

Perceived Barriers and Opportunities for Rural Women's Participation in Agricultural Extension Activities in Afgoi District, Somalia

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ABSTRACT

Agricultural extension services can improve farming knowledge and rural livelihoods, but access may be constrained by financial, institutional, and information barriers. This descriptive quantitative study summarizes the perceptions of 80 agricultural stakeholders in Afgoi District, Somalia. Responses were analyzed using frequencies, percentages, and five-point Likert mean scores. Limited access to agricultural information ($M = 4.05$), training ($M = 4.03$), and modern farming techniques ($M = 3.94$) were rated as challenges. Lack of financial support ($M = 4.19$) and limited access to inputs ($M = 4.18$) were perceived as major economic constraints. Program availability ($M = 3.44$) and government support ($M = 3.38$) received comparatively lower ratings. Proposed improvements included agricultural credit ($M = 4.35$), technologies and inputs ($M = 4.33$), extension services ($M = 4.30$), and training ($M = 4.28$). The results reflect the views of a mixed-gender stakeholder sample rather than measurements of women's actual participation or effects of interventions. Documented reliability testing of the questionnaire was not available, and the findings are descriptive and limited to Afgoi District.

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1. INTRODUCTION

Agriculture is a key driver of economic development, food security, and rural livelihoods in many developing countries, including Somalia (Ali et al., 2025; FAO et al., 2022; Hussein Mohamud & Yabarow, 2026; Ibrahim et al., 2025; Mohamed & Abdullahi, 2026; Nor & Yusof, 2025; Osman et al., 2025; Pulle et al., 2026; Schmidtke, 2024). Afgoi is one of the country's most productive agricultural districts, benefiting from fertile alluvial soils and year-round irrigation from the Shabelle River (Mumin, 2026). In Somalia, women play vital roles in crop production, post-harvest handling, food processing, and household food security (Abdullahi & Arisoy, 2022; Gardner & El Bushra, 2004; Said et al., 2025; Siaw et al., 2024). Despite their significant contributions, rural women continue to face barriers such as limited access to agricultural extension services, modern farming technologies, financial resources, and productive assets, which constrain their productivity and socioeconomic empowerment.

Agricultural extension services are essential for transferring knowledge, promoting improved farming practices, and enhancing agricultural productivity and sustainability (Abhijeet et al., 2023; Abu Harb et al., 2024; Hameed & Sawicka, 2023; Maulu et al., 2021; Mungai et al., 2024; Prajapati et al., 2025). Access to extension services enables rural women to acquire technical skills, adopt improved technologies, and strengthen their participation in agricultural development (Buehren et al., 2019; Nyberg et al., 2025; Ongachi & Belinder, 2025; Siaw et al., 2024). However, institutional, socioeconomic, and cultural barriers continue to limit women's access to these services in many developing countries.

Afgoi District, located in the Lower Shabelle region of Somalia, is one of the country's most productive agricultural areas, where women actively participate in crop production and other agricultural activities (Abdi-Soojeede, 2018; Amir et al., 2024; Delancey et al., 1987; Hassan, 2022; Said, 2024; Siad et al., 2022). Nevertheless, rural women may face constraints in accessing formal agricultural extension programs, which can reduce opportunities to improve productivity, income generation, and sustainable farming practices.

1.1 Research Gap

Although previous studies have examined agricultural extension services and women's participation in agriculture across Eastern Africa and other developing regions, empirical evidence on the opportunities and challenges affecting rural women's access to agricultural extension services in Afgoi District, Somalia, remains limited. Existing studies in Somalia have largely focused on agricultural production and rural development, with relatively little attention to the factors shaping women's participation in extension activities. This study addresses this gap by describing respondents' perceptions of the challenges, economic constraints, institutional support, and improvement strategies related to rural women's participation in agricultural extension activities in Afgoi District.

1.2 Research Objectives

The general objective of this study was to examine the perceived challenges and opportunities associated with rural women's access to and participation in agricultural extension activities in Afgoi District, Somalia. The specific objectives were:

1. To identify respondents' perceptions of the major challenges to rural women's access to agricultural information, training, and modern farming techniques.
2. To assess respondents' perceptions of financial support and access to agricultural inputs as economic constraints.
3. To examine respondents' perceptions of government support and the availability of agricultural extension programs.
4. To identify strategies respondents consider important for improving rural women's access to agricultural extension services.

