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DETERMINATION OF PARTICIPATION IN AGRICULTURAL ACTIVITIES AND ACCESS TO SOURCES OF INFORMATION BY GENDER: A CASE STUDY OF DISTRICT MUZAFFARGARH

Muhammad Zakaria Yousuf Hassan, Tanvir Ali and Munir Ahmad
Department of Agricultural Extension, University of Agriculture, Faisalabad

The women of Pakistan are actively playing their vital roles in all daily life activities, not only in industrial but also in agriculture sector. In spite of enjoying socio-economic status and educational facilities, they are deprived of social, mental, educational and professional status and facing different types of violence especially at rural level. To enhance their performance in agricultural operations, the professional education and improvement in skills is need of the hours and Extension Agencies/Organizations are responsible to provide such technical guidance to them so that they can develop their abilities to perform different agricultural activities effectively and efficiently for the achievement of Green Revolution objectives. But, due to lack of information, resources and facilities, they are still deprived of from modern techniques. Keeping in view the above said facts, the present study was designed to determine the participation of women in agricultural activities and their access to modern sources of information by gender, preliminary, a case study of district Muzaffargarh which was a part of doctoral research of first author. All four tehsils of the said district with all the married farm families were under consideration: serving as population of the study. From each tehsil, five villages were selected by using simple random sampling technique. Twenty five households were selected from each selected village at random and one married couple was further selected randomly from each selected household. Thus five hundred farm families made a total of 1000 respondents for the study. The data was collected through pre-tested interview schedule and analyzed by using statistical computer package i.e. SPSS. It was concluded from the results of the present study that women were deprived of almost in all the fields of life especially in education and agricultural extension education with neglecting the extension services especially by the Government. The result of present study are showing that if, the women spawn access towards modern techniques and independence from illiterate customs, they can over come with the objectives of Green Revolution and sustainability of agriculture sector.
Key words: Obstacles, gender, mainstreaming, Muzaffargarh

INTRODUCTION

The women of Pakistan are actively playing their roles in daily life. Their activities are not only at industrial level but also indulged in agriculture sector (Women Watch, 2004). They are seen in fields doing the tasks of transplanting of vegetables and crops, inter-culture of vegetables; picking of cotton, small fruits, vegetables, berries of all types; harvesting of wheat, rice and other crops; they, however, excelled men in all those operations which required squatting to carry out operations (Rashadi, 2002 and Ishaq, 1998). They are also seen working side by side with their fathers, brothers and husbands in doing household works like fetching of drinking water from distant places, collection of fire wood, rearing and raising of children, hospitality of old, sick family members etc. (Habib, 1997; and Brohi, 2003). Their activities are also vivid in decision making at the time of selection of crop varieties, different intercultural operations; management, storage and marketing of food grains; rearing of animal and birds (Das, 1995).

In spite of all these efforts and tasks performed by the women, they are deprived of social, mental, educational and professional status, and are not enjoying deserving socio-economic status, educational facilities and facing different types of violence especially at rural level (ILO, 2002). They are facing restriction to go out of home, talk with out of blood related males, attending social activities etc. without permission of their men. In case of profession, as agriculture, they are silent farmers and decision makers but facing problems like lack of access to credit, inadequate agricultural inputs and coordination between national and international agencies.

To enhance their performance in agricultural operations, the professional education and improvement in skills is need of the hours and Extension Agencies/Organizations are responsible to provide such technical guidance to them so that they can develop their abilities to perform different agricultural activities effectively and efficiently for the achievement of Green Revolution objectives. Improvement in skills is necessary. But, in reality no opportunity provided to them by public sector extension

both as extension agent and client (Alex *et al.,* 2002). These women are not considered as farmers by public sector to provide any type of education to upgrade their competency of performing farming tasks (Adomi *et al*., 2003). Some civil societies have launched few programmes for the dissemination of related information under the stress of foreign donors but they have no long lasting effects. Besides this, these women are obstructed to get benefit from different sources of information through customary and societal taboos (JICA, 1999 and Mudukuti, 2003).

Therefore, keeping in view the above said facts, the present study was designed to determine the participation of women in agricultural activities and their access to modern sources of information by gender, preliminary, a case study of district Muzaffargarh The data was collected through pre-tested interview schedule and analyzed by using statistical computer package i.e. SPSS for further suggestion and conclusions. It was envisaged that the results of this study would be helpful in involving women in extension and thereby recognizing the issue of gender equality in extension. When both male and female members of the society will have equal access to non-formal educational resources, the country will definitely run towards sustainability.

