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Use of focus group discussion as a qualitative research tool for empowering rural women in food security and milk processing activities: A field study in Geneina, West Darfur, Sudan

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Abstract. This study applies focus group discussion (FG) as a qualitative research tool with the aim of empowering rural women engaged in food security and milk processing activities in Geneina, West Darfur, Sudan. To achieve this objective, the study adopted descriptive analytical approaches for qualitative data collection, with a purposively selected sample of 100 women engaged in animal husbandry (March 2019) from ten villages in three areas of the Geneina locality). Observation methods were also deployed to ensure the credibility of the qualitative data yielded by the FGD. Various techniques, including questions, audio recordings, role division matrixes, and role play were adopted to elicit and record the data and analyses. The moderators' strategies were considered for implementing the study and hence assistant moderators were trained by the author in focus group strategies and techniques for gathering and analyzing data in relation to milk production, milk processing, and the role of gender in sheep/goat raising. Triangulation strategies were implemented to ensure validity and reliability in pursuit of the study's objectives. The results indicated that women were sufficiently empowered through the FG sessions to express their ideas more explicitly, make their own decisions, and change their livelihoods by conceptualizing their own future projects and expectations for food security and, particularly, the livestock system.

Keywords: focus group discussion, qualitative methods, empowerment.

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1 INTRODUCTION

Darfur has long been characterized by the contrast between the Arab and non-Arab ethnic groups that inhabit the country. According to the Dutch Ministry of Foreign Affairs (*Ministerie van Buitenlandse Zaken*; BZ), "it is not always possible to make a clear distinction between "Arab" and "African" ethnicities" (BZ, 2017: 15). There is substantial ethnic diversity in Geneina, the capital of West Darfur State, where there is a blend of Arab and non-Arab cultural and social values, customs, and practices associated with livelihood systems. This interaction between various cultures is also reflected in West Darfur's livelihood systems, as documented by several researchers, authors, and organizations. West Darfur is home to two main groups that have been characterized as sedentary farming and pastoralist /nomadic groups. Most sedentary farming groups are non-Arab tribes, the largest and best known of which are the Masalit, the Zaghawa in addition to other tribes. The Arab groups include the Turgem, Hottiyya, Otryya, Mahadi and Darok to the north-east of Geneina (Young et al., 2005: 43-57). Another of Darfur's Arab tribes, as documented by the Small Arms Survey of 2010, is the Rizeigat: "The Rizeigat are the largest and most powerful of the Arab tribes of Darfur, composed of two groups the predominantly camel-herding Northern Rizeigat, based mainly in North Darfur state but with branches in West and South Darfur, and the mainly cattle-herding Southern Rizeigat, most of whom live in south-east Darfur. Three branches of the Rizeigat tribe are the Mahamid, Mahariya, and Nuwaiba and reportedly fought together against the Baggara" (Small Arms Survey, 2010, p. 14). Moreover, "The Salamat are a Baggara (cattle herder) Arab tribe found in Chad and in West, Central and South Darfur. Located in the central region, the Jebel Marra mountain range, is the traditional homeland of the Fur, a non-Arab, Islamic, group of cultivators. Dar Fur means 'homeland of the Fur'" (O'Fahey, 1980). The ecological conditions of southern Darfur are not conducive to camels and, consequently, there are no Abbala in the region (Nielsen, 2016:8). In addition to the variety and complexity of the region's ethnic structure, one can argue that the Geneina locality is characterized by dynamic social interaction, mobility, and migratory movement throughout the year; for example, "In the rainy season Beni Halba nomadize among Darfur's Arab tribes northwards towards northern Darfur and Geneina and in the dry season southwards towards the Central African Republic and western Bahr al-Ghazal" (O'Fahey and Tubiana, 2007: 37). Furthermore, "Ta'aisha as an Arab Baggara in the rainy season they nomadize northwards towards northern Darfur and Geneina and in the dry season southwards towards the Central African Republic and western Bahr al-Ghazal" (O'Fahey and Tubiana, 2007: 37). Interactions between the groups can clearly be observed in the customary forms of land tenure and access to land resources: the *hakura* system. Although the system was abolished by the introduction of the government statutory land law in 1970, it continues to influence the sedentary farming and nomadic group's social values, behavior, attitudes, and perceptions of land ownership in terms of their livelihood system. Young et al. (2009) reflected on the sedentary farmers and pastoralist groups symbolic interactions and mentioned that "pre-*hakura* communal rights system, in which these groups were considered 'secondary rights-holders' of the system. The ecological variations between different *duur* encouraged tribal leaders to establish close symbiotic relations, amounting almost to alliances that became important mechanisms ensuring the access of *abbala* pastoralists to land and natural resources" (Young et al, 2009: 46). Moreover, Abdul-Jalil and Unruh (2013: 5) further discussed not only the various types of land rights, access, and utilization but also the discriminatory landownership practices between female and male land ownership: "At the village and household level within the *hakura* system, customary rights over land were seldom exclusive, hence there was no real "ownership" of land in the Western legal sense. The basic principle was that there existed a form of land access whereby every adult male in the village was entitled

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to a piece of land on which to build a hut and establish an enclosure for animals, in addition to access to farmland outside the village. However, there were communal rights that overrode individual user rights on such land. These included access to water for humans and animals; access to livestock routes (for agricultural, transhumant and nomadic animal movements); access to grazing and hunting areas; and the gathering of fodder, wild foods, firewood, and building materials, as well as access to ceremonial and ritual sites" (Abdul-Jalil and Unruh, 2013: 5–6). Gender roles were also documented by O'Fahey (1980), who observed that all family members—women, men, and children—can participate; for example, "women can expand her role in having a chance to practice wood-cutting for selling for fuel or making charcoal especially around rural area, to collect forest products and men can use it for hunting wild birds. For the security of the community non-tribal members or outsiders had to be accepted and given access to natural resources as a result. They only accepted visitors that they trusted." (O'Fahey 1980: 51). The combined factors of conflict, crises, drought, and climate change have transformed livelihoods and damaged the livelihood institutions over the last forty years. Families have tried to cope and develop their own strategies, in addition to strategies implemented by the government and international organizations, such as an international humanitarian aid program initiated in 2004 and a strategy developed by the Sudanese government and international actors aimed at building resilience and ensuring early recovery of communities to facilitate their return to their home villages. The UN (2013) stated that "the majority of international aid to date has been humanitarian, provided under the first two Phase Classifications. Thus, it has been conducted "alongside" the host government, with limited consideration for transition, capacity building, or sustainability for both communities and the administrations that serve them" (UN, 2013: 45). I argue that the shortcoming in this scenario is that policy- and decision-makers, in addition to a wide range of actors across various scales and development planners and practitioners, need to hear the women's perspective at the grassroots level. This is key, as these women are the primary beneficiaries who must return to their villages peacefully and keep their livelihood system functioning appropriately, while benefiting from these recovery programs and becoming more visible and empowered by confronting the root causes of the challenges they face. Since the 2003–2004 conflict, all regions of Darfur, particularly West Darfur and the Geneina locality, households, host communities, and Internally Displaced Persons (IDPs) have been drastically affected; as stated in the United Nations' UN 13 Recovery and Reconstruction Strategy, "the entire population of Darfur—an estimated 8 million—is arguably affected by the conflict. Apart from the 2 million that are still displaced, including refugees—80% of whom lost everything they owned—every community, whether they be sedentary rural farmers, nomadic pastoralists, public sector workers or urban dwellers, have seen their livelihoods disintegrate and their freedom of movement and personal security severely threatened or compromised" (UN 13:18). Moreover, as indicated by Young et al. (2005), food security, livelihood systems, and mainly livestock were affected: "[the] displaced population in West Darfur lost between 50% and 90% of their livestock holdings as a result of the forced displacement and looting. Other impacts of the conflict included the collapse in the livestock trade and associated jobs, restrictions on livestock migration and access to seasonal pastures, and the theft of entire camel caravans, including upwards of 3,000 camels per caravan" (Young et al., 2005). Thus, nearly all farmers in the Geneina locality, both pastoralist and sedentary, who are partially dependent on livestock, such as camels, cattle, and sheep, have lost their main supplemental income resources, the milk nutrients of dairy products, and the strategies that they usually adopt to mitigate the impact of poor harvests, in addition to other social values, identity, and security. Thus, I argue that the improvement of food security and livelihood systems and totally recovery are impossible, as, two years after the initiation of the recovery program, the situation of insecurity in West Darfur persists, as reported by several researchers and international organizations.

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This includes the detailed information provided by the International Crisis Group (ICG) on the Salamat's conflict with the Misseriya and Ta'aisha: "The Ta'aisha, long in dispute with the Salamat, sided with the Misseriya, and fighting expanded over central Darfur" (ICG, 2015: 8). In addition, there are increasing tensions among Arab tribes. Accordingly, "violence in the Darfur region of Sudan's far west continues unabated. Some 450,000 persons were displaced in 2014 and another 100,000 in January 2015 alone, adding to some two million long-term IDPs since fighting erupted in 2003 "(ICG, 2015: 1). A BZ report (2017) added that "these tensions repeatedly led to fierce intertribal fights, such as between the Rizeigat and the Ma'aliya and between the Beni Hussayn and the Rizeigat" (BZ, 2017, pp. 15). Since 2013, the main conflict has involved three Arab tribes: the Salamat against the Misseriya and Ta'aisha (Small Arms Survey, April 2017: 8). As a result of persistent insecurity and from the perspective of herders at the grassroots level, loss of livestock means loss of their asset base and, for sedentary farmers, the loss of land for cultivation means loss of their asset base. A farmer's family members can approach food security after a single good harvest, as long as the family members can continue to cultivate, while a disaster that reduces the size of a livestock herd can require several seasons to recover. If a livestock herd's numbers fall below a critical threshold, it cannot simultaneously support the herder and recover, and, without external assistance, the pastoralist is likely to lose his livelihood entirely (Young et al., 2013).