1.3 Research Questions

1. What extension-related challenges do respondents perceive as relevant to rural women in Afgoi District?
2. Which financial and agricultural-input constraints do respondents perceive as important?
3. How do respondents rate government support and the availability of agricultural extension programs?
4. Which improvement strategies receive the strongest respondent support?

1.4 Literature Review

Agricultural Extension Challenges

Agricultural extension services are essential for disseminating agricultural information, encouraging better farming methods, and facilitating the adoption of modern technologies (Becerra-Encinales et al., 2024; Khatri et al., 2024; Norton & Alwang, 2020; Prajapati et al., 2025). However, there are still major obstacles that rural women in many developing nations must overcome in order to receive these types of services (Ramle & Mardikaningsih, 2024). Limited access to agricultural training reduces women's technical knowledge and their ability to adopt improved farming practices (Achandi et al., 2018; Nyberg et al., 2025; Rola-Rubzen et al., 2020; Tsige et al., 2020). Similarly, inadequate access to agricultural information, including weather forecasts, market intelligence, and extension recommendations, limits the ability to make well-informed decisions and reduces agricultural production (Khatri et al., 2024; Mapiye et al., 2023; Mase & Prokopy, 2014; Singh et al., 2018). Additionally, women's ability to increase farm production and resilience is hampered by their limited exposure to modernized agricultural practices including enhanced crop management, mechanization, and climate-smart agriculture (Chen, 2025; Hussain et al., 2025; Mkupete & Davalos, 2025; Murray et al., 2016; Sims & Kienzle, 2017). These challenges collectively can reduce the effectiveness and inclusiveness of agricultural extension systems and limit rural women's participation in agricultural development.

Economic Constraints

Economic constraints continue to be one of the major obstacles affecting rural women's participation in agricultural extension activities (Adebayo & Worth, 2024; Alemayehu & Teklewolde, 2021; Chalhisa et al., 2024; Hernandez et al., 2023). Limited access to financial services, including agricultural loans, credit facilities, and savings opportunities, often constrains rural women's ability to adopt improved farming methods and invest in modern agricultural technologies (Adesiyani, 2025; Mwalupaso et al., 2025). Furthermore, limited availability of essential

agricultural inputs, such as improved seeds, fertilizers, pesticides, irrigation facilities, and farming equipment, continues to constrain agricultural productivity (Alta et al., 2021; Lechenet et al., 2017; Penuelas et al., 2023; Popp et al., 2013). Women who experience financial insecurity are also less likely to take part in extension initiatives that call for investments in recommended technologies, transportation, or training (Collett & Gale, 2009). Consequently, inadequate access to financial resources can weaken both women's participation in agricultural extension programs and their subsequent adoption of improved agricultural practices.

Institutional Support

Strengthening agricultural extension services and encouraging women to work in agriculture require institutional support (Buehren et al., 2019; Cohen & Lemma, 2011; Ongachi et al., 2026; Siaw et al., 2024). Access to agricultural innovations, technical support, training, and consulting services are all made possible by government programs, extension agencies, and development organizations (Audouin et al., 2026; Prajapati et al., 2025; Tayang et al., 2023). Women's farming expertise, adoption of technology, and involvement in agricultural decision-making can all be enhanced by the availability of well-coordinated agricultural extension programs (Ali & Singh, 2026; Ibrahim et al., 2026; Irmak, 2023). However, weak institutional capacity, inadequate extension personnel, and insufficient gender-responsive programs often limit the effectiveness of extension services in rural communities.

Strategies for Enhancing Rural Women's Participation

Enhancing rural women's involvement in agricultural extension efforts has been suggested through a number of strategies. Regular agricultural training programs improve women's farming abilities and technical understanding (Odini, 2014; Siaw et al., 2024). Increasing women's access to financial assistance and agricultural financing allows them to invest in profitable farming endeavors and embrace new technology (Amusan et al., 2021; Diiro et al., 2018; Fletschner & Kenney, 2014). Strengthening government and non-governmental organization (NGO) extension services increases the availability and quality of agricultural advisory support (Buadi et al., 2013; Nalere et al., 2015; Priya et al., 2025). Furthermore, increasing women's access to agricultural inputs and contemporary farming technology may boost household incomes, increase productivity, and advance sustainable agricultural development (Pradhan et al., 2024; Uduji et al., 2019). Collectively, these strategies support agricultural extension systems that are more effective, inclusive, and gender-responsive.

