



Full Length Research Paper

**Women’s Participation in Agricultural Extension Services: Challenges and Opportunities in West Gojjam Zone, Amhara Region, Ethiopia**

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**Abstract**

*The study was conducted to assess the challenges and opportunities of women’s participation in agricultural extension services in Jabithenan and South Achefer Woredas of Amhara Region, Ethiopia. Using a simple random sampling technique, 225 sample respondents were recruited. Quantitative data were collected using questionnaires. Eleven participants from each woreda were randomly selected for FGDs. Besides, a total of four subject-matter-specialists, six development agents, and two socio-economists were treated as key informants. Data were analyzed using descriptive statistics and thematic analysis. The results indicated that women’s participation was jeopardized by socio-cultural factors. The major ones were women’s lack of self-worth, development-agents gender biasedness’ and the community’s doubt on women’s capacity. The foremost institutional and organizational impediments were the weaknesses of “one-to-five” and “farmers development-groups”, the unjustifiable intervention of superiors in the tasks of development-agents, and the absence of community rules and bylaws for joint couples’ participation. The major economic hindrances were the expensiveness of agricultural inputs, short-age of draft oxen, and low income. Political obstacles that affected women’s participation were the excessive focus on model farmers, women’s under-representation in kebele administration, and the low dedication of women’s league, and civil societies working with women. Women’s participation was also affected by their perception, distance from the main road, and type of household. Despite the measures taken over the years by the government to make them beneficiaries, lots of work is still required to address many of the hindrances that affect their participation in agricultural extension services in the study areas.*

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Introduction

Women make an essential contribution to the

agricultural economies in all developing countries. They represent over half of the agricultural labor force in Sub-Saharan Africa. Their substantive contribution to agriculture and their vital role in ensuring family food security have been widely documented. More than 60% of all employed women in Africa south of the Sahara work in agriculture (Ruth, 2019). Similarly, in Ethiopia rural, women take the leading role in agricultural activities, making up to 60-80% of the labor force (Central Statistics Authority, 2008). Women play a significant role in the country's agriculture where they are responsible for a large part of the labor in producing cereals, pulses, and livestock, particularly small ruminants, and poultry. However, the majority of the work done by women tends to be economically "invisible." Consequently, their important role is not translated into equality of opportunities, especially in getting access to productive resources such as improved seeds, vital output markets to sell their goods, and services such as training as compared to their male counterparts (ATA, 2013).

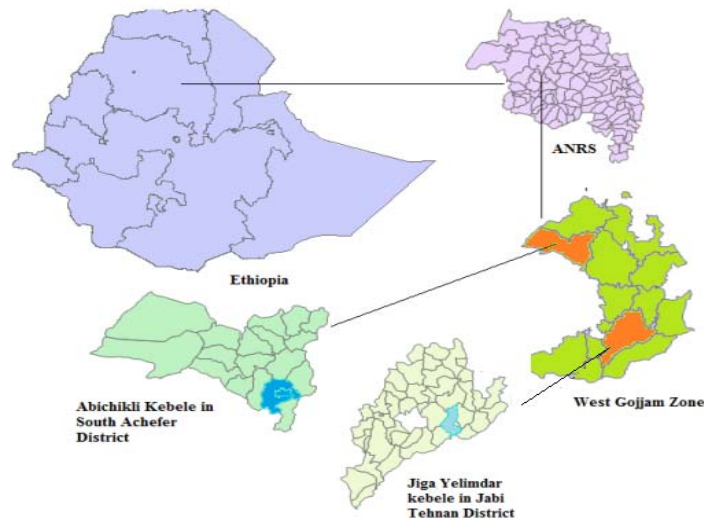
Thus, this study was conducted in Jabitehnan and South Achefer Woredas with the objectives of finding out the socio-cultural, economic, political, institutional and organizational challenges hindering and the opportunities enabling women farmers' participation in agricultural extension services and FREG.

After a thorough study of the constraints, gap-filling recommendations have been suggested to administrators, development practitioners, researchers, development agents, and others working to improve women farmers' participation in agriculture for the betterment of their livelihoods.

