A STUDY OF FARM WOMEN'S INVOLVEMENT IN AGRICULTURAL TRANSFORMATION IN THE PEDDAPALLI DISTRICT OF TELANGANA, INDIA

ABSTRACT

The present study was carried out in the Peddappalli district of Telangana, India. The paper shed light on participation levels, some cognitive characteristics, and prevalent gender discrimination. The goal of this study was to examine farm women's participation in agriculture, which would aid in the collection of systematic data and trends across Telangana state. The personal interview method was used, with a questionnaire prepared on independent (socioeconomic profile) and dependent variables (knowledge, decision-making, gender discrimination, constraints). The study's major findings concluded that the majority of the women (39.16%) were middle-aged, had a medium annual income (45.00%), and participated in agricultural activities such as weeding (60.83%), transplanting (59.17%), and harvesting (59.16%). Despite having a moderate (93.33%) understanding of agricultural activities, gender discrimination was prevalent in rice and vegetable cultivation practices. Women were observed making individual decisions in agricultural activities such as growing seasons (79.10%) and manuring time (70.83%). Along with all of this, several constraints were identified and possible suggestions were given. As a result, the study is expected to contribute to the scarcity of literature and assist the government in addressing the issues confronting farm women.

Keywords: allied activities, decision-making process, gender discrimination, knowledge, socio-economic.

I. INTRODUCTION

Agriculture is a major source of income in India, where it ranks fourth in the world. Agriculture is the primary occupation in the country, relying on it directly or indirectly. Women, like men, play an important role in agriculture in terms of improving agricultural quality. Many measures and initiatives have contributed to the change in time, but one thing that has not changed over the years is the expectation of women in agriculture [4]. Agriculture has undergone significant changes as a result of the incorporation of science and technology, but this most recent advancement has done nothing to address the growing ignorance of women's labor roles in agriculture *[5]*. The primary need of working women or those seeking employment in various

agricultural and non-agricultural activities is to provide for their families and increase family income *[3].* According to Indian statistics 2021, 84% of rural women rely on agriculture for a living, with 33% cultivators and 47% field crop laborers. Particularly notable is their 94% contribution to cereal production (2009). Women are widely regarded as the primary caregivers for much of the household work, including food preparation, cleaning, laundry, and childcare. Furthermore, work in kitchen gardens, tending small livestock or poultry, converting agricultural products into food on the table, processing, and cooking are not always considered agricultural work [6]. As claimed by *United Nations Human Development Report (2019 statistics),* only 32.8% of women in India formally participate in the labor force. On average, women are just earning 70 % of men's wages which is leading to gender wage disparity [8].

An examination of women's roles began in the 1970s, as described by Boserup (1970). Boserup distinguished three types of agricultural systems in which women's agricultural systems were analyzed and described, which is where the study of women began. Except for land clearing, it was claimed that all agricultural work was done by women who supported themselves and their children. In developing countries, agriculture continues to absorb the 2/3rd of the female labor force but fails to give them recognition of employed labor. Female farm laborers continue to be subjected to the oppressive situation of being primarily responsible for family and household maintenance. Furthermore, their contribution as agricultural laborers is hidden behind the status of family laborers who work both on the farm and in household chores *[4].* Female multitasking ability has resulted in significant advancements in agricultural production, rural production, economic vitality, household, food security, family health, economic security, and welfare. Despite this, rural development initiatives tend to overlook their needs and problems *[5].*

Female multitasking ability has resulted in significant advancements in agricultural production, rural production, economic vitality, household, food security, family health, economic security, and welfare. Despite this, rural development initiatives tend to overlook their needs and problems *[9].* Women are greatly defined by social structure and familial ties. Their specific caste systems and arrange marriages determine their economic worth and life. Women are heavily influenced by their social structure and familial ties. Their economic worth and life are determined by their specific caste systems and arranged marriages. Most Indian families are patriarchal and patrilocal, with the husband or elder son making the majority of family decisions.

One of the major disadvantages for Indian women is their lack of participation in major decisions made by men *[16]*.

Many systematic studies have identified trends in agricultural female labor. Empirical studies were also conducted to explain their involvement. Given the significance of women in agriculture, livestock, and household activities, this research focuses on the socioeconomic profiles of agricultural women in the Peddapalli district, Telangana. As a result, a systematic study was carried out to address farm women's participation levels, decision-making patterns, knowledge, gender discrimination, and constraints in transforming agricultural activities in this region.