1.5 Conceptual Framework of the Study

This study adopts a descriptive conceptual framework (Figure 1) to examine the main factors associated with rural women's participation in agricultural extension activities in Afgoi District, Somalia. The framework is organized around four key dimensions: agricultural extension challenges, economic constraints, institutional support, and strategies for improving participation.

Agricultural extension challenges include limited access to agricultural training, information, and modern farming techniques. Economic constraints include inadequate financial support and limited access to agricultural inputs. Institutional support covers government assistance and the availability of agricultural extension programs, while improvement strategies include regular training, improved access to agricultural credit, stronger government and NGO extension services, and greater access to modern farming technologies and inputs. These dimensions are assessed descriptively based on respondents' perceptions and levels of agreement rather than as causal predictors of rural women's participation.

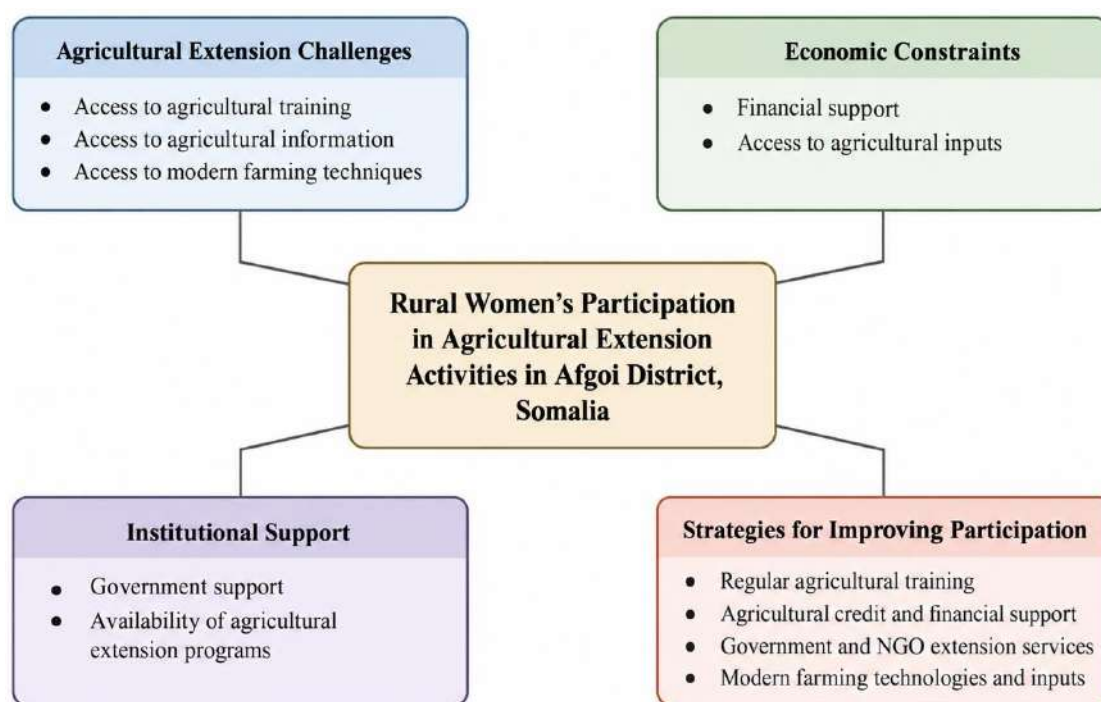


Figure 1. Conceptual Framework for Assessing Factors Related to Rural Women's Participation in Agricultural Extension Activities in Afgoi District, Somalia

2. MATERIALS AND METHODS

2.1 Research Design

This study employed a descriptive quantitative research design to describe respondents' perceptions of agricultural extension challenges, economic constraints, institutional support, and strategies for improving rural women's participation in agricultural extension activities in Afgoi District, Somalia. The study did not directly measure women's participation frequency or service utilization. A quantitative approach was adopted because it enables the systematic collection, measurement, and summary of respondents' perceptions regarding access to agricultural extension services; the findings are descriptive and are not generalized beyond the sampled respondents.

