



Norwegian University
of Life Sciences

Master's Thesis 2022 30 ECTS

Faculty of Landscape and Society

Department of International Environment and Development Studies

The role of social capital on the livelihood security of women in the Obbu region, northern Kenya

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Global Development Studies

**THE ROLE OF SOCIAL CAPITAL ON THE LIVELIHOOD SECURITY OF WOMEN IN
THE OBBU REGION, NORTHERN KENYA**

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Master thesis

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May 2022

Declaration

I, Alfred Brown Kwarteng, author of the thesis “The role of social capital on the livelihood security of women in the Obbu region, Northern Kenya”, hereby declare that this submission is my work towards the Master of Science (Msc.) Degree in Global Development Studies. To the best of my knowledge, except where due acknowledgement has been entirely made, it does not contain any material previously published by another person or material accepted for the award of any degree by the university.

Dedication

I dedicate this thesis to the Almighty and Faithful God for helping me come out with a successful dissertation.

Acknowledgements

This thesis would not have been possible without the support of many people. First and foremost, I would like to express my gratitude to my supervisors, Prof. Gufu Oba, UMB Department of International Environment and Development Studies (Noragric). I wish to thank the leadership of the Department of International Environment and Development Studies (Noragric) for giving me the opportunity to pursue my studies. My heartfelt gratitude goes to my family and friends for their unconditional love and support.

Abstract

People who live in traditional societies, including pastoralists are known for strong social networks, which play vital role for their livelihood security means. This study seeks to understand the operations of *marro* network among women living in rural and peri-urban community(ies), and the benefits they gain from being members of the *marro* and organized women´s group. The study was drawn from a secondary data source collected in 2015 which was supplied by my supervisor from a larger study. Simple random sampling technique was utilized to select 51 households composed of women who were participants of social networks in the rural and peri-urban community (ies).

Results show that women in their middle age participated more in the rural community, whilst the old women participated more in the peri-urban community. Also, most of the women had problems acquiring food due to high food prices in the rural, and low availability of food in the peri-urban community. Many women in both communities were involved in the *marro* network, and the women in both communities used cooperation and sharing as the main criteria to engage themselves in *marro*. Women from both communities who participated in the *marro* and the organized women´s group exchanged resources and gained benefits from the two groups. The benefits involved support for each other, building houses for projects and helping the needy. The most widely exchanged resources included farm produce, water, and firewood. The study recommends the implementation of responsive and sustainable food and livelihood security programmes and projects among pastoral women.

Keywords: Social capital, Social network, *Marro*, Women, Livelihood, Borana

List of figures

Figure 1. Resource flows between rural and urban continuum	16
Figure 2. Map of the Sololo sub-county	23
Figure 3. Frequency (%) comparing problems to food acquisition among women.....	28

List of tables

Table 1: Socio-economic characteristics of women.....	28
Table 2: Frequency (%) comparing number of people involved in <i>marro</i> , most active period and specific criteria for engaging women in <i>marro</i> network	31
Table 3: Frequency (%) comparing the benefits and types of resources shared among Borana women.....	35
Table 4. Association between resources shared among women.....	37
Table 5. Frequency (%) of accessibility to credit among women.....	38
Table 6. Frequency (%) of relief food among women.....	39

Table of Contents

Declaration	ii
Dedication	iii
Acknowledgements	iv
Abstract	v
List of figures	vi
List of tables	vi
Chapter 1	1
Introduction	1
1.2 Research objectives	4
1.3 Organization of the study	4
Chapter 2	5
Thematic framework	5
2.1 Social capital network	5
2.2 Women’s group	5
2.3 Social capital theory	6
2.3.1. Bonding social capital	8
2.3.2 Bridging social capital	9
2.3.3 Linking social capital	9
2.4 Sharing livelihoods	10
2.5 Rural-Peri-Urban Linkages	10
2.6 Women’s social capital networks in Kenya	12
2.6.1 Importance of women’s social capital networks in pastoral and agro-pastoralism	13
2.6.2 Creation of formal women’s social capital networks	15
2.7 The Borana women’s social capital networks of marro	16
Chapter 3	18
Research design plan	18
3.1 The study area	18
3.2 Study Design, Sampling Procedure and Data Collection	19
3.3 Data Analysis	20
3.4 Limitations	21
Chapter 4	22
Results and Discussion	22

4.1 The operations of marro social capital networks	22
4.1.1 Role played by age of women in participation in the marro social capital networks.....	22
4.1.2 Number of meals	24
4.2.3 The sale and source of milk	24
4.1.4 Access to credit at the local shop and village	25
4.1.5. Problems with food acquisition	26
4.1.7. Association between age, membership in social networks and access to credit	28
4.2. Benefits women gain from social networks	29
4.2.1 Benefits women gain from the organized women´s group (formal network) in the two communities.....	29
4.2.2 Resources shared among the women.....	30
4.2.2 Association between resources shared among Borana women	31
4.2.3 Access to credit facilities	32
4.2.4 Access to relief food	33
Chapter 5	35
Conclusion	35
Chapter 6.....	36
Reference List	36
Appendix 1	42

Chapter 1

Introduction

The desire to share and show solidarity to members of the same social networks is rooted in historical belief and culture of pastoralists' women operated for essential livelihood and societal development (Teche and Sjaastad, 2008). The role played by women in various cultures cannot therefore be underestimated. Beside performing basic role at homes, they also play the role as livestock managers, peacemakers, community leaders through formal and informal social networks in their community (Kipuri and Ridgewell, 2008). Social capital either formal or informal serve to manage risk and reduce vulnerability within communities and serve several other purposes together with supporting the capacity for collective action (Adger, 2010). Formal and informal social capital networks create the avenue for households to share knowledge, and resources which leads to community development (Puttnam, 2002). This research reports the role social capital plays in the livelihood of the Obbu Borana women in northern Kenya. We will place the subsequent part of the thesis into broader gendered social capital networks before presenting the case study.

In Kenya, women are classified among the marginalized group with high poverty levels (Diwakar and Shepherd, 2018). Among the factors that have contributed to poverty among women in Kenya are low participation of women in the political process (women get little support to participate in the political parties and stand for office), food insecurity and limited access to opportunities (Diwakar and Shepherd, 2018). Moreover, besides efforts by the government, efforts have been put in place to provide possible solutions to help improve women livelihood and to reduce their poverty levels via the formation of social support network and social groups in their communities. These discussions will be placed into larger global context in order to develop comparative features shared across cultures.

In the global context, social capital has gained popular recognition in the development literature. Development practitioners regard it as an important tool that can help solve some of the problems associated with development and to improve human livelihood (Stirrat, 2004). Studies have disclosed that social capital enhances superior outcome in collective actions which helps to improve human lives and wellbeing. Also, it creates the avenue for people to share their knowledge, and resources which leads to community development (Puttnam, 2002). Empirically, in developing

countries, social capital provides both financial and nonfinancial resources (for instance sheltering, information and emotional support) in times of disaster (Endris et al., 2020). Moreover, social capital in the form of mutual support practices is effective in building adaptive resilience of households by smoothing consumption shocks (Endris et al., 2017). It provides a means of survival for vulnerable groups in the society, especially women (Adger, 2010). Social networking and mutual assistance mechanism are a necessary ingredient, among pastoralist communities (Rusomyo and Mangare, 2017). It is an essential social safety net and social protection (Amornsiriphong and Piemyat, 2012).

In addition, social capital provides women with their basic needs, and resources necessary to improve their lives (Myroniuk, 2016). A study by Ali (2005) showed that in Bangladesh, membership of social networks makes it possible for people especially women to obtain their basic needs such as food on credit without collateral due to mutual trust and networking. Also, in situations where the husband cannot manage his incurred debt, the wife seeks support from her family members to help settle the debt. Abenakyo et al., (2008) reported that in South Africa, social networks empower women to take active role in decision making and enhance their confidence. The networks operate in varieties of social spaces including rural, peri-urban, and urban areas.

