Farm Women’s Participation in Agricultural Activities: A Study of Udaipur District, Rajasthan

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Abstract: The present study was conducted in Udaipur District of Rajasthan state; with aim to know participation of farm women in agricultural activities in this area. For this study, two Tehsils namely Girwa and Vallabhnagar were purposively selected on the basis of the maximum female population in the district. So, Total 100 respondents were selected, they were interviewed personally to collect the data with the help of pre-structured interview schedule. The study found that majority 85.00 per cent farm women had medium level of participation with score(43.69 to 60.12) and also notified that majority of respondents were participated in livestock, intercultural operation, land preparation and nutrient management activities etc.

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I. INTRODUCTION

Women constitute almost half of the work force engaged in agriculture. Rural women constitute the most important productive work force in the Indian economy. In rural India, the percentage of women who depend on agriculture for their livelihood is as high as 84.00 per cent. Agriculture in India contributes about 18.00 per cent GDP and is predominantly a female activity.

The rural women participate in a broad range of agricultural activities such as production, processing, preservation and utilization of food. They play a key role in the entire food system starting from the selection of seed, sowing, manuring, weeding, drying, stacking storing and feeding the family from the harvested produce. Further, they play a major in the decision making process at household level. It is imperative to understand that they appear to influence the decision regarding the choice of farm enterprise as well as the desirable production features of a particular commodity or crop. It has been shown that whether it is shifting cultivation, subsistence and low or high input in agriculture, women work longer and harder than men though they are paid less. They also work on more tasks than men. In spite of their contribution to farming, the women have largely remained invisible as active farmers. Most people have failed to recognize the work that the women’s involvement in agriculture is enormous.

II. MATERIAL AND METHODS

The present study was conducted in Udaipur district of Rajasthan State. For this study, two tehsils namely Girwa and Vallabhnagar were purposively selected on the basis of the maximum female population in the district, from each tehsil 5 villages were selected on the basis of maximum female population so, total 10 villages from both tehsils were selected and from each village 10 respondents were randomly selected. Total 100 respondents selected from villages, they were interviewed personally to collect the data with the help of pre structured interview schedule. Thereafter, data were tabulated, analysed and inferences were drawn in light of the objective.

Study Design/Technique: Personal interview technique with pre structured interview schedule.
Study location: This study was conducted in Vallabhnagar and Girwa tehsils of Udaipur district of Rajasthan.
Study Duration: November 2018 to May 2019.
Sample size: 100 Farm Women
Sample size, calculation and procedure analysis: Total 100 respondents selected from villages, they were interviewed personally to collect the data with the help of pre structured interview schedule. Thereafter, data were tabulated, analysed and inferences were drawn in light of the objective.

Statistical analysis: Frequency, MPS, rank, Mean , S.D., Z test
III. RESULTS

Participation of farm women in agricultural activities
Rural women in India play a pivotal role in farming enterprise. They actively participate in all range of activities related to farming. Farm women remain busy from dawn to dusk in various agricultural activities including pre-harvest and post-harvest process. Their participation is well dispersed but less perceived, because of insufficient data to show their active involvement in various agricultural activities. Keeping in view these facts, the present study was designed to explore the extent of their participation in various agricultural activities.

Table 1: Distribution of farm women according to their overall extent of participation in agricultural activities (n = 100)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Participation in agricultural activities</th>
<th>Girwa Tehsil</th>
<th>Vallabhnagar Tehsil</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Low (&lt; 43.69 score)</td>
<td>02 04.00</td>
<td>03 06.00</td>
<td>05 05.00</td>
</tr>
<tr>
<td>2.</td>
<td>Medium (43.69 to 60.12 score)</td>
<td>42 84.00</td>
<td>43 86.00</td>
<td>85 85.00</td>
</tr>
<tr>
<td>3.</td>
<td>High (&gt; 60.12 score)</td>
<td>06 12.00</td>
<td>04 08.00</td>
<td>10 10.00</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>50 100.00</td>
<td>50 100.00</td>
<td>100 100.00</td>
</tr>
</tbody>
</table>

f = frequency , % = per cent

Table 1 revealed that majority 42 (84.00%) respondents of Girwa tehsil and 43 (86.00%) respondents of Vallabhnagar tehsil had medium level of participation in agricultural activities. Likewise, 6 (12.00%) and 4 (08.00%) respondents of Girwa and Vallabhnagteh vil had high level of participation in agricultural activities respectively. Whereas, 2 (04.00%) and 3 (06.00%) respondents had low level of participation in agricultural activities from Girwa and Vallabhnagar tehsil respectively.

