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RESEARCH ARTICLE

Access and Control of Resources by Rural Women in North Shewa Zone, Amhara Region, Ethiopia

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Abstract: Gender is one of the crosscutting and the prime importance of any development plan and intervention. Rural women play vital roles in agricultural activities to reduce poverty and food insecurity. This study focuses on gender equality in the access and control of agricultural and rural household resources by rural women. The study was conducted in Bassonawerana, Kewot, and Moretinajiru districts of Northern Shewa Zone Amhara region Ethiopia. Data were collected using individual interviews, key informant interviews, and focus group discussions. A total of 252 respondents were selected using purposive sampling, categorical, and then simple random sample selection techniques. Descriptive statistics and Harvard analysis techniques were used to assess the access, control, and utilization of agricultural and household resources in rural areas. Most of the respondents were married. 95% of the study households depend on agricultural activities of crop and livestock farming. The average family size was 5 in which 3 of them were involved in agricultural activities. The average level of education for the households was 2.5 years. Women were involved in on-farm and off-farm income-generating activities but most women had limited access to extension services and agricultural-related training. The benefits of different resources were shared by all family members equally except institutional resources. Poultry was predominantly owned by women while other livestock resources and land resources were owned by both men's and women's family members. Provision of women-targeted training and agricultural extension services focused on how to access and control institutional and household resources are vital to enhance their access to institutional resources and improve the production and productivity of women in the rural household and the entire community for livelihood and food security improvements.

Keywords: Access; Benefit; Control; Equality; Gender

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1. Introduction

Gender issues are of prime importance in the present time, in addition, access to and control over resources is a vital concern to think about it. Rural households depend on a wide range of agricultural resources and household assets for their livelihoods including land, water, trees, and livestock. Access refers to the ability to use and benefit from specific resources (material, financial, human, social, political, etc.) whereas control over resources also entails being able to make decisions over the use of that resource. According to Paul and Meena [1], access is referred to as a right and opportunity while control over referred to as the right and power over resources.

Access to production resources of land, extensions, and other institutional services ensures the reduction of poverty and food insecurity [2]. As FAO [3] explained, "If women in rural areas had the same access to productive activities as men, agricultural and farming production would increase, and could feed approximately 150 million more people."

Rural women play various roles in agricultural production to increase productivity and enhance economic growth and reduce poverty [4]. They participate along with the entire agricultural value chain activities, as producers, distributors, processors, and marketers [5]. Rural women were involved in farm and non-farm enterprises and covered 42% and 60% of labor demand respectively [6]. Data from the UN Food and Agricultural Organization [3] show that 43% of the agricultural workforce in developing countries and 50% in Asia and Africa is made by women.

The importance of agricultural resources and extension services is vital for rural women, while their access to resources and services is limited (*Farming First*) [7]. Women have less access to land and other factors of production resources than men [6]. Despite women making up the biggest workforce in food production, processing, and preparation, little is known about how women access and control production resources. Gender variation exists in agricultural-related information, training, improved technologies, and extension services.

Although awareness of the importance of gender equality in agricultural policies in improved trends, key gaps that inhibited the access to and control of productive resources predisposition resource ownership positions of rural women. Women received less access to extension services and production inputs than men [6]. In the production constraint assessment study, rural women lack access to and control of agricultural production resources [8]. This situation needs to assess the status of access to and control for the main production resources.

The study was conducted to assess the access to and control for the basic economic resources and services and the distributions of agricultural and household resources in rural households and to identify the available institutions contributing to empowering women's access to and control for production resources.

2. Methodology

2.1 Area Description and Sample Selection Methods

The study was conducted in Bassonawerana, Kewot, and Moretinajiru districts in the North Shewa zone of Amhara Regional state, central highland Ethiopia. The areas represented different farming practices and social and economic setups. Furthermore, the study areas represented different agroecology of high, low, and mid-altitudes.

2.2 Sampling Methods

The samples were selected using different approaches. The study areas were selected using purposive sampling methods and three kebeles were selected randomly from each study area. Households were grouped into married and single which were men and women-headed households. A total of 252 (181 married and 71 single) representative samples were selected in simple random sampling techniques (Table 1).

Table 1. Area characteristics and sample respondents by the study area.