2.2 Study Area

The study was conducted in Afgoi District, located in the Lower Shabelle region of southern Somalia. Afgoi is one of the country's most productive agricultural districts, benefiting from fertile alluvial soils and year-round irrigation from the Shabelle River. Agriculture is the primary livelihood of the local population, with rural women playing active roles in crop cultivation, harvesting, post-harvest handling, and small-scale agricultural enterprises. Similar patterns have been reported in the Lower Shabelle region of Somalia, the Tigray Region of Ethiopia, northern Ghana, and the South-South geopolitical zone of Nigeria. These contexts demonstrate the substantial contribution of rural women to agricultural production while also highlighting the institutional, economic, and social constraints that may limit their participation in agricultural extension activities (Afful-Mensah et al., 2025; Asanwana & Uloh, 2025; Delancey et al., 1989; FAO, 2020; Hagos, 2017). Afgoi District therefore provides an appropriate setting for examining the opportunities and challenges influencing rural women's participation in agricultural extension services.

2.3 Study Population and Sampling

The study population consisted of 100 participants in Afgoi District, comprising 70 rural women farmers, 17 agricultural extension officers, and 13 local agricultural experts. The sampling frame was constructed from information obtained from local agricultural extension offices, relevant government institutions, community agricultural organizations, and farming communities within the district.

A stratified proportionate random sampling technique was applied to ensure adequate representation of each respondent category. Using Slovin's formula, $n = N/[1 + N(e)^2]$, with a 0.05 margin of error, the sample size was calculated as $n = 100/[1 + 100(0.05)^2] = 80$. Proportionate allocation yielded 56 rural women farmers (70%), 14 agricultural extension officers (17.5%), and 10 local agricultural experts (12.5%).

2.4 Data Collection Instrument

Data were collected using a structured questionnaire comprising five thematic sections: (1) respondents' demographic characteristics; (2) agricultural extension challenges; (3) economic constraints; (4) institutional support; and (5) recommendations for improving rural women's participation in agricultural extension activities. Survey items in sections (2)–(5) were rated on a five-point Likert scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree (Oso & Onen, 2008).

Content validity was established through expert review by one agricultural researcher and two agricultural extension specialists with experience in rural development and the Somali context. Minor revisions were made to improve the clarity and relevance of the questionnaire before data collection. The questionnaire was administered in person by trained research assistants to ensure accurate responses and completeness of the data.

2.5 Data Analysis

Quantitative data were analyzed using descriptive statistics, including frequencies, percentages, mean scores, and rankings. Mean scores were calculated for each Likert-scale item to determine respondents' levels of agreement and to rank the major agricultural extension challenges, economic constraints, institutional support factors, and proposed strategies for improving rural women's participation. Mean scores were interpreted using the following intervals: 1.00–1.80 = very low, 1.81–2.60 = low, 2.61–3.40 = moderate, 3.41–4.20 = high, and 4.21–5.00 = very high. Statistical analyses were conducted using Microsoft Excel and STATISTICA 8.

3. RESULTS

3.1 Demographic Characteristics of Respondents

Table 1 presents the demographic characteristics of the 80 respondents, comprising 62 females (77.50%) and 18 males (22.50%). Male respondents were included to capture broader agricultural stakeholder perspectives, and all responses were analyzed collectively using descriptive statistics. The largest age group was 27–33 years (32.50%), while most respondents were married (68.75%), and 47.50% had completed secondary education. These characteristics indicate that the respondents were in a position to provide informed perspectives on agricultural extension activities and on the challenges and opportunities relating to rural women's participation.

Table 1. Demographic Characteristics of Respondents (*n* = 80)

Category	Frequency	Percent (%)
Gender		
Male	18	22.50
Female	62	77.50
Total	80	100
Age group		
20–26 years	14	17.50
27–33 years	26	32.50
34–40 years	18	22.50
41–47 years	12	15.00
48+ years	10	12.50
Total	80	100
Marital status		
Single	25	31.25
Married	55	68.75
Total	80	100
Education level		
Primary	23	28.75
Secondary	38	47.50
University	19	23.75
Total	80	100

Table 2 shows that rural women farmers constituted the majority of respondents (70.00%), followed by agricultural extension officers (17.50%) and local agricultural experts (12.50%). Regarding work experience, most respondents had 5–7 years (36.25%), followed by 2–4 years (31.25%) and 8 or more years (25.00%), while only 7.50% had less than one year. These findings indicate that the sample was predominantly composed of rural women farmers, with most respondents having substantial agricultural experience.