Apart from insecurity and loss of assets, the gender-specific division of labor and other gender issues have scarcely been studied or documented by researchers or integrated in the West Darfur Development Plan. Nonetheless, women play a prominent role in both food security and livelihood in both sedentary and natural pastoralist systems, undertaking most farm-related tasks, and it is women who bear the greatest workload in both farming and nomadic communities. Young et al. (2016), in their participatory study, emphasized the gender issues at play in role division, discrimination, and equality: "Among the settled nomads it is women who work in the farms during the rainy season, with men more likely to be involved in dry season cultivation of cash crops. Both women and men highlighted the importance of trade because of their proximity to Geneina town" (Young et al., 2016: 5333).

2 PROBLEM STATEMENT

The main issue that the people of West Darfur face is the destruction of their livelihood system, particularly the livestock system. Women, children and old people are most affected by this problems, whether they are IDPs or from host communities in West Darfur and specifically in the Geneina locality. This problem has arisen as a consequence of the serious, chronic, and overriding crises, tribal conflict, climate change-related disasters, displacement, insecurity, and other socially rooted factors, such as ethnicity, land tenure, gender division of labor, and discrimination. People in West Darfur, whether Arab or non-Arab, sedentary farmers or natural pastoralists, have been impacted, livelihood systems have been altered, and the once clearly distinct systems have been affected. Therefore, natural pastoralists who depend on livestock now find themselves settling down and attempting to cope by becoming farmers. The problem's hidden factors that require greater qualitative analysis have not been thoroughly addressed prior to the initiation of recovery programs, and the strategic needs and aspirations of the main actors in the animal husbandry and milk processing sectors—that is, women—were not appropriately reflected on and accommodated as part of the West Darfur development plan. The issues under consideration in this study include whether women were sufficiently consulted and accommodated during the situation analysis; whether methods of data collection and tools, particularly those pertaining to qualitative data, are utilized accurately; and whether the assistant

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researchers and assistant moderators are properly trained in participatory approaches and qualitative data methods.

3 SIGNIFICANCE OF THE STUDY

The use of FGD in this qualitative study highlighted two key issues: women's visibility and the validity and reliability of the data. It is important to first determine who women are trying to influence. The aim of this study is to empower women to become more visible and influence policy- and decision-makers and influential people regarding the participation of primary beneficiaries in the entire project program cycle, beginning with situation analysis. Therefore, marginalized and vulnerable focus group (FG) members can make a difference if they are given opportunities to express their needs and participate in decisions regarding the affairs that matter to them and their families. In my previous experience working with the United Nations Development Fund for Women (UNIFEM) among Jordanian women's groups of sheep herders, I observed that the initial sheep herding and dairy processing project had been converted from a small processing unit for sheep herding and cheese making owned by the social development center to small women's sheep herding and dairy processing groups, whereby women became the owners of the sheep and supplied the social development center with milk for cheese processing due to using qualitative methods and FG tools. Thus, the women achieved greater visibility and became sufficiently empowered to voice their perspectives through the FG tool.

The second issue concerns what will influence decision makers, and the answer to this appears to be primary accurate, and reliable data expressed by the target group members themselves. However, this cannot be achieved solely using qualitative methods and FGD (Abdalla, 1994). It is important, therefore, to determine precisely when FGD will be useful?

FGD was adopted in this study to identify the important issues related to livestock systems that can be explored and developed further through women's discussion.

Also, FGD allows the researcher to easily pick up on important nonverbal information, such as expressions of excitement, doubt, hesitation, or stress.

FGD is useful in the investigation of the women's behavior and beliefs will assist with the design of more sustainable animal husbandry and milk processing interventions and the introduction of new technologies, for example, for milk and cheese processing, new supplementary feeding, a commissioning program for a middle-scale business cheese processing unit owned by the organization social development centers and women work as seasonal employers or women get access to loan and create their own individual or group business for cheese making service or program (Abdalla, 1994).Therefore, by adopting the FGD method, the researcher can attain greater focus, and the organization and program donors can advance and improve how the program operates.

In this study, FGD is a useful tool to help the researcher better understand the needs, preferences, or priorities of both the donors and government body and the women's groups/beneficiaries. An FG can help to foster the learning process regarding the concerns within the three villages in the Geneina locality and allow the CLOs to use the results from the FG to guide them in establishing the project's future actions and plans. The responses obtained from the women's FG helped to explore a wide range of issues affecting women beneficiaries and people in general, and this can help to shape and develop the program's policy and campaign work.

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In terms of identifying the challenges and barriers encountered by self-employed women within their local communities and generating solutions, Smith (2000), in her study using FG tools raised the important issue of how FGD data should be analyzed, and how the interactive features of FGs can be viewed (Smith, 2000:1).

4 OBJECTIVES OF THE STUDY

The key objective of using FGD as a tool in this study is to empower rural women engaged in food security and milk processing activities as part of the field study conducted in the Geneina locality of West Darfur in Sudan.

Consequently, other sub-objectives are:

-To assist FG participants in gaining an in-depth understanding of the reasons behind the selection of milk production activities.

-To encourage women groups participants to reflect on the factors that exert positive or negative influences on the sustainability of sheep/goat herding activities.

-To allow the women participants to achieve in-depth realizations about the importance of milk and dairy products for themselves and for their family members.

-To energize women participants to explore complex issues, such as gender division of labor, workload, and decision making.

5 RESEARCH QUESTIONS

The study addresses the following main question:

How does FGD, as a qualitative method, empower rural women in food security and milk processing activities?

Consequently, from this core question are derived further sub-questions, as follows:

-To what extent do the women participating in the FGD perceive the reasons behind the selection of milk production activities?

-How can FGD encourage women participants to reflect on the factors that positively or negatively influence the sustainability of sheep/goat raising activities?

-How can FGD assist women participants in gaining in-depth realizations about the importance of milk and dairy products for themselves and for their family members?

-How can FG energize women participants to explore complex issues such as gender division of labor, workload, and decision making?

6 SAMPLE SIZE AND SELECTION CRITERIA

The sample was selected purposively from the FGs, and consisted of 100 women participants from the Geneina locality: from the three villages of the Ardamata area, forty participants divided into four sub-groups, each consisting of ten participants and each interviewed separately; from the Abu Zar area, thirty

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participants divided into three sub-groups, each consisting of ten participants and each interviewed separately; and from the Madina Hujaj area, thirty participants divided into three sub-groups, each consisting of ten participants and each interviewed separately.

7 FOCUS GROUP SESSIONS

Each group participated in three FGDs and each session was two hours in duration. The sample types mainly consist of IDPs as well as women from the host community. Each FG was restricted to a small number of participants so that the perspectives of a small group of women could be captured since the sample size remains very small. The sample is selective in terms of the restriction of the participants' ages to between 40 and 50 years, the fact that all group members are female and have over ten years' experience in animal husbandry and milk process sector.

7.1 Strategies adapted for focus group discussions

A list of questions related to the topics under consideration was prepared for the data collection process. List sheets, recording tapes, cards, colored paper, markers, pencils, pins, gum, and a blackboard were used to collect and analyze the data communicated by the women. The author's preferred strategies and analytical approaches were taken into account in implementing the study and, hence, the CLOs, who were considered assistant moderators, had already been trained by the author in the strategies and techniques of FGD when gathering and analyzing data in relation to the thematic areas of milk production, milk processing, and the role of gender in sheep/goat/goat raising. For the data analysis, the women's opinions and answers listed on the sheet were coded and simple columns with two preferences (Yes/No) were added for the purpose of calculation. The most basic Microsoft Office programs, such as Word and Excel, were adopted, as they were sufficient for formulating a matrix in which to present the participants' ideas as the qualitative data collected during each FGD session. Another key tool was the capacity of the FG assistant moderators, mainly their ability to help the women group participants feel secured and relaxed, as well as their ability to encourage the women to provide a richer and deeper understanding than would be obtained from a survey. The assistant moderators led the FG dynamics for enhanced context utilization and more developed answers than the participants were likely to share.

Triangulation was also used to cross-check the information collected and analyzed and, consequently, to handle the problem of data reliability, objectivity, and credibility. The strategy of role play on the part of the FG participants was also used occasionally, fostered by combining the observation methods of data collection and triangulation. In the present analysis, the experiences of the women's group in animal husbandry and milk production are of greater interest than fast and complex numbers. FGs are most appropriate and efficient for qualitative and narrative research, but are not useful for generating fast, complex numbers or the use of the Statistical Package for the Social Sciences (SPSS).

7.2 Limitations

One of the limitations associated with the implementation of FGD in this study was that the method was time consuming; on some occasions, the discussion extended beyond the time limit of the session, as some thematic topics emerged, particularly during the last session of the scheduled time. Sometimes, the group participants invited us to observe their actual activities related to milk processing; however, the logistical

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costs of transportation and the limited number of assistant moderators hindered observation visits in many instances.

7.3 Theoretical framework and definitions

Several sociologists and researchers characterize FGDs as group interviews focus groups are in-depth group interviews employing relatively homogenous groups to provide information around topics specified by the researcher. Kreuger, 1998 defined FG as group discussions: “a carefully planned discussion designed to obtain perceptions on a defined environment” (Kreuger, 1998: 88); “an informal discussion among selected individuals about specific topics” (Beck et al., 1986). Smith (2000) stated that “These definitions show a tension between participant-researcher interaction and interaction between participants”, and also that “focus groups comprise face-to face interaction of crucial interest to social scientists, and are increasingly being used as a research tool” (Smith, 2000: 104).

The National Association of Citizens Advice Bureaux (2015) defined FGD as a method of research involving a small group of people (usually six to eight participants), who are guided through a discussion by a moderator. FGs can be used to explore various issues, to test solutions, to explore the group’s perspective on a problem and to generate ideas. Accordingly, FGD can be used to achieve the following outcomes to gather background information about an issue: to generate and test ideas (which can then be explored through complementary avenues of research to build a stronger evidence base); to stimulate new ideas and encourage creative participant-led solutions; to identify potential barriers or problems with a new service or program; to gather client impressions of a service, organization, or institution; and to confirm or develop findings from desk research. (The National Association of Citizens Advice Bureaux, 2015: 4).

