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RESEARCH PAPER

Gender Disparities in Utilization of Agricultural Information by Small Scale Farming Households in Ambo District of West Shewa Zone

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Abstract

Gender disparity in utilizing agricultural information affects the agricultural productivity of male and female households. Thus, this study was carried out to examine the gender disparities in utilizating agricultural informaation by small scale farming households in Ambo district. To achieve the objective of the study, both primary and secondary sources of data were used. Data were collected using semi-structured interview schedule, key informant interviews and focus group discussions; and analysed using descriptive satatistics and description*. The study revealed that the majority of the farmers rely on informal sources of information from neighbors, friends and colleagues rather than from the extension workers. Particularily, information sources of women did not enable them to get adequate and reliable information. It cloud be attributed to less mobility of women to access information, women responsibilities for household and child-rearing activities and workload. Gender disparity made great difference in using agricultural information for farmers since mostly women are playing a reproductive role. Therefore, improving participation of women farmers in various areas of extension programmes could facilitate empowering farm women for better utilization of agricultural information.*

Keywords: Agricultural information; households; gender disparity;reproductive role; small scale farming; women farmers

Introduction

In agriculture, the role of information cannot be overemphasized in enhancing the agricultural development. Hence, information is crucial for increasing agricultural production and improving marketing and distribution strategies (Ogunlade *et al.,* 2006). Diffirent scholars argue that to compete the global market today, our farmers should have latest information regarding new techniques of farming, new methods of cultivation, new crops, seeds, pesticides, and weather information on local and regional levels Bala and Sharma (2008).

In describing the role of women and men in agricultural and rural development, information and knowledge are essential if women and men are to respond to opportunities and major challenges of the coming century. Rodman (2006) also stated that Agriculture is becoming increasingly information sensitive; hence, access to information has become a pre -requisite and a valuable resource for agricultural development.
About 80% of the population in Ethiopia live in the rural areas and depend on subsistence agriculture. Ethiopian rural women make significant contribution to agriculture and ensure food security and are the mainstay of the farm labor. A major chunk of women's labor force in production system is invested in weeding, harvesting, household animal care, marketing, post harvest handling etc (Tesfaye and Desta 2017).

Though improved farm technologies are useful for increasing production and in turn contributes to the economic development of the country, agriculture in Ethiopia is not supported with adequate information due to many factors and

consequently, use of agricultural technologies has been restrained for a long time.

In the economy of Ethiopia, as in many of African countries, women are the backbone of the food production system. Women constitute about 50 per cent of the total population of the country. Out of the subsistence agricultural production in the country, women provide 50-80 and up to 77 percent of the total labor and time inputs required for crop and livestock production respectively. Female farmers have also been involved in generating additional income to their families, particularly, when there are food shortfalls at the household level (Gashaw 2016).

However, in spite of their importantce and diverse contributions, women in agriculture and rural areas have less access than men to productive resources. Gender inequality is observed in the areas of accessing inputs and services, such as land, financial services, productive resources and extension services. For example, men represent 85% of agricultural landholders in Sub-Sahara Africa. In Ghana, Madagascar and Nigeria men own more than twice the units of livestock compared to women. Similar gaps exist in access to fertilizer, mechanical equipment, new technologies, extension services and credit (UNDP 2012).

In Ethiopia some studies were conducted on gender disparties of agricultural information and its impacts on women participation and involvement in agriculture sector. For instance, studies conducted by Gashaw (2016); found that poor training facilities for women's in Farmer Training Centers (FTCs), mismatch of the timing of the training session and maternity issues were the constraints faced by rural women to utilize agricultural extension services. Gammage (2010) also highlihted that domestic responsibilities of women such as collection of fuel or water, caring for children and other home activities competed other possible uses of women's time.

The previous studies focused on constraints of women's productivity in agriculture, opportunities to have access to productive resources such as land, credit fertilizer and gender role division. However, the technical and agricultural information of gender biased and knowledge delivery services constraints were not considered by the previous studies. Hence, this study was initiated to fill the gaps by identifying the gender disparities in utilizing agricultural information in the study area.