## **Materials and Methods**

### **Description of the Study Areas**

The study was conducted in Jigayelmdar and Abchikli Kebeles of Jabitehnan and South Achefer Woredas of the Amhara Region, respectively. Jabitehnan is one of the fourteen woredas of West Gojjam Administrative Zone. It is located 180 km due south from the regional capital i.e. Bahir Dar and 350 km north from the country's capital Addis Ababa. The administrative center of the woreda is 'Finoteselam'. The total area of the woreda is estimated to be 1,169.54 km or 116,954 ha. The district is divided into 37 rural 'kebeles', one of them namely 'Jigayelmdar' is selected as one of the research sites. Similarly, South Achefer Woreda is one of the fourteen woredas of West Gojjam Administrative Zone located 60 km away from Bahir Dar town in the southwestern direction and 505 km away from Addis Ababa on the road to the regional capital. The town of the woreda is named as "Abchikli". The total geographical area of the woreda is about 118,228 ha. It is divided into 18 rural and 2 urban kebele administrations (CASCAPE, 2011).



**Figure 1:** Location map of the study areas.

The woredas were purposively selected mainly for their potential in crop and live-stock production. Moreover, they were selected as they had been intervention areas of research centers, NGOs (such as ENGINE), and projects which had been collaboratively working with ARARI.

### Methods used

A mixed research approach was employed for this study. Therefore, a semi-structured questionnaire was used to generate quantitative data from respondents, while focus group discussions (FGDs) and key informant interviews (KIIs) were used to solicit qualitative information from discussants on the challenges, opportunities, and benefits of women's participation in agricultural extension services. The latter two were used to increase the validity of the data collected through a quantitative survey.

### Sample size and sampling techniques

The sample size for the quantitative study was determined using Cochran's (1977) mathematical formula taking into account the total number of samples (households) required for the study. The total sample size

was 190 (Both Female-Headed-Household/FHH and Women in Male-Headed-Household/WMHH respondents). The sample size for each kebele was determined proportionally using the total number of households in the kebeles (Jigayelmdar 814 and Abchikli 1917) and the aggregate number of households of the two research areas (2731).

$$n = \frac{N}{1+N(e)^2} \quad \text{Where:}$$

n- Designates the sample size used in the research;

N - Designates total number of households (HHs) in both kebeles assuming that women in all HHs are affected by the issue;

e- Designates maximum variability or margin of error 5% (.05);

1- Designates the probability of the event occurring.

The sample size was determined based on the above formula. However, in addition, 35 samples were taken with the presumption of increasing the accuracy of the data that would be generated by the quantitative study. Thus, a total of 225 samples from the two kebeles (75 in WMHHs and 42 in FHHs in Jigayelmdar kebele and 72 in WMHHs and

36 FHHs in Abchikli kebele) were taken considering the total HHs in the kebeles. Respondents from the two kebeles were chosen based on a systematic random sampling technique. On the other hand, a total of 22 WMHH and FHH survey participants (11 from each kebele) were selected for FGD in the two study areas. Two subject-matter specialists (SMSs) and three development agents (DAs) were selected from each kebele as key informants based on their roles and responsibilities in the extension system. Similarly, two socio-economists from Adet and Andassa research centers were considered as key informants.

**Data Analysis**

**Table 3:** Types of respondents, educational level, and religion of all samples

	Frequency	Percentage
Sex of Respondents		
Female	225	100
Types of Households		
Married Women (MHH)	147	65.3
Divorced, Widowed, Separated (FHH)	78	34.7
Educational level		
Can't read and write	165	73.3
Can read and write	10	4.4
1-4	22	9.8
5-8	22	9.8
9-10	4	1.8
Above 11	2	0.9

From Table 2, it can be construed that the mean age and family size of the respondents in both research domains are 37.9 and 5.0, respectively. The average farm size of the HHs is 1.5 hectares and the maximum average livestock holding for cattle and chicken is 4.4 and 6.2 heads, correspondingly. Likewise,

Descriptive statistics such as percentage, frequency, mean and standard deviations were used to analyze the quantitative data. Thematic analysis was used to analyze and describe the cases raised during the FGDs and KIIs. The data collected through FGDs and KIIs were used to increase the validity and trustworthiness of the quantitative results.

**Results and Discussion**

**Socioeconomic Condition of Women**

**Farmers**

Among the respondents, 65.3% were women in married households (WMHHs) while 37.3% were divorced, widowed, or separated women (FHHs). The majority (73.3%) of them couldn't read and write (Table 1).

the mean family size and mean farm size of MHHs and FHHs are 5.4 and 4.2 and 1.5 and 1.4, respectively. Besides, the average number of cattle and chicken holding of women in MHHs and FHHs is 5.4 and 2.3 and 6.9 and 4.9, respectively.

