

Study the Participation of rural women in agriculture activities

Abstract

The role of rural women in agriculture is both foundational and transformative, yet often underrepresented in mainstream narratives. This study explores the extent, nature, and significance of rural women's participation in agricultural activities across various regions. Women in rural areas are actively engaged in nearly all facets of agriculture, including sowing, weeding, harvesting, post-harvest processing, seed preservation, livestock rearing, dairy management, and agro-forestry. In many cases, especially among small and marginal farmers, women constitute the primary labor force within households and significantly contribute to food production and household income. Their involvement is not merely supportive; they frequently shoulder full responsibility for agricultural operations, particularly in male-absent households due to migration or other employment. Despite this, their contributions often go unrecognized, both socially and economically, as they are rarely considered "farmers" in official records, receive little or no remuneration for their labor, and remain largely excluded from decision-making processes, land ownership rights, and access to institutional credit or government schemes. This study highlights the gendered dynamics in rural agriculture, where women's hard work and knowledge remain invisible in policy frameworks. It further underscores how gender inequality, lack of education, restricted access to modern farming technologies, and socio-cultural norms hinder the empowerment of rural women farmers. However, it also reveals emerging opportunities: women's collectives, Self-Help Groups (SHGs) and agricultural cooperatives are enabling women to gain technical skills, improve productivity, and assert agency in community and family decision-making. When provided with access to education, training, credit facilities, and land rights, rural women demonstrate exceptional potential in enhancing agricultural output and promoting sustainable practices. The study concludes that integrating rural women fully into agricultural planning and policy is not only a matter of gender justice but a crucial step toward achieving food security, poverty reduction, and sustainable rural development. Acknowledging and strengthening the role of women in agriculture can lead to holistic community progress and inclusive economic

growth. Their involvement is not ancillary it is vital. Empowering rural women in agriculture is, therefore, not merely an option but a necessity for comprehensive national development.

Keywords: Self-Help Groups, empowering rural women, family decision-making, women farmers and agricultural cooperatives.

1. Introduction

Women contribute about 3/4th of the labour required for agricultural operations. Their involvement in agricultural operations is besides their usual domestic work. Most of the contributions made by women to the farm sector also goes unaccounted as they are not directly paid. The contribution of female labour towards agricultural production is always more than the male labour in all types of landholding size (Sheela, 2009). The jobs traditionally done by farm women in the order of importance are mainly the kitchen gardening, harvesting, seedling raising and transplanting (Deshpande *et al.*, 2011). Although women play an indispensable role in farming and in improving the quality of life in rural areas, their contributions often remain concealed due to some social barriers and gender bias. Even Government programmes often fail on women in agriculture (Deka and Saikai, 2002). This undermines the potential benefits from programme, especially those related to food production, household income improvements, nutrition, literacy, poverty alleviation and population control. Equitable access for rural women to educational facilities would certainly improve their performance and liberate them from their marginalized status in the society. Indian rural women share substantial responsibilities and perform a wide spectrum of duties in most of the family related activities, farming related activities as well, besides their exclusive involvement in domestic chores (Urmila and Verma, 2009). The participation of women greatly helps to supplement the family income but the dual role they play as income generator as well as homemaker does have some negative impact on the family too. Women make essential contributions to the agricultural and rural economies in all developing countries (Dongre, 2003). Their roles vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. Rural women often manage complex households and pursue multiple livelihood strategies (Eboh, 2000). Their activities typically

include producing agricultural crops, tending animals, processing and preparing food, working for wages in agricultural or other rural enterprises, collecting fuel and water, engaging in trade and marketing, caring for family members and maintaining their homes (Hiremath and Balasubramanya, 2009). Many of these activities are not defined as “economically active employment” in national accounts but they are essential to the well-being of rural household.

2. Material and methods

The research study on Participation of rural women in agriculture activities was conducted during the year 2018 in Chitrakoot Districts of U.P. This chapter deals with locale of the study, research design, sampling and sampling procedure, selection of variable and their measurement, data collection and statistical tests used for analysis of data are research Design, Locale of the study, Sampling technique for the study, Variables and their measurement, Instrument of data collection and Statistical techniques used in the analysis of data Research Design.