II. PURPOSE AND OBJECTIVES

Investigating women's roles, particularly in agriculture, is growing on a large scale, but very few studies on women's participation in agriculture and allied activities have been carried out in Telangana state. Keeping in view the dearth of information, this study was initiated to fill these gaps. The purpose of this study was to analyze the farm women's participation in agriculture, which will further help in collating systematic data and trends across Telangana. This study adds information to depict the active involvement and constraints faced by farm women in Telangana.

In light of the above context, the present study, "Participation of farm women in transforming agricultural activities in Peddapalli district of Telangana" was undertaken with the following specific objectives:

1. To study the socio-economic and personal profile of the respondents.
2. To study the extent of knowledge of women in agriculture production.
3. To investigate the agricultural decision-making patterns of rural women.
4. To investigate gender discrimination, if any, in various sectors of agricultural activity.
5. To determine the barriers that women encounter in participating in agriculture in this study region.

The study highlights the major role of women in various agricultural activities by addressing their social, economic, and personal issues concerning their agriculture profession. In addition, the study also focuses on the gender inequalities and the problems faced during their

participation, hindering their potential in proper harnessing and the resultant improvement in farm income and productivity.

III. RESEARCH METHODOLOGY

a. Research Design

A quantitative approach involving a survey was used to collect information from 120 agricultural female workers in the Peddapalli district of Telangana state in India. Quantitative research is used to quantify variables by generating data that can be transformed into statistically useful information. The approach was used to quantify the respondents' socioeconomic profiles, participation levels, and decision-making patterns, as well as to analyze constraints and gather solutions for various agricultural and allied activities. The study also looked at the relationships between independent and dependent variables and whether gender discrimination played a role in women's agricultural participation. Personal contact and informal interaction were used to gather information.

b. Study Area

The Peddapalli district in this state was preferred on purpose because it was more familiar to the researcher, who observed that most rural women came from agricultural families with low economies and poor livelihoods. As a result, the current study was carried out to gain insight into this problem in this region.

The Peddapalli district is divided into 14 mandals, from which the most populous Ramagundam Mandal and the least populous Ramagiri Mandal were preselected, and four villages were selected at random from each Mandal, for a total of eight villages. Furthermore, 15 female respondents were randomly selected from each village, for a total sample size of 120.

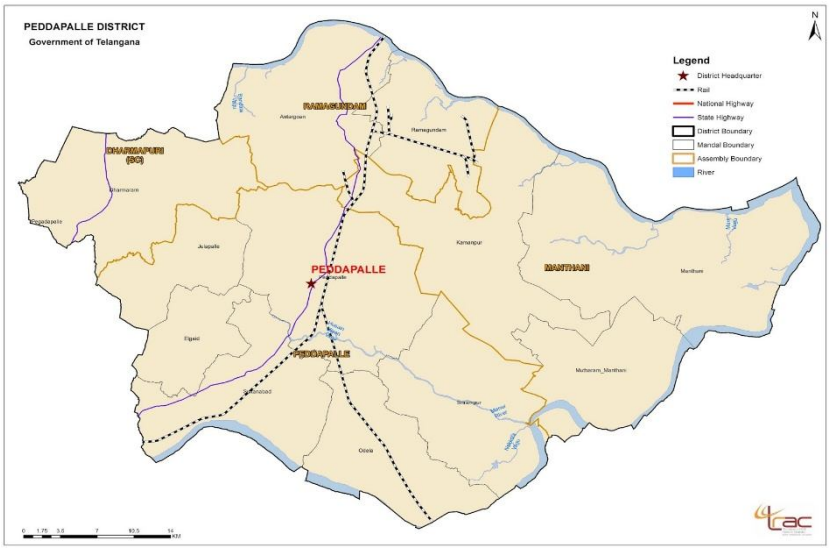

Figure 1 Detailed map of Peddapalli district

c. Data Collection

To collect and analyze data, the current study used a semi-structured interview schedule that included a questionnaire and scaling patterns. This research used both primary and secondary data. Following the study's objectives, various variables were selected to address the women's socioeconomic profile, levels of participation, decision-making process, knowledge level, and constraints.