Research Methods

Research Design

Descriptive research design is used for the study as it involves gathering data, organizing, tabulating and describing events. To acquire relevant information on the subject matter, both qualitative and quantitative methods were used. Creswell and Plano Clark (2007) also stated that the use of both qualitative and quantitative methods in combination provides a better understanding of research problems.

Sampling Procedures and Methods

The study employed a combination of non-probability sampling technique (purposive) and probability sampliing techniques (Simple random sampling technique) to select the study area, district, rural villages and samplehouseholds. Ambo district was purposively selected for this research. The population of the study has homogneous charactersitics. As a result, out of 2889 total population, 148 sample respondents were selected from three villages. The rural villages were selected by using simple random sampling technique. The sample households were also selected using simple random sampling technique. Therefore, 59, 45 and 44 households were selected from Uko Korke,Ilemu Goromt and Dasse Akililu rural villages respectively based on probability proportional to size procedure.

Methods of Data Collection

For this study both primary and secondary sources of data were used. The primary data were collected from three rural villages using semi-structured interview schedule for quantitative data. The qualitative data were also colleced using Focus Group Discussion (FGD) and Key Informant Interview (KII). A total of six FGDs were held in three Kebeles (three women group and three male group). KII was also held with government officials of the district and rural villages in the study area. Additionally, secondary sources of data were collected from

different published and unpublished materials.

The quantitative data were analysed using descriptive statistical tools such as mean, percentage and frequency while the qualitative data were analysed through description.

Results and Discussion

Access to and sources of information

The sample respondents have been obtaining information from six sources such as mass media , District Agricultural Office, neighbors, relatives, development agnets and health extension agent. Comparatiely, more proportions of the sample respondents (30.4 %) got information from neighbors (Table 1). However, from the sample respondents of female household heads access to sources of agricultural information was less in almost all sources of agricultural information . The result agrees with the earlier finding by FAO (2011) which states that across many different contexts, women consistently have less access than men to agricultural sources.

Table 1 Access to and sources of information related to Agriculture

	Male		Female		Total	
Presence of information related to agriculture	F	%	F	%	F	%
No	10	6.8	25	16.9	35	23.6
Yes	64	43.2	49	33.1	113	76.3
Sources of information						
Health extension agent	6	4.1	6	4.1	12	8.1
District Agricultural Office	11	7.4	9	6.1	20	13.5
Relatives from friends	3	2	1	0.6	4	2.7
Development agents	15	10.1	12	8.1	27	18.2
Neighbors	26	17.6	19	12.8	45	30.4
Mass media	3	2	2	1.4	5	3.4
Total	64	43.2	49	33.1	113	76.3

Rural women's access to information related to their productive role is depcited in Table 2. More proportions of the sample respondents (54.7%) did not have access to information. The agricultural information that mostly farmers access was land preparation (31.8%), seed selection and fertilizer apppication (25.7%) and livestock production (15.5%). However, female household heads got less access to agricultural information. This indicated that development agents have more contact with male household heads than female household heads. This result is conistent with the study by Masuki *et al.* (2010).

Table 2 Households access to agricultural information related to productive roles

Presence of information related to productive role	Male		Female		Total	
	F	%	F	%	F	%
Yes	39	26.4	28	18.9	67	45.3
No	35	23.6	46	31.1	81	54.7
Productive roles on which farmers mostly have agricultural information						
Land preparation	25	16.5	22	14.9	47	31.8
Seed selection and apply fertilizer	20	13.5	18	12.2	38	25.7
Apply pesticides and spray chemicals	11	7.4	10	6.8	21	14.2
Harvesting and threshing	10	6.8	9	6	19	12.8
Livestock production	8	5.4	15	10.1	23	15.5
Total	**74**	**50**	**74**	**50**	**148**	**100**