**Table 2:** Demographic and asset holding by household type

	MHH	FHH	Sample HH (both FHH & MHH)
Mean age	-	-	37.9
Mean family size	5.41	4.20	5
Mean household farm size (ha)	1.52	1.41	1.5
Mean livestock holding			
Cattle	5.44	2.29	4.4

	MHH	FHH	Sample HH (both FHH & MHH)
Sheep	2.12	1.06	1.8
Goat	0.05	0.17	0.1
Chicken	6.93	4.88	6.2
Bee colonies	0.55	0.14	0.4
Equines	0.34	0.10	0.3

### Disparities between FHH and MHH in Extension Services

Like any other parts of the region, agricultural extension services in the woredas included the provision of credit, training, house-to-house advisory services, experience-sharing visits, and the facilitation of the distribution of inputs such as improved seeds, and chemicals. Moreover, farmers were given the chance to take part in demonstration field days organized at farmers' training centers (FTCs) and on the farmer's field where they make themselves familiar with the technologies under experimentation. Cognizant of this, trainings were provided at FTCs; experience-sharing visits were conducted within and outside the kebele. Inputs and improved seeds were distributed from cooperatives to the farmers through development groups and development agents. Credit was arranged by the kebele and woreda offices of agriculture or in consultation with cooperatives, while house-to-house advisory services had been given directly by development agents.

The FGD result revealed that both MHHs and FHHs did not fully utilize the agricultural extension services rendered by the kebele offices of agriculture. Unlike their male counterparts, women often fail to take part in trainings, demonstration field days, and experience sharing visits because they are given less attention than men by DAs. This corroborates the results of the study by Cohen and Lema (2011) that shows the bias of extension service delivery toward men

stems from the belief that men are the decision-makers and women are marginal farmers. Nonetheless, discussants indicated that FHHs were treated better than married women. They were receiving technologies and inputs through their husbands while FHHs did by themselves like that of their male counterparts. Compared to FHHs, only small proportions of married women used the agricultural extension services and also utilized them less frequently mainly due to socio-cultural reasons; illiteracy; lack of confidence and self-worth, DAs, and SMSs (experts) biasedness towards male farmers. It was indicated that women have been culturally hindered from using the agricultural extension services equally with that of men. Consequently, it was male farmers who in most cases were invited for trainings, experience-sharing visits, and demonstration field days.

According to SMSs in Abchikli, goals had been set every year to enhance women farmers' participation in agricultural extension services, but they had not been achieved and attempts had not been made to identify the root causes of the failure and their possible solutions. However, this study discovered that married women's disinterest to attend trainings; undervaluation of their contribution and the conception that the change they bring is insignificant have affected their participation in agricultural extension services. Likewise, women's belief that their spouses' participation is enough and has nothing to do with the trainings; husbands' refusal to let their wives attend trainings has limited

women's partaking in services. Male farmers were familiar with DAs as they spend much of their time on the farm, neighborhood, public meetings, and/or even in the local pot-houses.

Men were always at the front position in the extension system since they were seen as the head of the family; hence they participated in the trainings, experience sharing visits, and field days. The stereotype that women are born for domestic work has adversely affected their right to use the above-mentioned services. Thus, from the SMSs' point of view, it can be deduced that wives' participation was negligible when compared with men and even with FHHs. This result conforms with the result of Tarekegne and Dessie (2020) that show women who are widowed and divorced are participating in the training services rendered by DAs whilst other women farmers who are husbanded and bachelorettes are ignored. Similarly, the key informants have underscored that FHHs benefit the least from the services compared to men and sometimes are marginalized practically. This finding corroborates the research result of Abebe *et al.* (2017) which depicts that FHHs were worse than men in terms of education and participation in meetings, trainings, and demonstration field days among others.

### **Constraints Affecting Women's Participation in Agricultural Extension Services**

#### **Socio-cultural constraints**

As it can be construed from table 1 and 3, illiteracy (73.3%); women's low self-esteem, their belief husbands are heads of the family (contrary to the new FDRE family code Article: 50 which depicts joint management of family) (92.4%); the community's belief that women are incompetent and are born for domestic chores (88%); lack of self-worth of women, their belief that they are born for

bearing, and raising children, as well as doing all other domestic activities (76.9%) have contributed significantly for discriminatory extension services. Besides, the gender insensitiveness of most DAs and researchers, and their preference to work with men whom they believe are assertive, fast, and easy to work with (72.4%); lack of cooperation and sharing of responsibilities between husbands and wives (64%) and the acting of men as heads of the family having all decision-making authority (63.6%) were also the socio-cultural constraints that contributed for inequitable extension service delivery.