MATERIALS AND METHODS

As the number of villages in all four tehsils vary too much, therefore, researcher decided to give equal chance to all tehsils and on these basis, five villages from each tehsil were selected randomly (Steel *et al*., 1996), for this purpose a complete list of villages (*mauzas*) was obtained from Revenue Office, Muzaffargarh and compared with the list of Agriculture Department (Extension) District Muzaffargarh (Ani, *et al*., 2004). For the selection of villages lottery method was adopted (Thakur, 2003) and names of villages were written on pieces of paper, then tehsil wise five tickets were selected. Thus making a total of 20 villages, a list of registered voters from Local Election Commission was obtained and sorts out the married households of selected villages (Ani *et al*., 2004). For checking and comparison of respondents, a simple Performa was designed and a survey was conducted through field staff of Agricultural Extension Department deputed in the union councils of selected villages prior to the data collection.

From obtained list of household of 20 selected villages, the respondents were selected through simple random sampling method (Ogunjuyigbe, 2005). In present study the term household was used as adopted and defined by UNDP (1996) as it comprises of individuals who share basic domestic and/or reproductive activities such as cooking and eating. Therefore, from total number of household of each selected village, 25 households were randomly selected through random numbers calculated by scientific calculator. From each selected household again one farm family (husband and wife) was selected through simple random sampling technique. It was to be noted that the technique was utilized where more than one farm families living in described criteria of household, otherwise, the household served as farm family. Thus making a total of 500 farm families, the total sample size was 1000 respondents.

The Executive District Officer Agriculture (EDO); District Officer Agriculture (DOA): Deputy District Officers Agriculture (DDOsA), all the Agriculture Officers (AOs) of agricultural extension wing and all male and female workers of one randomly selected NGO working in the study area were selected for the study. The data was collected through pre-tested interview schedule. The data collected was analyzed by using statistical computer package i.e. SPSS.

RESULTS AND DISCUSSION

Age of an individual makes him mentally mature and able to take rational decisions (Khan, 1991). In present study the chronological age of the respondents were calculated in years which reveal that mean age of husband respondents was 41.6 years with 11.46 SD whereas, mean age of wife respondents was 35.5 years with 10.3 SD. This showed that husband respondents were averagely six years elder than their wives. The above results are slightly differ from the findings achieved by Sain and Martinez (1999) who found a 44 years of mean age among male farmers while studying 'Adoption and use of improved maize by small-scale farmers in southeast Guatemala'.

To observe the educational level of the respondents, data were gathered and presented in Table 1, which are depicting that majority (64.3 and 77.4% of husband and wife respondents) was illiterate, respectively. It is interesting to note that the literacy rate among husband was 35.7% whereas, among wives was 22.6% only meaning thereby that female literacy rate was much less as compared to male literacy rate. According to the District Census Report 2000, Muzaffargarh, the literacy level for male and female was 40.9 and 14.8%, which means that in present study the husband respondents were almost 5% less educated as compared to the report but female literacy level was almost 8% increased (Govt. of Pakistan, 2000(a)). The reason for this increase in girl education might be found in focus group discussions as number of families

Table 1. Frequency distribution of the respondents according to their educational level

Educational level	Husband		Wife	
	No.	% age	No.	% age
Illiterate	290	64.3	349	77.4
Primary	46	10.2	46	10.2
Middle (8th grade)	38	8.4	29	6.4
Matric (10th grade)	48	10.6	15	3.3
Intermediate (12th grade)	13	2.9	8	1.8
Graduate (14th grade)	12	2.7	3	0.7
Post graduate (Above 14th grade)	4	0.9	1	0.2
Total	**451**	**100**	**451**	**100**

were trying hard to teach their daughters as they allocate special funds in the form of motorcycles/pickups for transportation and brother or uncle requisite as human resource for these girls. When, we compared these figures at national level found that both gender of study area were still far behind to these levels i.e. literacy level was 65.0 for males and 40.0% for females (Govt. of Pakistan. 2006).

There was more number of male respondents having higher levels of education as compared to female respondents. It can be concluded that there was considerable inequality among male and female respondents regarding education.