District	Rural households		Sample selected	Temperature (°C)		Rainfall (MM)		Altitude (masl)	
	Male	Female		Min	Max	Min	Max	Min	Max
Bassonawerana	18859	10080	88	–2	20	950	1200	1500	3200
Kewot	9992	8778	85	13.3	29	600	900	1500	2500
Moretinajiru	14932	2253	79	18	32	850	1100	1340	2960

Source: Abiro et al. (2017).

2.3 Data Collection and Data Analysis Techniques

2.3.1 Data Collection

Both primary and secondary data were collected from published and unpublished resources. The primary (cross-sectional) data were collected using focus group discussions, key informant interviews, and individual interview techniques from the selected respondents with the survey instruments.

2.3.2 Data Analysis

The qualitative interview was analyzed using both deductive and inductive content analysis. The cross-sectional data were analyzed using STATA software package version 16. Descriptive statistics of mean, percentage, standard deviations, and frequency were used when necessary to evaluate the status of the most important study variables.

The most common gender analysis tools and frameworks (Harvard framework) Harvard gender analysis tool was used to evaluate and document the differences in the gendered access and control of resources of land, livestock, income, or extension information [9,10]. The Harvard analysis technique was used to identify the available resources and clarify who has access to resources and who controls their use in relation to the resources identified. Using the Harvard analysis method answered the questions that who has access to and control over resources and who has access to and control over benefits (training, income, education, or services) were answered.

The other gender analysis tool used for the study was Social Relations Framework or Social Relation Approach developed by Naila Kabeer. The tool was used to assess the extent of gender inequalities created, maintained, and reproduced in micro institutions (the household and community). The framework uses concepts rather than tools to concentrate on the relationships between people and their relationship to resources and activities—and how these are reworked through 'institutions' such as the households and community. The Social Relations Approach (SRA) is a method of analyzing gender inequalities in the distribution of resources and power for designing policies and programs that enable women to be agents of their development Useful gender analysis framework handbook [11,12].

Indexes were developed for the different resources available in rural households to identify the access and control over resources in the rural livelihood system particularly, whether by men, women, or jointly in the study areas. The results were reported concurrently based on the quantitative data and supported by the qualitative data in explanatory methods in narrations, tables, and figures.

3. Results and Discussions

3.1 Demographic and Socioeconomic Characteristics

The main family members in rural households include heads, spouses (for married), sons, and daughters. Those family members have definite labor contributions for on-farm and off-farm household economic activities. The primary family member who was respondents were 100 percent women. The second family member who was men was 88 percent. Of those 72 percent were couples in the married respondents and 16 percent were sons for the single respondents.

Socioeconomic characteristics and participation in agricultural activities

The rural women involved in agricultural activities and access to various resources, information, extension services, and technologies mainly influenced by marital status. The majority (72 percent) of them were married and live with their spouses. The remaining were single due to being divorced, widowed, and unmarried.

The average family size was 5 per household with a potential of 3 agricultural labor force (2 males and 1 female family member) involved in income-generating activities. The average level of education in years of schooling per household was 2.5 years (Table 2).

Age, years of living in the study area, and a number of people relayed for critical support. On average they lived about 25 years with a minimum of 1 and a maximum of 70. Most of them had relatives and non-relatives in their villages and outside their villages, and they believed in them during critical issues. Their average age was 39 with a minimum of 18 and a maximum of 70 was the productive and potential age for critical decision-making in household management and livelihood improvement (Table 3).

3.2 Dependence Status of the Community during Critical Challenges and Social Network

Most people relied on their relatives and non-relatives during critical issues to support their lives consistently. The majority did not rely on government support during agricultural production fallers. Half of them know and have relatives and friends in leadership positions to share new ideas and information (Table 4).

Table 2. Demographic characteristics and agricultural labor contribution.

Variables	Mean	St. Dev.	[95% Conf. Interval]
Average male family members involved in agriculture	2	0.08	1.68 - 2.02
Average female family members involved in agriculture	1	0.07	1.41 - 1.69
Average family size	5	0.11	5.18 - 5.61
The average level of education in the household in years	2.52	0.25	2.04 - 3.01
Years of experience in agriculture	20.14	0.65	18.86 - 21.42

Source: Own survey data analysis.