On the other hand, the KII results showed that in the previous years it was difficult for male DAs to deliver extension services to women farmers in the kebeles. This problem stems from the society's tradition that discourages the opposite sexes to work together with freedom. This finding agrees with the results of Croppenstedt *et al.* (2013) which states that social norms prevent women's mobility to ask the extension officer for advice or prevent women from speaking with a male without her husband's presence.

This qualitative result is further confirmed by Drucza and Tsegaye (2018) and Lema *et al.* (2018) that due to their gender bias and/or limited gender capacity, male extension agents often fail to invite women in MHHs to discussion during home visits. Husbands also do not invite their wives to discussions when DAs visit their homes. Moreover, they may not allow their wives to participate in extension events even if women are purposefully invited. In connection to this, Mr. Solomon Matentu, a subject matter specialist at Jabitehanan woreda agricultural office strengthened the idea as follows:

*A husband makes sure that his wife is not talking to a male development agent in his yard. Coming out from*

*the house, a husband asks to whom his wife is talking; if he noticed that she is talking to a man in this case – a male development agent, then he would immediately dismiss her and take over the conversation. But if the development agent is a female, he*

*would let his wife keep on her discussion.*

Nevertheless, with the elapse of time and attitudinal change of farmers, the problem has become less serious and as a result, its adverse effect has been declining though still persistent.

**Table 3:** Socio-cultural reasons contributing to discriminatory extension services (N = 225)

Reasons	No. and percent- age of respondents replied
	Yes (%)
Lack of cooperation, and sharing of responsibilities between the couples	64 (144)
The community's belief that women are incompetent and are born for domestic chores	88 (198)
Most development agents are not gender-sensitive and they prefer to work with men whom they think are assertive, fast, and easy to work with	72.4 (163)
Lack of self-worth of women and their belief that they are born for bearing, and raising children, and doing all other domestic activities	76.9 (173)
The act of men as head of the family having all decision-making authority	63.6 (143)
Women's low self-esteem, their belief husbands are heads of the family	92.4 (208)
Busyness with domestic activities	30.7 (69)

### **Institutional and organizational constraints**

With respect to institutional and organizational constraints affecting women's participation in agricultural extension services, respondents have confirmed that the minimal number of female DAs has been one of the hurdles that significantly affected women's participation in the agricultural extension services. Over 50% of the respondents revealed this as a good reason affecting their participation in agricultural extension services. This result agrees with FAO (2011) that the past failures of government extension services to reach women farmers and the cultural bias which has, in many countries, prevented women from active participation in extension services and the fact that the agencies for these services have been predominantly dominated by men – only 15% of extension workers were women. Added to this result Ragasa *et al.* (2012) have further affirmed that in Ethiopia MHHs are about 5 times more likely to be visited

by DAs compared to female heads of households.

Despite the pivotal roles the networks of “one-to-five” and “farmers development groups” play (“one-to-five” is a small group of farmers consisting of a model farmer as a chairperson, a secretary, and 3 other members whereby they plan, execute and evaluate their activities; learn from each other and acquaint themselves with new technologies and/or best practices every three days in a week. A “development group” is a large group of farmers consisting of 20-30 members. These organizations were not strong as that of men's groups because of lack of diligence of women members to attend meetings and their choice to stay at home on the pretext of workload (83.8%), lack of commitment of leaders (74.3%), and the unwillingness of husbands to let their wives attend meetings (21.2%). This research result conforms with the finding of Cohen and Lema (2011) which affirms that many rural women are illiterate and are not used to express

ideas publicly in a male-dominated society and husbands often discourage their wives from participating in public meetings. Concerning institutional setup, regular and modular trainings (regular trainings: shorter trainings are given below 3 months usually a day, or two days; modular trainings: given for 3 consecutive months) are given at farmers' training centers depending on their nature and urgency. Trainings on different pressing issues of agriculture were usually shorter than modular training programs. Furthermore, FTCs were sites of field days whereby different agricultural technologies were demonstrated to farmers. However, as per the key informants, the centers had not been functioning as such based on the establishment of their purpose because of the shortage of teaching aids, facilities, budget, and accredited trainers (DAs). The failure of many DAs to pass through the center of competence has been recognized as one of the reasons for the inefficiency of FTCs and hence they provided short training that covered a day or two. In terms of attendance of trainings, it is men who were at the forefront followed by FHHs; married women were the least beneficiaries of trainings organized by woreda/kebele offices of agriculture. This result also harmonizes with the finding of Lema and Tesema (2016) which emphasizes that culturally, the man is the head of the HH and is assumed to be primarily responsible

for all the agricultural activities. Also in a HH set-up, the man would come forward to receive training and coaching support from extension agents even if the wife might have played a major role in specific commodity development activities.