In the traditional societies, members who belong to the same social networks in rural and peri-urban areas exchange items such as food, firewood, cash, and other basic resources to improve their lives (Myroniuk, 2016). People living in urban and peri-urban areas maintain strong links with rural areas, while rural households rely on urban and peri-urban inhabitants for their basic needs (Tacoli, 2002). The linkages, interaction and reciprocity that exist between rural and urban households foster easy access to basic needs such as food items, information, and other resources (Tacoli, 2002). These exchanges are essential for survival and occur due to the strong connections and bond among members who belong to the same social networks in the traditional societies (Rusomyo et al., 2017). In East Africa for instance among the Gogo agro-pastoral societies in semi-arid Tanzania where there is limited access to resources and opportunities, social capital has helped vulnerable households to cope with various forms of risk especially during periods of drought and food shortages (Rusomyo et al., 2017). Formal social capital networks with the existence of trust and solidarity increase household expenditure and welfare (Quisumbing and Kumar, 2011). It provides legitimacy, builds mutual trust and cooperation among women in both rural and peri-urban areas (Mozumdar, & Sarma 2017). In rural and peri-urban centers, women who participate in both formal

and informal social capital network engage in various welfare generating activities, including giving out items in the form of credit, distribution of food to the needy, and exchange of gifts (Quisumbing and Kumar, 2011). Indeed, formal, and informal social network improves the livelihood of women by granting them access to resources which would have otherwise remained inaccessible to them as individuals in rural and peri-urban centers (Jacobs, 2009).

This study sought to identify the role of social capital among agro-pastoralist women of the Obbu Borana in northern Kenya. It aimed to understand and analyze the role played by formal and informal social capital network on the lives of women in the Obbu Region of northern Kenya. Emphasis was placed on Borana women living in rural and peri-urban setting. The study considered how social networks act as a coping strategy which helped to improve the lives of women. In addition, the study sought to address the issue of food security through adjustments in livelihood strategies particularly among pastoral and agro -pastoral households.

This issue forms an integral part of the UN sustainable goal 1.5, which aims to “build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters” (UN, 2021, p.1). The pastoral and agro – pastoral women in Obbu, northern Kenya are vulnerable groups who are exposed to drought and other environmental shocks. Therefore, identifying the roles and importance of social networks in their community will form the basis of the need to provide adequate measures and resources to strengthen their social networks in the community.

The women engage in an informal social network called *marro* where they share resources such as food, work parties, and other essential resources among themselves (Tache and Sjaastad, 2008). The term *marro* according to the findings by Anbacha and Kjosavik (2018) is derived from *Afan Oromo* root word termed as “*marru*”, which means to go round or to move in a circle. This indicates that the main function of *marro* is to give in turn in times of difficulties. Hence, *marro* is a societal social tool with a value to helping each other and expressing solidarity. Beside the informal social network, the Obbu Borana women engage in state and development agencies (organized women groups) which is created under the mechanisms of formal social network in the communities. It is noteworthy that women involved in *marro* are members of the formal network as well. Moreover, membership to the social networks creates an avenue to external funds which are shared among members. Information on the importance of these social networks on women’s livelihood most especially in

the Agro-Pastoral communities is however scanty. By examining the role of social capital network on women's livelihood, the current research aims to fill this gap. We posed two research objectives.

1.2 Research objectives

The first objective was to understand the operations of *marro* social capital network among women living in the rural and peri-urban communities in Obbu Borana region. And with that, emphasis was placed on the features of the *marro* social capital network, where respondents were asked questions related to age, meals consumed per day, source and marketing of milk, and access to credit at the village and the local shop. Respondents were asked about problems to food acquisition, the number of people involved in *marro*, and the specific criteria for engaging women in *marro*. Further questions were asked to gain a better understanding of how *marro* (informal social network) operates in rural and peri-urban communities among the women.

The second objective identified the benefits women accrue from being members of informal and formal social networks. To do this, respondents were asked about the (a) benefits gained from both formal and informal network groups and (b) type of resources exchanged, (c) accessibility to credit facilities (types of credit, sources, and period with high demand of credit) (d) and access to relief food (types and sources of relief food). To address the objectives and specific questions, two communities in rural (Damballa Fachana) and peri-urban (Ramata) sites were compared in the Obbu Borana region. The study is organized as follows.

1.3 Organization of the study

The study is divided into five chapters. In chapter 2, the study places social capital networks into its theoretical frame. Chapter 3 describes research methods, while chapter 4, presents the findings and discussions under the two objectives. The study in chapter 5, makes a general conclusion.

Chapter 2

Thematic framework

This section seeks to deepen our understanding on the role of social capital network among women living within the rural and peri-urban areas, and how it affects their livelihood. We will put this into the context. In developing countries, where there are limited social welfare projects and support systems, traditional or indigenous social networks of exchange and reciprocity are critical components of household security and social welfare. Women in rural and peri-urban communities form social networks to support each through food sharing among neighbors for their daily needs and serve as a food security measure in times of crises (Munoz et al., 2018). Emphasis is placed on empirical meaning of social capital, livelihood, and rural and peri-urban linkages through social capital networks. It elaborates the nature and activities of pastoral and agro-pastoral societies, problems encountered by these societies and women's contribution in these communities. We will describe these processes in turn. We begin with definition of terms.

2.1 Social capital network

The concept of “social capital network” has attracted numerous debates in relation to arriving at a precise definition. It involves connection, developed due to norms and trust that enable members to act together to accomplish shared objectives (Putnam, 1993). For members to gain benefits from social networks, there should be a collective action and flow of information between individual groups to influence decision-making. The network therefore acts as an asset to the members and the society in general and this is termed as social capital (Adger, 2010). Social capital network is a crucial component due to its role to different social groups at different times (Puttnam 2002). Again, it is considered as the most important foundation which strengthens communities (Amornsiriphong and Piemyat, 2012) in general and, women's groups.

2.2 Women's group

Women play active role in both rural and peri-urban communities. To cope with the limited social services and opportunities in their communities, they organize themselves into networks and groups where they assist each other for attainment of their basic needs and services. Pastoral women

specifically engage in food-sharing culture to overcome household food shortages (Stavropoulou et al., 2017). The networks formed by women increase their access to resources and opportunities thereby reducing existing gender gaps (Khalif, 2010). Using the preceding discussions, we will now apply women's resource sharing in the context of social capital theory.

2.3 Social capital theory

The concept of social capital was first used in the beginning of the 20th century (Guomundsson and Mikiewicz, 2012) and gained immense attention in the 1980s. This popularity accelerated in the 1990s (Gabbay and Leenders, 2002). Studies indicate that the term social capital was first used by political economist. For instance, Alfred Marshal used the term in 1890. And even before this period, John Bates (1885), Henry Sidgwick (1883) and Karl Marx (1867) had used it in their works where they opposed what they considered as unsocial point of view of classical political economy. Social capital was regarded as a social point of view (Gabbay, and Leenders, 2002). Moreover, during the nineteenth century, political economists portrayed social capital as an activity which involves trade, corporation, unions, brotherhood, friendly societies, guilds, communes, and different forms of cooperatives (Gabbay, and Leenders, 2002).

Social capital increases agricultural productivity and improves households' access to resources in rural and urban areas (Yusuf, 2008). The study by Abenakyo et al., (2008) on the relationship between social capital and livelihood among smallholder farmers in Uganda found that there is a positive association between the level and dimensions of social capital and livelihood. Which means that as social capital is strengthened it enhances household welfare as well. Similarly, the study by Yusuf (2008) on the effects of social capital on household welfare in Kwara state, Nigeria found that the effect of social capital on welfare was noticeable among household members who participate actively in decision making process within the associations or networks they belonged.

Additionally, social capital serves as an important factor which enhances the capacity of rural communities to mobilize resources to promote development. It enhances the efficiency and effectiveness of rural community groups to perform crucial development task such as resource mobilization and management, decision-making, coordination of activities, communication among each other and conflict resolution (Durlauf, 2002).

There is however no single meaning to social capital (Moobela et al., 2009). There are different viewpoints. The works of Woolcock (1998), Hanifan (1920) and Jacobs (1961) throw more light on the importance of community participation in improving social performance, and the culture of urban communities which was based on the theory of social interruption (Kirori, 2015). Indeed, over the last decades, social capital is considered as one of the most widely used concepts in sociological research (Guomundsson and Mikiewicz, 2012). Three researchers including Bourdieu (1986), Coleman (1988, 1990) and Putnam (1993a, 1993b, 1995) are noted to have played immense contribution to the meaning and role of social capital. Although they agree that social capital is embedded in social relations, their perspectives differ with respect to how the social capital is used (Guomundsson and Mikiewicz 2012). We can use an example here.