Shank (2002) defines qualitative research as “a form of systematic empirical inquiry into meaning” (Shank, 2002: 5).By systematic, he means planned, ordered and public, and following the rules agreed upon by members of the qualitative research community. By empirical, he means that this type of inquiry is grounded in the world of experience.

Ljunggren et al. (2014) explored the empowerment that results from repeated use of FGD. They explained that FGD may be considered a tool for empowering FG members: “The participants in the FGs discussed how the participatory approach was totally new to them and how it had influenced their personal capacity. Those, who had participated during a long time in the intervention stated, that they had become more social, developed better self-confidence, expressed ideas more explicitly and had grown to be less reluctant to innovations and change” (Ljunggren et al., 2014: 66).

The emphasis on using triangulation to overcome the problem of validity, reliability, and objectives emerged from Denzin and Lincoln (1994), who stated that “The terms credibility, transferability, dependability and confirmability replace the usual positivist criteria of internal and external validity, reliability and objectivity” (Denzin and Lincoln, 1994: 14). Nevertheless, the ghost of reliability and validity continues to trouble qualitative methodology, and various researchers in the field have approached the problem in several different ways: “One strategy for addressing these concepts is that of ’triangulation’. This device, it is claimed, follows from navigation science and the techniques deployed by surveyors to establish the accuracy of a particular point (though it bears remarkable similarities to the psychometric concepts of convergent and construct validity). In this way, it is argued, diverse confirmatory instances in qualitative research lend weight to findings” (Armstrong et al., 1997: 1).

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This study is also based on the role theory with its two major approaches: the role in functionalist theory and the role in the interactionist or social action theory. Rooted in the theory of classical sociologist Émile Durkheim, culture can be understood in both its material and non-material aspects, which are valuable because they provide society with solidarity and order. The values, beliefs, morals, communication, and practices that people share create a sense of a valuable collective identity. Durkheim's work revealed that when people come together to participate in rituals, they affirm the culture that they hold in common and, in doing so, strengthen the social ties that bind people together. This occurs during religious rituals and celebrations, such as weddings, and other non-spiritual occasions, such as seasonal communal harvesting, a social phenomenon in which a wide range of individuals participate. All social and cultural phenomena are therefore regarded as functional in the sense of working together, and are effectively deemed to have "lives" of their own. To learn how to behave in society, therefore, arrangements must be made that allow people to fit into existing patterns of behavior (patterns that are established—and which remain relatively stable and constant over time—by institutionalized behavioral norms). This process is socialization: values and beliefs are transmitted to individuals and internalized—that is, they become an essential part of an individual's social make-up—through various socializing agencies (e.g., the family, peer group, or mass media) (Livesey, 2010: 3).

This study is also based on social role theory, as one of the most prominent theories related to the process of socialization. One of the most prominent definitions of the role is the expected behavior of the person who constitutes a particular social situation while interacting with other people who form other social situations within this pattern. A role (also rôle or social role) is a set of connected behaviors, rights, obligations, beliefs, and norms, as conceptualized by people in a social situation. It is an expected, free, or continuously changing behavior, and may be associated with a given individual social status or social position. It is vital to both functionalist and interactionist understandings of society. Social role theory postulates the following about social behavior:

1. The division of labor in society takes the form of interaction among heterogeneous specialized positions that we call roles.
2. Social roles include appropriate and permitted forms of behavior and actions that recur within a group, guided by social norms, which are commonly known and hence determine the expectations for appropriate behavior in these roles, which further explain an individual's place in society.
3. Roles are occupied by individuals, who are called actors. When individuals approve of a social role (i.e., when they consider the role legitimate), they will incur costs to conform to role norms, and will also incur costs to punish those who violate role norms.

Roles may be positions that individuals assume voluntarily which reflect their personal skills, abilities, and efforts. Alternatively, roles may be assigned to individuals or groups because of certain traits beyond their control (Stark, 2007), and in such circumstances are usually forced upon a person. Role development can be influenced by several additional factors, including social, and cultural or situational factors.

- Societal influence: The structure of society often molds individuals into certain roles based on the social situations that they choose to experience. Parents enrolling their children in certain programs at a young age increase the chances that their children will pursue related roles.
- Cultural influence: Various cultures place different values on certain roles based on their lifestyle.
- Situational influence: Roles can be created or altered based on the situation in which a person is placed outside their own influence.

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Roles are also frequently interconnected in a role set that complements role-relationships in which persons are involved by virtue of their occupation of a particular social status (Merton 1957).

Eagly and Wood (2012), in their study of social role theory, indicated that the primary causes of sex differences and similarities in behavior are societal stereotypes of gender. "These stereotypes, or gender role beliefs, form as people observe male and female behavior and infer that the sexes possess corresponding dispositions. For example, in industrialized societies, women are more likely than men to fill caretaking roles in employment and at home. People make the correspondent inference that women are communal, caring individuals. People carry out gender roles as they enact specific social roles (e.g., parent, employee). Socialization facilitates these sex-typical role performances by enabling men and women to develop appropriate personality traits and skills" (Eagly and Wood, 2012: 458).

Social and cultural phenomena are primarily analyzed in terms of this function. The individual is significant not in and of himself, but rather in terms of his status, his position in patterns of social relations, and the behaviors associated with his status. Therefore, the social structure is the network of statuses connected by associated roles: "A core dynamic in Durkheim's theory on a topic like that treated in 'The Division of Labour in Society' involved the crystallization of patterns of social relations under pressure from the environment, and the succeeding crystallization of moral and cognitive categories and norms from these patterned social relationships. The causal flow was from material substratum (for example, population density and density of interaction) via group structure (for example, increased division of labor) to beliefs and norms (for example, the cult of the individual and contractual law)" (Marcel and Mauss ND: 19).

The second theory that is considered in this study is interactionist social theory or social action theory, which is based on the concept of role. Philosopher George Herbert Mead, in his work, *Mind, self and society* (1934), was chiefly interested in how children learn how to integrate into society through imaginative *role-taking*, observing and imitating others in an interactive way. Adults behave similarly, taking roles from those that they see around them, adapting them in creative ways and engage in a process of social interaction through which each individual actively tries to "define the situation" and understand their role within it; choose a role that is advantageous or appealing; play that role; and persuade others to support the role.

8 LITERATURE REVIEW

Nyumba et al., in their study 'The use of focus group discussion methodology: Insights from two decades of application in conservation' (2018), explained that FGD is adopted by researchers as a qualitative approach to gain an in-depth understanding of social issues from a purposely selected group of individuals rather than from a statistically representative sample of a broader population. Although the application of this method in conservation research has been extensive, no critical assessment of the technique's application has been performed hitherto. Additionally, there are no readily available guidelines for conservation. Researchers reviewed the applications of FGD within biodiversity and conservation research between 1996 and April 2017, commencing with a brief explanation of the technique for first-time users. Next, the empirical applications of this technique in conservation, based on a structured literature review (using Scopus), were discussed in detail. Rarely was the method used as a stand-alone technique. The number of participants per FG (where reported) ranged from 3 to 21 participants with a median of 10 participants. There were seven (median) focus group meetings per study. FGD sessions lasted for 90 (median) minutes. Most of the FG studies were conducted in Africa, followed by Asia, and Europe. Serious gaps were observed in the reporting of the methodological details in the reviewed papers. More than half of

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the studies did not report the sample size or group size, while 54 studies did not mention the number of FGD sessions when reporting the results. Rarely did the studies provide any information on the rationale for choosing the technique. The researchers managed to provide guidelines for improving the standard of reporting for future applications of the technique in conservation.

Merton and Kendall (2016), in their study *The Focused Interview*, explained that the focused interview is designed to determine the responses of persons exposed to a situation that has previously been analyzed by the investigator. Its chief functions are to discover four aspects, namely the significant aspects of the total situation to which the response has occurred; the discrepancies between anticipated and actual effects; responses of deviant sub-groups in the population; and, finally, the processes involved in experimentally induced effects. Procedures for satisfying the criteria of specificity, range, and depth in the interview were described.

Pavanello, Pozarny, and de la Paula (2015) mentioned that the Social Protection and Rural Women's Economic Empowerment research program of the Food and Agriculture Organization of the United Nations (FAO) falls under the FAO's Strategic Objective 3 of Reducing Rural Poverty. And it is delivered through two flagship initiatives: the Rural Women's Economic Empowerment Initiative (RWEE) and the From Protection to Production (PtoP) program. The research seeks to gain a better understanding of how social protection policies and programs can be improved to enhance their impacts on rural women's empowerment. The program is also aimed at identifying ways in which social protection schemes or systems can be strengthened with regard to reducing gender inequalities and improving rural women's economic and social empowerment, actions which can lead to more sustainable pathways out of poverty. Several case studies will analyze the impact of social protection programs on rural women's economic empowerment, particularly in two domains: economic advancement and power and agency. The case studies will also assess the impact of program design on these two domains, as well as the degree to which gender equality and women's empowerment are mainstreamed in program design and implementation. Finally, to a lesser extent, the program will assess the synergies that these programs have with rural services and other livelihoods' interventions. The case studies are conducted using a mixed method approach that combines qualitative and quantitative methods. To achieve comparability and enable cross-country analysis, the research methods are being implemented systematically across countries (Pavanello, Pozarny, and de la Paula, 2015).

Astalin (2013) in his study of the design of qualitative research offers a general way of thinking about conducting qualitative research. He describes, either explicitly or implicitly, the purpose of the qualitative research, the role of the researcher(s), the stages of research, and the method of data analysis. A qualitative research design is probably the most flexible of the various experimental techniques, encompassing various accepted methods and structures. Here, four of the major qualitative research designs, namely phenomenology, ethnography, grounded theory, and case study are introduced. Descriptions of all four qualitative research designs are given separately. The study of the design of qualitative research allows the learner to understand the difference between phenomenology and grounded theory or between ethnography and case study, and also provides the appropriate knowledge about itself.

