



Research Article

Extent of Women Participation in Agricultural Activities: A Case Study of Rain-Fed Area Pothohar, Pakistan

Naheed Zahra^{1*}, Saira Batool¹, Mubbashira Nazir¹, Ghulam Akbar Malik² and Iffat Batool³

¹Social Science Division (SSD), Pakistan Agricultural Research Council (PARC), Islamabad, Pakistan; ²PARC Institute of Advanced Studies in Agriculture, National Agricultural Research Centre, Pakistan Agricultural Research Council, Islamabad, Pakistan; ³Government College University, Lahore, Pakistan

Abstract | It is universally recognized that women are playing valuable role in all segments of crop and livestock; but unfortunately, the contribution of women in agriculture sector is still underestimated. The purpose of this study was to investigate women's involvement in farming and livestock in Pothohar, particularly in rain-fed areas of Punjab, Pakistan. The research was carried out at Thatti Gujran, one of Fateh Jhang's villages during 2018-19. The purpose of this research was to see how many female farmers contribute to farming and livestock activities. The formal survey collected data from eighty (80) female farmers using the random sampling technique. Research was based small landholders. The study's main findings demonstrate that agriculture, together with livestock rearing is the primary occupation of the area's residents. Females were completely involved in all aspects of farming. According to survey findings, only 32.5% of female respondents said they were part-time farmers, while 67.5% said they were actively involved all in farming activities. The respondent female farmers were involved in number of farming activities like crop production, wheat harvesting, livestock operations and, cleaning animal sheds was high. Taking into consideration the role of women in farming, the government should take steps to encourage them by providing trainings. The government level training will increase female farmers' level of involvement and productive capacity in agricultural and livestock management. It was suggested that at the household level, kitchen gardening program should be introduced which will improve their livelihood more effectively.

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***Correspondence** | Naheed Zahra, Social Science Division (SSD), Pakistan Agricultural Research Council (PARC), Islamabad, Pakistan; Email: naheedrizvi83@gmail.com

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Keywords | Agriculture, Female, Participation, Pothohar, Rain-fed



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Introduction

Male and female both are equally responsible for the feeding of world by performing the farming activities in a good spirit. Globally, women

have primary and exclusive responsibility for the agricultural sector and being an active member in farms they are playing an important role in rural cultures. According to FAO estimates for the year 2017 almost 79% of females and 61% of males

are working (directly or indirectly) in agricultural activities in Pakistan (FAO, 2017).

Women in rural areas have a significant role in agriculture, livestock and agro-based enterprises in Pakistan. They work from dawn to dusk to fulfill their responsibilities (Ahmad and Hussain, 2004; Habib *et al.*, 2022). Women had frequently required more time to devote for agricultural operations than men. Their involvement in food processing and storage, in particular, has far higher because they perform these duties in addition to their regular household duties (Habib *et al.*, 2022; Shreve, 2000).

Generally, Female's common responsibilities include caring for family members by doing household chores like housework, cleaning, food preparation, fetching drinking water, collecting fuel, in addition, working for wages as agricultural labors in field and taking care of animals (Luqman *et al.*, 2011). In rural areas of Pakistan, nobody acknowledges women's enormous contribution and doing their tasks as unpaid workers. The situation of the unpaid women labour force in rural areas of Pakistan is very alarming as about 60 % of their work is being utilized as unpaid (Kaleem, 2018).

Pakistan is a developing nation with a largely agricultural socioeconomic structure. According to published statistics in developing countries about 43.6 %, and in developed countries 36.7%, of women are working in the female labour force in agriculture. Pakistan has the 9th largest labour force in the (GoP, 2020). In Pakistan, almost 38.5 % of the labour force is employed in the agricultural sector (GoP, 2021).

Women are heavily involved in agricultural production, particularly rice, pulses, Wheat, cotton, and vegetables. In rural Pakistan, about 50 % of the female labour force participates in agricultural activities directly (Rashdi, 2002; Batool *et al.*, 2019; Amin *et al.*, 2009; Agarwal, 2018; Clement *et al.*, 2019). Females perform their duties by participating in the rearing of animals and harvesting crops along with their household activities. However, recent study by (Mohiuddin *et al.*, 2020) brought a new aspect that mechanization is replacing female as well as hired male labour force.