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2.1 Research Design: In this study Ex-post-facto research design used. This design is appropriate because the phenomenon has already occurred. Ex-post-facto research is the most systematic empirical enquiry in which the researcher does not have control over independent variables as their manifestations have already occurred or because they are inherently not manipulable.

2.2 Locale of the study: The present study was conducted in Karwi block in Chitrakoot district of U.P. Karwi block was randomly selected because it had sufficient number of rural women population.

2.3 General features of Karwi block: Chitrakoot is situated in Uttar Pradesh at an altitude of 212 meters above mean sea level (MSL). It is located on latitude of 25.11°N to 60.00°N and longitude of 80° E to 81.30°E. The average annual rainfall is 939.50 mm. The total geographical area is 3,388.97sq.km. Total forest area 59731sq.km Nat area swon 171227sq.km. Major soil type of the study area mainly typea Alfisols-Hilly soil, Vertisols-black soil, Entisols-Alluvial soil. Major crops of the block are peddy ,wheat pulses *etc.*

2.4 Weather and climate of karwi block: It is too hot in summer. Karwi summer highest day temperature is in between 27.c to 48.c and average temperatures of January is 15.c, February is 19.c, March is 27.c, April is 34.c, May is 39.c

2.5 Selection of block: The Chitrkoot District in 8 blocks. The study was confined only in Karwi block selected for the randomly of conducting the present study. It was also consideration that the K.V.K. of Ganiba must have effected the villages in the participation of woman in agriculture activities.

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2.5.1 Selection of village: The Karwi block in total no. of 441 villages so i am selected the villige randomly Selection of villages was done on the basis of randomly selection.. A list of villages from Karwi are mainly 8 Villige and each villige selected 15 Respondent selected randomly. 1 Sangranpur, 2 Barampur, 3 Chitra, 4 Shivrampur, 5 Khutaha, 6 Kushwaha Basti, 7 Ranipur and 8 Manoharganj

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2.5.2 Selection of respondents: The village wise list of rural women was prepared. From this, fifteen rural women were selected randomly from each selected village to make a sample size of 120 rural women. Respondent village Sangrampur (15), Barampur(15), Chitra(15), Shivrampur(15), Khutha(15), Kushwaha basti(15), Ranipur (15) and Manoharganj(15).

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2.6 Variables and their measurement: A variable which was included in the study are selected on the basis of extensive review of literature. Efforts are made to define each general level concept to the operational level so, that it could be measured. Measurement mechanism was used to the variables for this study is presented below

List 1 : **Selected variables and their measurement**

S. No.	Variables	Measurement
A Independent variables		
Socio- Personal Traits		
1	Age	Chronological age
2	Education	Self scoring
3	Marital status	Self scoring
4	Farming experience	Number of years of experience in farming.
Socio Economic Traits		
5	Annual income	In Rs.
6	Land holding	Structured schedule was developed. (in ha.)
Communicational Traits		
7	Extension participation	Siddarmaiah and jaliha (1983)
8	Source of information	Self scoring
Psychological Traits		
9	Attitude toward Agriculture	Joy Mathews & Nagi Reddy(1982)

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10 Knowledge about Agriculture activities Self Scoring

Dependent variable

1. Participation of rural women in agricultural activities Self Scoring

2.7 Socio economic traits:

2.7.1 Annual income: It refers to the total amount an individual earned through crop production without sidering the cost of cultivation. This is calculating by converting the total crop production in year of survey with existing prices of different grains and summed up to set the total annual income in to rupees and on the basis of data collected the income was classified into three categories as under low (less than 50,000/-)- 1, middle (50,000/- to 1,00,000/-)- 2 and high (more than 1,00,000/-)- 3.

2.7.2 Land holding: It is the area of land possessed by an individual. The land holding was measured with the help of structured schedule. The categories will be classified in the following manner marginal (<1ha), Small (1-2ha), Medium (2.1 - 5ha) and Large (> 5 ha).