According to Bourdieu (1986), social capital is a form of social networks, connections and posits that it seeks to provide potential support and access to resources. To Bourdieu (1986), social capital is a sphere of mutual acquaintance and recognition, which consisted of two main elements of social capital, that includes the size of one's connection and the volume of capital (economic, cultural, and symbolic) exchanged with the network members.

Coleman (1998, 1990) on the other hand emphasized the role the family and communities played, by defining social capital as a resource in terms of social structure which helps actors to achieve their goals and interests. Putnam (1993a, 1993b, 1995) also reported social capital as a key characteristic of communities that is essential for policies community development, grassroots participation and empowerment. Conversely, Durlauf (2002) defined social capital as a form of community relations which influence personal interactions. Despite the differing level of relationship and goals, all the scholars emphasize on an existing mutual relationship and connection among group of people which is geared towards achieving a common goal.

According to OECD (2001, p. 41) it involves “networks together with shared norms, values and understandings that facilitate cooperation within or among groups. And “the stock of active connections among people: the trust, mutual understanding, shared values and behaviors that bind the members of human networks and communities and make cooperative action possible” (Cohen and Prusak 2001, p 4). Social capital makes it possible to access certain goods and services which would not be attainable in its absence. For example, in a rural community where farming serves as the basic means of employment, social capital among farmers makes it possible to borrow and lend

farm tools and equipment to get their work done with less physical capital (Coleman, 1990). Social capital holds society together and its essentially based on the values and implications of relationships as the resource for social action (Gabbay and Leenders, 2002).

Moreover, OECD (2001) further emphasized on networks, shared values, norms and understanding which promotes cooperation within and among groups. Network involves family networks, friends, colleagues, and others. Norms involves the unspoken and unquestioned rules which comes to realization when broken, for instance if an adult attack a child (they violate the norms that protects the child from harms). Values on the other hand are considered essential component in every social group, typical is the respect for people's safety and security. These elements together with network and understanding could facilitate or endanger trust and therefore enables people to work together (OECD, 2007).

Social capital as a concept has attracted interest among political and policy makers due to its immense impacts on social groups (OECD, 2007). Social capital helps to facilitate the solution of collective action problems (Durlauf, 2002). In developing countries where the state is weak and is unable to provide the needed public goods, non-governmental organizations and clubs, networks, and community-based voluntary organizations formed to provide diversification of livelihoods (Durlauf, 2002).

Social capital is identified in three basic forms: bonding, bridging, and linking (Woolcock, 1998 cited in Moobela et al., 2009). In this study, major emphasis will be placed on bonding and bridging social capital where women of different ages access resources from their family and the organized group network to improve their lives and wellbeing. We discuss concepts in turn.

2.3.1. *Bonding social capital*

Bonding refers to ties among people who are related or shared neighborhoods. This is typical to the relationship among families (Moobela et al., 2009). The ties among members of the cooperate groups are very strong, and the social relationships are based on strong trust and reciprocity (Endris et al., 2017). Such social capital is like the *marro* system in northern Kenya where members belonging to the same family share resources and ideas. It creates a very strong, dense network structures, which involves strong social norms and develops localized trust among members (Newman and Dale,

2005). Conversely, bridging links distant relationships such as different localities-rural and peri-urban communities.

2.3.2 Bridging social capital

Bridging relations can occur among distant friends, associates, and colleagues, and is therefore outward looking (Moobela et al., 2009). It enables families or households who are members of other groups to access extra resources that can be in the form of novel information, knowledge, and financial resources that cannot be obtained through bonding connections (Endris et al., 2017). Bridging ties establish fundamental trust between groups which helps to improve social wellbeing (Aldrich et al., 2006), and this represents a social insurance system against risks (Aktipis et al., 2011). In specific terms, pastoralist women engage in food-sharing culture with the aim of reducing food shortages (Stavropoulou et al., 2017), to increase their access to resources by reducing disparities in food security (Khalif, 2010). The relationships create linkages between groups that shared social networks.

2.3.3 Linking social capital

Linking social capital refers to the relationship among members who belong to different social strata in a hierarchy where power, wealth and social status are accessed by different groups (OECD, 2001). According to Blackburn et al., (2014), linking is a form of connection, bonds and interaction that takes place between community groups and occur through formal, institutional entities or systems. Blackburn et al., (2014) emphasized further that this type of relationship is essential in formal communal organizations with respect to resource management, community livelihood sharing. It involves proactive coping mechanisms that is manifested through formalized networks in a community (Blackburn et al., 2014). In a pastoral community, linking relationship reduce vulnerability among women, by pooling response capacities across different social networks within the community and creates formal structures to cope with food insecurity and livelihood problems (Blackburn et al., 2014).

2.4 Sharing livelihoods

Livelihood is used to describe how humans inherently develop and implement strategies to ensure their livelihood (UNDP, 2010). It portrays the means to make a living by taking into consideration the various activities and resources that allow people to live (FAO, 2007). According to Chambers and Conway, (1991) cited in United Nations Development Programme (2010: p.6) “livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. Livelihood is sustainable when it can cope with and recover from stress and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base”. The key assets to livelihood are human, natural, social, physical, and financial resources. These assets are important and serve as inputs that makes it possible for people to achieve a positive livelihood outcome (Food and Agriculture Organization, 2007). Instead of household directing their attention to income receipts or consumption attainment, the households rather channel their attention to means to obtain a living (Durlauf, 2002). This process involves the quest for strategies established by a combination of availability and access to assets and activities (Ali, 2005). Structures include the level of government and private sector and processes that significantly influence formal social capital networks (Durlauf, 2000). This would imply that there is a direct linkage between livelihood and social capital. We will now discuss operations of social capital networks in the context of rural and peri-urban women’s resource sharing.

2.5 Rural-Peri-Urban Linkages

Earlier works on rural-urban and peri-urban linkages can be traced back to the work of Von Thunen in 1826 who undertook an early classical analysis of the spatial allocation of economic activity. He used a model of agricultural land use to show how market processes can be used to determine land use in different geographic locations, and to be precise how land use is a function of transport cost to market and the farmer’s land rent (Von Braun, 2007). The breakthrough of the central place theory by Walter Christaller in 1933 was a masterpiece to explain how urban settlements are formed and spaced out in relation to each other (Agarwal 2007). These conceptual frameworks give a good stance about the connections or linkages that exist between rural – urban locations. Although the

practicability of the models is limited in real setting, they depict the changes that takes place along a continuum between the very rural and very urban setting, with many in between stages changing from small towns to peri-urban areas (Von Braun, 2007). According to OECD (1979:10) “peri – urban area is the name given to the grey area which is neither entirely urban nor purely rural in the traditional sense; it is at most the partly urbanized rural area” (Jaquinta and Drescher, 2000). They are places of social compression and dynamic social change (Figure 1).