Pothohar's rain-fed zone is one of the most vulnerable and food-insecure areas. Pothohar has a population of more than two million people, with 70 % of them

living in rural areas and the bulk of them being small farmers with less than 5 hectares of land. Because of the inconsistency and scarcity of rain, the majority of male farmers have shifted to off-farm occupations, primarily in the public sector, to support their families. As a result, women are responsible for crop and livestock production (Zahra *et al.*, 2017; Khan *et al.*, 1999, 2012; Habib, 2021). Women are involved in all aspects of grain cultivation and animal management, with the exception of a few jobs such as ploughing the fields and threshing. In this paper it has been trying to report the female participation and involvement in different farming activities and livestock in the rain-fed area.

Materials and Methods

Study area and data collection method

The study was conducted in the village Thatti Gujran located in Fateh Jang, district Attock, Punjab, Pakistan. Like other villages of Pakistan, the female farmers were the active part of the farming community. The female participation was found comparatively high (67.9%) as compared to males (28.4%) in rural areas of Pakistan (Labour Force Survey, 2020-21). The study is based on primary data collection from 80 randomly female farmers of selected village Thatti Gujran. To collect the data, a well-structured questionnaire was created. The sample respondents were interviewed by using a simple random sampling method.

Data and analysis

After collection of data by personal interviews with female farmers, the gathered information was compiled. The collected data was analyzed using the Statistical Package for Social Sciences (SPSS) to extract the comments and responses of women farmers. Both descriptive and inferential statistics were used to obtain the best results.

Results and Discussion

Respondents socioeconomic characteristics

The average age of the respondents, according to the data was 44 years. The findings revealed that 22.5 % of respondents were between the ages of 20 and 30, and 17.5% were between the ages of 31 and 40. Similarly, 27.5% and 25.0% of those aged 41-50 and 51-60, respectively, and 7.5 % of those over 61 were documented. The average education of the respondents was about two years, which was very

low and suggest that female literacy in the area was very low. Overall literacy rate in rural areas of Punjab was reported 58.8 %, the literacy level of females was found comparatively low (48.9 %) as compared to male (69.0 %) in rural areas of Punjab (GoP, 2020-21). With an average of 18 years of farming experience, 35.0 % of the majority of respondents were literate, with 65.0 % being illiterate (Table 1).

Table 1: Demographic Characteristic of the respondents.

Variable	Mean	Std. D
Age (years)	44.47	13.34
Education (years)	2.6	3.96
Experience in farming (years)	18.72	13.12

Source: field survey.

Steimann (2005) claimed that information about household size reveals the potential for future labor and income. According to the survey findings, the average household size of the sample respondents was seven persons. Male members on the farm averaged 1.15, whereas male members of non-farm averaged 0.95. On the other hand, female members on the farm were 1.5, while female members non-farm were 0.35. The community had a high prevalence of joint family systems (Table 2).

Table 2: Characteristics of families.

Variable	Mean	Std. D
Size of the household (number)	6.75	3.02
Male farm worker	1.15	0.948
Non-farm male member	0.95	0.875
Female farm worker	1.5	0.75
Non-farm female member	0.35	0.95

Source: field survey.

Land is regarded as a symbol of prosperity and status. Those who own land, according to Kafil (2008) and Nayaran (2000) have superior livelihood opportunities and power. The majority of farmers in the study area own one to two kanals of land, and roughly 42.5% of them labor as renters. On average, 37.5% of respondents were landowners, although their holdings were small, ranging from 2 to 3 kanals, with only 20.0 % being owner-occupants (Table 3).

Table 3: Distribution of respondents by tenancy status.

Land status	Frequency	%
Owner	30	37.5
Tanents	34	42.5
Owner cum tanents	16	20

Source: field survey.

Farming operations are run entirely by females, but their labor is undervalued and assumed to be unpaid. According to the survey, females were found to be involved in a wide range of agricultural activities. The majority of females were actively involved in farming, according to the data. Only 32.5 % of female respondents said farming is a part-time job, while 67.5 % of female respondents said it is full time activity. During the informal discussion, it was observed that females were working extremely hard and had a lot of potential to improve their livelihood (Table 4).

Table 4: Female participation in farming.