Table 1 also stated that in total majority 85.00 per cent of respondents had medium level of participation in agricultural activities.

Aspect wise participation of respondents regarding different agricultural activities

Table 2 revealed that most of the farm women actively involved in some agricultural practices like livestock, intercultural operations, land preparation, nutrient management and harvesting and post harvesting activities etc. while other activities like crop protection, sowing practices, marketing, irrigation etc; they were medium involved but activities like poultry and goatry they were less involved main reason of less involvement was that only few of them had poultry and goatry.
Table 2: Aspect-wise participation of farm women in agricultural practices

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Activities</th>
<th>Girwa MPS</th>
<th>Vilabhnagar MPS</th>
<th>Total MPS</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Land Preparation</td>
<td>69.73</td>
<td>74.13</td>
<td>71.93</td>
<td>III</td>
</tr>
<tr>
<td>2.</td>
<td>Sowing Practices</td>
<td>25.00</td>
<td>41.16</td>
<td>33.08</td>
<td>VII</td>
</tr>
<tr>
<td>3.</td>
<td>Nutrient Management</td>
<td>78.00</td>
<td>64.66</td>
<td>71.33</td>
<td>IV</td>
</tr>
<tr>
<td>4.</td>
<td>Crop Protection</td>
<td>67.33</td>
<td>40.33</td>
<td>53.83</td>
<td>VI</td>
</tr>
<tr>
<td>5.</td>
<td>Irrigation</td>
<td>27.11</td>
<td>24.22</td>
<td>25.77</td>
<td>IX</td>
</tr>
<tr>
<td>6.</td>
<td>Intercultural operation</td>
<td>84.00</td>
<td>72.44</td>
<td>78.22</td>
<td>II</td>
</tr>
<tr>
<td>7.</td>
<td>Harvest and Post harvest</td>
<td>74.38</td>
<td>67.90</td>
<td>71.14</td>
<td>V</td>
</tr>
<tr>
<td>8.</td>
<td>Marketing</td>
<td>28.26</td>
<td>26.40</td>
<td>27.33</td>
<td>VIII</td>
</tr>
<tr>
<td>9.</td>
<td>Livestock</td>
<td>73.75</td>
<td>94.25</td>
<td>84.00</td>
<td>I</td>
</tr>
<tr>
<td>10.</td>
<td>Poultry</td>
<td>08.00</td>
<td>0.66</td>
<td>4.33</td>
<td>XI</td>
</tr>
<tr>
<td>11.</td>
<td>Goatry</td>
<td>13.33</td>
<td>2.00</td>
<td>7.66</td>
<td>X</td>
</tr>
</tbody>
</table>

MPS= Mean per cent score

From the data in Table 2, it can be inferred that among eleven practices, livestock activities was on the first rank with MPS of 84.00 and probable reason of this might be that most of the women performed activities like cleaning of shed, feeding concentrate to live stock, milking, feeding fodder, watering to animal etc. Especially, these activities were in their daily routine and were performed in every home by women only and these are their natural task. It also stated Vallabhnagar respondents had high participation in livestock activity as compared to Girwa tehsil respondents.

About intercultural operations; it was ranked 2nd with MPS of 78.22. This might be due to their higher participation in the activities like gap filling, interculture operation and weeding. It required ample of time and patience and socially, it is considered that woman has more patience and her physique allows to perform light tasks easily and efficiently. So, they participated more frequently in the intercultural operations. It further shows that Girwa tehsil respondents were high participated in this activity compare to Vallabhnagar tehsil respondents.

4th rank was given to nutrient management in soil with MPS of 71.33 and in this activity women participated in application of FYM, chemical fertilizers and micro nutrients and the probable reason behind this might be that land preparation activity included ploughing, removal of stubbles, clod crushing, land leveling, bund and furrow preparation. Majority of farm women never participated in ploughing of field because it is most strenuous task as these activities was pre-dominantly performed by men using tractors or by desi plough. It also revealed that Vallabhnagar tehsil respondents participation in land preparation activities was higher compared to Girwa tehsil respondents.