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2.8 Communication traits:

2.8.1 Extension participation- Extension participation refers to the extent of involvement by the farm women in different extension activities conducted by the different extension agencies. The extension participation is measured with the help of scale measured with the help of scale developed (Low-1, Meadium-2 and high-3) by siddharmaiah and jalihal(1983)

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2.8.2 Sources of information: Sources of information are directly or indirectly linked with the knowledge and adoption, in adoption level of respondents regarding improved agricultural information. In this study the different sources of information were considered which participation in agriculture activities. The responses of the respondents were recorded about their source of information and each source was given equal weight age and categories [News paper(1), Radio (2), Television (3), Krashi Patrika (4), Agriculture development officer (5), Agricultural Scientist (6), Internet (7), Cooperative agency (8), Subject matter specialist(9) and Krishi vigyan Kendra(10)] were made according to the use of information source.

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2.9 Psychological Traits:

2.9.1 Knowledge about agriculture activities: Knowledge refers to the “information possessed by a rural women regarding scientific cultivation of crops. All the important operations for a crop cultivation including the additional aspects were listed. A total of 10 common recommended agricultural activities were selected based on the judgment of specialists and advisory committee

member. The response was collected in three continuum scales i.e. “correct”, “partially correct” and “Incorrect”. The weight age given to these ‘2’, ‘1’, and ‘0, respectively. Total knowledge of each respondent was obtained by adding the respectively scores [Low (up to 9)- 1, Medium (10 to 15)- 2 and High (above 16 to 20)- 3] for each item.

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2.9.2 Instrument of data collection: The data was collected through personal interview method with the help of pre-tested, interview schedule, which was prepared on the basis of objectives of investigation and variables. The interview schedule was thoroughly discussed with the member of the advisory committee and their suggestion was incorporated.

2.9.3 Presentation of data: The data collected was tabulated and presented in the form of tables and figures as per necessity.

2.10 Statistical techniques used in the analysis of data Research Design

2.10.1 Statistical analysis of the data: The statistical tests and procedures was used for analyzing the data with the help of statistical tools like- Percentage and frequency:

2.10.2 Percentage: The term 'percentage' means a fraction whose denomination is 100 and the numeration of the fraction is called Percentage. For calculating percentage, frequency was multiplied by 100 and divided by total respondents.

$$P = \frac{X}{N} \times 100$$

Where,

P = Percentage

X = Frequency of respondents

N = Total number of respondents

3. Results and Discussion

The research study on Participation of rural women in agriculture activities was conducted during the year 2018 in Chitrakoot, Uttar Pradesh.

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Participation of rural women in different agricultural activities

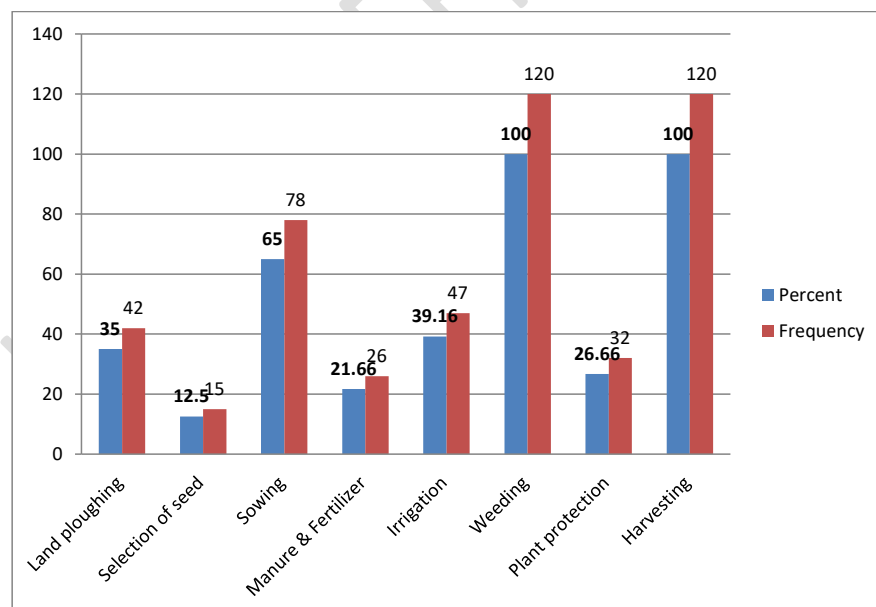
S. No.	Before sowing	Yes		No	
		F	P	F	P
1	Land ploughing	42	35	78	65
2	Selection of seed	15	12.5	105	87.5
3	Sowing	78	65	42	35