Figure 1. Resource flows between rural urban continuum

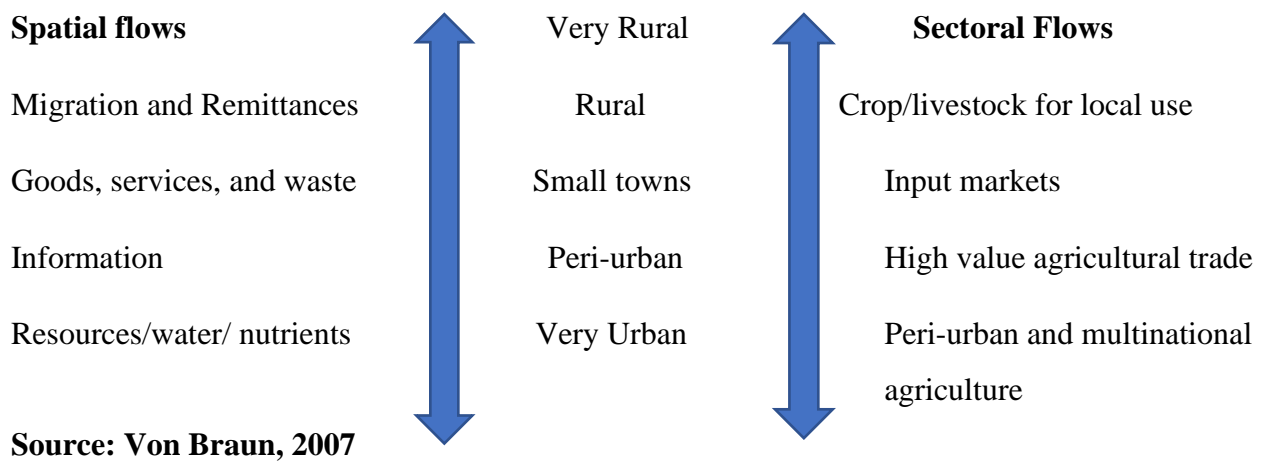


Figure 1 depicts the flow of resources from the very rural to very urban locations. Emphasis on the flow of resources from the very rural through peri-urban to very urban is taken into consideration (Von Braun, 2007). In general, two main types of flows are observed which are the spatial and sectoral flows. The spatial setting is used to reveal the flows of people, goods, money, technology, and information. The second which is the sectoral, refers to the flows of agricultural products produced in the more rural areas which goes to urban and peri -urban areas, while processed goods moving from the urban areas to more rural areas (Tacoli 1998). As the flows and interactions exist within the various locations, network is established among the people from different locations. Households from different locations (rural and urban) increasingly depend on both rural and urban base resources for their basic needs, thus many households connect between urban and village for their livelihood (Satterthwaite and Tacoli, 2002). The interactions develop into friendship, trust, and mutual understanding which could lead to network of groups where members can offer or exchange

goods (food, credit, water) (Tacoli, 2002). There are exchanges of food items which occurs between rural and urban households. Food from rural production reaches urban households through urban – rural linkages and connections among members belonging to the same group (Owuor 2004). For instance, migrants who visit their family in rural areas from urban centers carry with them food items which are not common in the rural areas to their family. Such food items include milk, salt, bread, tealeaves, cooking oil and others (Owuor 2004). On their return to the urban centers, they bring with them food from the rural areas which are given by their family in urban areas. These exchanges take place due to mutual trust and organized on consanguine and kinship ties (Rusomyo et al., 2017). Also, in times of extreme need, the young migrate for employment purposes, either to urban and peri-urban centers such as capital cities or regional centers, to expand their opportunities to job and income (Blackburn et al., 2014). Our case study focuses on women’s social capital networks in Kenya.

2.6 Women’s social capital networks in Kenya

In Kenya, application of social capital can be traced to the activities of the Mau Mau unrest in the 1950s and the Harambee Self-Help Movement since the period of 1960s (Durlauf, 2002). Social capital facilitates the exchange of labor, production, credit, and information among people (Durlauf, 2002). Through social capital, farmers can exchange and share resources which significantly increase their production and output (Nyangena and Sterner 2008). It is found that women benefit from being members of a social group or networks through access to basic resources and information (Myroniuk, 2016). Women rely heavily on their extended and close family members for their basic needs. The role played by social capital on women’s lives in sub-Saharan African countries is immense (Kirori, 2015). During difficult times, households with large aggregate social capital were able to access their basic needs through non-cash transactions (Kirori, 2015). Nonetheless, the traditional coping strategies often fail when shocks last for a long period of time, especially among households with low human and financial capital. Pastoral and agro – pastoral societies play crucial role in building networks and connections which ultimately helps to enhance their livelihood through mutual support and social groups (Kirori, 2015).

In pastoral and agro – pastoral communities in Kenya, most women share resources such as food and labor and other essential items to support their households (Anbacha and Kjosavik 2018). Typical is the Mabati women’s group in Kenya (Malombe, 2006). This social network responds to

felts needs such as building of rental houses, and conducting sewing, breadmaking, soap making and knitting courses (Malombe, 2006). This social network played essential role by providing its members with improved housing and other essential services and empowered them both socially and economically which contribute towards reducing poverty among the women (Durlauf, 2002). Moreover, a study on the role of *marro* (informal women's social security network) in accessing the livelihood for building household food security in pastorals society observed that, *marro* has a positive impact on ensuring household food security. The resources shared among the women directly and indirectly contribute to household food security improvement (Anbacha and Kjosavik 2018). Indeed, women's organizations and groups are recognized to be effective mechanism for improving food security in pastoral communities in Kenya (Omolo and Mafongoya, 2019). For instance, social networks such as self-help groups can address and enhance women's access to land use and tenure, access to water, livestock production and access to credit (Omolo and Mafongoya, 2019).

In addition, through the help of non-governmental Organizations and civil group organizations (Blackburn et al., 2014), pastoral and agro – pastoral women located in rural and peri-urban areas organize formal social networks with the aim of addressing some of their food security and livelihood challenges (Bharwad, & Shroff 2007). Women who participate in these social networks are assisted with relief food, water, and other essential resources especially during drought periods (Bharwad, & Shroff 2007). Also, through the formal networks and groups, pastoralist women are encouraged to channel their income to savings, and to diversity their economic activities into more profitable areas (Kipuri and Ridgewell 2008). Such activities include small-scale beadwork enterprises, necklaces, bangles, and earrings from beads bought from the nearby shopping centers and selling them at the local markets (Bharwad, & Shroff 2007). Again, pastoral and agro-pastoral women in rural and peri-urban Kenya are provided with dryland crops and seeds such as drought resistant cereals including maize and other local cereals for home consumption (Bharwad, & Shroff 2007). In the following sections and sub-sections, we will describe resource flows among pastoral and agro-pastoral societies.

2.6.1 Importance of women's social capital networks in pastoral and agro-pastoralism

Among pastoral societies, the women do not only run their homes and raise children but also play the role as livestock managers, peacemakers, community leaders, and on rare occasions hold

positions in national and regional government (Kipuri and Ridgewell, 2008). Women takes charge of many aspects of herd management and manage the domestics chores with the assistance of their children for instance their daughters (Hesse, 2006). The women milk the animals on which their families depend upon and sell the milk to obtain income for their household (Bharwad, & Shroff 2007). In agro-pastoralism which involves a diversified form of livelihoods there is equal reliance on livestock and crop production (CAADP, 2009). In the pastoral and agro-pastoral communities, livestock and livestock products serve as a major source of household income. The lives of the people are mostly enhanced through better access to credit services, better transportation services and easy access to urban market (Debele and Desta, 2016). Beside the fact that pastoral communities are socially, and politically marginalized (Omolo, and Mafongoya, 2019), pastoralist, face numerous challenges which impedes their wellbeing. Teka et al., (2019) found factors such as household head, family size, access to credit, participating in safety net programs and local institutions, mobility, distance to market and remittances have a major influence on the operations of women's social capital networks.

Also, there is seasonal variation in diet among pastoralist, for instance the seasonal pattern of milk production affects its consumption in pastoral societies. During the wet season, milk consumption peaks and falls during the dry season. As the dry season progress, cereals which are usually common are consumed without milk and this reduces the nutritional value of the food. Even with that, poorer households with fewer milking animals and less capacity to purchase grains, go through severe hardship which negatively affects their livelihood (CAADP, 2009). Pastoral women are socially bound and help each other in different ways such as sharing of grain, livestock, food, and labor due to the network ties involved. There is again the informal lending of cash from better-off households to destitute households (Rusomyo and Mangare, 2017). One of the common means for sharing labor is usually in the form of work parties where vulnerable and needy households who have labor-deficit are provided with labor support. Also, food-insecure households benefit from others simply by virtue to their membership to the community (Rusomyo and Mangare, 2017).

Moreover, in Kenya, pastoral women living in the Baragoi Division in Samburu North to cope with the harsh economic environment with limited opportunities engage in formal and informal women's group which provide them with higher bargaining power to gain finance from donors or government (Okello and Ngala, 2017). In most cases, the organizations offer them small loans at affordable

interest, while other women approach the county government for funds. These funds provide the women with the means to establish their own small businesses for survival (Okello and Ngala, 2017). These measures serve as an effective coping mechanism for the women living both in the pastoral and agro-pastoral communities. We will next examine the role formal women's social capital networks played in diversification of livelihood diversification.

2.6.2 Creation of formal women's social capital networks

Social networks are very common among most communities in East Africa. In Kenya it serves as an important component for promoting development both in the rural and urban centers. The focus of Kenya for rural development is to enhance the wellbeing and to sustain the improvements in those areas (Kirori, 2015). It is estimated by the District Development Plan that rural groups and networks in Kenya are more than 2,380 with a total membership of about 1.9 million persons. Activities by these groups include transportation, housing, agriculture and dairy or livestock marketing, land buying, sand harvesting, fisheries, and handcraft (Durlauf, 2002).