From Table 4, it can be interpreted that 86.8% of the respondents have affirmed that the increased involvement of the private sector in extension services provides farmers with a variety of crop technologies and breeds of livestock as well as knowledge transfer. This quantitative result complies with the report of Maiangwa *et al.* (2010) that indicated public extension is one source, but not necessarily the most efficient. Although extension can improve the productive efficiency of the agricultural sector, the virtues and limitations of alternative mechanisms have often been considered in assessing the cost-effectiveness of delivering information. Likewise, 38.8% of survey participants underlined that increasing the number of female extension agents helps to promote women farmers' participation in agricultural extension services, improve their productivity, and bring about their economic empowerment. Increasing female extension officers is very essential because female farmers can freely talk and discuss with female researchers and extension agents without fear (34.7%) and could be understood easily (24.7%).

**Table 4:** Institutional and organizational disinhibitions of participation (N = 225/212).

Disinhibitions	No. and percentage of respondents replied
	Yes (%)
Increased involvement of the private sector in extension widens farmers options	86.8 (184)
Increasing the number of female extension agents helps to tackle the cultural barrier and promotes women participation in agricultural extension undertakings	38.8(85)
It is possible to freely talk and discuss with female extension agents and researchers without fear	34.7(76)
Female extension agents understand women's problems better than male extension agents	24.7(54)
Female researchers and DAs are treated as daughters and/or sisters	8.9 (20)



According to the discussants, the unjustifiable intervention of superiors in the tasks of DAs and the absence of community rules and bylaws directing spouses couples to appear to training venues and field days together have affected their participation in agricultural extension services. This qualitative result is supported by the study findings of Makuma *et al.* (2020) that reveal the adoption of supportive bylaws and their effective implementation are crucial in promoting sustainable crop and livestock intensification extension services. Moreover, the inefficiency of government extension services and the inadequate involvement of the private sectors in all areas of extension services are some of the institutional constraints that affected

women’s participation somehow. This research output complies with the report of Maiangwa *et al.* (2010) that indicated public extension is one source, but not necessarily the most efficient.

**Economic Constraints**

Economic constraints are among the other impediments that affected women’s participation in agricultural extension services. As shown in Table 5, respondents indicated that expensiveness of inputs (83.3%), draft oxen problem (82.1%), low income (71.8%), and shortage of land (62.8%) were the economic constraints that affected women farmers’ participation in agricultural extension services.

**Table 5.** Economic constraints affecting FHHs participation (N = 78)

<b>Constraints</b>	<b>No. and percentage of respondents replied</b>
	<b>Yes (%)</b>
Draft oxen problem	82.1 (64)
Expensiveness of inputs	83.3 (65)
Low income	71.8 (56)
Shortage of land	62.8 (49)
Others	2.6 (2)

To cope up with the draft oxen shortage, over half of the FHHs (52.4%) confirmed that they entered into sharecropping to receive 1/2 or 2/3 or 1/3 of the product depending on their consent with the other contracting parties. Likewise, 47.6% of the respondents pointed

out that FHHs rent out land to get money for a living or purchase of draft oxen while 43.1% of them confirmed that FHHs engage in oxen-sharing (when they have only one ox) or borrow a pair of oxen in exchanges of labor (Table 6).

**Table 6.** Ways of Farming and Making a living (N = 78)

<b>Ways</b>	<b>No. and percentage of respondents replied</b>
	<b>Yes (%)</b>
FHHs share cropland with others and receive 1/2 or 2/3 or 1/3 of the produce based on their agreement	52.4 (118)
Rent out land	47.6 (107)
They adopt oxen-sharing or borrow a pair of oxen in exchanges for labor	43.1 (97)
Others	30.2 (68)

As per the FGD discussants, the expensiveness of inputs and low income were the barriers to the use of agricultural technologies and other inputs. In contrast to poor farmers, economically better-off farmers can buy improved varieties, breeds, and other chemicals that boost up their productivity either from cooperatives, government, or private traders. As per the key informants in Jabitehenan, there were no many FHHs who are economically strong; the majority of them suffered from pecuniary constraints and thus they were not able to hire labor, buy inputs, and adopt other technologies. Accordingly, FHHs were compelled to rent out their land or to conclude a contract of sharecropping. This research result conforms with Labintan (2010) that women generally own less land and the land they have is often of lower quality than the land owned by men. Financial resources are limited for women: they receive 7 percent of the agricultural extension services and less than 10 percent of the credit offered to small-scale farmers.