Table 3. Relatives and non-relatives people relayed critical issues

Variable	Mean	Std. Dev.	Min	Max
Age	39.04	11.02	18	70
Number of years living in this area	24.65	14.35	1	70
Number of relatives relay in critical issues in your village	6.69	13.28	1	100
Number of non-relatives relay to critical issues in your village	5.57	5.48	0	45
Number of relatives relay in critical issues outside your village	6.63	12.38	1	100
Number of non-relatives relay to critical issues outside your village	6.448	9.94	0	60

Source: Own survey data.

Table 4. People's dependence on others and the government during critical problems.

Dependence and social relationships	Response	Percent
Do you have peoples you can rely on for critical issues within this village	Yes	79.76
	No	20.24
Do you have peoples you rely on for critical issues outside this village	Yes	75.79
	No	24.21
Do you rely on government support during agricultural production fallers?	Yes	47.22
	No	52.78

3.2.1 The Social Groups and Their Most Important Functions

The most frequently observed group in which most rural women participated as ordinary members and officials was the funeral association in Amharic called "Edir" followed by saving and credit cooperatives and input supply farmers cooperatives. Most women are involved in the memberships of those social groups as a family of the member or independently (Figure 1).

The main functions of the groups were governed by the rules and regulations of the group bylaws. Edir provided burial services during the death of their relatives and group members. The cooperatives played an economic role in the provision of input, product marketing, and financial services of savings and credits (Figure 2).

3.2.2 Women Targeted Social Group and Members Relationships

Different women-targeted groups were established in the study areas for different purposes. Women association is the common women group that is open to memberships for all interested women and available at lower administration level in the study areas. Women league is the other women-targeted group composed of model women participants who have access to different exposures and are found in the front lines established in lower administration. Women federations which are the representatives of all women's associations and women league leaders in all areas by and available at the district level. Coalitions of the women's development team are the integration of different women's development teams. There are also

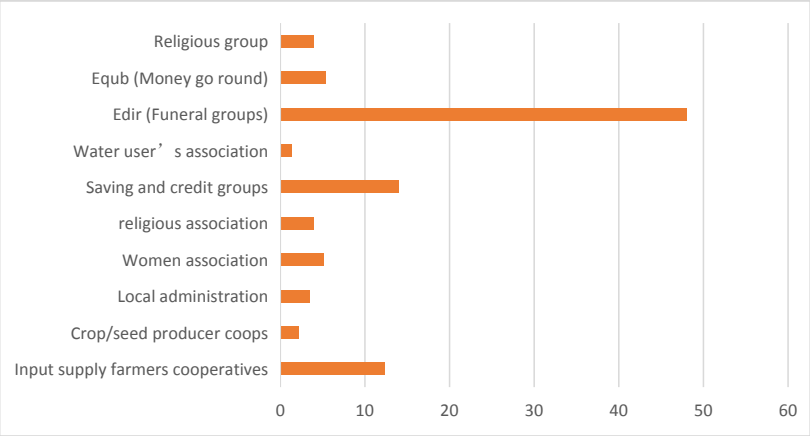

Figure 1. Types of the social groups most rural women participated.

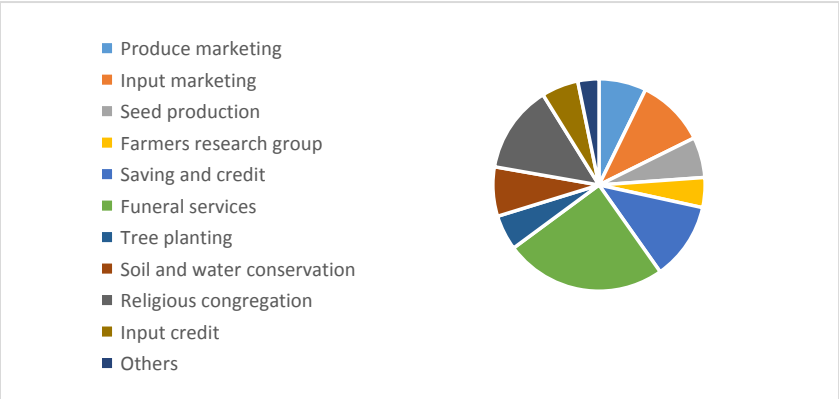

Figure 2. The most important functions of social groups.

other types of women-targeted groups such as one to five groups, development teams, and Common Interest Groups (CIG) particularly focused on girls and organized for the purpose of business operation on different economic activities.

Rural women and their family members participated in a social group as members of the community. They are also interested to continue their memberships in the groups in the future. Most of them had good social networks and share ideas with their relatives and non-relatives.