Major Constraints of Farmers for Access to Agricultural Information

Access to agricultural information for the farmers means moving one step and creating favorable condition in order to utilize the obtained information. However, there are several constraints that hinder the farmer not to implement the information. Accordingily, poor support of development agents (28.4%) was the main factors that affected farmers to have access to agriculural information (Table 3). The time spent on domestic role constrained more the female headed households (18.9%) than the male headed (8.1%) on access to agricultural information. According to Ragasa (2012), women tend to have much lower access to formal information channels of training and agricultural extension, partly because extension services do not always target women for delivering extension services. According to the discussion held with women group, the main source of agricultural information was training. However, in most cases, priority have been given to Male Household Heads when training is organized by agricultural offices and others.. This could create disparity between male and female farmers in getting agricultural information.

The results of FGD and KII of the farmers and agricultural experts revealed that there was less participation of FHHs in all the sources of agricultural information considered in this study. This could be attributed to the less effort made by the development agents in communicating FHH and poor outreach system. Cultural barriers and workload could also be the contributors for less participation of women in accessing the sources of agricultural information.

Table 3 Major constraints of farmers' access to agriculural information

Constraint of Access to agricultural information	Male		Female		Total	
	F	%	F	%	F	%
Development agent's bias	10	6.8	25	16.9	35	23.6
Time spent on domostic role	12	8.1	28	18.9	40	27
In adequate support of DAs	27	17.2	15	10.1	42	28.4
Unable to pay attention from agricultural office	25	16.9	6	4.1	31	20.9
Total	**74**	**50**	**74**	**100**	**148**	**100**

Constraints of Farmers to Access Information on Community Roles

As depicited in Table 4, almost half (48%) of the respondents were not informed about involving in community role activities. As revealed by women group members during the group discussion, most of them stated "Community role issues are already given for males by the society so that we are not accepted even if we want to involve." Due to cultural influences, most of them did not get access to information about how to involve or contribute their efforts to the community role activities. Lack of adequate time and invitation were also among the contraints of women to get access to agricultural information. In line with this, Gammage (2010) reports that home activities compete and crowd out other possible uses of women's time.

Table 4 Avaialblity of information on community role

Presence of information related to community role	Male		Female		Total	
	F	%	F	%	F	%
Yes	43	29	33	22.2	76	51.4
No	31	20.9	41	27.7	72	48.6
Total	**74**	**100**	**74**	**100**	**148**	**100**
Reason for not using information						
Not invited	15	10.1	12	8.1	27	18.2
Not invited as result of being female	7	4.7	16	10.8	23	15.5
Had no enough time to participate	9	6	13	8.7	22	14.8
Total	**31**	**20.9**	**41**	**27.7**	**72**	**48.6**

Farmers Access to Information Related to Agricultural Inputs

As indicated in Table 5, about 50.7 percent of the repondants had no access to information related to agricultural inputs of which female household heads accounted for 27 percent. This result complies with several findings for example, in Ethiopia and United Republic of Tanzania, the fact that there are lower productivity gains with fertilizer use on women's farms than on men's suggesting that female farmers use fertilizer of lower quality or use it less effectively (World Bank 2012).

Table 5 Farmares access to information related to fertilizer and imroved seed varities

Presence of information related to agricultural inputs	Male		Female		Total	
	F	%	F	%	F	%
Yes	39	25.6	34	22.9	73	49.3
No	35	24.3	40	27	75	50.7
Total	**74**	**100**	**74**	**100**	**148**	**100**
The reason for not getting information						
Not required information	8	5.4	8	5.4	16	10.8
Lack of credit for technology input purchase	16	10.8	20	13.5	36	24.3
Lack of awareness	11	7.4	13	8.7	23	15.5
Total	**23.7**	**35**	**40**	**27**	**75**	**50.7**

Constraints of farmer's participation in field day

The result of this study showed that access to field day participation was not equal for both male and female headed households. From the total sample respondents, the majority (64.1%) did not participate in field days. About 12.6 percent of FHH were participated in filed day (Table 6). According to the respondents, the main reasons for not participating on feld day were; non availability of information, lack of invitation and women mobility constraints. The finding is in line with the study by Gashaw (2016).