**Political Constraints of Women’s Participation in Agricultural Extension Services**

Over three-quarters of the respondents

(76%) revealed that the attention given to model farmers most of whom were men and politically active members of the Amhara National Democratic Movement (ANDM) has narrowed the chance of other farmers especially women to have a leadership position in farmers’ development group or to participate in FREG. Ninety percent of the respondents have condemned the precedence given often to model-farmers as they believed that non-model-farmers have also the motivation to participate in agricultural extension services through “one to five”, “development groups” and FREG thereby adopt technologies. Ninety percent of the respondents have confirmed that the priority is given to model farmers contrary to the policies, strategies and legal frameworks for equal treatment of citizens has jeopardized women’s participation in agricultural extension services and FREG. In addition, government policies and strategies that have been in effect over the past 28 years haven’t been fully implemented to make them active participants and beneficiaries of agricultural development endeavors (Table 7).

**Table 7:** Political constraints affecting women’s participation in Farmers Research and Extension Group

Constraints	No. and percentage of respondents replied Yes (%)
The attention and priority given to the political active model/progressive farmers have narrowed the chance for other farmers (especially women) to participate in farmers research and extension groups despite:-	76 (171)
▪ Those poor or non-model farmers are also committed to adopting different technologies to be productive.	90.1(201)
▪ There is a policy/legal framework at present that all farmers need to be treated equally irrespective of their sex, wealth status, etc.	98.2(218) 96.4(217)
Policies and strategies (women's entitlement to land; new research centers established; participatory research and extension system put in effect; women farmers are given policy attention; availability of credit services; etc.) that have been put in effect over the past 28 years by the government have not been fully implemented to make women farmers active participants and beneficiaries of agricultural development endeavors	

The questionnaire survey result is also supported by the KII findings in such a way that the extreme focus on model farmers (usually men), as opposed to other non-model farmers, has affected women’s partaking in the extension services. Women’s under-representation in leadership (kebele administrations) and their minimal participation in civil societies and political organizations have directly or indirectly hampered their involvement in agricultural extension services. By the same token, participation of women in agricultural extension services has been in some way politically impeded by the lack of support of local political leaders, and the less commitment of women’s political organizations and civil societies to work with members and none members.

Model farmers have been favorably treated and often given priority for different types of extension services. This result is in harmony with the study of Cohen and Lema (2011) and Lema and Tesema (2016) which indicates that in Ethiopia, DAs work through a network of farmer development groups, where model farmers demonstrate improved production practices and techniques to other

group members. Rather than having DAs advice individual farmers or members of farmer development groups on agricultural techniques, the model farmers report to the groups what they have learned from DAs. This discriminatory treatment has been the cause for the discontent of the majority of respondents as they have also the desire to use the extension services, and revolt against poverty like the model farmers as long as they are given equal opportunity.

Over fifty percent of the respondents (64%) have agreed that political organizations and civil societies helped women to be organized into a network of “one-to-five” and “farmers’ development groups”, and coordinate and mobilize female farmers during natural resources conservation and irrigation schemes development campaigns. Besides, as indicated in the same table, women are underrepresented in kebele leadership positions (82.4%) and their political organization (women’s league of the party) and civil societies (women’s associations and federation) received minimal and medium support from respective political leaders and administrators (Table 8).

**Table 8:** Advantages and levels of women farmers’ political participation in political organizations and civil societies (N = 225/222).

Advantages	No. and percent- age of respondents replied Yes (%)
They organize women into a network of “one-to-five” and “development groups” and teach them how to boost up agricultural production	64 (142)
They help women to get fertilizer and improved technologies equally with men	16.7 (37)
They help women to get credit	14.9 (33)
They coordinate and mobilize the community during natural resources conservation and irrigation schemes development campaigns	50 (111) 27.9 (62)
They help in settling land-related disputes which usually affect women's right	82.4 (183)
There is no adequate representation of women in the kebele administration (leadership position) as compared to men	
Low and medium support to women's political organizations and civil societies by woreda political leaders and administrators, kebele administrators, representatives, and kebele managers	85.4 (191)

The FGD results affirm the quantitative result where participants revealed that women are inadequately represented in kebele administrations and kebele council members were not also dedicated to the expected level to make them politically conscious and active participants in agricultural development endeavors. The cluelessness of some FGD discussants in Abchikli about the existence of women’s leagues and civil societies shows the ineffectiveness of the organs to work with many members based on the government’s agricultural policy and their political agenda. This is in contradiction with Moguees *et al.* (2009) such that if women associations and leagues extend their reach to rural kebeles of the country or the region, women may become politically active to demand their respective rights such as equal treatment with men in the extension service and the like.