Although these groups are mostly made of both men and women, there are other groups which are entirely composed of women. Such social groups aim at improving the shelter of their members, empower women, and addresses issues pertaining to poverty among their members. Their leadership are mostly local, resources are locally mobilized and apply indigenous reciprocal and communal assistance principles (Durlauf, 2002). In Kenya, informal social networks help to empower the livelihood of women, it provides women with credit facilities which are needed for survival (Machio et al., 2020). In Kenya, social networks have a positive and significant relationship between women empowerments by providing women with adult education and training (Machio et al., 2020).

In effect, the participation of pastoral women in both formal and informal groups and networks help each other attain their basic needs and necessities. These social networks serve as essential nexus which replicate the women with basic resources and necessities essential for their survival. In our case study, we will focus on the social capital networks of the Obbu Borana called *maarro*. The case study will provide the avenue to find out how social networks operate set in the context of rural and peri-urban areas.

2.7 The Borana women's social capital networks of marro.

The *marro* is an informal system used by women to share resources including food, work parties, merry-go-rounds for saving money and giving loans to members among other activities. In addition, the Obbu Borana women engage in state and development agencies'- sponsored women's groups. The purposes of the groups are to benefit from external funds which are then shared among members. Women's groups are also members of the informal *marro* social networks, showing how the indigenous social systems have links to the contemporary women organizations to benefit women in improving food security at the household level. Borana women share resources including livestock, money and food which are usually in the form of gifts through their membership to the *marro* social network or social institution (Tache and Sjaastad, 2010). With *marro* social network, all women participate, irrespective of differences in production system, age, and economic status (Anbacha, 2019). The establishment of *marro* by Borana women goes beyond neighborhood to include distant households in separate locations. This makes it possible for households to access resources in spatially different locations to improve their livelihood (Anbacha, 2019). The intra-community relations established among households is known as bonding network (Adger, 2010). Whilst the inter-community network relations among women of different entities but with common goals are known as bridging network (Brunie, 2009). In *marro* relations, Borana women offer and share resources such as food items, labor, and cash to neighbors which indicates societal value of helping each other and showing solidarity (Anbacha, 2019). With the expectation that they will be reciprocated during hard times (Aktipis et al., 2011). This aims to overcome household food shortages that increases in times of crises. Also, it is an informal institution with no formal rules or leaders (Anbacha, 2019). The exchanges and solidarity by Borana women are due to the norms and trust existing among participants to achieve their common objectives of reducing food insecurity and vulnerability among members (Moser et al., 2010). Food is the most common shared item followed by labor. Women that form part of *marro* social group belief in interdependence, such that whatever an individual owns belongs to the whole of Borana (Anbacha, 2019). Borana women engage in food-sharing culture where food-insecure households are provided with food to ensure household food security and improve their wellbeing (Khalif, 2010). With labor-sharing culture, women combine their activities to overcome labor shortages. Women sometimes exchange cash, which is a newly introduced resource in *marro* due to the current pastoral transformation (Anbacha,

2019). Some of the major challenges to *marro* as a traditional social network is the poor availability of resources to be shared among the women. And the increase in the number of poor people in the face of recurrent drought which pose a challenge to achieving its goals in building household food security (Anbacha, 2019).

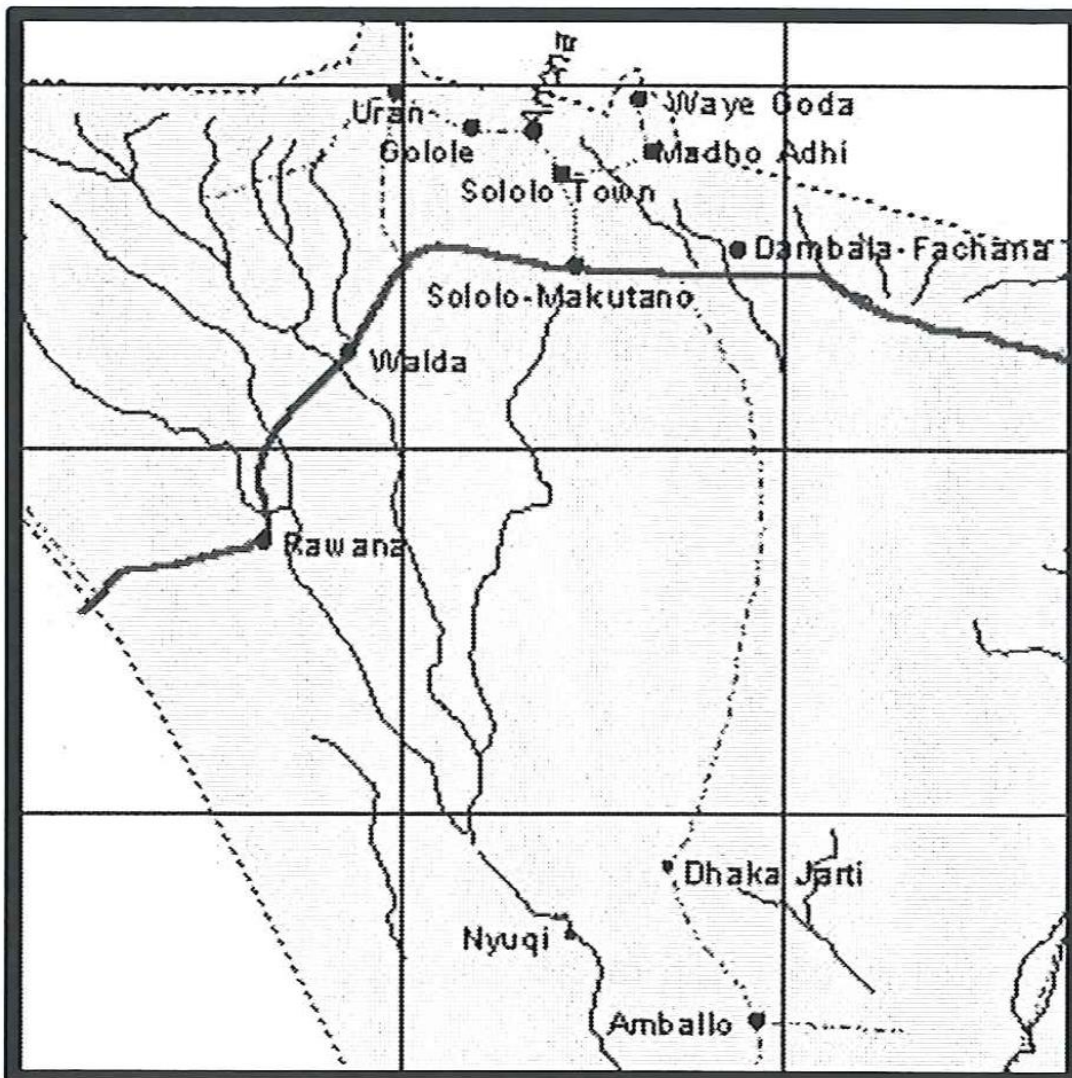
Chapter 3

Research design plan

3.1 The study area

The case study was conducted in Marsabit County. This study focused on two locations within the Obbu region – a rural and a peri-urban households. The unit of analysis were women residing in Sololo Ramata (peri-urban), and Dambala Fachana (rural) (Figure 2). This area was chosen because the sites were a part of a larger study including the roles played by women's social capital network activities. Typically, because the *marro* networks were operated by women, we selected women in the interviews to address the two study objectives.

Figure 2. Map of the Sololo sub-county



The Obbu region is in the District of Moyale, northern Kenya (Longitude 3341 degrees N; Latitude 3932 degrees E) with nine administrative sub-locations (Oba, 2001). The area is climatically characterized as an arid and semi-arid region with fluctuating climatic conditions. The area has three climatic zones including semi-arid, arid, and very arid. The area has a mean annual rainfall of between 150-300 mm per year. The rainfall is bimodal in nature, with about 75% occurring during March-June, while 25% of the total rainfall occurs during October-November in all the climatic zones (Oba, 2001). Drought is frequent in the region with adverse impacts on the agro-pastoral economy. These situations negatively affect the lives of the people and place them in an increased state of vulnerability (Desta and Coppock, 2004). However, the people are well known for their strong social security networks with the aim of helping each other during hard times such as droughts (Tache and Sjaastad, 2008). Therefore, the selection of this area was influenced by their livelihood dynamics to find out how the informal (*marro*) and formal (organized women's group) social networks influenced their livelihood in the rural and the peri-urban site. The coordination among women living in rural and peri-urban communities was due to their membership to the same social networks which enhanced easy access to basic resources (food, water, firewood, information, cash, and others) which would be difficult to obtain due to their location.

