencer, *Research Design: Qualitative and Quantitative Approaches*, Sage, Thousand Oaks, CA, 2007.
- [62] P. Aspers, Empirical phenomenology: a qualitative research approach (the cologne seminars), *Indo-Pacific J. Phenomenol.* 9 (2009) 1–12. Edition 2.
- [63] S. Ullah, An analysis of patriarchy, gendered socialization and its impact on the socio-economic status of women in district Dir Lower, *J. Sociol.* 2 (1) (2018) 62–72.
- [64] D. Allington, Linguistic capital and development capital in a network of cultural producers: mutually valuing peer groups in the interactive fiction retrogaming scene, *Cult. Sociol.* 10/2 (2016) 267–286.
- [65] W. Bottero, N. Crossley, Worlds, fields and networks. Becker, Bourdieu and the structure of social relations, *Cult. Sociol.* 5/1 (2011) 99–106.
- [66] S. De Jong, et al., Understanding societal impact through productive interactions: ICT research as a case, *Res. Eval.* 23/2 (2014) 89–102.
- [67] B.N. Onyima, Pastoral Environment and Access to Healthcare Systems Among Cattle Nomads in Ibarapa Oyo State, University of Ibadan, Nigeria, 2016.
- [68] Tadesse Berhe, Adaye Yonas, Afar, the impact of local conflict on regional stability, in: *The Institute for Security Studies at the Center for Policy Research and Dialogue*, Capture Press, Pretoria, 2007.
- [69] F.B. Guyo, Colonial and post-colonial changes and impact on pastoral women's roles and status, *Pastoralism* 7 (1) (2017), <https://doi.org/10.1186/s13570-017-0076-2>.
- [70] M.G. Foundation, Analyzing Girl Child Marriage: Ethiopia Deep Dive, 2021. March 2021.
- [71] M.M. Haj-Yahia, Can people's patriarchal ideology predict their beliefs about wife abuse? The case of Jordanian men, *J. Community Psychol.* 33 (5) (2005) 545–567.
- [72] A. RiPA, Afar Regional Gender Analysis Brief, September 2021. Available at: [RiPA-Afar-regional-gender-analysis-April-2022.pdf \(careevaluations.org\)](https://careevaluations.org) [accessed 20 April 2023], 2022.
- [73] S. Anderson, E. Farmer, USAID Office of Food for Peace Food Security Country Framework for Ethiopia FY 2016 – FY 2020, Food Economy Group, Washington, D.C., 2015.
- [74] F. Piguët, Even after Good Rains, Afar Pastoralists Remain Vulnerable: UN-emergencies Unit for Ethiopia, Multi-Agency Assessments Missions, 2001, pp. 15–23. June and 19–23 August 2001.
- [75] GBV AoR, Coordinator office in Ethiopia, in: *Situational Analysis: Gender-Based Violence in Northern Ethiopia [Afar, Amhara, and Tigray Regions]*, 2020.
- [76] MWCY Affairs and UNICEF, *Changing Trends in Gender Equality in Ethiopia Research Brief*, 2018.

- [77] R. Cote, The evolution of social network theory: perceived impact on developing network king relationships, *Lindenwood Univ. Am. J. Manag.* 19 (3) (2019) 19, 2019.
- [78] N. Kamenou, Feminism in Cyprus: women's agency, gender, and peace in the shadow of nationalism, *Int. Fem. J. Polit* 22 (2020) 359–381.
- [79] Naomi Kipuri, Andrew Ridgewell, A Double Bind: the Exclusion of Pastoralist Women in the East and Horn of Africa, *Minority Rights Group International*, 2008, 12 December 2008, <https://www.refworld.org/reference/regionalreport/mrgi/2008/en/63939> [accessed 10 July 2023].