**Benefits and Opportunities of Female Farmers in FREG Agricultural Extension System**

As indicated in Table 9, by participating in

agricultural extension services and FREG, women were able to get some advantages. Among the 41 FREG members, 90.2% of the respondents have pointed out that women farmers have gained familiarity (knowledge) of crop and livestock technologies and best agricultural practices through trainings. Almost all (95.1%) of the respondents asserted that they got technologies such as improved cereal, pulse, horticultural, and forage crops as well as poultry and chemicals. This goes in line with what has been indicated by Yazie (2015) that the benefits of participatory research approach include farmers’ acquisition/ownership of new technologies being tested and transferred; raising the level of farmers’ awareness of technical and social skills; and use of farmers’ indigenous knowledge for planning research and development endeavors. More so, over half (63.4%) and almost three-quarters (78%) of the respondents have stated that they got the chance for field day participation and advisory services in all disciplines of agriculture respectively.

**Table 9:** Benefits of women farmers participating in Farmers Research and Extension Group/FREG (N=41).

Benefits	No. and percentage of respondents replied
	Yes (%)
Knowledge on the crop, livestock technologies, and best agricultural practices through training	90.2 (37)
Inputs (technologies) such as improved maize, haricot bean, forage crops, chemicals, tef, finger millet, potato, and improved poultry	95.1 (39)
Field day participation	63.4 (26)
Advisory services in crop production, animal husbandry, and natural resources conservation	78.0 (32)
Others	2.4 (1)

**Agricultural Knowledge Transfer**

FGD discussants asserted that despite its shortcomings, the extension system has created room for knowledge transfer through

trainings, experience-sharing visits, demonstration field days, and house-to-house advisory services. FHHs and married women were trained and given bits of advice on how to plant and manage crops, rear livestock,

use irrigation, and so forth.

House-to-house extension services that included inspections of crops, livestock, and other agricultural activities and recommendations that go in agreement with such inspections were given to both women in male and female-headed households. At this juncture, women farmers were somehow able to talk to DAs and share their problems. Married women did not take part in events of technology transfer as such through trainings, conferences, field days, and extension services as that of FHHs and men. As far as Subject Matter Specialists in Jabitehnan woreda are concerned, FHHs were equally benefiting from credit services and tangible technologies like that of MHHs; nevertheless, their participation in knowledge transfer through trainings and demonstration field days was lower than their male counterparts.

The embracement of women into the network of “one-to-five” and “farmers’ development group” has been identified by the study as worthwhile for the exchange of knowledge, experience sharing, evaluation of farm activities, and lending-hands. FHHs were teamed up into two development groups with married women in one hand and with men in another. Their grouping with men helps them to learn from the experiences of men and to share that experience with married women. On the other hand, when women are organized with women based on their sex, they will not be shy and thus they can openly talk and discuss with each other. The teaming of women with the two groups contributes to the transfer of knowledge through the exchange of ideas, and sharing of experiences amongst themselves and/or with men.

#### **Technology Acquisition through Agricultural Extension Services**

The research result indicated in Table 10 is substantiated by Subject Matter Specialists and DAs that FHHs had the access to get many improved technologies of cereals and livestock through pre-scaling and scaling up undertakings (FREG and participatory agricultural extension services). In line with this, women had been benefiting from horticultural crops, the raising of chicken, and small ruminants. These are some of the activities that women received training, technical, material as well as financial support from agricultural offices, research centers, universities, NGOs, and projects as they are executed around the homestead and are delightfully taken up by women. These activities traditionally were thought to be the tasks of women and thus the result complies with the finding of Mogue *et al.* (2009) that horticultural production and the raising of chicken and small ruminants have been considered as part of “home economics” until quite recently, leaving women excluded from other kinds of extension advice, training, and credit.