Aanand (2013), in her study entitled 'Feminist Methodological Approach towards Focus Group Interview Research', attempted to analyze how FGD can be used as a method of data collection in feminist research; how data related to gender can be collected using FGD; why feminist researchers use FGD; and what points must be considered for designing, sampling and moderator control. These objectives were analyzed with the help of detailed description and preparations that were made for conducting FGDs from a feminist

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perspective as part of the study conducted in one of the panchayats in Kerala, with the aim of framing the gender budget.

Wiggins (2004) utilized the FG methodology in the fields of health, sociology, and education. The articles reviewed in 'The Analysis of Focus Groups in Published Research Articles' were assessed in terms of what type of FG analysis was conducted on the transcripts; how the methodology was specified; and whether the coding schemes used were emergent or pre-ordinate. Fewer than half of the articles used a coding scheme to analyze the transcripts, while more than half simply utilized interesting quotations from the focus groups to represent the discussion or to corroborate other quantitative findings. It was found that 14% of the articles utilized some sort of quality check, such as inter-rater reliability, to ensure accuracy in the FG data analysis. Most of the articles that utilized quality checks were from the health field. The results were discussed in terms of their implications for evaluation practice and ongoing research.

Smithson (2000), in her study entitled 'Using and analyzing focus groups: limitations and possibilities', examined several methodological issues associated with the use and analysis of FGs in social science research. She argued that what distinguishes this methodology from other methods is the interactions that take place within FGs, and that this should be reflected in analysis of the data. Interactive features considered here include individuals dominating within the groups, construction of the other, tendencies toward normative discourses, and conflicts and arguments within focus groups. The research covers a broad range of subjects, including household demographics, livestock raising with a focus on sheep and goats, food security and milk processing, and marketing. Household wealth, income, and poverty are also assessed from the women's perspective. The study also examines intra-household dynamics which bring together social roles and responsibilities and gender relations. The FGD is oriented toward the integration of three elements in particular: "on farm", "between farm" and "within household". "On farm" involves analyzing all aspects of livestock production and marketing; understanding the relative importance of livestock, such as camels and cattle, in relation to others, for example, competition between sheep and goats. Also the diversification of livelihood food security strategies within the livestock raising and farming system. The third element involved analyzing household demographics, and disaggregating households in the sample according to certain characteristics (for example, male-headed vs. female-headed households, etc.). "Within the household" involved understanding intra-household dynamics, particularly male and female roles in livestock raising and in the household, as well as access to assets and decision making power. An important consideration was to make the livestock-raising household the unit of analysis rather than taking the individual farmer as the unit of analysis. This is because the household members often take on different roles in livestock raising, production and marketing, as well as various roles in other income-generating activities, all of which contribute to household wellbeing.

Armstrong et al. (1997) published a paper entitled 'The place of inter-rater reliability in qualitative research: an empirical study', assessing inter-rater reliability, whereby data are independently coded and the coding compared for agreement. However, while this is a recognized process in quantitative research, its applicability to qualitative research is less clear: should researchers be expected to identify the same codes or themes in a transcript or should they be expected to produce different accounts? Some qualitative researchers argue that assessing inter-rater reliability is an important method for ensuring rigor, others that it is unimportant; and yet it has never been formally examined in an empirical qualitative study. Accordingly, to explore the degree of inter-rater reliability that might be expected, six researchers were asked to identify themes in the same focus group transcript. The results showed close agreement on the basic themes but each analyst "packaged" the themes differently (Armstrong et al., 1997: 1).

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Reliability and validity are fundamental concerns for the quantitative researcher but seem to have an uncertain place in the repertoire of the qualitative methodologist. Indeed, for some researchers the problem has apparently disappeared: as Denzin and Lincoln have observed, "Terms such as credibility, transferability, dependability and confirmability replace the usual positivist criteria of internal and external validity, reliability and objectivity" (Denzin and Lincoln, 1994: 14). Nevertheless, the ghost of reliability and validity continues to haunt qualitative methodology and various researchers in the field have approached the problem in several different ways. Qualitative methodologists are keen to stress the transparency of their technique, for example, in carefully documenting all steps, presumably so that they can be "checked" by another researcher: "by keeping all collected data in well-organized, retrievable form, researchers can make them available easily if the findings are challenged or if another researcher wants to reanalyze the data" (Marshall and Rossman, 1989: 146).

Symbolic interactionism is a micro-level theoretical perspective in sociology that addresses the manner in which individuals create and maintain society through face-to-face, repeated, meaningful interactions (Carter and Fuller, 2015: 1). From the symbolic interactionist perspective, both the functionalist and the conflict perspectives are concerned with how broad aspects of society, such as institutions and large social groups, influence the social world. Micro-sociology, another level of sociological analysis, is concerned with the socio-psychological dynamics of individuals interacting in small groups. Symbolic interactionism reflects the micro-sociological perspective, and was largely influenced by the work of early sociologists and philosophers, such as George Simmel, Charles Cooley, George Herbert Mead, and Erving Goffman. Symbolic interactionism emphasizes that human behavior is influenced by definitions and meanings that are created and maintained through symbolic interaction with others.

9 ANALYSIS AND DISCUSSION

The FGD method is used in this study to assist female group members to generate personal opinions, perceptions, knowledge, and attitudes about livestock-herding activities (mainly sheep/goat raising) in sedentary farming systems in the Geneina locality. Thus, the study is not focused on verifying this in terms of complex numbers or statistics that may undermine the quality of the research. The results have been converted from numbers to percentages by simple coding and easy accumulation process, being based on a poll of just ten women in each group, to build trust and ensure in writing the final report that the data is accurate and can assist decision makers, project managers and planners, donors and other government bodies to reach the optimum decision. The analysis consists of two parts: the first part concerns the socio-economic context of livestock and its uses and the second part reflects the FG members' perceptions of the gender issues inherent in sheep raising activities.

The FG discussions that took place during the study reflected the perceptions of the participants and their analyses, conducted by the author and the three assistant moderators with ten groups in the three villages—Ardamata (4 groups, 40 women), Abu Zar (3 groups, 30 women) and Madina Hujaj (3 groups, 30 women)—on the topics discussed and analyzed by FG members, as represented in the following two parts. The first part deals with the social interactions and the family relationships in sheep/goat raising, as well as the social role played by rural families in sheep/goat raising. In this context, FG members narrate the socio-economic importance of sheep/goat raising and the expected reasons that might influence or lead to the continuity of sheep/goat raising activities and sheep/goat production and its uses. The second part presents the analysis as it pertains to five topics: the importance and use of milk production; gender division of labor; decision making related to sheep/goat management; selling and buying; and income returned.

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Additionally, the issue of access to and ownership of sheep/goats and, finally, the constraints that women experience in sheep/goat raising emerged as key points for analysis. Group members were given a time, and an appropriate facilitation atmosphere in terms of hospitality (water and tea) and a suitable place for the meetings was arranged by the assistant moderators and some of the women's group members. Strategies of triangulation were adopted using various tools, such as a questions list, audio recordings, cards, role play, observation etc. The data collected and the analysis are presented below in simple calculation for the purpose of documentation and later for assessment and evaluation to identify the changes.

9.1 Analysis of the importance of sheep/goat raising

In all three villages, the rural women's groups at Ardamata, Abu Zar and Madina Hujaj villages placed greater importance on sheep/goat raising activities. FGDs with the women focused on collecting data related to the following questions: What are the purposes or the objectives of raising sheep/goats? What factors positively or negatively influence the continuity of sheep/goat raising? What are the causes of the increased need for sheep/goat raising?

Using the list sheets for the analysis (with a column for the topics and two columns for the women's preferred answers) for each group separately the author and the assistant moderator manage to gather the data vis the FG discussion with rural women in the three villages and do the analysis with them, it was found that rural women prefer to be involved in small scale income-generating activities for sheep/goat raising are due to the following reasons as explained in the table below:

Table 1: Percentage of women's preferences for raising sheep/goats

Reasons for raising sheep/goats	Ardamata(%)	Abu Zar(%)	Madina Hujaj(%)	Total%
Family consumption	55.6	33.3	42.9	44
Family income	33.3	33.3	42.9	36
Family consumption and income	11.1	33.3	14.2	20
Total	100	100	100	100

The data presented in this table show that, in all three villages, the women gave first priority to the objectives of securing their families' basic needs, particularly in Ardamata, where 55.6% of the women wish to be involved in sheep/goat raising activities to secure their families' basic needs, mainly from the dairy products. This is followed by 42.9% for Madina Hujaj, and the lowest is 33.3% for Abu Zar. The second priority was given to increasing income, with the highest percentage of 42.9% in Madina Hujaj, followed by 33.3% each for both Ardamata and Abu Zar. given to family consumption was ityFinal prior ,combined and income with 33.3% in Abu Zar, 14.2% in Madina Hujaj, and 11% in Ardamata.

a-Factors positively or negatively influence the continuity of sheep/goat raising activities.

