

Socio-economic Status of Farm Women and Constraints Encountered by Them in Agriculture and Allied Systems in Jammu District

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ABSTRACT

Current paper focuses on sociodemographic situation of farm women and constraints they face in agricultural sector of Jammu district. Using multistage sampling technique three blocks were purposively selected from both irrigated and unirrigated areas. Two villages from each block and 10 households from each village were randomly selected and interviewed using pre-tested schedule. Results revealed that average age of farm women was between 30 and 50 years; 58.33% of farm women lacked literacy and only 22.5% had any form of intermediate education. Of the marginal farmers, 85.83 percent were women, and 57.50 percent of those women had 30 or more years of expertise in agriculture. Poor prices of the output and lack of timely financing availability were biggest obstacles for farm women in unirrigated and irrigated ecosystems, respectively.

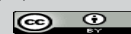
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India is a developing nation and the primary means of subsistence for developing and underdeveloped nations alike is agriculture. It is regarded as the foundation of the rural Indian economy and is a family enterprise that significantly contributes to rural growth and the eradication of poverty. For the majority of Indians, agriculture has been a way of life and their primary source of income. In India, agricultural strategy has been centred on achieving self-sufficiency and independence in the production of food grains for decades. Additionally, in the agricultural sector, irrigated land is typically used for commercial output whereas farming in unirrigated land primarily provides for farm livelihoods. More than one-fourth of the world's population are women, and in emerging nations, they make up an average of 43% of the agricultural workforce (Patel, 2012). In underdeveloped nations, it's critical to

prioritise food crops and livestock that are typically cultivated or produced by women in agriculture. The Food and Agriculture Organization estimates that women in India contribute 32% of all agricultural labour (Dev, 2018). The development of agriculture and related areas, such as primary crop production, livestock production, apiculture, floriculture, fisheries, sericulture, and others, depends heavily on women in Indian society. Women also plays a multifaceted role in the economy's sustainable growth by helping to manage family responsibilities as a mother and homemaker, as well as by working as co-partners in the farming sector. In many regions

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of the world where economic and social pressures are affecting the agriculture sector, their functions vary greatly between and within regions and are changing quickly. From field preparation to crop harvesting and product delivery to market, women play a crucial part in all farm-related operations. The majority of women work force (84%) work in rural India, and a significant portion of them (73%) work in the agricultural industry, which is located primarily (96%) in rural areas.

The development of the agriculture sector is a key factor in the overall economic process of Jammu and Kashmir. In district Jammu alone, women make up roughly 11% of the total employment in J&K, with the employability rate for women being around 15% (Digest of Statistics, 2020-21). Despite this, women work tirelessly in agriculture production and operations, carrying tools and equipment to other fields, preparing the land, caring for manure and fertilizers, mixing transplanting, sowing, weeding, hoeing, irrigation, curing, threshing, drying, cleaning, grading and caring for head loads of fodder, firewood, grazing cattle, sheep, and goats in addition to dewooling sheep, etc. (Sharma *et al.* 2014). Farm women do make certain decisions on their own, while others are made jointly with their husbands or other family members and others are made solely by others. In an agrarian nation like India, there is currently a need to empower farm women in decision-making. As a result, the decision made by farm-women at the right time affects the venture's success. Women can boost yield by 20% to 30%, increasing the overall agricultural output in poor nations by 2.5% to 4% if they have the same timely, convenient, and dependable access to resources as males. In addition to raising women's income, the increase in production can lower the number of hungry people in the globe by between 12% and 17% (Patel, 2012). Only when livestock and agricultural techniques are treated equally will society be balanced. The stumbling blocks or issues faced by agricultural women are called constraints. The main challenge faced by farm women in agricultural operations is lack of technical knowledge. The majority of respondents reported that maintaining cleanliness in the cattle sheds and keeping records were challenges in their dairy farming operations. Farm women have difficulty identifying insect pests, diseases, and their symptoms during vegetable

producing activities. The typical issues that women encountered were difficult and tedious, especially in agriculture and related occupations that required heavy physical labour while also lacking set working hours. Women make up the core of the family, and because of this, their thoughts and opinions are taken into consideration while making decisions.