d. Data Analysis

To generate the conclusions and describe the variables of the study, descriptive statistics were used. Farm women's socioeconomic profiles were identified as independent variables. Age, caste, marital status, family type, family size, education, occupation, annual income, landholding, material possessions, contact with extension agents, mass media exposure, and mobility were among them. Furthermore, dependent variables such as knowledge, decision-making patterns, and constraints faced by women in their occupations were measured using nominal scales, whereas gender discrimination was tested using the chi-square test to analyze discrimination between male and female participation in agricultural and allied activities. The data collected were analyzed using the most common descriptive statistical measures such as mean, frequency, %age, and standard deviation. Pearson’s correlation coefficient was used to analyze the relationship between independent variables and dependent variables.

e. Ethical Considerations

Participants' anonymity and confidentiality were maintained, and their information was not disclosed anywhere. During the interview, each participant was individually consulted and asked for their consent to the research procedure. Further permission was taken from the Mandal Agricultural Officers and the University.

IV. RESULT AND DISCUSSION

The study aimed to show women's participation in a variety of activities in their daily lives. Socioeconomic profiles were examined alongside other factors relevant to their livelihood. Many of the obtained results were analyzed and compared to other secondary data sources.

a. The socio-economic and personal profile of the respondents in the study area

Personal characteristics like age, caste, religion, marital status, family type, family size, educational qualifications, annual income, and type of land holding of the respondents have been addressed to bring out the relationship between their participation and development in agriculture. Therefore, Table 1 represented a summarized overall profile of farm women with respect to the questionnaire.

Table 1. Socio-economic profile characteristics of farm women in Peddapalli area

Attributes	Category	Total	N = 120
		Frequency	Percentage
Age	Young age (below 34)	29	24.17
	Middle age (35-57)	47	39.16
	Old age (above 58)	44	36.67
Caste	General caste	16	13.33
	Other Backward castes	25	20.83
	Scheduled caste	55	45.84
	Scheduled tribe	24	20.00
Religion	Hindu	114	95.00
	Muslim	06	05.00
Marital Status	Married	120	100.00
	Unmarried	00	00.00
Family type	Nuclear/Single Family	92	76.67
	Joint family	28	23.33
Family size	Small Family (below 5)	26	21.67
	Medium family (6-10)	76	63.33

	A large family (above 11)		18	15.00
Educational Qualifications	A.	Illiterate	27	22.50
	B.	Literate	93	77.50
		i. Primary school	11	09.16
		ii. High school	29	24.18
		iii. Intermediate	32	26.66
		iv. Graduate & Postgraduate	21	17.50
Annual Income	Low Income (below 0.79)		44	36.67
	Medium income (0.8-4.1)		54	45.00
	High income (above 4.2)		22	18.33
Landholding type	Marginal farmers (below 1)		21	17.50
	Small farmers (1.1-2 hectares)		65	54.17
	Semi-medium farmers (2.1-4 hectares)		28	23.33
	Medium (4.1 – 10 hectare)		06	05.00
Nature of the house	Pacca house		75	62.50
	Mixed type		45	37.50
Occupation	Farming only		42	35.00
	Farming + Animal Husbandry		53	44.17
	Farming + services		15	12.50
Material Possessions				
Farm Power	Electric motor		41	34.17
	Pumping set/ engine		21	17.50
	Power tiller		36	30.00
	Tractor		22	18.33
Agricultural Implements	Cultivator		22	18.33
	Seed drill		02	01.66
	Thresher		05	04.16
	Rotavator		18	15.00
	Chaff cutter		18	15.00
	Disc Plough		08	06.66
	Combine machine		03	02.50
	Sprayer		59	49.16

	Spade	120	100.00
	Sickle	120	100.00
	Khurpi	120	100.00
Transport facilities	Car	03	03.60
	Tractor Trolley	22	18.33
	Bike/scooter	120	100.00
	Cycle	44	36.66
	Auto	06	05.00
	Hand Trolley	02	02.40
Communication Media possessions	Radio	10	08.33
	Television	120	100.00
	DTH	120	100.00
	Mobile Phone	120	100.00
	Newspaper	92	76.67
	Internet connection	09	07.50
	Total	**120**	**100.00**

From the collected data, it was found that the majority of the respondents (39.16%) were from the middle-aged group, followed by the old-aged group (36.67 %), and the least was from the young age group (24.17 %) among the selected farm women. The probable reason for this distribution might be that most of the middle-aged groups are more enthusiastic and were doing this from a young age, whereas most of the young farmers were engaged in activities other than agriculture. Similar results were drawn in other areas of the state *[11]* and other allied activities like livestock and husbandry *[6].*