1-Factors negatively influence the continuity of sheep/goat raising activities

Since 100% of the rural women in the three groups had previously been involved in sheep/goat raising activities, and now only 52% of them were active in sheep/goat raising, it is important to learn from their traditional indigenous technical knowledge and practices in sheep/goat raising as to how such objectives could be reached. Thus, the retrieval and review of the rural women's perceptions of the factors that caused

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the decline in women's participation in traditional practices of sheep/goat raising revealed a wide range of constraints that might negatively affect the expected continuation of sheep/goat raising activities, as indicated in Table 2 below:

Table 2: Factors causing the decline of sheep/goat raising (% percentage)

Factors	Ardamata (%)		Abu Zar (%)		Madina Hujaj(%)		Total (%)	
	Yes	No	Yes	No	Yes	No	Yes	No
Workload and effort for women	33.3	66.7	77.7	22.3	42.9	57.1	56	44
Lack of pasture	77.7	22.3	66.7	33.3	100	0	80	20
Profit is not high	22.3	77.7	44.4	55.6	0	100	24	76
Lack of money	33.3	66.7	22.3	77.7	100	0	48	52
Due to settlement	11.1	88.9	0	100	0	100	4	96

Table 2 shows that in all three villages, a major cause of the decline in sheep/goat raising activities is the lack of pasture, which was 80% on average, with varying percentages of 100% at Madina Hujaj, 77.7% at Ardamata, and 66.7% at Abu Zar. The second cause of the decline in sheep/goat raising activities is the workload and effort required of women, cited by 56% of the total number of women in the three villages. With the yes answer in various degrees, the highest percentage was 77.7% at Abu Zar, with 42.9% at Madina Hujaj, and 33.3% at Ardamata. Then, the lack of money was cited at 48% for the total three villages, with varying degrees of 100% at Madina Hujaj, 33.3% at Ardamata and 22.3% at Abu Zar. Finally, the lowest percentage of 4% is due to settlement, which is recorded only in Ardamata. These results are corroborated to some extent by the results of a study by Young, Osman, et al. (2005), in which FGs discussed the direct destruction of families' assets, particularly in the livestock sector, following the conflict in West Darfur conflict. The women's FG discussion results indicated that livelihood assets lost included financial assets in the form of livestock, physical assets, including the loss of farms, destruction of homesteads and possessions, human capital loss due to deaths and the separation of families, social capital loss, in terms of displacement and the undermining of social support networks and natural resources (wild foods, fodder, and firewood), and that land became inaccessible or was occupied. (Young, Osman, et al., 2005: 57). Thus, one can say that after more than ten years, the situation's root causes remain unresolved: assets, physical assets, social capital, and natural resources.

2- Factors positively influencing the continuity of sheep/goat raising activities

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Table 3: Reasons causing increased need for sheep raising (percentage)

Reasons	Ardamata (%)		Abu Zar (%)		Madina Hujaj (%)		Total (%)	
	Yes	No	Yes	No	Yes	No	Yes	No
Traditional job	77.7	22.3	66.7	33.3	0	100	52	48
Seasonal trading work	0	100	33.3	66.7	0	100	12	88

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Fodder is available	44.4	55.6	33.3	66.7	100	0	56	44
Money is available	0	100	11.1	88.9	100	0	32	68
Profit is high	33.3	66.7	11.1	88.9	0	100	16	84

Table 3 indicates that the first reason causing women to increase sheep/goat raising in Ardamata is that it is a traditional job and they have considerable experience in handling livestock, with a percentage equal to 77.7%. The second factor is the availability of fodder, with a percentage of 44.4%. The third factor, at 33.3%, is that profit is high. In Ardamata village, the data show that there are five factors leading to the continuation of sheep raising activities and are listed in sequences according to their percentages: the highest, at 66.7%, is that it is a traditional job; both availability of fodder and the job's nature as seasonal trading work are both at 33.3%. A lower percentage—11.1%—is given for both availability of money and high profits. While the women in Madina Hujaj village emphasize with high percentages that two factors lead to the continuation of sheep raising activities: 100% for fodder availability as well as availability of money.

9.2 Sheep/goat raising and its uses

The following data collected from the three groups during the FGD concern various types of sheep products and the different uses of each product.

9.2.1 Young rams

The most significant sheep products for the family economy are young rams, as revealed in the women's FGDs. Thus, the women's responsibilities in raising young rams are indicated in the following items:

Methods for the separation and fattening of young rams

After five months of the ewe's pregnancy, even those rural women who do not own sheep begin preparing to welcome the rams, or buy them from the market for the purpose of fattening if they secure fodder or if the season is promising. In each household of the women's groups, at the far corner of the household yard and away from the living and bedrooms, a simple small rough catch or mud pen surrounded by a fence was constructed. An animal shed with a wall was built inside the same animal shed, around one meter high and 1.5 meters wide to separate the young rams from their mothers for the purpose of fattening them.

Separation of newborn rams

The separation of young newborn sheep from their mothers starts one week after delivery. During this week, rural women farmers devote their efforts and time to ensuring that the newborn rams having udders. After the first week, the new rams begin eating crushed fodder by themselves. This is an important process as it introduces the young rams to fodder and helps them to become stronger. During the night, the newborn rams will be separated from the ewes in their partition, and this process of separation is implemented by the women so that they will be able to get more milk in the morning to feed their children. This practice will continue for around two months, until weaning takes place.

Methods of weaning and home fattening of young rams

The natural isolation of young rams is practiced by some women in the groups for two months after delivery. The first weaning method occurs in the same partition within the shed, while the second involves

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the women exchanging rams with their relatives or neighbors if there is insufficient space in the animal shed to build a partition specifically for the young rams. Each woman takes care of her relatives' or neighbors' young newborn rams and intensifies their feeding with her flock, following the methods for fattening for one month. In the same way, the other woman adopts the same ram fattening practices for her relatives' or neighbors' animals. Subsequently, the young rams will be returned to their mothers' flocks fully weaned. The women continue to fatten them with their mothers for up to two months until the rams are big enough to sell.

Uses of young rams

The rural women in the groups do not lose production seasons and, consequently, it is occasionally possible for them to set aside rams for family consumption or for creating income from time to time. Table No.(4) illustrates the main social occasions for which the male newborn sheep is fattened.

Table 4: Occasions for practicing ram fattening (percentage)

	Ardamata (%)		Abu Zar (%)		Madina Hujaj(%)		Total (%)	
Occasion	Yes	No	Yes	No	Yes	No	Yes	No
Eid feast	66.6	33.4	100	0	86	14	84	16
Ramadan dinner charity	22.2	77.8	0	100	0	100	8	92
Marriage	55.5	44.5	77.8	22.2	14	85.7	52	48
Birth of male child	44.5	55.5	0	100	0	100	16	84
Male circumcision	44.5	55.5	100	0	0	100	16	84
Guest or close visitor	11.1	88.9	0	100	0	100	4	96
Marketing during production season	55.5	44.5	66.7	33.3	29	81.4	52	48

Table 4 shows seven important social occasions that are identified by women farmers with variation across the three villages. In Ardamata, the seven social events for which women fattened rams include the Eid festival (66.6%), followed by marriage and marketing during production season (55.55%) each, birth and circumcision of male children (44.5% each), Ramadan dinner charity (22.2%), and finally guests or close visitors (11.1%). The important social occasions in Abu Zar were the Eid festival (100%), marriage (77.8%), and marketing (66.7%). In Madina Hujaj village, the women practiced ram fattening for the following occasions: the Eid festival (85.7%), marketing (28.6%), and marriage ceremonies (14.3%).

9.2.2 Adult animals

When female sheep or ewes reach the age of six to seven years, their reproductivity decreases in terms of offspring and milk yield, respectively. Therefore, women are aware of the option to sell the old ewes for slaughter and continue raising the sheep's offspring, particularly female rams, to ensure continuity of the sheep's reproductive capabilities. The women said that "in selling a sheep, one is actually selling a

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productive asset; the sheep are like our children, but sometimes there is no other way. What can't be cured must be endured."

9.2.3 Milk yield and dairy process

The following data have been collected for the purpose of examining all the milk and dairy processing activities performed by rural women, in particular, the products that can be preserved throughout the entire year. These dairy products are mainly used by women for their family consumption and, if they need money, they can sell the produce to meet urgent situations.

9.2.4 Wool production

Wool shearing is usually performed by men and involves large herds of sheep. On these occasions, the women's responsibilities include meal preparation, and collecting, cleaning, packing, and storing the wool. When the shearing is performed individually, three days before shearing day, the women and the men take the sheep for grazing, and there the women wash the sheep using soap and water before leaving them to dry under the sun for the entire day. However, in Ardamata and Madina Hujaj, rural women do not practice wool washing, due to the perception that washing will reduce the wool's weight, which will lead to a reduction in income return. Usually, women use the wool for making thread that is used to satisfy household needs, including mats, mattresses and cushions, Few women said that they use wool for spinning either to make woolen dress or carpet.

9.2.5 Leather production

Preparation of churn: A *sien* is a leather container that is mainly made from goathide and, occasionally, from sheepskin. The preference for goat leather is due to the fact that goat leather is larger in size, softer, more flexible, and supple, while also tender and durable. As such, it can be used for over a year without deteriorating. Preparation of the traditional churn *sien* is performed by both men and women, especially when it is for household use. After slaughtering the animal for the purpose of the festival, the women take the opportunity to make the *sien* for milk processing activities. The size of the churn required will be determined according to the size of the family: a large family means that considerable dairy processing activities will be required and, therefore, the women are required to make a very large churn. Sometimes, four pieces of goat leather must be joined together to make a single *sien* capable of accommodating two to four *tanak*, or jerrycans, of milk. Immediately after slaughtering, the leather will be immersed in salt, water, and flour, carefully tied, and steeped in a pot for four to five days. The leather will then be taken out and depilated by hand for one to two hours, before a knife is used to remove the very soft hair. Subsequently, the leather will be cleaned and scrubbed with salt and folded in a plastic sack for two days until the leather has absorbed the salt. Two days before tanning, a naturally tannin-rich seed (garad) will be soaked in water for two days and then boiled until concentrated for more than one hour. It is then removed from the heat and again the leather will be soaked in the tan for one to two days. After that it will be hung for one day so that it becomes soft enough to cut and shape the edges of the leather and to be sewn all around. It will then be checked for holes by being blown up by mouth, and sewn up again using the string covering the areas where it was first sewn. This work consumes an entire day. The *sien* will then be washed again, since the tan is bitter and may alter the taste and color of the milk, and rubbed with salt to prevent decay and allow it to absorb moisture to preserve its softness. The women crush herbs, such as fenugreek and scatter them

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inside the *sien* to flavor the milk products, especially ghee. When using the *sien* to separate butter from the milk, the woman are aware of the importance of cleaning the *sien* afterwards, following the same procedure of cleaning with water, tan, salt, and fenugreek. The *sien* is also used by women as a leather container, but its external wool or hair is not removed from it for store *samn*/*ghee.* Sheep's leather can also be used to make mats for prayer or for sitting on, and it is the women's responsibility to prepare it and wash it from time to time. Other purposes for sheep or goat leather include the manufacture of travelers' provision sacks, which comprise two large pouches to be placed over donkeys when women bring them for grazing. In one pocket, the women can keep her provisions, such as a teapot, a glass, sugar, and tea, and in the other pocket a water pot, bread, and weaving and spinning materials, etc.