The status of farm women and the main barriers to their participation in agriculture and related systems are unknown. Therefore, it is important to research the obstacles that farm women face in the agriculture and related systems, particularly at the local level. The frequent limitations and restrictions experienced by farm women in the agriculture and associated system have received scanty attention from researchers. The socioeconomic situation of farm women and the main obstacles they face in the agricultural sector are both highlighted in this paper with reference to Jammu. The study aims to examine and emphasize the socioeconomic state of farm women and the main obstacles they face in the sector. In light of the aforementioned circumstances, the following investigation's primary objectives were:

1. To identify the sociodemographic characteristics of farm women in the study region.
2. To measure the constraints faced by farm women in irrigated and unirrigated agriculture.

In addition to providing suggestions for potential improvements in the area, the study of farm women's status will provide a thorough understanding of the agricultural system's current problems, which will aid in the development of efficient policies, measures, and procedures for dealing with farm women's problems.

METHODOLOGY

The current study focuses on the Jammu district of Jammu and Kashmir UT, which was specifically chosen as having the most area sown under various crops in 2018–19. Blocks, villages, and farms were chosen as the first, second, and third stages of a multistage sample technique, respectively. From the irrigated area and the unirrigated area, three blocks each were chosen. Based on the largest area seeded under various crops in six blocks, a

deliberate selection process was undertaken. With the assistance of the Department of Agriculture, a list of the villages located in each chosen block was created, and two villages were chosen at random to constitute a total of 12 villages. 10 households were randomly chosen from each village to form a sample size of 120 farmers.

Both primary and secondary data were gathered using a well developed and thoroughly tested schedule, the farmers were interviewed to get the primary data. The necessary secondary data was gathered from several published sources/agencies, including the economic survey (different issues), the regional digest of statistics, annual reports, and other pertinent government publications. Basic tabular analysis utilising simple averages was used to determine the investigation's goals, namely the socio-demographic features of farm women, and Garrett ranking was used to examine the challenges faced by farm women. Farm women were asked to list their obstacles encountered in agricultural operations in an irrigated ecosystem based on the severity of the challenges. To work out the objectives of the investigation viz. socio- demographic characteristics of farm women, simple tabular analysis was carried out, by using simple averages and constraints faced by farm women were analyzed by using Garrett ranking. On the basis of the intensity of the problems farm women were asked to mention their constraints faced in agricultural operations under irrigated ecosystem.

They were rated on a three-point scale, with 1 being always, 2 being occasionally, and 3 being never having encountered obstacles to their engagement in agricultural activities. As a result, Garrett scores were determined for each constraint to rank them using the following formulas:

Garret Ranking Technique

$$\text{Per cent position} = 100 \times (R_{ij} - 0.5) / N_j$$

Where, N_j represents for the total number of factors ranked by the j^{th} individual, and R_{ij} stands for the rank given by the j^{th} individual for the i^{th} factor ($i = 1, 2, \dots, 16$).

Following the discovery of the percent position, scores were calculated for each per cent position using Garrett's table. The scores for each element

were then added together based on how many households ranked that factor. By calculating the mean scores by dividing the total score by the number of respondents who were ranked, total scores for each element were determined. The sixteen criteria were then ranked overall by assigning ranks 1, 2, 3, and so forth in descending order of the mean scores.

RESULTS

To understand the real-life situation, it is important to know farm women's personal details, such as age, education, farming experience, family size, family type, and land holding. The salient findings of the socio-demographic characteristics of farm women under the current study area have been presented in Table 1.