Fig. 2: Practice wise participation of farm women in agricultural activities
chemical fertilizer to soil. It also stated that between two tehsils higher participation of Girwa tehsil as compare to Vallabhnagar tehsil in this activity.

About harvest and post harvest activities was on the fifth rank with MPS of 71.14 and the probable reason for this might be that most women used to participate in activities like harvesting of crops, collection of harvested crop, threshing, winnowing, grading of product, cleaning of product, storage of seed etc. Especially, the tasks like handling over the bundles of fodder winnowing, cleaning grading and storage of grain were solely performed by farm women as this kind of tasks are more suitable to farm women due to easiness of these tasks. It also revealed that comparison of both tehsils Girwa tehsil respondents had more participation in this activity as compare to Vallabhnagar tehsil respondents.

With respect to crop protection measures was on the sixth rank with MPS of 53.83 and this might be due to their average participation in the application of fungicide and pesticide. It also clearly stated that Girwa tehsil respondents had more participation in this activity compare to Vallabhnagar tehsil.

7th rank was given to sowing practices with MPS of 33.08. The probable reason might be that the tasks like cleaning of last year stored seed, sowing of seeds, seed treatment with bio fertilizers before sowing and also due to their remarkable participation in purchase of seeds and bio-fertilizer for seed treatment. Study further stated that Vallabhnagar tehsil respondents participated high compare to Girwa tehsil respondents.

In case of marketing activities, it was on the eight ranks with MPS of 27.33. This might be due to least participation of farm women in the activities such as weighing, packaging, selling of crop in the market, participating in the auctions, etc. As marketing involves loading and unloading the produce which are considered strenuous and require muscle power, farm women avoid participation in those activities. It also stated that respondents of Girwa tehsil had high participation in marketing as compare to Vallabhanagar tehsil.

With respect to irrigation management was ranked 9th with MPS of 25.77 and probable reason for this result is quite lower participation in irrigating crop, preparation of furrows and installation of sprinkler and drip irrigation system in the field was difficult and mostly this work was done by male farmers. It also further revealed that Girwa tehsil had high participation compare to Vallabhnagar tehsil.

Goatry was on tenth rank with MPS of 7.66. Table further revealed that Girwa tehsil respondents participation in goatry high compare to Vallabhnagar tehsil respondents. The probable reason for this result that children like away goats along road side for grazing during day hours and women of drinking water and put them in fence input management because of the less respondents had goats.

With respect to poultry it was ranked as 11th with MPS of 4.33 and the probable reason for this result might be least participation in poultry management because of the less respondents had chickens. It further stated that Girwa tehsil respondents had high participation in poultry compare to Vallabhganagar tehsil respondents.

Comparison between participation of farm women of both tehsils regarding different agricultural activities

In order to find out the significance of different between the farm women of selected tehsils with respect to participation in agricultural activities by them, ‘Z’ test was applied. For this purpose, the following null hypotheses were tested and results are presented in Table 3.

**NH**: There is no significant difference between participation of farm women of selected tehsils regarding different agricultural activities.

**RH**: There is significant difference between participation of farm women of selected tehsils regarding different agricultural activities.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Category of sample</th>
<th>Mean</th>
<th>S.D.</th>
<th>‘Z’ value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Respondents of Girwa tehsil</td>
<td>73.44</td>
<td>10.40</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Respondents of Vallabhnagar tehsil</td>
<td>68.46</td>
<td>5.89</td>
<td>2.96**</td>
</tr>
</tbody>
</table>

** Significance at 1% level of significance

Table 3 revealed that the calculated ‘Z’ value was found to be greater than its tabulated value at 1 per cent level of significance. Thus, the null hypotheses (NH) was rejected and alternate hypotheses (RH) was accepted. It also found that there was significance difference in participation of farm women of two selected tehsils with respect to different agricultural activities.
IV. CONCLUSION

The study concluded that majority 85.00 per cent of respondents were participated medium level in agricultural activities whereas, 10.00 per cent and 05.00 per cent had high and low level of participation in agricultural activities and also added that majority of respondents were participated in livestock, intercultural operation, land preparation and nutrient management.

REFERENCES