9.2.6 Manure

During the spring and summer seasons, sheep and goats remain outside the household for most of the day. Therefore, the collection of manure will be easy and not performed on a regular basis. In addition, during summer, the women believe that leaving manure to accumulate inside the animal shed provides good insulation and that this condition will support and hasten the mating process. After cleaning, the women collect manure and accumulate it near the shed under the sun for drying. Manure is also useful as a natural fertilizer for the household garden, and women can sell it as fertilizer to their neighbors or other farmers who come in search of manure. In some cases, the women mentioned that they also use it as fuel for cooking.

From this overview, it is clear that the women in the three villages play vital economic roles using the initial small capital of three sheep or goats, particularly the Shami goat, as its milk yield is greater than that of the Sudani desert goat, and it can maximize the advantages and uses of the sheep/goats products. They can also manage their sheep's daily activities using their traditional practices and indigenous technical knowledge for the maintenance of their household's reproductive and productive activities.

9.3 Importance of milk and dairy products for the family

Previous participatory data collection reports based on the revolving loan fund system found that rural women in the three villages of the pilot project prefer to raise desert sheep, because this contributes in large part to the availability of nutritious dairy products for consumption. In fact, this part of the report reveals the FG members' perceptions of and opinions regarding the dairy products, services and practices adopted by the rural women in the three groups.

9.3.1 Milk production:

The milk season commences immediately after delivery. Usually, during the rainy and late dry seasons there will be less milk available, and it will be required for feeding young newborn male sheep/goats to enable them grow quickly and become strong enough for marketing, or it will be used for children to drink. Usually, goat's milk is given to children of any age, while sheep's milk is given to children whose age is more than one-and-a-half years. In many cases, female newborn goats will be bottle-fed powdered milk.

With the increased milk yield due to the weaning of the newborns, the rural women begin their dairy processing activities. Usually, milk processing is performed by the women, who are assisted by their daughters. To perform this technique, a woman squats down on the ground beside the ewe and grabs it,

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placing one of the ewe's left hind legs between her right thigh and leg, and her right hand between the ewe's hind legs to reach the udder. The woman milks each teat in turn with her right hand while holding a tin in her left hand to catch the milk. This technique helps the woman to keep ewes under the control; in general, sheep are very placid. When the flock is large, another milking practice is adopted by rural women, in addition to the methods of milking small flocks. The women tie several large knots in a length of rope according to the number of ewes, and fix the two extreme edges of the rope carefully using two stakes. The woman places these knots around the ewes' necks. This practice of tethering helps to restrict the ewes' movement and facilitate the milking process, as in Madina Hujaj. This process of tethering large flocks is known as *al Shapaq*. The same milking technique is then followed. Both techniques are tiresome and cause backache. If the weather conditions are favorable, the majority of the women perform the milking process in the shed yard on hot days, and inside the shed on cold or rainy days. The milk is collected in a gourd pot, and then use white muslin gauze (transparent pieces of cloth) to filter the milk from blemishes, hair, etc. After filtering, the women boil the milk for five minutes.

9.3.2 Milk for drinking

When interviewing the women in the three groups, it was found that 88% of the women use powdered milk for drinking while 12% buy fresh milk for drinking.

9.3.3 Processing of milk

Milk sheep is rarely used fresh but is mostly processed into main three dairy products: *laban* (acidulated un-skimmed milk), *samn* (ghee), and *yogurt* (sour skimmed milk). The rural women in the groups placed high value and importance on sheep and goat milk and dairy products; therefore, there is no reciprocal exchange of milk or dairy products between the women themselves, but they pay in cash. It was found that 48% of the women in the three groups buy fresh milk from outside for dairy processing activities. The rural women in the groups begin buying and processing milk during the peak milk production seasons. When they get money, they buy small quantities of milk—about 5 kg per day—and accumulate it for processing. However, they prefer to intensify dairy processing activities during May and June because the milk will be thick in quality and conducive to processing to produce ghee, which requires time and effort because it is concentrated and produces a substantial yield. From the discussion and interviews held with rural women in the three villages, it was found that 52% of the women buy ready-made dairy products from other women or from the market to satisfy their family needs, because they do not trust unknown milk sellers, due to deceit and the risk associated with buying milk from them. In addition, the purchase of milk is limited to a certain period, the production seasons, and they cannot afford to buy large quantities of milk at once.

9.3.4 Yogurt production

The first step in milk processing is the fermentation of milk to make yogurt (*roape*). Usually after half an hour after boiling the milk, the women add some *roape* that has been processed earlier, or sour milk as a starter for the fermentation. When the milk has been fermented, part of it can be used for eating and the rest will be preserved for the next day's milk.

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9.3.5 Ghee production

This process is performed using a *sien* and begun by shaking the milk, starting early at 5:00 am when the weather will be cold. All women in the groups use *sien* because:

a) When processing the milk into *samn*, through the process of shaking the *sien* the solid part of the *samn* will be easily separated and abundant.

b)The *samn* will have a good flavor after each churn when the *sien* has been cleaned and tanned immediately and the women add crushed fenugreek to it and leave it for the next dairy processing.

All the milk will be shaken—*alkhad (*process of shaking*)*—vigorously and in rhythm, with both hands secured at the edges of the upper part of the *sien* in a quick up-and-down movement. This process of beating takes three hours, and sometimes more, and continuously depends on the temperature and the type of milk mixture. After finishing the *alkhad* process, the women scrape out the butter clots and remove them from the liquid in a pot, and add it to the *samn* that has already been collected. When the required amount of butter has been collected, the *samn* will be boiled to produce the final *ghee* product. Some women us fenugreek or safflower to add scent, taste and color to the *samn*. After this process of *samn* making the women store the ghee in *glass or* any plastic tins for marketing and house consumption for the whole year and some women take part of it to their neighbor or relatives to taste their *samn* production. When the women were asked to assess their feelings after finishing this process, they reported that they feel pain in their shoulders and hands, but when they see their first production of *samn* all feelings of pain dissipate. When the women were asked about their opinions regarding electrical milk separators, most of them said that they would be eager to use them. According to the women, a female expert in *samn* production is a skilled woman who will be able to produce *samn* from milk and manage the frequency of churning, which is a determining factor for the amount of *ghee* obtained. Rural women in the groups have considerable interest in increasing the milk yield, because the current level of milk production is very low and, according to the women, a single sheep's milk production can satisfy the needs of one person in the family. Rural women in the groups suggest that milk yield may be increased through the improvement of feeding supplies, while others suggest that shorter feeding intervals would result in a more constant milk supply. It was found that the consumption of dairy products that have been made by rural women at home in their household is favored by many families, for the following reasons:

-The dairy products produced by women are excellent in taste, which can never be found in store-purchased products.

- It is not always possible to serve meat every day and, therefore, it is important to have at least *samn* and *roape.*

- Milk products processed at home are considered cheaper because only labor costs are involved.

- The pure dairy products produced by women at home are not available in the market.

- The production of dairy products may be an income-generating activity for women.

A key question is how long rural women will continue their role as milk processors and users of locally produced milk products? It is clearly necessary to improve the traditional methods of milk production and processing to avoid their elimination by large-scale milk production companies.

9.4 Gender issues in sheep raising activities

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This part of the report has touched upon deeper issues related to the role of rural women in animal husbandry, in particular, sheep raising activities. These issues are:

- Gender division of labor and workload.
- Decision-making patterns.
- Ownership.

9.4.1 Gender division of labor

Table 5: Ardamata village gender division of labor by men/women and children in sheep raising activities (percentage)

Task	Men (%)	Women (%)	Girl (%)	Boy (%)	Total (%)
Feeding	11.1	62.2	15.6	11.1	100
Grazing	22.2	41.7	13.9	22.2	100
Shed cleaning	0	60	34.4	5.6	100
Cleaning water and feeder troughs	0	50	33.3	16.7	100
Taking care of sick sheep	50	0	0	50	100
Taking care of pregnant ewes	50	0	0	50	100
Taking care of rams	44.4	44.4	5.6	5.6	100
Milking process	0	100	0	0	100
Dairy processing	0	90	10	0	100
Fodder collection/pasture	44.4	44.4	5.6	5.6	100
Supplementary fodder provision	60	0	0	40	100
Wool shearing	60	0	0	40	100
Manure collection for making dunk cake for fuel	0	69.2	23.1	7.7	100

This table reveals the division of labor between men, women, and children in Ardamata village as indicated above: Women are involved in nine tasks. Furthermore, women are involved in five highly rated tasks, in which men are not involved, and are assisted by their daughters. These highly rated tasks include the milking process (100%); dairy processing (90%); manure collection (69.2%); shed cleaning (50%); and cleaning of water and feeder troughs (50%). Men are involved in four highly rated tasks, in which women are not involved, and are assisted by their sons. These tasks are supplementary fodder provision (60%); wool shearing (60%); taking care of pregnant ewes (50%); and taking care of sick sheep (50%). Other tasks performed by both men and women include feeding, grazing, taking care of rams, and fodder collection.

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Boys participate in all tasks, with the exception of milk and dairy processing. Girls are involved in several tasks, with the exception of the tasks performed by men and milk processing.