3.2 Study Design, Sampling Procedure and Data Collection

The study employed the use of quantitative method to find out the role of social capital networks in the lives of women in the Obbu Region of Kenya. The method was employed due to its reliability, objectivity, and the ability to see and create pattern within the data (Field, 2012). It involves the quantification in the collection and analysis of data. Moreover, the use of quantitative analysis makes it possible to suggest tendencies that could be inferred from the general population (Bryman, 2012). The sample population comprised women living in the locations of Sololo Ramata (peri-urban) and Dambala Fachana (rural) sites. This study was drawn from a secondary data source collected in 2015. This population-based study involved women (18 - 60 years of age) who could willfully decide for themselves on the need to engage in a social network. The data was provided by my supervisor based on his larger and long-term series of studies in the Obbu region.

The study utilized a simple random sampling technique to select 51 households composed of women who were participants in the social networks in the two locations. This method was used to ensure

that each unit of the population has an equal probability of inclusion in the sample (Bryman, 2012). Although the sample size is small and can affect the validity of the study, consideration was given to the larger number of questions respondents were asked in the questionnaire. Therefore, using the data for analysis fulfilled the validity and reliability of the study. Data collection methods in the original surveys were described.

The questionnaires for the wider surveys were administered by well-trained researchers with experience in data collection. Before collecting the data, the purpose of the study was explained to respondents, and they were given a consent form to fill out to assure them of the confidentiality of their responses or replies. This supports Bryman (2012) assertion that it is normal for survey researchers to show that replies from respondents are anonymous. The questionnaire was divided into two main sections. The first section featured the operations of *marro* social capital network among women living in the rural and peri-urban communities in Obbu Borana region. And with that, respondents were asked about their age, meals consumed per day, source and marketing of milk, and access to credit at the village and the local shop. Respondents were again asked about food acquisition problems, the number of people involved in *marro*, most active period in *marro* and the criteria for engaging women in *marro*. The second section discovered the benefits women obtain from being members of informal and formal social networks. Respondents were asked about the benefit gained from the formal network group and the type of benefits, types of resources exchanged, frequency of accessibility to credit facilities (types of credit, sources, and period with high demand of credit), and access to relief food (types and sources of relief food). These questions were asked to identify how the *marro* (informal social network) and the organized women's group (formal social network) served as a livelihood food security measure for the women in the Obbu Borana region of Kenya.

3.3 Data Analysis

The questionnaire data were edited, coded, and analyzed thereof using Statistical Package for the Social Sciences (SPSS) version..... Descriptive statistics was predominantly performed to analyze the research questions used by comparing the differences and similarities among women living in the two communities (rural and peri-urban). The ages of households were grouped into three main categories, they included young (below 39 years), middle (40-59years) and old (60 and above). This was to ensure coherence and easy comparison between the various age groups at the two locations.

It aided to determine the specific age groups that participates in social networks at the two locations (rural and peri-urban).

In analyzing the first objective, data involving respondent's age, meals consumed per day, source and marketing of milk, access to credit at the village and the local shop, and problems with food acquisition were used. In the second section, the data was analyzed to understand the benefit gained from formal network groups and the type of benefits, sources of credit, types of credit facilities, type and sources of relief food. A correlation matrix was used to analyze the association between variables (age, membership to *marro*, access to village credit and membership to the organized women's group (formal group). Moreover, Chi-square test (χ^2) was used to determine the association between resources shared among women in *marro* network, by comparing differences and similarities among women living in the two communities (rural and peri-urban).

3.4 Limitations

The surveys had missing data. The missing data was coded as zero in the SPSS software as recommended by Bryman (2012). We hypothesized that the missing data did not fundamentally influence the outcome of the comparative study.

Chapter 4

Results and Discussion

4.1 The operations of marro social capital networks

This section compares the differences and similarities among women living in the rural (Damballa Fachana) and peri-urban (Ramata) communities in Obbu, northern Kenya with respect to how *marro* is operated by the two communities.

4.1.1 Role played by age of women in participation in the marro social capital networks

The socio-economic characteristics of the study participants (women) are presented in Table 1. The data reveals some differences in participation in terms of age categories among women engaging in social networks in rural community and the peri-urban community. The rural community has majority (42%) of women within the middle age category while in peri-urban community, most women (41%) were within the older age category. This means that among the rural location, women in the middle age group were more involved in *marro* social network than the other age categories. On the other hand, older women living in the peri-urban community played a more active role in the *marro* than the other age categories.

In rural communities, most young women are more likely to travel to urban and peri-urban centers for better opportunities (marketing their produce) leaving the other age groups. Similarly, Blackburn et al., (2014) revealed that in times of extreme need, the young migrate for employment purposes, either to urban centers such as capital cities or regional centers, to expand their opportunities to job and income. Also, in rural areas, older women who are left behind and comparatively weaker in strength sometimes remain at home and perform domestic chores such as childcare and cooking giving them less time to participate in social networks.

Again, older women who live in the peri-urban areas participated more in *marro* network than the other women. Peri-urban centers are neither entirely urban nor purely rural in the traditional sense and serve as the link between rural and urban centers (Iaquinta and Drescher, 2000). Due to the presence of both agricultural and other economic activities in the area, most women who are within the active age (young and middle-aged women) spend more time undertaking or engaging in

activities that can help enhance their income levels. For instance, Kipuri and Ridgewell, (2008) asserted that pastoralist women are encouraged to channel their income to savings and diversify their economic activities into more profitable areas. Comparatively, older women in peri-urban centers who are less active to engage in income-generating activities could get enough time to participate in social networks to help them attain food and other essential items to improve their livelihood.

Table 1: Socio-economic characteristics of women

Survey questions	Rural networks (%)	Peri-urban networks (%)
<i>Age of women</i>		
Young	32	37
Middle	42	22
Old	26	41
<i>Meals prepared per day</i>		
Once	95	69
Twice	5	31
<i>Whether milk is sold</i>		
Yes	26	16
No	74	84
<i>Source of milk</i>		
Cattle	100	70
Camel	0	10
Both	0	20
<i>Access to credit at the village</i>		
Yes	89	93
No	11	7
<i>Access to credit at shop</i>		
Yes	89	91
No	11	9

4.1.2 Number of meals

Moreover, meals consumed within a day is essential to women's livelihood. It is found that most women in both rural (95%) and peri-urban (69%) could not afford two meals per day, but more women living in rural settings have the major challenge of fulfilling two meals a day. This shows that the living standards of the women are very low. Besides the fact that pastoral communities are socially, and politically marginalized (Omolo, and Mafongoya, 2019), pastoralist, face numerous challenges which impede their wellbeing (CAADP, 2009). The poverty among rural women could be due to limited access to social amenities, opportunities, and shock in pastoral communities. This could negatively affect their farming practices thereby limiting their ability to attain their food needs and requirements.