Participation status	Frequency	%
Full time	54	67.5
Part time	26	32.5

Source: field survey.

Female professional participation in Pakistan is multifaceted and multitasking and their contributions are influenced by socioeconomic factors and local norms (Tanzina et al., 2019; Abbasi et al., 2019). In Pakistan, approximately 43% of rural women worked in farm agriculture (from land preparation to crop harvest). Females were completely dedicated to all types of farming activities. Female's contributions to agricultural activities in developing countries remain unnoticed; their efforts are neither acknowledged nor documented in economic and monetary terms. According to the Table 5, 37.5% of the females worked in wheat hoeing and 75.0 % worked in wheat harvesting in the targeted area. Because the area is mostly rain-fed, most households cultivated only wheat crops and leave the land fallow for the next wheat crop (Razia and Yasmeen, 2011; Anwar et al., 2016; Naheed et al., 2014). To supplement their income, a family with any type of irrigation system (e.g., a dug well or a space at home with easy access to water) cultivated some type of seasonal vegetable. As a result, better and more affordable irrigation facilities are desperately needed in that area.

Table 5: Female participation in various agricultural activities.

Activities	Yes		No	
	Frequency	%	Frequency	%
Wheat hoeing	30	37.5	50	62.5
Wheat harvesting	60	75.0	20	25.0
Wheat threshing	40	50.0	40	50.0
Wheat storage	36	45.0	44	10.0
Vegetable growing	50	62.5	30	37.5

Source: field survey.

Animal husbandry is important in the rural economy. This sector is dominated by small and landless farmers in rain-fed farming systems, and it is closely related to cropping systems. Several studies had found that rural females are more involved in livestock production management than crop production. According to Taylor (1985), the livestock sector in Pakistan takes up to 35.0% of a village female's time, and it's difficult to walk through a hamlet without coming across herds of goats, sheep, cows, hens, and buffaloes, among other animals. Females are in charge of 60 % to 80 % of cattle feeding and milking (ESCAP, 1997). They also work in animal production, livestock marketing, by-products (ghee, yoghurt), water collection and animal cleaning (Katuwal, 1991). The investigation of this finding confirmed some of the earlier conclusions. The findings from Table 6 revealed that the majority of females in the study area were heavily involved in livestock practices ranging from animal stall feeding to animal dung collection. The majority of females were involved in livestock shed cleaning (87.5%), Milking (75%), Collecting animal dung and preparing dung cakes (75%), Farmyard manure (75%), Watering (70%) and grazing (25%).

Table 6: *Female participation in various livestock activities.*

Livestock activities	Yes		No	
	Frequency	%	Frequency	%
Stall feeding	56	70	24	30.0
Grazing	20	25.0	60	75.0
Watering	56	70.0	24	30.0
Milking	60	75.0	20	25.0
Shed cleaning	70	87.5	10	12.5
FYM collection	60	75.0	20	25.0
Preparing dung cake	60	75.0	20	25.0

Source: field survey.

In the presence of men and under the sphere of their cultural norms, land ownership and decisions of crops are taken by male member of the family. Females assist them at each stage without considering their reward (Doss and Sofa Team, 2011).

Conclusions and Recommendations

Female's productive roles in agriculture are often considered invisible or undervalued in many countries. Such misunderstandings must be addressed in order to clarify rural female's position and importance in

the agricultural sector. Females in the targeted area were so enthusiastic about agriculture that they actively participated in it. Respondent female's emphasis on the importance of organizing training in the community.

Considering the importance of female participation in agricultural activities, the government should support them by establishment of district-level agricultural training to boost their productive capacity such as kitchen gardening and livestock management. Furthermore, it will lead to improve their knowledge, skills and productive ability for better livelihoods.

Novelty Statement

Study highlighted the female agricultural activities of Pothohar region and contributed in the literature regarding the female participation in the Pothohar's agriculture.

Author's Contribution

Naheed Zahra: Conceived research idea, carried out field survey and data collection.

Saira Batool: Data collection and analysis, draft preparation and incorporated the comments reviewers and finalized the article.

Mubbashira Nazir : Data analysis, reviewed the literature.

Ghulam Akbar Malik: Data collection and field management activities.

Iffat Batool: Provided technical inputs to the research at every step.

Conflict of interest

The authors have declared no conflict of interest.

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