Caste systems and religion are significant social systems in India. These play a major role in affecting people's options like marriage, employment, education, mobility, and participation, among others. To study their effects, data was collected. Therefore, it was observed that almost half of the respondents belonged to the scheduled caste (45.84 %), and the other one-fifth belong to other backward classes (20.83 %) and scheduled tribes (20.00 %) who were involved in agriculture practices. Most of the respondents were Hindu (95%) and few were Muslim (5%).

Similar results were found by Tiwari et al. (2013) [19], which showed that the majority (58%) of the farmers cultivating, belonged to the SC caste and Backward classes (56%) as shown by Chappa Haripriya et al. (2018) [1] in her study.

The nuclear family type (76.67%) was dominant, and most of the families were of medium family size (63.33%). This indicates that the joint family system is slowly declining, and most family planning is initiated in rural areas *[18]*. Farm women were found to be mostly literate (77.5%), with contrasting results obtained by *Naresh Kumar et al. (2019)* in comparison to other parts of the state; this could be due to the presence of cities nearby the study area [11].

In terms of livelihood, the majority (45.00%) of the respondents had a medium-level annual income; this might be due to the level of experience the middle-aged group of people possesses. These findings are consistent with those of Prasad Babu (2014) [14] and closely resemble those of Mohan et al. (2020) [12]. Farm women were mostly (54.17%) found to be small farmers, followed by semi-medium farmers (23.33%). It is because most of the women lack access to credit and cannot purchase land. Similar results were noticed in *J.V. D. Prasad (2017) [14]*.

According to the findings, the majority of farm women's families owned agricultural implements such as khurpi, sickle, and spade (100%), followed by sprayers (49.16%), cultivators (18.33%), rotavators and chaff cutters (15.00%), disc plows (6.66%), threshers (4.16%), combine machines (2.50%), and seed drills (1.66%). For communication, women used mobile phones, televisions with DTH connectivity (100%), newspapers (76.67%), radio (8.33%), and internet facilities (7.50%).

The findings also revealed that the female farmers are mostly engaged in combined activities like farming, household, and animal husbandry (44.17%); this might be because of the overall household burden imposed on them and due to the dominance of the patriarchal society. Further, fertilizer/seed stores were contacted more due to their nearby access and the helpful nature of the vendors, whereas family relations were contacted for any other information and queries.

b. Participation of farm women in various agriculture and allied activities.

Despite the social, economic, and other constraints in their lives, women are most committed to their profession and show a high level of participation in agricultural activity *[2]*. Proper analysis was made, and the levels were estimated by distinguishing between male and female

participation for further gender discrimination analysis. They are calculated as a percentage of daily hourly activity.

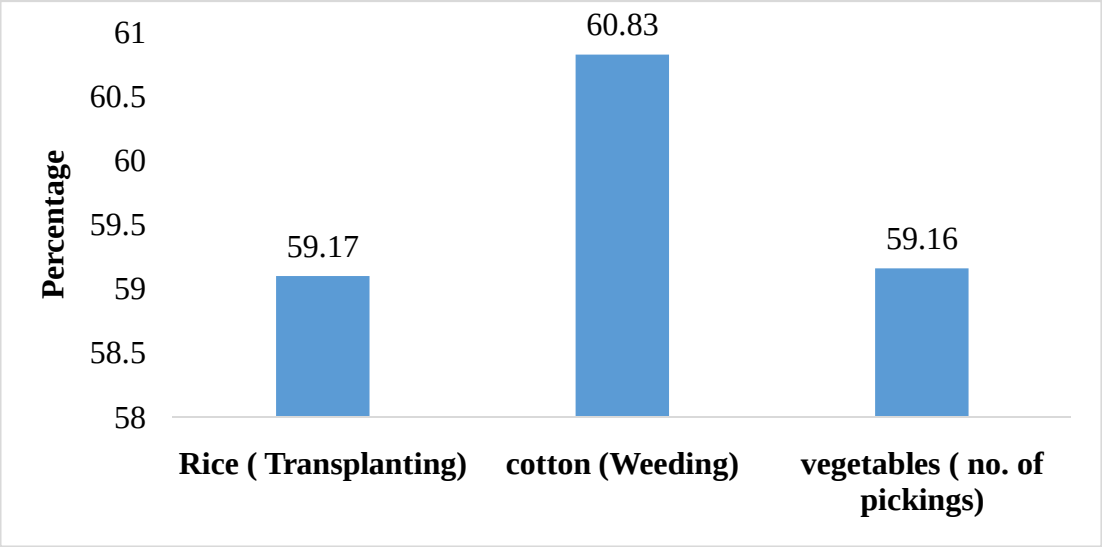

Figure 2. Major participation of women in agriculture activities in the study area