4	Manure & Fertilizer	26	21.66	94	78.34
5	Irrigation	47	39.16	73	60.84
6	Weeding	120	100	0	0
7	Plant protection	32	26.66	88	73.34
8	Harvesting	120	100	0	0

Table 1: **Participation of rural women in before sowing agricultural activities**

Table 1 it is revealed that the Participation of rural women about agriculture activities highest percentage of respondents 100% participation of weeding and harvesting, 65 per cent respondent are involve in sowing activities 39.16 percent respondent irrigation, 35 per cent respondent participate in land ploughing , 26.66 percent respondent participation in plant protection ,21.66 percent respondent participation in manure and fertilizer and 12.5 respondent women are participation in selection of seed activities. Present findings supported that the finding of Baig, 2010; Bharathi and Badiger, 2009;Bharti *et al.*, 2000..

Fig 1 : **Participation of rural women in before sowing agricultural activities**



S. No.	After harvesting	Yes		No	
		F	P	F	P
1	Winnowing	86	71.66	34	28.34
2	Storage	90	75.00	30	25.00
3	Marketing	17	14.16	103	85.84

Table 2: Participation of rural women in After harvesting agricultural activities

Table 2 it is revealed that the maximum participation was found in storage activities 75 per cent, closely followed by winnowing 71.66 per cent and minimum participation are found 14.16 per cent in marketing. Present findings supported that the finding of Baba *et al.*, 2009.

Fig 2 : Graph showing participation of rural women in After harvesting agricultural activities

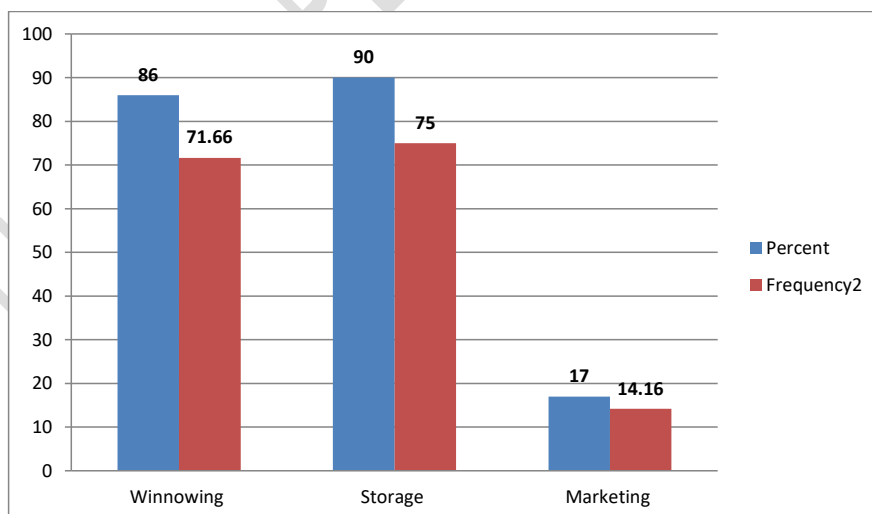


Table 3: Participation of rural women in Household activities:

S. No.	Household activities	Yes		No	
		F	P	F	P
1	Cooking	118	98.33	02	1.67
2	Knitting & stitching	112	93.33	08	6.67
3	Child care	120	100	0	0

Table 3 Maximum participation was found in Child care 100 per cent, 98.33 women respondent are involve in cooking and minimum 93.33 respondent are involve in knitting and stitching activities. Present findings supported that the findings of Badodiya *et al.*, 2008.