3.3 Access to, Control for, and Benefits Share of Different Resources

3.3.1 Household Resource

The major resources owned and controlled by the household in this research include land, trees, livestock, money in the bank, grain in the store, and household furniture. The benefits generated from the resources include rental income, market income, and products. The family members had access to and control over the resources and shared the benefits at different levels and proportions.

Access to household resources

Households owned different resources in different magnitudes. From the entire sample 179, 235, 231, 240, and 125 households owned trees, land, furniture, grain in the store, and cash in the bank, respectively. Though there was little dominance in some households, most of the household resources were accessed by the household members equally. No one had a priority to access those household resources. This study resulted in similar findings to Paul and Radha [13]. Relatively women had high access to grain and home furniture. There were few gender differences seen in access to some resources from the results (Table 5).

Control for and decision-making on household resources

Households made decisions on the various resources owned by different family members with different proportions. Women had high decision-making power to use the home furniture and grain in the store than men. Some resources like trees, land, and cash in the bank had power dominance of men's decision-making (Table 6).

Benefits share and use of household resources

In most households, all family members benefited from the household resources equally. The benefits of house-

Table 5. Access to household resources.

Who accesses the resources (ownership)?	Access to household resources (%)				
	Trees	Land	Furniture	Grain	Money
Predominantly men	12.85	11.91	2.16	3.75	13.6
Predominantly women	15.64	14.89	42.42	27.5	25.6
Exclusively men	0	0	0	0	0.8
Exclusively women	2.23	3.83	3.9	4.17	4.8
Men first	0	0.43	0	0	0.8
Women first	0.56	0.43	1.3	0.83	0.8
All family members equally	30.73	32.77	29.87	27.08	15.2
Husband and wife equally	37.99	35.74	20.35	36.67	38.4

Table 6. Control of household resources.

Who controls the resources in your household?	Household resources decision-making (frequency)				
	Trees	Land	Furniture	Grain	Money
Predominantly men	40	53	7	18	23
Predominantly women	39	50	115	88	36
Exclusively men	6	7	0	4	4
Exclusively women	16	23	29	26	9
Men first	8	13	0	5	4
Women first	5	6	10	9	6
All family members equally	4	11	12	7	3
Husband and wife equally	61	72	58	83	40

hold resources were shared with the family members when the resources are exchanged or sold for consumable items in the households. Some resources like money were owned by individuals and benefited those owners separately (Table 7).

3.3.2 Livestock Resources

The livestock resources found and considered for the analysis purposes include cattle (dairy cows, oxen, heifer, calf), small ruminants (sheep and goat), equines (horse, donkey, and mule), and poultry. Due to agrochemical effects, no one had a chance to own honeybee colonies. In this study majority had the livestock resources as 210 owned cattle, 178 owned shoat (sheep and goat), 159 owned equines, and 202 owned poultry.

Access to and ownership of livestock resources

The livestock resources are owned and controlled by the household family members with different proportions. The chicken was the only resource in which 44 percent of it was predominantly owned by women while other livestock resources were owned by both men and women (Table 8).

Control for and decision-makers on livestock resources

Women's predominantly made decisions on poultry. The couples (husband and wife) had a high rate of equal decision-making power on the livestock resources. However, in some men-headed households' men had a priority decision-making power on most livestock resources excluding poultry (Table 9).

Table 7. Benefits from household resources.

Who benefited from household resources?	Household resources decision-making (frequency)				
	Trees	Land	Furniture	Grain	Money
Predominantly men	3	0	2	0	3
Predominantly women	5	7	19	10	7
Exclusively men	4	1	0	1	1
Exclusively women	3	8	8	9	4
Men first	0	2	1	0	1
Women first	0	0	2	2	0
All family members equally	122	161	155	162	75
Husband and wife equally	45	56	44	56	35

Table 8. Access to livestock resources.

Who accesses the different livestock resources? (ownership)	Access to different livestock resources (frequency)			
	Cattle	Sheep and goat	Equines	Chicken
Predominantly men	20	12	13	1
Predominantly women	19	28	15	88
Exclusively men	0	0	1	0
Exclusively women	3	4	3	9
Men first	0	0	0	0
Women first	2	2	1	5
All family members equally	72	65	59	50
Husband and wife equally	94	67	67	48

Table 9. Control on livestock resources.