Table 6: Abu Zar village gender division of labor by men/women and children in sheep raising activities (percentage)

Task	Men (%)	Women (%)	Girl (%)	Boy (%)	Total %
Feeding	15.4	69.2	15.4	0	100
Grazing	28.6	36	17.7	17.7	100
Shed cleaning	0	100	0	0	100
Cleaning water and feeder troughs	0	100	0	0	100
Taking care of sick	77.7	22.3	0	0	100
Taking care of pregnant ewe	50	40	0	10	100
Taking care of ram	33.3	66.7	0	0	100
Milking process	0	100	0	0	100
Dairy processing	0	100	0	0	100
Fodder collection	23.1	46.1	7.7	23.1	100
Supplementary fodder provision	89	0	0	11	100
Wool shearing	100	0	0	0	100
Manure collection/for fuel	0	81.8	9.1	9.1	100

Table 6 shows the division of labor between men, women, and children in Abu Zar village. As indicated above, women are involved in 11 tasks. They are involved in five highly rated tasks, in which men are not involved, and are assisted by their daughters. These highly rated tasks are the milking process (100%); dairy processing (100%); shed cleaning (100%); cleaning of water and feeder troughs (100%); and manure collection (81.8%). Men are involved in two highly rated tasks, in which women are not involved, and are assisted by their sons. These tasks are supplementary fodder provision (88.9%) and wool shearing (100%). Other tasks performed by both men and women include feeding, taking care of sick sheep, grazing, taking care of pregnant ewes, taking care of rams, and fodder collection. Boys participate in five tasks: grazing, taking care of pregnant ewes, fodder collection, supplementary fodder provision, and manure collection. Girls are involved in three tasks: feeding, fodder collection, and manure collection.

Table 7: Madina Hujaj village gender division of labor by men/women and children in sheep raising activities (percentage)

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Task	Men (%)	Women (%)	Girl (%)	Boy (%)	Total (%)
Feeding	6.3	50	43.7	0	100
Grazing	20.6	43.7	35.7	0	100
Shed cleaning	0	56.3	43.7	0	100
Cleaning water and feeder troughs	0	56.3	43.7	0	100
Taking care of sick sheep	44.4	55.6	0	0	100
Taking care of pregnant ewe	10	80	10	0	100
Taking care of ram	44.4	55.6	0	0	100
Milking process	0	69.2	30.8	0	100
Dairy processing	0	100	0	0	100
Fodder collection	16.7	58.3	16.7	8.3	100
Supplementary fodder provision	88.9	0	0	11.1	100
Wool shearing	100	0	0	0	100
Manure collection	0	60	40	0	100

Table 7 presents data related to the division of labor between men, women, and children in Madina Hujaj village. As indicated above, women are involved in 11 tasks, of which five are highly rated tasks in which men are not involved. The women are assisted by their daughters in these highly rated tasks, which include dairy processing (100%); the milking process (65.2%); manure collection (60%); shed cleaning (56.3%); and cleaning of water and feeder troughs (56.3%). Men are involved in two highly rated tasks in which women are not involved, and assisted by their sons. These tasks are supplementary fodder provision (88.9%) and wool shearing (100%). Other tasks performed by both men and women include feeding, taking care of sick sheep, grazing, taking care of rams, taking care of pregnant ewes, and fodder collection. Boys participate in two tasks: fodder collection and provision of fodder from the market. Girls assist their mothers in seven tasks, with the exception of taking care of sick sheep and rams and dairy processing.

We may observe the following regarding the gender division of labor in the three villages:

Concerning the sheep and goat raising activities at the household level, rural women in the groups, as well as other family members, play vital roles in these aspects. There is also an obvious and clear division of labor between women's and men's work that has been allocated by society for the purpose of maintaining the household and meeting other survival needs. These roles can be clearly identified from the participatory FGD conducted among the women's groups; as has been explained, there have been several cases of children who have also been socialized and reared to participate in gender-specific tasks. For example, girls assist with cleaning and manure collection at a higher ratio than boys. Meanwhile, boys help with tasks including fodder provision, wool shearing, and taking care of pregnant ewes, in which girls are never involved. Girls' participation will be minimal in activities requiring greater professionalism, such as milk and dairy processing, and their help will be limited in assisting their mothers in the cleaning of utensils and *siens*. Boys assist in tasks that mainly require more mobility outside the household. The Abu Zar FGD indicated that women's workload is equal to 6.72 h/day, while men's workload is equal to 3.61 h/day. Girls' workload is equal to 1.89 h/day; boys' workload is equal to 3.22 h/day. The most consuming task is

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grazing: it takes between 1.8 to 3.3 h/day. Women's workload is twice that of men, while boys' workload is higher than girls'. The estimated total h/day is equal to 15.44 h/day. In Ardamata, women's workload is equal to 7.52 h/day, while men's workload is equal to 4.13 h/day. Girls' workload is equal to 1.63 h/day; boy's workload is equal to 1.85 h/day. The most consuming task is grazing. It takes between 1.4 to 2.9 h/day. Women's workload is about two times more than men's workload. Boys workload is high than girls' workload. Estimated total h/day =15.13 h/day. In Madina Hujaj, women's workload is equal to 7.82 h/day, Men's workload is equal to 1.49 h/day, Girls' workload is equal to 4.72 hrs./day; boys' workload is equal to 0.67 hrs./day. Most consuming task is grazing. It takes between 0.9 to 3.13 h/day. Women's workload is almost five times that of men. The estimated total h/day is equal to 14.11 h/day. Girls' workload is higher than boys' workload.

9.4.2 Decision making patterners

a- Decision-making patterns related to sheep management

Table 8: Decision-making patterns in sheep management (percentage)

Task	Ardamata		Abu Zar		Madina Hujaj	
	Men	Women	Men	Women	Men	Women
Feeding	12	88		100	0	100
Grazing	55.5	44.5	85.8	14.2	85.8	14.2
Shed cleaning	0	100	0	100	0	100
Cleaning water and feeder troughs	0	100	0	100	100	100
Taking care of sick sheep	88.9	11.1	88.9	11.1	42.2	77.8
Taking care of pregnant ewes	77.8	0	11	9	14.2	85.8
Taking care of ram	66.7	33.3	77.8	22.2	28.6	71.4
Milking process	0	100	8	100	0	100
Dairy processing	0	100	0	100	0	100
Fodder collection	55.5	44.5	88.9	11.1	71.4	28.6
Supplementary fodder provision	88.8	11.2	100	0	71.4	28.6
Wool shearing	88.8	11.2	100	0	85.8	14.2
Manure collection	0	100	0	100	0	100

Higher ratios of decision-making patterns are undertaken by women than by men in the following tasks: shed cleaning (100%), manure collection (100%); water and fodder trough cleaning (100%); milk process (100%); dairy processing (100%). A high ratio of decision-making patterns are undertaken by men in the three villages in the following tasks: provision of supplementary fodder (between 71.4 and 100 %); wool shearing (between 85.8 and 100 %). In decision-making processes related to the tasks undertaken by both men and women, men's decision-making percentage is higher than that of women in Abu Zar and Ardamata

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in the following tasks: taking care of rams, sick sheep, and pregnant ewes, while it is the opposite in Madina Hujaj. In Abu Zar and Madina Hujaj, women have a higher ratio (100%) of involvement in decision-making than men concerning feeding, while the opposite is the case in Ardamata. In grazing activities, men have a higher ratio of involvement (88.5%) in Abu Zar and Madina Hujaj, while in Ardamata the task is almost equally shared between men and women throughout most of Ardamata. As has been mentioned before, rural women perform gender-specific tasks in sheep raising activities. In the three villages, nearly 100% of the rural women initiate and execute their decision-making capabilities in the domains of their responsibilities, such as cleaning, manure collection, milk processing, and dairy processing, in which men are not involved. Regarding the activities performed by both men and women in the three villages, it was found that, although rural women in the groups perform most of the workload, men are powerful in terms of decision making, especially in Abu Zar and Ardamata villages. Nearly 100% of men are decision makers in the activities related to their tasks, such as provision of fodder, wool shearing, and taking sick animal or pregnant ewes to the veterinarian or community health worker for vaccination. In Madina Hujaj village, rural women are more involved in decision making than men in the tasks performed by men in the other two villages. This is because several women in Madina Hujaj village are heads of their households because they are widows, as the majority are pastoral herders, compared to women in Ardamata and Abu Zar villages. In other words, sheep raising is strongly rooted in their social and cultural system. In addition, they are socially permitted to perform men's tasks which require more mobility and contact with males, such as veterinarians or community health workers.

b- Decision making related to buying and selling of sheep and its products - output:

Table 9: Decision making patterns by men/women in buying and selling of sheep (percentage)

Kind	Ardamata				Abu Zar				MadinaHujaj			
	Buying		Selling		Buying		Selling		Buying		Selling	
	M	W	M	W	M	W	M	W	M	W	M	W
Sheep	100	0	100	0	77.7	22.3	77.7	22.3	71.4	28.6	28.6	71.4
Ram	100	0	100	0	77.7	22.3	77.7	22.3	71.4	28.6	28.6	71.4
Milk	100	0	100	0	33.4	66.6	55.6	44.4	28.6	71.4	57.1	42.9
Dairy products	11.1	88.9	88.9	11.1.	33.3	66.7	44.4	55.6	28.6	71.4	42.9	57.1
Wool	88.9	11.1	100	0	66.7	33.3	77.7	22.3	71.4	28.6	71.4	28.6
Manure	77.8	22.2	11.1	88.9	33.3	66.7	33.3	66.7	0	100	85.7	14.3

Table 9 shows that, in Ardamata, 100% of decisions with regard to buying and selling of sheep and rams are undertaken by men. Furthermore, a high ratio of decision-making patterns are undertaken by men in the buying and selling of milk and wool. Women have a high ratio of decision making in buying dairy products and in selling manure. In Abu Zar, men have a high ratio of decision making pattern in buying and selling of sheep, rams, and wool. Women have a high ratio of involvement in decision making in buying milk, and a high ratio in the initiation of buying dairy products and wool, and executing decision making in sales of

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manure. Men and women have almost the same ratio of decision making power in selling milk and dairy products. In Madina Hujaj, men have a high ratio of involvement in decision-making processes concerning the buying and selling of sheep, rams and wool, while women have a high ratio of involvement in buying milk and dairy products. Men and women have almost the same degree of decision making concerning the sale of milk and dairy products, while women have a high ratio of involvement in decision making concerning manure.

c- Income return from marketing of sheep and its productions.