Fig 3 : Graph showing participation of rural women in in Household activities

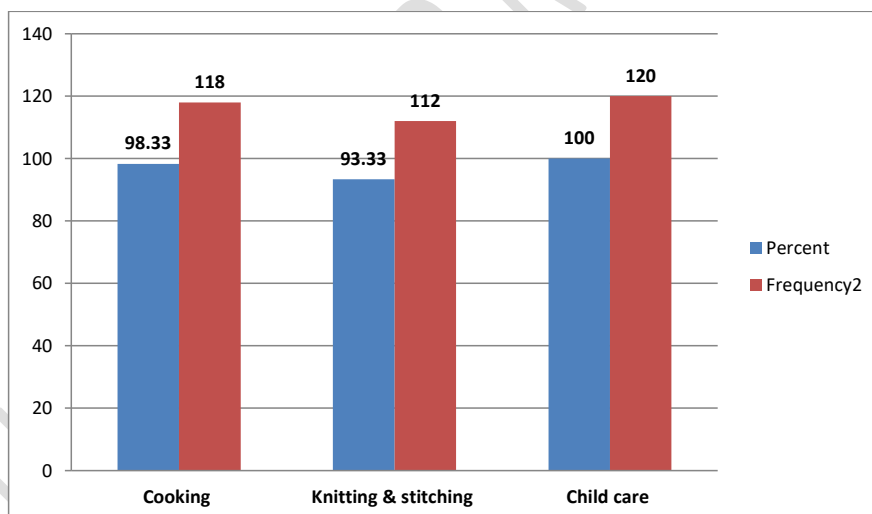


Table 4: Participation of rural women in Livestock activities

S. No.	Livestock activities	Yes		No	
		F	P	F	P

1	Cleaning cattle shed	117	97.5	03	02.5
2	Animal vaccination	03	02.50	117	97.5
3	Treatment of animal disease	111	92.5	09	07.5
4	Milking	118	98.33	02	01.67
5	Dung cake	116	96.66	04	03.34

Table 4 maximum participation was found 98.33 percent in milking percent, While 97.05 per cent respondent are involve in cleaning cattle shed activities, 96.66 percent respondent are involve in dung cake activities, 92.50 percent respondent are involve in treatment of animal disease (home remedy) and 02.50 percent respondent are involve in animal vaccination activities. Present findings supported that the findings of Awasthi *et al.*, 2002.