Who controls the different livestock resources?	Control of different livestock resources (%)			
	Cattle	Sheep and goat	Equines	Chicken
Predominantly men	13.33	10.11	10.06	1.49
Predominantly women	17.14	24.16	18.24	56.72
Exclusively men	2.38	1.12	2.52	0
Exclusively women	6.67	7.87	5.66	13.93
Men first	3.81	2.81	3.14	0.5
Women first	2.38	1.69	1.89	7.96
All family members equally	5.24	6.18	8.81	2.49
Husband and wife equally	49.05	46.07	49.69	16.92

Benefits from livestock resources

All family members had a great share of benefits from all livestock resources. In some paired households, the spouses and partners had a relative benefit share from the livestock resources beyond their sons and daughters (Table 10).

3.3.3 Institutional Service Provider Resources

The institutional and service provider resources have significant contributions to improve the triple roles of women in production, reproduction, and social roles involvement. These resources were identified by the community and used for the analysis. The resources include household decisions, agricultural technologies, political power, and extension services.

Access to institutional service provider resources

Many of the rural households had access to different institutional services. The agricultural extension support was accessed for 93 percent through training and experience-sharing visits. The majority 99.6 percent of them have access to participate in the household decision, the access to improved technologies weighted 92 percent and nearly 64 percent of the households had access to participate in political power.

Table 10. Benefit share from livestock resources.

Who benefited from the livestock resources products and income? (When sold)	Benefit share from the livestock resources (%)			
	Cattle	Sheep and goat	Equines	Chicken
Predominantly men	0.95	0.63	1.26	0
Predominantly women	0.95	1.12	1.26	8.96
Exclusively men	0	0.63	0	0
Exclusively women	1.43	2.25	1.26	3.98
Men first	0	0	0	0
Women first	0.48	0.63	0.63	1
All family members equally	70.95	73.6	69.81	64.18
Husband and wife equally	25.24	21.35	25.79	21.89

Men and women had equal access to political power and household decision. Women had relatively low access to improved technologies. Single women had access to agricultural extension services compared to married women (Table 11).

Control for and decision-making roles on institutional resources

Different institutional resources are controlled by the household family members with different magnitudes. Men and women had the predominant decision power to use extension support services. Relatively men had a large share of control power over improved technologies. Women also had higher decision power on political power and household decisions. Most household decisions are also exposed to participatory or shared approaches (Table 12).

Benefit share from the institutional resources

Husband and wife benefited equally from the extension support but not for the boys and girls who are actively engaged in agricultural production activities. Most of the family members benefited from the household decisions. The improved technologies benefited women because the technologies improved the productivity of most of the agricultural products managed by women and should be accepted by them (Table 13).

3.3.4 Access to Extension Support Services and Information

The majority (75 percent) of the women accessed extension services either by themselves or through their family members. The major extension support services identified and provided to the rural households were training, advice, and consultancy. These services were accessed predominantly by household heads. This agreed with the findings [14]. Sons and daughters accessed training rarely for business operations (Figure 3).

Table 11. Access to institutional resources.

Who accesses the services from the institutional resources?	Access to the institutional resources (frequency)			
	Extension support	Household decisions	Improved technologies	Political power
Predominantly men	58	34	70	54
Predominantly women	66	62	54	54
Exclusively men	1	1	0	0
Exclusively women	12	15	11	3
Men first	7	1	7	5
Women first	4	2	3	1
All family members equally	39	43	40	9
Husband and wife equally	47	93	46	34
Total	234	251	231	160

Table 12. Control of family members for different institutional resources in percent.

Who controls (makes decisions) to get the services from institutions?	Control power of the institutional resources (%)			
	Extension support	Household management decisions	Improved technologies	Political participation
Predominantly men	27.78	12.75	30.3	28.75
Predominantly women	27.78	23.11	22.08	35
Exclusively men	0.85	1.99	1.3	5
Exclusively women	9.4	11.16	9.52	5
Men first	6.84	3.19	5.63	5
Women first	4.27	2.79	3.46	2.5
All family members equally	2.56	3.98	3.9	0.63
Husband and wife equally	20.51	41.04	23.81	18.13
Total	100	100	100	100

Table 13. Benefits of institutional resources.