Table 2. Respondent Category and Work Experience ($n = 80$)

Category	Frequency	Percent (%)
Respondent category		
Rural women farmers	56	70.00
Agricultural extension officers	14	17.50
Local agricultural experts	10	12.50
Total	80	100
Work experience		
Less than 1 year	6	7.50
2–4 years	25	31.25
5–7 years	29	36.25
8+ years	20	25.00
Total	80	100

3.2 Agricultural Extension Challenges

Table 3 shows that all three agricultural extension challenges recorded high mean scores. Limited access to agricultural information ranked first ($M = 4.05$), followed by lack of access to agricultural training ($M = 4.03$), while limited access to modern farming techniques ranked third ($M = 3.94$). The findings indicate that respondents perceived limited access to agricultural information, training opportunities, and modern farming techniques as major challenges. Overall, the results indicate perceived gaps in agricultural extension service delivery that may limit rural women's access to knowledge, improved technologies, and productive farming practices.

Table 3. Mean Scores and Ranking of Agricultural Extension Challenges ($n = 80$)

Variable	SA n (%)	A n (%)	N n (%)	D n (%)	SD n (%)	Mean	Rank
Limited access to agricultural information	37 (46.25)	29 (36.25)	0 (0.00)	9 (11.25)	5 (6.25)	4.05	1
Lack of access to agricultural training	34 (42.50)	31 (38.75)	3 (3.75)	7 (8.75)	5 (6.25)	4.03	2
Limited access to modern farming techniques	33 (41.25)	31 (38.75)	0 (0.00)	10 (12.50)	6 (7.50)	3.94	3

Note: SA = strongly agree; A = agree; N = neutral; D = disagree; SD = strongly disagree; n = frequency; percentages are shown in parentheses.

3.3 Perceived Economic Constraints

Table 4 presents the economic constraints. Lack of financial support for rural women farmers was rated $M = 4.19$, and limited access to agricultural inputs was rated $M = 4.18$. Both were perceived as important barriers. The difference of 0.01 is descriptive and does not indicate statistical significance. Institutional support is reported separately in Table 5.

Table 4. Mean Scores and Within-Construct Ranking of Economic Constraints ($n = 80$)

Variable	SA n (%)	A n (%)	N n (%)	D n (%)	SD n (%)	Mean	Rank
Lack of financial support for rural women farmers	41 (51.25)	28 (35.00)	0 (0.00)	7 (8.75)	4 (5.00)	4.19	1
Limited access to agricultural inputs	39 (48.75)	30 (37.50)	1 (1.25)	6 (7.50)	4 (5.00)	4.18	2

Note: SA = strongly agree; A = agree; N = neutral; D = disagree; SD = strongly disagree; n = frequency; percentages are shown in parentheses.

3.4 Perceived Institutional Support

Table 5 presents respondents' perceptions of institutional support. Availability of agricultural extension programs recorded $M = 3.44$ (within-construct rank 1), while government support for rural women farmers recorded $M = 3.38$ (rank 2). In each case 50 of 80 respondents (62.50%) agreed or strongly agreed, although substantial minorities disagreed. These measures reflect perceptions, not independently verified program availability or coverage.

Table 5. Mean Scores and Within-Construct Ranking of Institutional Support ($n = 80$)

Variable	SA n (%)	A n (%)	N n (%)	D n (%)	SD n (%)	Mean	Rank
Availability of agricultural extension programs	24 (30.00)	26 (32.50)	1 (1.25)	19 (23.75)	10 (12.50)	3.44	1
Government support for rural women farmers	21 (26.25)	29 (36.25)	0 (0.00)	19 (23.75)	11 (13.75)	3.38	2

Note: SA = strongly agree; A = agree; N = neutral; D = disagree; SD = strongly disagree; n = frequency; percentages are shown in parentheses.