#### **Policy Benefits and Opportunities**

From the KIIs, it is possible to envision that policy attention has been given to women farmers to make them active participants and beneficiaries of agricultural extension services. A Plan for Accelerated and Sustained Development to End Poverty (PASDEP) aims to reach all FHHs and 30% of married women in MHHs. Similarly, all FHHs and 30% of married women were targets of GTP I while GTP II, on the other hand, aims to benefit all FHHs and 50% of women in MHHs (ANRS Plan Commission, 2016). Following the land administration policy put in place in 1996, women have been granted land use rights equal to that of their partners. Thus, women in the research domains had

land-use rights like that of their husbands but still, some women suffered from tenure insecurity. This result is in conformity with Fafchamps and Quisumbing (2005) where important gender asymmetries in de facto access to and control over land, particularly via inheritance are central. Despite the constitutional and regional land proclamations that guarantee equal use by both men and women in the region, there is still a gap in their enforcement.

Key informants also accentuated that the assignment of over three DAs and veterinary assistants in each kebele is advantageous to women. Despite some limitations, the increased number of DAs helped to reach the majority of farmers in the kebele and render agricultural extension services. The availability of a veterinary clinic in each kebele helped farmers to get immediate treatment of their livestock, safeguard their animals from economic loss and tiredness as a result of long-distance trekking. Then again, the establishment of kebele offices of agriculture has helped to improve the efficiency and effectiveness of the extension services whereby women benefit as community members. The offices have played paramount importance in improving the quality of the extension services, as well as their wider coverage, and thus DAs, have been held responsible or accountable for any negligence and underperformance.

Moreover, Subject Matter Specialists have affirmed that the enforcement of career structure and capacity building scheme for DAs is worth mentioning for it increased their motivation and reduced staff turnover. This helped farmers indirectly as experienced DAs would not quit their job as such and the inspiration they have would serve farmers better. Moreover, the establishment of political and civil societies' movements in

rural areas is another benefit that somehow provides women farmers with the possibility of speaking out about their problems, and desires. Because of this, the stereotype against them rampant in the communities has been declining to some extent. This finding complies with Cohen and Lema (2011) in such a way that the women's association is an important vehicle for working around cultural biases to get women access to extension services.

### Conclusions and Recommendations

The study was conducted to assess the socio-cultural, institutional, organizational, political, and economic challenges hindering and the opportunities enabling women farmers' participation in agricultural extension services. The findings of the study revealed that women's lack of self-worth, community's doubt on women's capacity, and gender insensitiveness of DAs: the weaknesses of the networks of "one-to-five" and "women's-development-groups", absence of community rules and bylaws encouraging joint participation of couples in different events of knowledge transfer and the unjustifiable intervention of superiors in the tasks of DAs were the socio-cultural, institutional and organizational impediments to women's participation in agricultural extension services respectively. Moreover, the expensiveness of agricultural inputs, shortage of draft oxen, and low income: the excessive focus on model farmers, women's under-representation in kebele administration, and the less commitment of women's league, federation, and association to work with members have been discovered as economic and political constraints that affected women's participation in agricultural extension services correspondingly.

About, the opportunities and benefits, the study revealed that female farmers have somehow benefited from the gains of participation in trainings, demonstrations, experience sharing visits, house-to-house advisory services, and different agricultural technologies and other inputs. Thus, depending on the major findings of the study it can be concluded that despite the different measures taken over the years to improve women's participation in agricultural extension services in the region as well as in the study areas, quite a lot of them have not yet been active participants and beneficiaries of the services. Thus, still many policy interventions need to be put in place to enhance women's participation and economic benefit in the agricultural extension services.

**Based on the above conclusions, the following recommendations have been forwarded:**

- Gender awareness training to both experts and farmers; strengthening adult education to assist illiterates to read, and write as well as listen and understand farming is critical.
- Community rules and bylaws that direct and persuade joint participation of couples' in events of knowledge transfer have to be enforced.
- Political parties and government organs have to be diligent to improve the leadership roles of women in kebele administrations.
- For efficient extension services delivery, a guideline/directive has to be developed to evaluate and increase the effectiveness of a network of

“one-to-five” & “farmers’ development groups”.

- Credit services should be provided by the government either through various women groups, financial institutions, or cooperatives as women are financially constrained.
- Women-only training programs need to be organized with coaching and mentoring support and their drudgery should be considered when scheduling trainings (particularly in the modular training for women with family labor shortages need to be provided at the appropriate time and place according to their choice).
- The unjustifiable intervention of superiors restricting the freedom of DAs from deciding what is fit for farmers has to be limited.
- A policy that stimulates private investment in extension services has to be enacted so that farmers will have a menu of options.

Finally, the results of this study could be used for academic purposes or as a springboard for further research in addition to its use as an input by development practitioners, development agents, researchers, and others working in the agriculture sector.

**Conflict of Interests**

There is no conflict of interest with respect to this research

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