The modern world is moving very fast and changing into the global village. There is a tough competition in markets and customer wants an upgraded product. The same case is with agriculture sector and farmers need up to date information regarding agricultural production and its marketing. Utilization of number of sources ensures the farmers to exchange their ideas and enhance their production. Keeping in view the importance of sources of information, the related data was gathered and presented in Table 2 and 2 (a) which show that husband respondents benefited more from different sources of information as compared to their counterparts. The interesting situation projected from above tables was that none of the wife respondent utilized Agriculture Department (Extension Wing), private agencies and pesticides dealers as a source of information.

However, husband respondents ranked 'friends' 1st with mean 1.173 and SD 0.706, whereas, wife respondents ranked 'relatives' as 1st with mean 0.741. The results of t-test showed a significant difference in the utilization of different sources of information except 'relatives' that had a non-significant difference.

The above results are in accordance with that of Manohari (2002) who stated that farmers paid more credibility to the advice and information given to them by their fellow farmers/friends rather than other sources of information. Garforth *et al*., (2003) also reported that radio was the most frequently used source of information as reported by 89.0% of the respondents from subsistence farming households. The woman were lag behind their male counterparts in the utilization of sources of information and was confirmed by Mtshali (1999) who stated that rural women also frequently had little access to agricultural information and extension services. The number of responses was low in present study as compared to those of Siva Kumar and Trikha (2002) who found that only 37.14% of the respondents were subscribing to newspapers/magazines/books.

Pakistan from his existence trying to equip the farmers with latest information and modern technology but unfortunately still government failed to get desired targets. In country agriculture extension exists in the form of "Public Extension" and all conventional or mass media are under the control of government. With many inherited problems of agriculture extension, inefficiency and lack of resources on the part of Agriculture Department a lesser number of respondents were reached by the extension personnel as pointed out by Bne Saad (1990) and Feder *et al*., (2001).The condition is worst on the part of women because all the extension programmes run from past to present except of Village Agricultural Industrial Development Programme have not a single women extension worker, which is also registered in newspaper article written by Hassan (2005).

The written material like newspapers or magazines/journals is not benefited by respondents because of illiteracy or low literacy rate and also non-availability in remote rural areas. As it is clear from present study that illiteracy level was 64.3 and 77.4% among husband and wife respondents therefore, they were unable to read and flow of information restricted

Table 2. Frequency distribution of the respondents according to the utilization of sources of information

Sources of information	Husband (n=451)						Wife (n=451)					
	Scale						Scale					
	0		1		2		0		1		2	
	f	%	f	%	f	%	f	%	f	%	f	%
Agriculture Department (Extension Wing)	297	65.9	123	27.3	31	6.9	451	100.0	0	0.0	0	0.0
Newspapers	388	86.0	34	7.5	29	6.4	437	96.9	14	3.1	0	0
Magazines/Journals	404	89.6	38	8.4	9	2.0	422	93.6	25	5.5	4	0.9
Radio	105	23.3	222	49.2	124	27.5	363	80.5	50	11.1	38	8.4
Television	331	73.4	73	16.2	47	10.4	413	91.6	28	6.2	10	2.2
Relatives	120	26.6	207	45.9	124	27.5	121	26.8	204	45.2	126	27.9
Friends	80	17.7	213	47.2	158	35.0	403	89.4	27	6.0	21	4.7
Private agencies	314	69.6	99	22.0	38	8.4	451	100.0	0	0.0	0	0.0
Pesticide dealers	156	34.6	223	49.4	72	16.0	451	100.0	0	0.0	0	0.0

Scale: Never = 0, Occasionally = 1, Often = 2

Table 2(a). Mean, standard deviation, rank order and t-test of respondents related to the utilization of sources of information

Sources of information	Husband (n=451)			Wife (n=451)			t-test
	Mean	SD	Rank order	Mean	SD	Rank order	
Agriculture Department (Extension Wing)	0.410	0.617	5	0.000	0.000	-	-
Newspapers	0.204	0.540	8	0.031	0.174	6	6.475*
Magazines/Journals	0.124	0.386	9	0.073	0.293	5	2.235*
Radio	1.042	0.712	2	0.279	0.609	2	17.289*
Television	0.370	0.665	7	0.106	0.374	4	7.343*
Relatives	1.009	0.736	3	1.011	0.741	1	-0.045 NS
Friends	1.173	0.706	1	0.153	0.472	3	25.490*
Private agencies	0.388	0.638	6	0.000	0.000	-	-
Pesticide dealers	0.814	0.687	4	0.000	0.000	-	-
Overall mean	0.615			0.184			