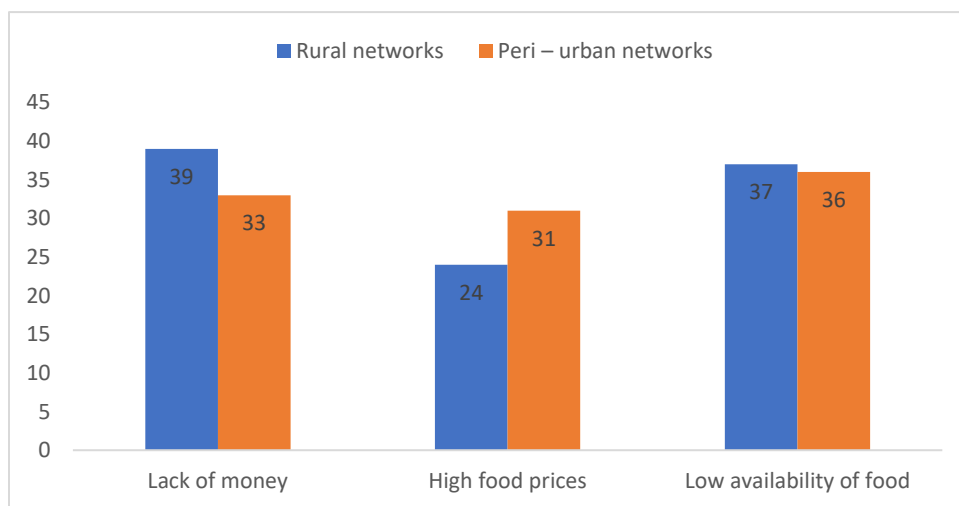
4.2.3 The sale and source of milk

Pastoral communities are well known for their roles in dairy activities and marketing (Bharwad, & Shroff 2007). The study found cattle as the main source of milk for both communities (100% and 70% respectively). Few women in peri-urban centers mentioned camel (10%) and both (20%) as their source of milk. Moreover, most women in the rural and peri-urban communities reported non-participation in dairy markets (74% and 84% respectively). This depicts the *maaro* culture where dairy products are shared among women. It is most likely milk is given or exchanged for other goods. The exchanges and solidarity by Borana women are due to the norms and trust existing among participants to achieve their common objectives of reducing food insecurity and vulnerability among members (Moser et al., 2010). Also, due to seasonal variation in diet among pastoralist for instance, the seasonal pattern of milk production affects its consumption in pastoral societies. During the wet season, milk consumption peaks and falls during the dry season. This situation could be the contributing factor to the low sale of milk in both communities.

4.1.4 Access to credit at the local shop and village

Access to credit is very important in pastoral and agro-pastoral communities. Debele and Desta, (2016) posited that the lives of the people are mostly enhanced through better access to credit services. And with that, majority of the women in the study were able to obtain resources on credit both in the village (89% and 93%) and at the local shop (89% and 91%). In Kenya, informal social networks help to empower the livelihood of women (Machio et al., 2020). It provides women with access to credit facilities, and basic skills needed for survival. This easy access to credit facilities at both the shop and villages in both communities could be due to the mutual trust, and connections among them, resulting from their involvement in social networks (*marro*). According to Anbacha, (2019), the establishment of *marro* by Borana women goes beyond neighborhood to include distant households in separate locations. This makes it possible for households to access resources in spatially different locations to improve their livelihood. Therefore, access to credit is a typical example of resources women attain solely because of their membership in social networks in their areas. Only a few respondents in rural peri-urban centers did not have access to credit at the shop (11% and 7% respectively) and village (11% and 9 respectively). This could result from their non-involvement in the *marro* social network in both communities.

Figure 3. Frequency (%) comparing problems to food acquisition among women



4.1.5. Problems with food acquisition

Attaining two meals was found as a major challenge among the women in the communities (see Table 1) hence the need to identify the causes of the problem. In view of that, Figure 3 focuses on the challenges to food acquisition in the two communities. More women in the rural community attributed their problem to lack of money (39%), while low food availability (36%) was the main problem affecting majority of the women in the peri-urban community. To be precise, lack of money and low food availability was the main problem in both communities. Moreover, a considerable number of women (24% and 31% respectively) in both communities attributed their problems to high food prices. Since most women participate in *marro*, it is likely they exchange food items nevertheless, it is not able to meet their expectations. According to Anbacha, (2019), some of the major challenges to *marro* is the poor availability of resources to be shared among the women. This could mean that the food exchanged among the women is not enough as was found in Table 1. Another problem is the increase in the number of poor people in the face of recurrent drought which pose a challenge to achieving the goals of building household food security (Anbacha, 2019). This gives a concrete reason as to why the women engage in social networks. Stavropoulou et al., (2017) revealed that for pastoral women to cope with the limited social services and opportunities in their communities, they organize themselves into networks and groups where they assist each other in the attainment of their basic needs and services. Pastoral women specifically engage in food-sharing culture to overcome household food shortages (Stavropoulou et al., 2017).

Table 2: Frequency (%) comparing number of people involved in marro, most active period and specific criteria for engaging women in marro network

Survey questions	Rural networks (%)	Peri-urban networks (%)
<i>People involved in marro</i>		
uncountable	75	97
Several people	-	3
No specification	25	-
<i>Most active period in marro</i>		
Dry	29	17
Both dry and wet	-	10
Drought year	29	29
All the time	42	44
<i>Criteria for engaging women in marro</i>		
Communal living	-	6
Cooperation	50	44
Equal social responsibility	6	6
Sharing/ helping each other	38	38
Better understanding	6	6

4.1.6 Number of women involved in active marro network

The study revealed that there are numerous women involved in the informal social networks, although the number of women in peri-urban communities (97%) were more than those in the rural communities (75%). It is again found that informal social networks (*marro*) are more active all the time (42% and 44% respectively) and in drought periods (29% in both communities). In the rural communities, besides the drought period, sharing is active during the dry season as well.

The exchanges and solidarity by Borana women are due to the norms and trust existing among participants to achieve their common objectives of reducing food insecurity and vulnerability among members (Moser et al., 2010). In effect, it is most likely *marro* will be practiced all year round among Borana women. A drought period signifies a period where there is the shortage of food and resources, therefore, the women are likely to involve themselves more in the *marro* network to obtain the required resources they need in their home or community. Bharwad, & Shroff (2007) asserted that women who participate in these social networks are assisted with relief food, water, and other essential resources, especially during drought periods.

Criteria for engaging women in marro network

Furthermore, cooperation (50% and 44% respectively) and sharing or helping each other (38% in both communities) was the main criteria used for engaging women in the *marro* network in the study. Similarly, according to Anbacha, (2019), women that form part of *marro* social group believe in interdependence, such that whatever an individual owns belongs to the whole of Borana. This belief facilitates cooperation, sharing and togetherness such that a needy member is always provided with assistance to help improve their living conditions in the community. This shows the bonding and bridging type of relationship which indicates strong ties among women who belong to the same family and social network. The ties among members of this group are very strong and the social relationships are based on strong trust and reciprocity (Endris et al., 2020). However, it is interesting to note communal living was among the least criteria used. The state of interdependence among Borana women signifies communal living among the women, nevertheless, it could be that although there is communal living among Borana women, it is not necessarily used as a criterion for engaging women in *marro* social network.

4.1.7. Association between age, membership in social networks and access to credit

Table 4 in appendix 1 shows the relationship between specific variables in the study. It was found that participant's age and membership in the organized women's group have a weak positive association, which was significant (0.302, $p < 0.05$). Signifying that as participants advance in age, their willingness to join the organized women's group increases as well. Also, there was a weak

positive significant association between willingness to join the organized women's group and access to credit at the local shop (0.346, $p < 0.05$). This means that as the participant's willingness to join the organized women's group increases, their access to credit at the local shop increases as well. There was again a strong positive significant association between access to credit in the village and at the local shop (0.639, $p < 0.05$). In the next section, we will look at the benefits women obtain from their membership to *marro* and the organized women's group.

4.2. Benefits women gain from social networks

Women's involvement in social networks help to enhance the livelihood of women both in the rural and urban communities. It is found that women benefit from being members of a social group or networks through access to basic resources and information (Myroniuk, 2016). This comparison is made among the women in both communities. Firstly, we looked at the benefits they obtain from both the organized women's group, and the types of resources shared among the women in *marro*. We again looked at the women's access to credit facilities (type of credit and season of high demand), then finally their access to relief food (types and sources).

4.2.1 Benefits women gain from the organized women's group (formal network) in the two communities

Table 3 identifies the benefits women accrue from being members of the organized women group. In both communities, similar benefits were accrued by the Borana women. Most benefits women obtained included support for each other (25% and 18%), building houses for projects (23% and 18%), and helping the needy (23% and 15% respectively). Myroniuk, (2016) found that women benefit from being members of a social group or networks through access to basic resources and information. Obbu Borana women engage in state and development agencies'- sponsored women's groups. The purposes of the groups are to benefit from external funds which are then shared among members (Tache and Sjaastad, 2010). Women who participate in Women's groups are also members of the informal *marro* social networks, showing how the indigenous social systems have links to the contemporary women organizations to benefit women by improving food security at the household level. Similarly, Durlauf, (2002) found that social networks played an essential role by providing its

members with improved housing and other essential services, which empowered them both socially and economically and contribute to reducing poverty among women. This shows that Borana women in both rural and peri-urban areas benefits from participating in both *marro* and the organized women's group which could ultimately help to reduce food insecurity and improve their livelihood.