Table 6 Farmers participation in field day

Participation of farmers	Male		Female		Total	
	F	%	F	%	F	%
Yes	35	23.6	18	12.1	53	35.8
No	39	26.3	56	37.8	95	64.1
Total	**74**	**100**	**74**	**100**	**148**	**100**
The reason for not participating						
Non availability of information	21	14.1	26	17.6	47	31.7
Not invited	11	7.4	17	11.4	28	18.9
Women mobility constraints	6	4.1	8	5.4	14	9.4
Due to time constraint	1	0.7	5	3.3	6	4.1
Total	**39**	**26.3**	**56**	**37.8**	**76**	**64.1**

Major constraints farmers faced in using the accessed agricultural information

As summarized in Table 7, almost half (48.6 %) of respondents did not use agricultural extension information. The participants explained that the reasons for not utilizing extension information were poor credibility of extension information, influence of the husband, lack of land and high price of agricultural input. Based on the assessed indicators of constraints in utilization of accessed agricultural information, FHHs showed less in using the accessed information. This result is consistent with Almaz (2000), indicated that,

despite the significance of women's role in agricultural development, evidence in developing countries show that women's farming productivity and efficiency levels often remain very low. Similarly Butt *et al.,* (2010) on a case study conducted in rural Pakistan concluded that cultural norms, male dominance and traditional belief system were the major social constraints faced by rural women in utilizing agricultural extension services. The other scholar also revealed that access to different types of information for rural women was generally minimal particularly development information on crop production, as well as livestock management Asres (2005).

Table 7 Major constraints of farmers in utilization of agricultural information

Presence of constraits for utilizing agricultural information	Male		Female		Total	
	F	%	F	%	F	%
Yes	41	27.7	35	23.6	76	51.4
No	33	22.2	39	26.3	72	48.6
Total	74	100	74	100	148	100
Constraints of utilization agricultural information						
High price of agricultural input	9	6.1	7	4.7	15	10.1
Poor credibility of extension information	11	7.4	13	8.9	24	16.2
Influence of the husband	7	4.7	11	7.4	18	12.1
Lack of land	6	4	8	5.4	14	9.5
Total	**33**	**22.2**	**39**	**26.3**	**72**	**48.6**

Major factors for gender disparties in utilization of agricultural information in the study area

The major constraints in utilization of agricultural extension information in the study area were; women multiple role, lack of awareness about extension activities, development agent 'biasness towards the rich farmers, labor constraint related factors, and low educational level (Table 8). According to Butt *et al.* (2010), lack of female extension staff, subject matter specialist for rural women, technical training, knowledge and skills were the major ones faced by rural women to utilize extension services rendered by development agents.

Table 8 Major factors responsible for gender disparties in utilization of agricultural information

Factors for gender disparity	**Frequency**	**Percentage**
Lack of awareness about extension activities	42	28.4
Labor constraints	22	14.9
Women multiple role	45	30.4
Low educational level	7	4.7
Development agent bias	32	21.6
Total	**148**	**100**

Conclusion

There was high disparsity between female and male household heads in accessing and using agricultural information in the study area. Small scale women farmers encountered a lot of consraints in accessing to and utilizing of agricultural information. The agricultural extension system is baised towards male household heads. Information sources that women used were informal and did not enable them to get adequate and reliable information. In addition to this, access to information was hampered by various factors. This affects the overall agricultural development of the study area as almost half of the working forces were not properly targeted by the extesnion organization. Access to the relevant, accurate and timely agricultural information through proper channels enables farmers to make timely decisions that lead to agricultural development. Improving participation of women farmers in various areas of extension programmes could help empowering

farm women for better networking of agricultural information.

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