t-value 1.645 at p 0.05 NS = Non-significant *Significant

for them. Due to pardah, mobility and other customary restrictions like no interaction between male and female other than blood relations stopped the women farmers to get information or instructions regarding agriculture by male pesticide personals, pesticide dealers and extension agents. In this regard, male ego and honour also hindered the women to get benefit from different sources of information (Niamir-Fuller, 1994). In focus group discussion; researcher also noted that women had no interest to get their rights especially related to the information sources. If any training programme related to any field of life arranged by any NGO, the attitude of husbands had restrictive toward their wives and they think that wives have no need to get information to up to date their knowledge. The same ideas were also delivered by Bne Saad (1990) while conducting Ph.D. research on problems of Iraqi farm women.

Radio and Television are the two main sources of information, that are reliable in the dissemination of information (CIDA, 1998) for illiterate farmers (Chizari *et al*., 1998) but problem is that the number of agricultural programmes are very less and their timings are not compatible, also limited number of television and non-availability of electricity lower the efficacy of the sources. It is also observed that not a single programme is broadcasted by radio or television directly related to women farmers and their problems, therefore, these sources are useless for women farmers. The most popular and used sources for

information are relative, friends and neighbours for both husband and wife respondents. As discussed above due to no interaction between male extension workers or other males and female farmers therefore main source for wife respondents are relatives, friends and neighbour women that is also confirmed by one of wife respondent of focus group who pointed out same sources of information and rejected other ones.

It was concluded that women were unable to get benefit from sources of information that not only hindered them to avail better sources of employment but also made their position pity at home, community and country level. This situation made them side stream in the development programme and procedure inspite of hard working they did with their fathers, brothers and husbands. The ultimate result of this side stream was negligible voice in decision making process.

CONCLUSIONS

It is concluded from the results of the present study that;

i. Women are deprived of from their deserving status in almost all the fields of life especially in education and agricultural extension education.
ii. It is also observed that women farmers were totally neglected by the extension services especially by the Government.
iii. Sorrowfully, it is saying that female candidates at bachelor or master levels of agricultural universities showed no interest due to hardiness of job nature and low pay both in public and private sector because there are many hurdles that hinder their active participation in development process, out of which some are diagnosed and large numbers of them are still hidden.

RECOMMENDATIONS

i. The gender equality in Pakistan is a dream up to the removal of these obstacles and without giving the legal rights to almost half of the population, it is impossible to cope with future challenges of globalization, modernization and trade liberalization. This situation demands that a research plan should be designed to identify the factors which hindered the social status and flow of information towards women and men.
ii. The campaign should be launched to develop awareness among women about their rights as indicated by women respondents of focus group.
iii. At district level, a new female extension wing should be established under District Officer Agriculture as prescribed by extension workers of Agricultural Department and NGO's focus group discussion under gender equality in agricultural extension.

REFERENCES

Adomi, E.E., M.O. Ogbomo and D.E. Inoni. 2003. Gender factors in crop farmers' access to agricultural information in rural areas of Delta State, Nigeria. Library Review. 52(8): 388-393. www.ingenta.com

Alex, G., W. Zijp and D. Byerlee. 2002. Rural extension and advisory services: new directions, Rural Development Strategy Background paper No. 9, ARD, World Bank, Washington, DC.

Ani, A.O., O. Ogunnika and S.S. Ifah. 2004. Relationship between Socio-economic characteristics of rural women farmers and their adoption of farm technologies in Southern Ebonyi State, Nigeria. Indian Journal of Agriculture and Biology. 6(5): 802-805.

Bne Saad, M. 1990. An analysis of the needs and problems of Iraqi farm women: Implications for agricultural extension services. Ph.D. Thesis, Dublin, University College Dublin. (Unpublished).

Brohi, S. 2003. National Drainage Programme's irrigation reform lack gender equality. Daily Dawn, Lahore, Pakistan. June, 9.

Chizari, M. and R.R. Noorabadi. 1998. Perceived learning needs, and programme delivery preferences of ranchers in Noorabad township of Luristan Province, Iran. Journal of International Agricultural and Extension Education, 6(3), 39-44.