Table 1: Socio-demographic characteristics of farm women under the study area

Sl. No.	Variable	Category	Frequency	Percentage (%)
1	Age	Young (< 30)	9	7.50
			65	54.17
		Middle (30-50)	46	38.33
		Old (>50)		
2	Education	Illiterate	70	58.33
		Intermediate	27	22.50
		Intermediate to SSC	20	16.67
		Graduate	3	2.50
3	Experience in crop cultivation	<10	8	6.66
		10-20	15	12.50
		20-30	28	23.33
		>30	69	57.50
4	Family Size	Small (1-5)	42	35.00
		Medium (5-7)	52	43.33
			26	21.66
		Large (>8)		
5	Type of family	Nuclear	84	70.00
		Joint	36	30.00
6	Average farm size (hectares)	Marginal	103	85.83
		Small	9	7.50
		Medium	6	5.00
		Large	2	1.66

The data presented in Table 1 indicated that majority 54.17 per cent of farm women fall into the 38 to 50 years age group, whereas 38.33 per cent farm women

belonged to the group above than 50 years and only 7.50 per cent farm women were less than 30 years. It is observed that medium aged farm women were more likely to be involved in agricultural activities. Usually women of middle aged are enthusiastic, committed and hence, had more work efficiency than the older and younger ones. The middle age group has more physical vigor's and feels more family responsibility than the younger ones. It might be due to the reason that old aged women could not perform heavy work on the fields due to the physical weakness. Similar results have also been reported by Bhagyalaxmi *et al.* (2003). 58.33 per cent of farm women were illiterate, whereas 22.50 per cent were intermediate, 16.67 per cent had education from intermediate to SSC, and only 2.50 per cent of farm women graduated. A majority of rural women were either illiterate or had very low education status. It might be due to the reason that the rural environment in which they lived might not encouraged to their parents to give formal education to their daughters. Other strong reason could be the distant location of higher study centers from the villages and lack of capital might also be contributing factor for the respondents' low education level. Similar results have also been reported by Neelaveni *et al.* (2002). It was observed that, 57.50 per cent of rural women had above 30 years of farming experience whereas 23.33 per cent of them had farming experience of 20-30 years, 12.50 per cent had 10-20 years of farming experience and only 6.66 per cent of respondents had farming experience of less than 10 years. Therefore, it may be concluded that majority of farm women had above 30 years of farming experience. The possible reason might be due to their early marriage and traditional background. For a women who has grown up in a farm family and got married with a farmer, at an early age increases her level of experience in agriculture, because she usually start working in the farm at an early age. Farming experience increases the knowledge about agricultural activities similar results have also been reported by Kumar (2010).

It is clear from the Table 1 that majority of the farm women 52 per cent belong to medium family (5-7 members) while 42 per cent belonged to small family (1-5 member) and 21.66 per cent belonged to large family (more than 8 member). This might be due to their awareness, education and greater exposure to mass media with regard to family planning. 70.00 per

cent of the farm women belonged to nuclear family and 30 per cent farm women belong to joint family. It might be due to the reason that the cost of living is increasing day by day they might have found it beneficial and convenient to have medium families to lead a better and comfortable lifestyle this result has also been in compliance with Nataraju (2012). 85.83 per cent of farm women had marginal land holding, 7.50 per cent rural women had small land holding, whereas 5.00 per cent had medium land holding and only 1.66 per cent farm women had large land holding. Hence, it can be concluded that majority of the rural women belonged to marginal to small category of land holding. It might be because of more work on the large size of land holding as they might be taking more crops. This result has also been reported by Vanitha (2002).

Constraints faced in employment of farm women in irrigated and unirrigated agricultural areas

Farm women were asked to mention the constraints they faced both in irrigated and unirrigated agricultural areas which were noted down. The constraints were pooled accordingly to the garret score and ranks. The data regarding the constraints faced by farm women in agricultural activities under irrigated ecosystem are presented in Table 2.