Who benefits from (used) the services of institutions?	Benefit share from the institutional resources (%)			
	Extension support	Household management decisions	Improved technologies	Political participation
Predominantly men	6.84	0.4	4.76	8.13
Predominantly women	6.84	4.38	3.46	10
Exclusively men	0	0.56	0	0.63
Exclusively women	9.4	3.98	2.6	1.88
Men first	2.99	0	0.43	2.5
Women first	1.28	0.8	64.94	0.63
All family members equally	0.43	64.14	23.81	43.75
Husband and wife equally	58.12	26.29	2.6	32.5

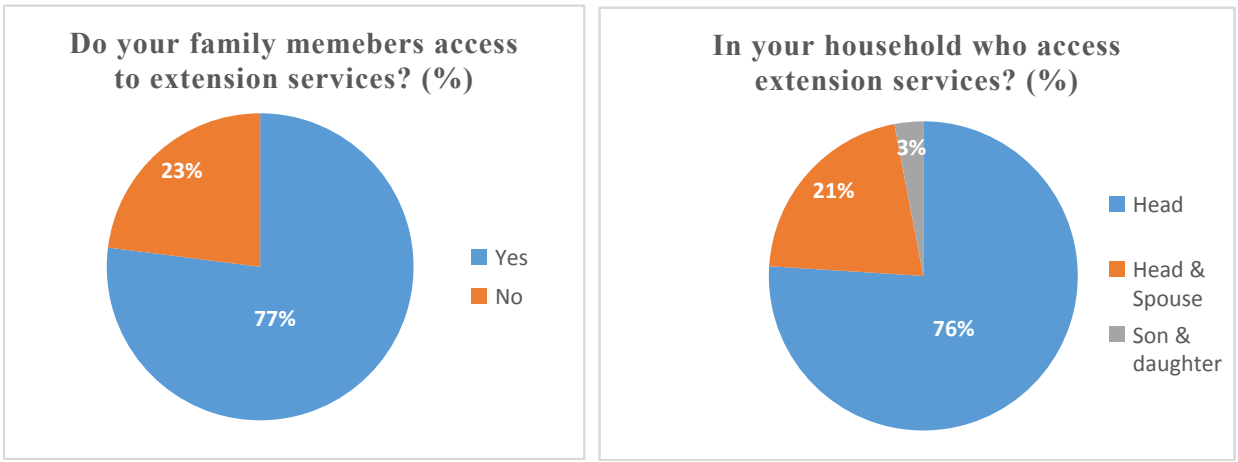

Figure 3. Access to extension services and family members addressed for extension services.

Frequency of extension contacts

The majority accessed extension services monthly and every three months. Few of them contacted extension service providers every six months and others communicated weekly (Figure 4).

Market information access

Most of them had access to market information to sell their produce and buy farm inputs. Most (87 percent) had access to market information when purchasing farm inputs of improved seed and fertilizer and 76 percent accessed the market information when selling farm outputs.

Many (92 percent) of the women used radio, phones, and television to access information and new ideas from different sources. Some of them used combinations of various media types.

3.4 Women's Supportive Institutions and Contributions

Various public institutions and organizations supported women to empower gender capacity targeted to development support. Some of those focused on gender issues and others mainstreamed the gender issues in the intervention. From those institutes, women and child affairs is an independent public institution responsible to support women in advice, capacity building (provision of training), organizing of women in different groups and associations, and monitoring and following up on women's targeted interventions and action plans across all sectors.

Others mainstreamed gender issues in the entire staff. These are the offices of agriculture and police and justice. The office of agriculture gender experts is responsible to

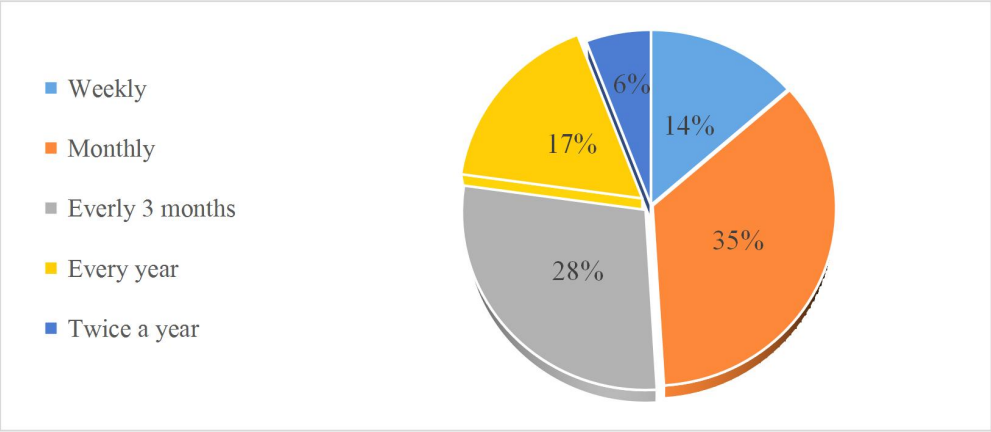

Figure 4. How frequently of households contacted to extension service providers (percent).