CIDA. 1998. Gender equity, telecommunication development and the ITU. World Tele-communication Development Conference. Valletta, Malta.

Das, M.D. 1995. Improving the relevance and effectiveness of agricultural extension activities for women farmers-An Andre Mayer research study. FAO. Rome, Italy.

Feder, G., A. Willett and W. Zijp. 2001. Agricultural extension: generic challenges and the ingredients for solutions. In: S. Wolf and D. Zilberman (Eds.), Knowledge generation and technical change: institutional innovation in agriculture, Kluwer, Boston, pp. 313-56.

Garforth, C., Y. Khatiwada and D. Campbell. 2003. Communication research to support knowledge interventions in agricultural development: case studies from Eritrea and Uganda. Paper presented at the Development Studies Association Conference, Glasgow, UK.

Govt. of Pakistan. 2000(a). District Census Report of Muzaffargarh, 1998. Population Census Organization, Statistics Division, Islamabad.

Govt. of Pakistan. 2006. Economic Survey of Pakistan. Finance Division, Economic Advisor's Wing, Islamabad.

Habib, N. 1997. Invisible farmers-rural roles in Pakistan. Pesticides News, 37: 4-5.

Hassan, M.Z.Y. 2005. Fair sex neglected in development programme. Daily 'The Nation", Lahore, Pakistan. September, 27:9.

ILO. 2002. National policy for development and empowerment of women-national guideline in Pakistan. http://www.ilo.org/public/english/disclaim/reqcopr.htm

Ishaq, A. 1998. A sociological study on the involvement of rural women in decision making with regard to family and farm activities. M.Sc. Rural Sociology. Univ. of Agri., Faisalabad, Pakistan (Unpublished).

JICA. 1999. Country WID Profile (Pakistan). Japan International Cooperation Agency, Planning Department, Islamabad.

Khan, M.K. 1991. An analysis of the impact of extension work of hill farming development project of maize production in tehsil Muzaffarabad, Azad State of Jammu and Kashmir. M.Sc. Rural Sociology, Thesis, Univ. of Agri., Faisalabad (Unpublished).

Manohari, P.L. 2002. Key communicator networks used in dissemination of agricultural information: A case study in Kenya sub–tribe setting. Manage Extension Research Review, III(1): 39-41. National Institute of Agricultural Extension Management, Rajendranagar, Hyderabad, India.

Mtshali, S.M. 1999. Training and in-service training of home economics extension professionals in rural areas of Kwazulu–Natal. Journal of Family Ecology and Consumer Sciences, 27(2): 78-84.

Mudukuti, A.E. 2003. Rural women's perceived barriers to extension participation: The Zimbabwe case. Journal of Extension Systems, 19: 23-31.

Niamir-Fuller, M. 1994. Women livestock managers in the Third World. Focus on technical issues related to gender roles in livestock production. Staff Working paper no.18. Rome, Italy. http:// www.ifad.org

Ogunjuyigbe, P.O., A. Akinlo and J.A. Ebigbola. 2005. Violence Against Women: An examination of men's attitudes and perceptions about wife beating and contraceptive use. Journal of Asian and African Studies, 40(3): 219–229.

Rashadi, M. 2002. Diary of gentlewomen farmer. Daily Dawn, Karachi, Pakistan.

Sain, G. and J. Martinez. 1999. Adoption and use of improved maize by small-scale farmers in south east Guatemala. CIMMYT Economic Papers 99-04. Mexico D.F.: CIMMYT: 23.

Siva Kumar, P.S. and R.N. Trikha. 2002. Message design for community wall newspaper: Participatory approach. Manage Extension Research Review, III(1): 114-116.

Steel, R.G.D., J.H. Torrie. and D.A. Dinkkey. 1996. Principles and Procedures of Statistics (2nd Ed.). McGraw Hill Co., Singapore.

Thakur, D. 2003. Research methodology in Social science. Deep and Deep Publications (Pvt.) LTD. Rajouri Garden, New Delhi: 475.

UNDP. 1996. In: Scoping study on interactions between gender relations and livestock keeping in Kisumu. Key gender issues in urban food production and food security: Case study of Kenya, by Ishani, 2004. Workshop on gender mainstreaming in urban food production and food security. ACCRA, Ghana.

Women Watch. 2004. Concepts and definitions. www.un.org/womenwatch/osagi/conceptsanddefinitions.html