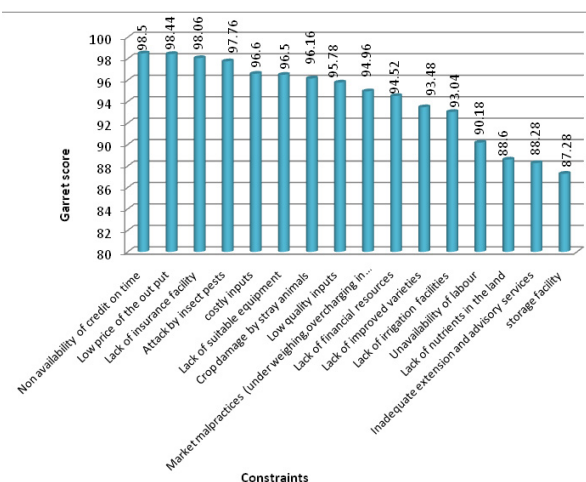


Fig. 1: Constraints w.r.t agricultural operations faced by farm women in under irrigated ecosystem

The data presented in Table 2 and Fig. 1 revealed that farm women experienced some constraints under irrigated ecosystem at major level. Non

availability of credit on time which is ranked I with garret score 98.5 was the main constraint the findings are supported by Owolabi *et al.*, (2011). Since farm women are considered as secondary workers in the area of agriculture hence they were not found to be actively involved in the dissemination of knowledge about new technology given by extension workers. As a result they were found to remain confined in their traditional package of practices. Other major constraints were low price of the output with rank II (GS 98.44), lack of insurance facility (GS 98.06) ranked III, attack by insect pests (GS 97.7) ranked at IV and costly inputs (GS 96.60) which was ranked V in Garrett ranking.

Table 2: Computation of garret score and allocation of rank to the constraints w.r.t agricultural operations faced by farm women in under irrigated ecosystem

Factors	Garret score	Rank
Non availability of credit on time	98.5	I
Low price of the out put	98.44	II
Lack of insurance facility	98.06	III
Attack by insect pests	97.76	IV
Costly inputs	96.6	V
Lack of suitable equipment	96.5	VI
Crop damage by stray animals	96.16	VII
Low quality inputs	95.78	VIII
Market malpractices (under weighing, overcharging in fees, commission etc. by middlemen)	94.96	IX
Lack of financial resources	94.52	X
Lack of improved varieties of major cereals	93.48	XI
Lack of irrigation facilities	93.04	XII
Unavailability of labour	90.18	XIII
Lack of nutrients in the land	88.6	XIV
Inadequate extension and advisory services	88.28	XV
Storage facility	87.28	XVI

Constraints that farm women faced on moderate level were lack of suitable equipment with ranked VI (GS 96.50), followed by crop damage by stray animals at ranked VII (GS 96.16), low quality inputs at rank VIII (GS 95.78), market malpractices (under weighing, overcharging in fees, commission etc by middlemen) at ranked IX (GS 94.96) and lack of financial resources

at X rank (GS 94.5). The constraints which were less experienced by farm women were lack of improved varieties of major cereals which was ranked at XI with (GS 93.48) followed by lack of irrigation facilities with GS 93.04 because most of the area had sufficient irrigation facilities; this finding is supported by Nain and Kumar (2010). Unavailability of labour, lack of nutrients in land, inadequate extension and advisory services and storage facility were some other constraints at XII, XIII, XIV, XV, and XVI ranks respectively.

The data presented in Table 3 and Fig 2 reveals that constraints which farm women experienced under unirrigated ecosystem at major level was low price of the output ranked I (GS 99.60) because the price of the products in the market has a very determinately effect on agricultural activities this finding is supported by Nain and Kumar (2010). Lack of irrigation facilities was ranked II (GS 99.48), lack of insurance facility (GS 99.06) ranked III, crop damage by stray animals (GS 98.98) ranked at IV and non availability of credit on time (GS 98.94) was ranked V in Garrett ranking.