Fig 4 : **Graph showing Participation of rural women in Livestock activities**

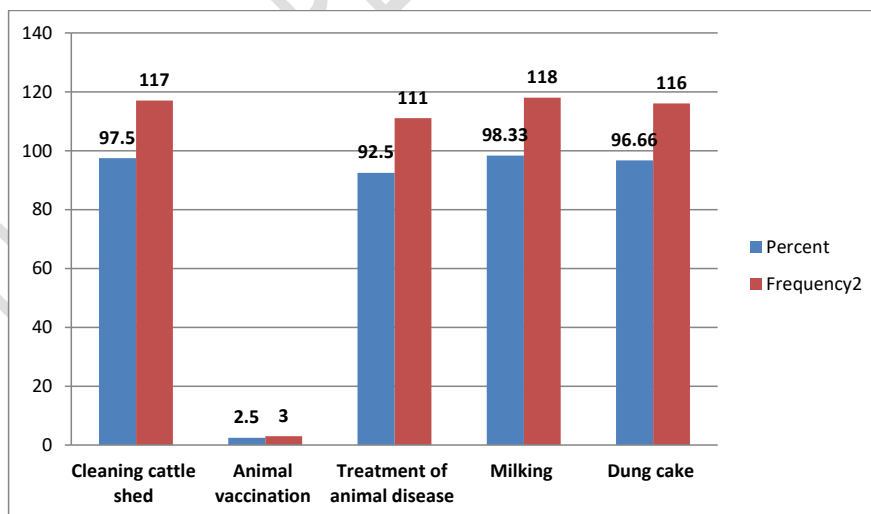
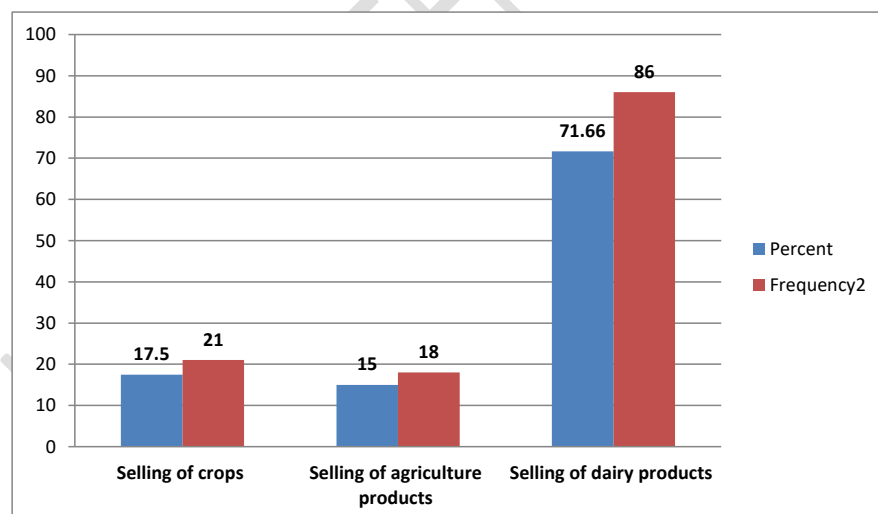


Table 5: Participation of rural women in marketing activities:

S. No.	Marketing activities	Yes		No	
		F	P	F	P
1	Selling of crops	21	17.5	99	82.5
2	Selling of agriculture products	18	15	102	85
3	Selling of dairy products	86	71.66	34	28.34

In table 5 the data show that maximum respondent are found in 71.66 per cent in selling of dairy product, 17.50 per cent respondent are involve selling of crops and 15 percent respondent are minimum involve in selling of agriculture product.

Fig 5 : Graph showing Participation of rural women in Marketing activities



4. Conclusion

The participation of rural women in agricultural activities forms the backbone of agrarian economies, particularly in developing countries like India. This study comprehensively concludes

that rural women are indispensable contributors to agriculture, not only as laborers but also as decision-makers, caretakers of biodiversity and custodians of traditional farming knowledge. They actively engage in every stage of agricultural operations from soil preparation, sowing, transplanting, weeding, irrigation, harvesting, threshing and storage to livestock management and food processing. Despite their substantial contribution, the systemic undervaluation of their work remains a significant concern. Their labor is often unpaid, unrecognized, and excluded from official statistics, rendering them invisible in policy dialogues. Moreover, they face challenges like limited access to land ownership, credit, education, agricultural training, and modern technologies, which significantly hinder their productivity and potential. The study also reveals that women's agricultural roles are expanding, especially with increasing male migration to urban areas, placing women at the forefront of farming responsibilities. However, the burden of balancing farm work with domestic duties continues to reinforce gender inequalities, limiting their scope for socio-economic advancement. Nevertheless, the emergence of women-centric self-help groups, community-based organizations, and governmental schemes has begun to pave new paths for empowerment. When provided with appropriate institutional support, training, and access to resources, rural women can substantially increase agricultural productivity, contribute to environmental sustainability, and uplift their households and communities economically and socially. This research concludes that acknowledging and institutionalizing the role of rural women in agriculture is no longer a choice but an urgent necessity. Policies must be reoriented to ensure gender-sensitive frameworks that prioritize women's land rights, equal wages, capacity-building programs, leadership roles, and access to finance and agricultural extension services. Empowering rural women in agriculture is not only crucial for enhancing food security and rural livelihoods but also for fostering inclusive development and social equity. Hence, the future of sustainable agriculture, rural prosperity, and national development lies significantly in recognizing, investing in, and uplifting the hands that have long toiled the soil silently those of rural women.

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