3.5 Recommendations for Improving Rural Women's Participation

Table 6 shows that all proposed recommendations received very high levels of support, with mean scores ranging from 4.28 to 4.35. Improving access to agricultural credit and financial support ranked first ($M = 4.35$), followed by increasing women's access to modern farming technologies and inputs ($M = 4.33$). Strengthening government and NGO agricultural extension services ranked third ($M = 4.30$), while the provision of regular agricultural training programs ranked fourth ($M = 4.28$). Despite these differences in ranking, all four recommendations received very high levels of agreement. The relatively low combined disagreement rates, ranging from 8.75% to 12.50%, further indicate broad respondent support for these interventions as potential measures for enhancing rural women's participation in agricultural extension activities.

Table 6. Mean Scores and Ranking of Recommendations for Improving Rural Women's Participation ($n = 80$)

Variable	SA n (%)	A n (%)	N n (%)	D n (%)	SD n (%)	Mean	Rank
Improving access to agricultural credit and financial support	47 (58.75)	24 (30.00)	0 (0.00)	8 (10.00)	1 (1.25)	4.35	1
Increasing women's access to modern farming technologies and inputs	44 (55.00)	28 (35.00)	1 (1.25)	4 (5.00)	3 (3.75)	4.33	2
Strengthening government and NGO agricultural extension services	43 (53.75)	29 (36.25)	0 (0.00)	5 (6.25)	3 (3.75)	4.30	3
Provision of regular agricultural training programs	45 (56.25)	25 (31.25)	0 (0.00)	7 (8.75)	3 (3.75)	4.28	4

Note: SA = strongly agree; A = agree; N = neutral; D = disagree; SD = strongly disagree; n = frequency; percentages are shown in parentheses.

4. DISCUSSION

4.1 Agricultural Extension Challenges and Rural Women's Participation

The high mean scores for limited access to agricultural information, agricultural training, and modern farming techniques indicate that respondents perceive rural women in Afgoi District as facing important extension-related constraints. These findings are consistent with Adebayo and Worth (2024), Nyberg et al. (2025), and Odini (2014), who reported that limited access to extension information and training can reduce women farmers' ability to make informed decisions and adopt improved agricultural practices.

Notably, limited access to agricultural information ranked first among the identified challenges, although the difference from training was small. This suggests that access to timely and relevant information may be a particularly important concern for rural women in the study area. Overall, these perceptions resemble previous evidence showing that restricted access to information, training, and modern technologies can limit women's participation in agricultural extension activities (Rola-Rubzen et al., 2020; Tsige et al., 2020).

4.2 Economic Constraints and Institutional Support and Their Implications

The high mean scores for lack of financial support and limited access to agricultural inputs indicate that respondents regard economic barriers as major concerns for rural women farmers in Afgoi District. These findings are consistent with Mwalupaso et al. (2025) and Fletschner and Kenney (2014), who reported that limited access to finance can restrict women's investment in agricultural production and technology adoption. Similarly, Achandi et al. (2018) and Alta et al. (2021) identified limited access to agricultural inputs as an important constraint on women's productivity. These patterns address the second research objective.

Institutional support received comparatively lower ratings, with the availability of agricultural extension programs rated high and government support rated moderate. This pattern agrees with Cohen and Lemma (2011) and Siaw et al. (2024), who emphasized that effective extension services depend on institutional capacity and gender-responsive support. The responses reflect mixed perceptions of institutional assistance and do not independently confirm actual program coverage.

4.3 Recommendations for Improving Rural Women's Participation

The very high ratings for improving access to agricultural credit and financial support and increasing women's access to modern farming technologies and inputs indicate that respondents placed strong importance on financial and productive resources. These findings are consistent with Fletschner and Kenney (2014) and Amusan et al. (2021), who emphasized the importance of financial access for women's agricultural investment, while Diiro et al. (2018) and Pradhan et al. (2024) highlighted the role of productive resources and technologies in strengthening women's agricultural participation and productivity.

Strong support was also recorded for strengthening government and NGO extension services and providing regular agricultural training. This agrees with Buadi et al. (2013), Nalere et al. (2015), Siaw et al. (2024), and Odiro (2014), who emphasized the importance of effective extension services, training, and agricultural information. Notably, all recommendations received very high ratings, with low combined disagreement. These descriptive findings address the fourth research objective, indicating broad respondent agreement that improved financial access, technologies and inputs, extension services, and training should be prioritized to strengthen rural women's participation in agricultural extension activities.