Table 3: Computation of garret score and allocation of rank to the constraints w.r.t agricultural operations faced by farm women in under unirrigated ecosystem

Factors	Garret score	Rank
Low price of the out put	99.60	I
Lack of irrigation facilities	99.48	II
Lack of insurance facility	99.06	III
Crop damage by stray animals	98.98	IV
Non availability of credit on time	98.94	V
Lack of improved varieties	98.44	VI
Lack of financial resources	98.4	VII
Lack of nutrients in the land	98.22	VIII
Lack of suitable equipment	98.1	IX
Market malpractices (underweighing, overcharging in fees, commission etc. by middlemen)	97.76	X
Inadequate extension and advisory services	97.08	XI
Attack by insect pests	96.76	XII
Costly inputs	96.62	XIII
Low quality inputs	95.4	XIV
Unavailability of labour	93.84	XV
Storage facility	92.30	XVI

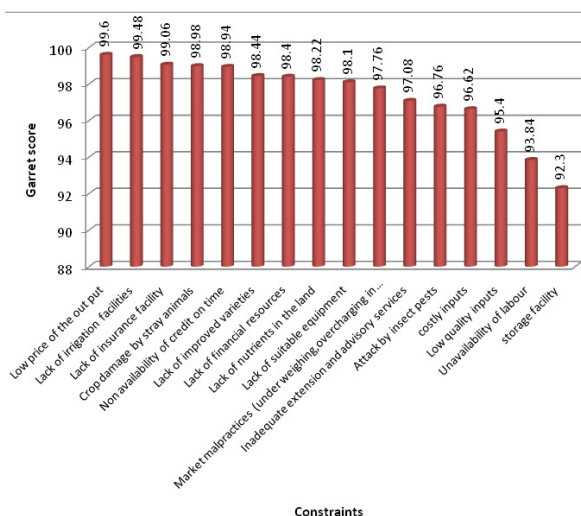


Fig. 2: Constraints w.r.t agricultural operations faced by farm women in under unirrigated ecosystem

Farm women faced the constraints on moderate level such as lack of improved varieties with rank VI (GS 98.44), followed by lack of financial resources at rank VII (GS 98.40), lack of nutrients in the land at rank VIII (GS 98.22), lack of suitable equipments at ranked IX (GS 98.10) and market malpractices (under weighing, overcharging in fees, commission etc. by middlemen) at rank X (GS 97.76). The constraints which were less experienced by farm women were: inadequate extension and advisory services which was ranked at XI (GS 97.08), followed attack by insect pests the finding are in line with Verma *et al.*, (2016), followed by costly inputs, low quality inputs, unavailability of labour and storage facility at XII, XIII, XIV, XV, and XVI ranked respectively.

CONCLUSION

The average age group of the farm women was 30-50 years while 58.33 per cent of total farm women were illiterate and 22.50 per cent had received intermediated level of education. Average family size in the area was medium i.e. 5-7 members and 70 per cent of the family were nuclear as 35 per cent of the families were small sized i.e. 1-5 member in it. Most of the farmers were marginal (> 1 ha) i.e. 85.83 per cent and 57.50 per cent of the women have 30 or more than 30 years of experience in crop cultivation while 23.33 per cent had 20-30 years experience. 7.50 per cent farms belong to small category (1-2 ha) and

5 per cent were medium farms (2-4 ha) while only 1.66 per cent were large farms (4 ha above). Farm women experienced some constraints under irrigated ecosystem at major level. These constraints were: non availability of credit on time (ranked I) was the main financial constraint for 79 farm women faced, followed by low price of the output (ranked II), lack of insurance facility (ranked III), attack by insect pests (ranked at IV) and costly inputs which was (ranked V). Whereas in unirrigated ecosystem were: low price of the output (ranked I), followed by lack of irrigation facilities (ranked II), lack of insurance facility (ranked III), crop damage by stray animals (ranked at IV) and non availability of credit on time which was (ranked V) in Garrett ranking. Farm women faced the constraints under irrigated ecosystem on moderate level were i.e. lack of suitable equipments (ranked VI), followed by crop damage by stray animals at (ranked VII) and, low quality inputs at (ranked VIII) and Market malpractices (under weighing, overcharging in fees, commission etc by middlemen) at (ranked IX) and lack of financial resources at (X ranked). Whereas farm women faced the constraints under unirrigated ecosystem were i.e. lack of improved varieties with (ranked VI), followed by lack of financial resources at (ranked VII), lack of nutrients in the land at (ranked VIII), lack of suitable equipments at (ranked IX) and market malpractices (under weighing, overcharging in fees, commission etc by middlemen) at (X ranked).

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