support women in agricultural-related services of training, input access, monitoring, and follow-ups. The office's justice and police allocated individuals to follow women's cases in all legal issues and the focal persons are women it makes easy to discuss criminal cases and women are confident to discuss with them. In addition, gender command posts were established at the district and kebele (lower administration) levels. The command post is led by vice heads of the district and the kebele chairmen targeted to support women in all cases.

3.5 The Gender Needs

The practical gender needs particularly focused on women include pure water, school, grain mill services, and market infrastructures. The status of the gender needs found in the study areas found relatively in excellent conditions. Farmers perceived the status of the extension services and agricultural training delivered by different actors found in good conditions. Health service provider institutes are also found in good status in both access and quality service delivery. The gender needs of labor-saving technologies were not available and were in poor conditions (Figure 5).

3.6 Gender-targeted Challenges in Rural Women

Major challenges were the venerability of women for labor abuse, social frustrations, and biasedness. Gender is one of the cross-cutting issues to be addressed in all aspects of the study area but the focus to address all the issues was low.

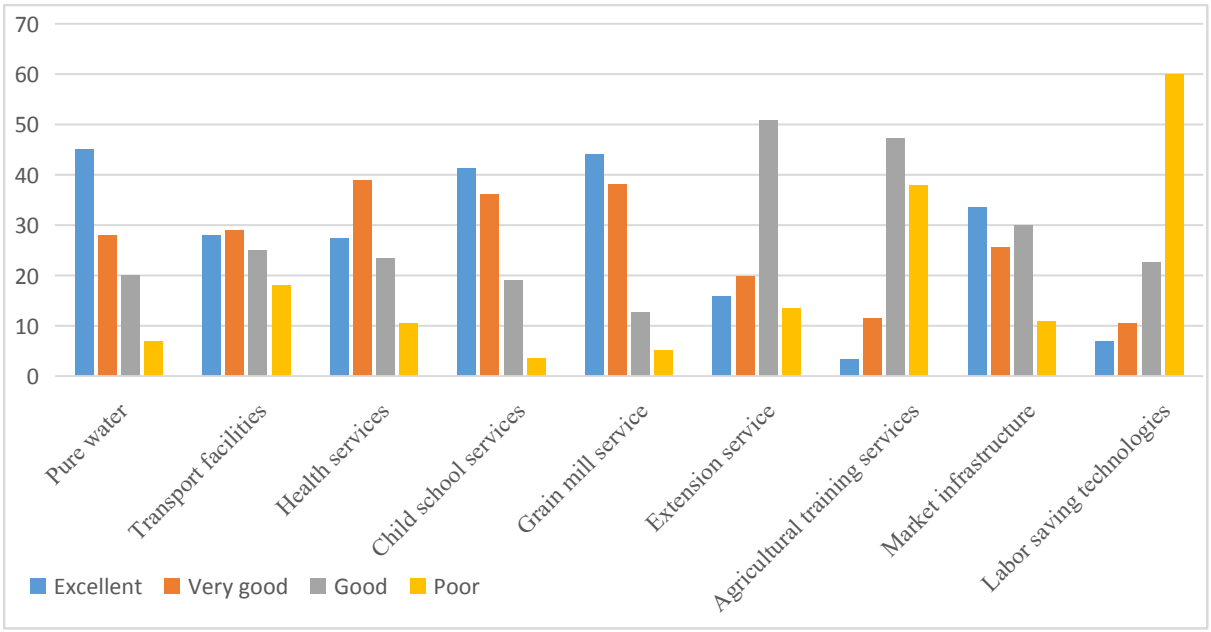

Figure 5. Practical development of gender needs and their status.

Though there was the availability of affirmative action in all development approaches, women were not well competent due to the lack of a conducive environment for competition.