Table 10: Marketing of sheep and associated produce (percentage)

Product	Ardamata		Abu Zar		MadinaHujaj	
	Men	Women	Men	Women	Men	Women
Sheep	100	0	100	0	100	0
Ram	100	0	88.8	11.2	100	0
Milk	0	100	55.5	44.5	0	100
Dairy products	0	100	44.5	55.5	0	100
Wool	100	0	77.7	22.3	71.4	28.6
Manure	0	100	22.3	77.7	0	100

Due to the above-mentioned processes of decision making patterns, the income return from the sales of sheep, rams, and wool in the three villages will usually be for men. This is clearly evident in Table 10. While 100% of milk, dairy products, and manure income return will be for women in Madina Hujaj and Ardamata, in Abu Zar the ratios indicate that men also receive income returns from milk, dairy products, and manure. Concerning income consumption, all women in the three groups said that 100% of the income return to men is spent on satisfying family needs and buying fodder for sheep and goats, while the money that is returned to women is consumed by satisfying family needs. Such responsibilities and decision making patterns are key characteristics of raising sheep at the household level. However, receipt of the return of the sale depends on the ownership of the sheep being sold. Responsibility and decision making involvement will be strong when the flock grows and the trend appears to be for more commercial rather than simply for household consumption.

Table 11: Responsibilities for raising sheep and rams (percentage)

Kind	Ardamata		Abu Zar		Madina Hujaj	
	Men	Women	Men	Women	Men	Women
Large flock of sheep	77.8	22.2	88.9	11.1	71.4	28.6
Small flock of sheep	44.5	55.5	22.2	77.8	28.6	71.4
Large flock of rams	77.7	22.2	77.8	22.2	85.7	14.3
Small flock of rams	0	100	66.7	33.3	28.6	71.4

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When the flock is large, whether sheep or rams, as presented in Table 11, women's responsibilities will decrease, while men's responsibilities, and consequently their decision making power, will increase. In FGDs with women, the women were asked why men's responsibilities and decision-making powers increase, and they mentioned that sheep raising at household level is the women's responsibility because raising sheep at household level is similar to raising the children and is not distinguished from their household domestic work. In addition, the women are not required to have more social contacts and social work outside the household. They practice traditional healing methods for animal treatment, as vaccination is not always available, and if they need fodder from the market the men will fetch it. However, when the flock is large more social contacts and services are required. Therefore, the majority of responsibilities will rest on men's shoulders. When asking the women in the groups how men deal with this situation they said that raising sheep in large numbers in the vicinity of the city is not allowed and, thus, the entire family must move outside the village for more than six months, especially during production seasons. In this situation, a woman performs all her reproductive and productive tasks, especially milking and dairy processing, or if the children have been admitted to the schools, the women's primary responsibility will be to take care of their children while raising sheep will be secondary work for them. In this case, the mothers must stay with the children and men will satisfy the gender-specific tasks either by a prompt new marriage or by hiring a female laborer to perform milking and dairy processing tasks. The former situation, that of polygamous marriage, is universal and rural women declare themselves satisfied with this situation. They also mentioned that, in such cases, both wives must work in shifts to perform their tasks in sheep raising and joining their husband while the second must stay with the children and take care of them and the household in a rotatory manner each year.

9.5 Ownership of sheep and rams

Table 12: Ownership of sheep and rams (percentage)

Kind	Ardamata		Abu Zar		Madina Hujaj	
	Men	Women	Men	Women	Men	Women
Large flock of sheep	100	0	100	0	100	0
Small flock of sheep	77.8	22.2	77.8	22.2	71.4	28.6
Large flock of ram	100	0	100	0	100	0
Small flock of ram	77.8	22.2	77.8	22.2	88.8	11.2

Table 12 illustrates that the women in the three groups do not own large flocks of sheep or rams as the ownership is mainly men's when the flock is large or small. The women from the three villages imparted this information during the FGDs. Men have much higher ratios of ownership of sheep flocks than women.

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9.5.1 Access and sheep ownership

Table 13: Women's access to sheep and ram ownership (percentage)

Occasions	Ardamata	Abu Zar	Madina Hujaj
Gift from parents or husbands	22.2	22.2	14.3
Death or absence of husband	11.1	11.1	14.3
Inherited from Parents	11.1	22.2	14.3
Do not own	55.6	44.5	67.1
Total	100	100	100

Table 13 indicates that, largely, the FG members do not own sheep or goats: 67.1% in Madina Hujaj, 55.6% in Ardamata, and 44.5% in Abu Zar. On special occasions, the FG members have the opportunity to raise sheep or goats but, in the case of their husbands' deaths they own the sheep and goats. Sometimes rural women own sheep or goats when they have received them as a gift from their parents, or they receive female newborn ewes only from their husbands as gifts to be raised for the family's consumption of milk and dairy products. Husbands do not offer male newborns because this is a privilege for men only and the young rams will be fattened for marketing purposes.

9.5.2 The importance of women's sheep ownership

Table 14: Importance of sheep and ram ownership for women (percentage)

Importance	Ardamata	Abu Zar	Madina Hujaj
Private income for the women	22.2	55.5	28.6
Free to spend money and control production	44.5	0	14.3
Gaining respect from her husband	22.2	0	0
Securing her future	11.1	0	0
Securing the family consumption	0	11.2	14.3
Family income increase	0	33.3	42.8
Total	100	100	100

Table 14 shows that women in Ardamata, Abu Zar, and Madina Hujaj said that ownership of sheep is important in terms of providing them with opportunities to determine and control their asset production, gain private income to buy clothes or gold for themselves, as well as securing their family life.

9.5.3 Situations compelling families to sell their sheep

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Table 15: Reasons that compel families to sell their sheep (percentage)

Reasons	Ardamata		Abu Zar		Madina Hujaj	
	Yes	No	Yes	No	Yes	No
Treatment	33.3	66.7	77.8	22.2	0	100
Education expenditure	22.2	77.8	77.8	22.2	100	0
Marriage	44.4	55.6	55.6	44.4	57.1	42.9
Buying fodder	33.3	66.7	11.1	88.9	0	100
Building or buying a land	11.1	88.9	0	100	0	100
When men without work	22.2	77.8	0	100	0	100
Other daily family needs	22.2	77.8	77.8	22.2	100	0
Debt	0	100	33.3	66.7	0	100

As indicated by Table 15, the women groups discussed and analyzed the important occasions that forced them to sell their sheep or goats, and they offered the following reasons: treatment, education expenditure, marriage, and purchase of fodder for other animals. From the analysis in all three villages, the FG members indicated that education expenditure is a key reason that has forced the FG members to sell their sheep or goats, especially in Madina Hujaj (100%), followed by Abu Zar, while it is not a strong reason in Ardamata village. Treatment is a very strong reason that has forced FG members to sell their sheep or goats, especially in Abu Zar, though it is not a strong reason in Ardamata (33.3%) and is a weak reason in Madina Hujaj village (0%). All FG members agreed that the occasion of marriage is another reason that compels FG members to sell their sheep or goats, with no great difference between the percentages in Madina Hujaj (57.1%), Abu Zar (55.6%), and Ardamata (44.4%).

10 RESULTS

The adoption of FGD as a research method is a key means of empowering women and their family members at the local level. Therefore, the author recommends that:

1- Women's programs should be directed toward securing the annual family consumption of dairy products, for which the rural women strive to generate income through raising sheep/goats with high animal quality production, mainly milk, to satisfy their basic survival needs.
2- Women's programs, particularly the raising of sheep/goats, should consider the provision of supplementary feeding, particularly during the dry season, to avoid the lack of pasture in all three villages, but especially in Madina Hujaj. This will add greater value for women by reducing the workload of sheep/goat raising activities, which are tedious and time consuming for the three villages.
3- Women's programs, particularly the raising of sheep/goats, will facilitate greater social interaction between the women's groups and financial institutions with the aim of securing credit or loans for the expansion of their activities of raising sheep/goats, and the possibility of using new innovative ideas and technology for cheese making. The marketing possibilities are promising, as huge demand for small rams has emerged from the requirements for social occasions.

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4- In women's programs, particularly the raising of sheep/goats the tasks are clearly identified and specified in the three villages, as are the responsibilities. Therefore, women are the target group for any development intervention with distinguished activities within the permitted domain of the household environment. Qualitative indicators for evaluating the impact of women's programs, particularly in the three villages, should include measurement of change in the decision-making process, the control of income return, and ownership.
5- Attention and consideration should be placed on supporting innovative strategies in adopting FGD to facilitate women's reflection on how to deal with situations related to livelihood systems and other inevitable rights-related changes in customs, practices, and forms of claiming and demanding and considering how to build their capacity.
6- The use of FGD with women should concentrate on assisting women's groups to be visible to policy- and decision-makers, for example, with regard to their perceptions and opinions in the assessment of the customary forms of land tenure and statutory land law for the purpose of maximizing adaptive capacity, and these should be spotted and their potential realized.
7- Thus, the long-term sustainability of the returns of IDP and the returnees will, depend upon improved security, the provision of basic services in return areas and well-planned government-owned initiatives. Therefore, policies should be redirected from top-down approaches that depend on quantitative data gathering to bottom-up approaches and people-centered policies focusing on community approaches that adopt more qualitative data gathering methods to reach the grassroots beneficiaries.
8- The author can conclude that food security and livelihood initiatives for any livestock, particularly sheep/goat raising programs, should be considered in the provision of educational facilities for children. In the same manner, health services also require substantial consideration, especially in Abu Zar and Ardamata.

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