4.4 Strategic Analysis: SWOT Assessment

The SWOT assessment is an interpretive synthesis of descriptive perception results and contextual literature, not an independent empirical test. Perceived weaknesses and recommended responses are grounded in survey ratings; claims about program presence, women's willingness, and institutional threats require independent field evidence. Accordingly, the SWOT framework is treated as exploratory.

<p>STRENGTHS</p> <ul style="list-style-type: none"> • Strong willingness of rural women to participate in agricultural activities • High support for training, credit access, and modern farming technologies • Recognition of the importance of extension services for improving livelihoods • Existing presence of agricultural extension programs in the district 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • Limited access to agricultural information • Lack of regular agricultural training opportunities • Limited access to modern farming techniques • Lack of financial support and restricted access to agricultural inputs
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Expand government and NGO agricultural extension services • Improve access to agricultural credit and financial support • Increase women's access to modern farming technologies and inputs • Provide regular training programs and awareness campaigns 	<p>THREATS</p> <ul style="list-style-type: none"> • Weak government support for rural women farmers • Inadequate coverage and continuity of extension programs • Persistent poverty and resource constraints • Limited institutional capacity to effectively reach women farmers

Figure 2. SWOT Analysis of Rural Women's Participation in Agricultural Extension Activities in Afgoi District

Note: Exploratory interpretation of the descriptive survey findings and relevant literature; not an independently validated empirical assessment.

The SWOT analysis (Figure 2) summarizes strong respondent support for agricultural training, improved credit access, modern farming technologies, and stronger extension services in Afgoi District. Nevertheless, limited access to agricultural information, inadequate training opportunities, restricted use of modern farming techniques, insufficient financial support, and limited access to agricultural inputs remain major constraints. Potential opportunities include expanding government and NGO extension services, improving access to agricultural credit,

providing regular training, and increasing the availability of modern technologies and productive inputs, consistent with recommendations in previous studies (Fletschner & Kenney, 2014; Priya et al., 2025; Siaw et al., 2024). At the same time, comparatively weak government support, limited extension coverage, persistent resource constraints, and institutional capacity gaps may hinder sustained improvement. Overall, the SWOT assessment highlights the need for integrated interventions that combine financial, technological, training, and institutional support to strengthen rural women's participation in agricultural extension and broader agricultural development in Afgoi District.

4.5 Study Limitations

This study has several limitations. First, the findings were based on respondents' perceptions rather than direct measurements of rural women's participation in agricultural extension activities, limiting causal interpretation. Second, the sample of 80 respondents, comprising 56 rural women farmers, 14 agricultural extension officers, and 10 local agricultural experts, was restricted to Afgoi District, limiting the generalizability of the findings. Third, the absence of documented reliability testing limits confidence in the questionnaire's measurement consistency. Furthermore, the descriptive statistical approach did not assess statistically significant relationships among variables, while the SWOT analysis was interpretive rather than independently validated. Finally, the sample included 18 male respondents (22.5%) alongside 62 female respondents (77.5%), and the findings represent the collective perceptions of all 80 respondents rather than women-specific responses; gender-specific inferences therefore cannot be drawn from the aggregated results.

5. CONCLUSION

This study examined respondents' perceptions of the challenges and opportunities associated with rural women's participation in agricultural extension activities in Afgoi District, Somalia. Limited access to agricultural information ($M = 4.05$), training ($M = 4.03$), and modern farming techniques ($M = 3.94$) were identified as important perceived challenges. Lack of financial support ($M = 4.19$) and limited access to agricultural inputs ($M = 4.18$) received the highest ratings among economic constraints. Regarding institutional support, the availability of agricultural extension programs ($M = 3.44$) was rated slightly higher than government support ($M = 3.38$).

Respondents expressed strong support for improving access to agricultural credit and financial assistance ($M = 4.35$), modern farming technologies and inputs ($M = 4.33$), government and NGO extension services ($M = 4.30$), and regular agricultural training programs ($M = 4.28$). These findings highlight perceived priorities for improving agricultural extension services in Afgoi District.

Future research could incorporate direct measures of rural women's participation, including attendance at agricultural training programs, frequency of contact with extension officers, and utilization of agricultural advisory services. Additional quantitative and qualitative studies could further explore respondents' perceptions of economic constraints, institutional support, and agricultural extension activities in Afgoi District, Somalia. Future studies should also use validated measurement instruments with documented reliability testing.

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