Low wage prices for women laborers, low achievement (57-60 percent) of women-targeted activity plans, low attention, and commitments of political leaders at the lower level, and less attention for women in resource distribution during the separation of marriages.

4. Conclusions and Recommendations

The resources accessed and controlled in rural households by different family members in different proportions. From the livestock resources, poultry was the only livestock resource predominantly owned by rural women while other livestock resources were owned by both men and women family members. The decision for the livestock resources was made by husband and wife equally for the male-headed households.

Rural women are involved in different agricultural production activities to increase productivity and food security. Many women were involved in off-farm income-generating activities in addition to agricultural activities.

Various institutes supported women in capacity building, legal protection, advisory services, and women empowerment. Different household resources were owned by various family members in different proportions and controlled by the resource owners. The benefits are mostly shared by all family members equally.

Women participated in various social groups available in their areas. Women association was the only women-targeted group available in all study areas with open membership for all women.

Most of the extension programs targeted household heads which are mainly men while the women, girls, and boys had less access to agricultural extension supports and services.

The provision of women-targeted agricultural production and off-farm business management activities related to training and extension service is very important to improve women's production and resource productivity.

Awareness creation for both men and women on access, control, and use of agricultural resources for women is very important to improve the decision-making power of women in the household and the community.

Author Contributions

The first author contributed to proposal development, research design, instrument development, team coordination, data collection, data management, data analysis, and report writing. The second and third authors contributed to data collection and report writing.

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Conflicts of Interest

There are no conflicts of interest.

References

[1] Paul, P., Meena, B.S., 2016. A study on access to and control over resources: A gender perspective. International Journal of Science, Environment, and Technology. 5(5), 2982-2988.

[2] Monitoring, Evaluation, Learning (MEL) Framework [Internet]. Available from: https://www.seforall.org/sites/default/files/SEforALL_MEL_0.PDF

[3] FAO, 2011. The State of Food and Agriculture: Women in Agriculture [Internet]. Available from: https://www.fao.org/3/i2050e/i2050e.pdf

[4] Sraboni, E., Malapit, H.J., Quisumbing, A.R., et al., 2014. Women's empowerment in agriculture: What role for food security in Bangladesh? World Development. 61, 11-52.

[5] Jafry, T., Sulaiman, V.R., 2013. Gender inequality and agricultural extension. The Journal of Agricultural Education and Extension. 19(5), 433-436.

[6] Buehren, N., Gonzalez, P., Copley, A., 2019. What Are the Economic Costs of Gender Gaps in Ethiopia? Gender Innovation Policy Initiative. Available from: http://hdl.handle.net/10986/31441

[7] Suboh, L., 2022. Farming First [Internet]. [cited 2022 Mar 8]. Available from: http://www.farmingfirst.org/women

[8] Tigabie, A., Chanyalew, Y., Wondale, L., et al., 2018. Participatory agricultural production system analysis: Implication for research and development intervention in North Shewa zone. Available from: https://www.academia.edu/66412403/Participatory_Agricultural_Production_System_Analysis_Implication_for_Research_and_Development_Intervention_in_North_Shewa_Zone?from_sitemaps=true&version=2

[9] Women in Agriculture: Closing the Gender Gap for Development and World Hunger [Internet]. Available

from: https://www.newsecuritybeat.org/2011/06/women-in-agriculture-closing-the-gender-gap-for-development-and-world-hunger/

[10] March, C., Smyth, I.A., Mukhopadhyay, M., 1999. A guide to gender-analysis frameworks. Oxfam: Oxford.

[11] Useful Gender Analysis Framework [Internet]. [cited 2022 Mar 3]. Available from: https://eugender.itcilo.org/toolkit/online/story_content/external_files/BB6.pdf

[12] Fletcher, A.J., Schonewille, R., 2015. Overview of Resources on Gender-sensitive Data Related to Water. Available from: https://unesdoc.unesco.org/ark:/48223/pf0000235389?posInSet=1&queryId=f193450c-9a56-45c3-af8d-a51f7e78109a

[13] Paul, M.M., Rani, P.R., 2001. Gender differences in access to and control over farm resources. Agriculture and Human Values. 18(1), 5-9.

[14] Umeta, G., Lemecha, F., Mume, T., 2011. Survey on women's access to agricultural extension services at selected districts of Mid Rift Valley of Ethiopia. Journal of Agricultural Extension and Rural Development. 3(3), 51-63.