4.2.2 Resources shared among the women

Borana women share resources including livestock products, money and food which are usually in the form of gifts through their membership in the *marro* social network or social institution (Tache and Sjaastad, 2010). It was found that similar resources were shared among women in both communities. Water, firewood, and farm produce were the most shared resources among the women (see Table 3). Other resources such as household consumables (rural) and babysitting (peri-urban) were shared as well (see Table 3). In *marro* relations, Borana women offer and share resources such as food items, labor, and cash to neighbors which indicate societal value of helping each other and showing solidarity (Anbacha, 2019). With the expectation that they will be reciprocated during hard times (Aktipis et al., 2011).

Moreover, few women in both rural and peri-urban communities shared money (5% and 3% respectively). The reason might support Anbacha's (2019) assertion that women sometimes exchange cash, which is a newly introduced resource in *marro* due to the current pastoral transformation. This was reflected in the formal network (organized women's group) as well. The culture of sharing among Borana women, is due to the strong mutual relationship among women living within their neighborhood and distant locations. Bonding, bridging, and linking relationships enabled families or households who are members of social networks to exchange and access extra resources (Blackburn et al., 2014; Endris et al., 2017). Again, in pastoral community, linking relationships reduce vulnerability among women, by pooling response capacities across different social networks within the community and creating formal structures to cope with food insecurity and livelihood problems (Blackburn et al., 2014). In effect, the women's involvement in both *marro* and the organized women's group (which is a linking relationship) have facilitated sharing and exchange of resources. The exchange and sharing among Borana women could promote food security and improve their livelihood security as well.

Table 3. Frequency (%) comparing the benefits and types of resources shared among Borana women.

Survey questions	Rural networks	Peri-Urban networks
Support for each other	25	18
Social security		5
Money contribution	17	10
Income generation	3	10
Harambee	6	7
Weeding	-	2
Funeral	-	2
Seminar/ sharing ideas	3	9
Building houses for project	23	18
Help the needy	23	15
Maintain identity	-	2
Unity	-	2
<i>Types of resources shared</i>		
Household consumables	17	14
Farm produce	18	18
Cash	5	3
Labor	6	14
Water	20	17
Firewood	19	17
Baby sitting	15	17

4.2.2 Association between resources shared among Borana women

The study found a significant association between resources shared. In terms of resources, it is obvious that women in both communities shared similar resources (see Table 4). However, the statistical analysis portrayed a significant variation between women in the rural and peri-urban areas ($p = 0.002$, $\chi^2 = 22.472$, $df = 7$) on resources shared in both communities. This indicates that there is an association between the locations of the women and the resources shared among them.

Table 4. Association between resources shared among women

Sublocation	Resources shared in Maaro (%)							Chi-square test		
	household consumables	farm produce	cash	labour	water	firewood	baby sitting	χ^2	df	p-value
Ramata	75	100	12	78	90	94	94	22.472	7	0.002
Dambala	84	89	26	32	100	95	74			

4.2.3 Access to credit facilities

Credit serves as an important factor for enhancing livelihood. Women who are members of social networks benefit through access to credit. Indeed, it improves the livelihood of group members by granting them access to resources that would have otherwise remained inaccessible to them as individuals (Jacobs, 2009). Consequently, the study sought to identify how women obtain credit in both communities. As it has already been found (see Table 1) almost all the women have access to credit both at the local shop and in the village. Shop keepers serve as the sole providers of credit facilities to women. Besides them, relatives (in rural communities) and neighbors (in peri-urban communities) played a marginal role (see Table 5). Shop keepers being the main source of credit facilities could be due to the availability of food products and other items at the local shops. Therefore, getting varieties of items from the shop will be easier than relatives and neighbors who could run out of food items and other resources. And most items obtained as credit were commercial food and grains. Commercial food according to the study consisted of cooking oil, maize meal, tea leaves, sugar, and wheat meal. Again, credit was in high demand all the time, dry season, and during drought periods. Dry season signifies a period where there are shortages, hence the high demand for items and resources on credit. According to Desta and Coppock, (2004), one of the major problems affecting the livelihood of the Obbu Borana people is drought, coupled with other socio-economic and political factors. Desta and Coppock, (2004) revealed further that drought is frequent in the region with adverse impacts on the agro-pastoral economy. These situations negatively affect the lives of the people and place them in an increased state of vulnerability. Consequently, the drought period signifies times with an increased shortage of food and resources, this therefore give the

reasons why credit was found to be in high demand during the drought period in both communities. In Kenya, informal social networks help to empower the livelihood of women, it provides women with credit facilities that are needed for survival (Machio et al., 2020).

Table 5. Frequency (%) of accessibility to credit among women

Survey questions	Rural networks	Peri-urban networks
<i>Source of credit</i>		
Shopkeepers	94	94
Relatives	6	-
Neighbors	-	6
Others	-	-
<i>Types of credit</i>		
Commercial food	52	37
Money	-	10
School fees	-	8
Grains	45	35
Clothes	3	10
<i>Period with high demand of credit</i>		
Dry Season	30	30
Wet season	5	-
Draught year	20	27
All the time	45	43

4.2.4 Access to relief food

Women who participate in social networks are assisted with relief food, water, and other essential resources especially during drought periods (Bharwad, & Shroff 2007). The study found that all the women in both communities had access to relief food, which was mostly given for free. Again, government and development programs served as the main source of relief food in both communities (see Table 6). This shows that apart from the government, development programs play a contributing role in helping to improve food security among the women in both communities. Blackburn et al., (2014), revealed that through the help of non-governmental Organizations or civil group

organizations, pastoral and agro-pastoral women located in rural and peri-urban areas organize formal social networks with the aim of addressing some of their food security and livelihood challenges. This indicates that although the government provides majority of the relief food to the women, civil group organizations also play a vital role towards enhancing food security among the women in both communities.

Table 6. Frequency (%) of relief food among women

Survey questions	Rural networks	Peri-urban networks
<i>Women with access to relief food</i>		
Yes	100	100
No	-	-
<i>Types of relief food</i>		
Free food	86	77
Food for work	14	23
<i>Sources of relief food</i>		
Government	83	83
Missionaries	-	-
Development programs	17	17

Chapter 5

Conclusion

This thesis addresses the role of social capital network on the livelihood security of women in the Obbu region, northern Kenya. The study was conducted in two communities that had a rural and peri-urban setting. The study has shown that in rural areas, women in their middle age participate more in the social capital networks. Whilst in the peri-urban areas, older women participate more in the social capital network. Most women in both locations had difficulties attaining their food needs due to high food prices (in rural areas) and low availability of food (peri-urban areas). Also, cattle served as the main source of milk and most women in the two communities reported non-participation in dairy market. *Marro* network consists of women and is active all the time in both rural and peri-urban areas. Cooperation and sharing/ helping each other were the main criteria used for engaging women in *marro* in the rural and peri-urban communities.

In addition, the organized women's group and *marro* made it possible for women in the rural and peri-urban areas to benefit through access to resources and exchanges. The women from rural and peri-urban communities benefited through welfare generating-activities by supporting each other, building houses for projects, and helping the needy. The women from the two communities shared resources including farm produce, water, and firewood among themselves. Few women exchanged cash in both communities. Also, almost all the women from both urban and peri-urban centers had access to credit facilities but the credit was provided mainly by shopkeepers. Lastly, all the women from the two communities had access to relief food, and the government was the main source.

Finally, due to the immense role played by the social capital networks as a livelihood security measure, the government and other civil society organizations should help implement programmes and projects that can strengthen the operations of social networks (both formal and informal networks) among women in the Borana area.

Chapter 6

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Appendix 1

Table 4. Correlation matrix showing the association between variables

	Age	Membership to Maaro	Access to village credit	Access to credit at shop	Membership to WG
Age	NS				
Membership to Maaro	0.000	NS			
Access to village credit	.076	-.027	NS		
Access to credit at shop	.078	-.047	.639**	NS	
Membership to WG	.302*	-.096	.283	.346*	NS



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