Figure 2 presents the participation of rural women in agricultural activities. The results revealed that the major work of women was transplanting (59.10%) in rice fields, harvesting (59.16%) in vegetable production, and weeding (60.83%) in cotton fields. This can be concluded that women are more flexible in these activities and work in time-bound activities to accomplish the cultivation stages without leading to delay. Aside from that, women were found to actively participate in dairy activities such as milking (55.83%), cleaning cattle (53.33%), and food preparation (95.00%). Similar findings were found in the reference article [16], where women participated primarily in income-generating activities.

c. The extent of knowledge of women in agriculture production in the study area

Knowledge was playing a great role in the performance levels of the respondents; the literate women were more active and fast-moving than the illiterate. The level of knowledge was also affected by age; younger people had less knowledge than older people. As shown in Table 2, the maximum (93.33%) number of respondents had a medium level of knowledge, the least (6.67%) had higher level respondents and none had a low level of knowledge. The same results were obtained in several parts of the state *[15]*.

Table 2. Analysis of the knowledge level of agricultural women in the study area

S. No	Category	f	%
1.	Low Level (below 19.00)	00	0.00
2.	Medium level (19.1 -23.75)	112	93.33
3.	High level (above 23.76)	08	06.67
	Total	**120**	**100.00**

f- Frequency, %- Percentage.

The majority of the respondents answered correctly about the basic knowledge and common crops grown in their areas. The majority of the respondents in the study area had excellent knowledge of *Kharif*, *Rabi* crops, and high-yielding varieties of rice (100%).

d. Decision-making patterns of women farmers in agriculture in the study area

Farm women's contributions to various activities in their lives were examined in terms of their %age involvement in decision-making. Individual family members are considered and observed in all levels of activity, primarily agriculture, economics, and family matters [17]. In the majority of the records, it is noted that women take decisions depending on their spouses or other family members. The farm women were asked to indicate subjectively who was taking decisions for several activities on a 7- point continuum involving father, mother, brother, sister, herself, and husband.

Table 3. Analysis of decision-making patterns of rural women in agriculture in the study area

Agricultural Activities	Father	Mother	Brother	Sister	Self	Husband
Crops to Grow	14 (11.67)	01 (00.83)	24 (20.00)	0.00	49 (40.83)	32 (26.67)
Seasons of Growing	02 (01.67)	04 (03.33)	0.00	0.00	**95 (79.17)**	19 (15.83)

Use of Variety	01 (00.83)	0.00	0.00	0.00	59 (49.17)	60 (50.00)
Time of Sowing	09 (07.50)	02 (01.67)	01 (00.83)	0.00	31 (25.83)	77 (64.17)
Time of Manuring	05 (04.17)	02 (01.67)	0.00	0.00	**85 (70.83)**	28 (23.33)
Type of Fertilizer and Manuring	03 (02.50)	03 (02.50)	0.00	0.00	45 (37.50)	69 (57.50)
Use of Pesticides	04 (03.33)	02 (01.67)	0.00	0.00	**89 (74.17)**	25 (20.83)
Harvesting	03 (02.50)	04 (03.33)	0.00	0.00	39 (32.50)	70 (58.30)
Marketing	19 (15.83)	06 (05.00)	04 (03.33)	0.00	56 (46.67)	35 (29.17)
Family matters	**Father**	**Mother**	**Brother**	**Sister**	**Self**	**Husband**
Education of Children	02 (01.67)	01 (0.83)	0.00	0.00	**99 (82.50)**	18 (15.00)
Taking Care of Children	03 (02.50)	05 (4.17)	0.00	0.00	**102 (85.00)**	10 (8.33)
Buying of Foods	07 (05.83)	02 (1.67)	0.00	0.00	59 (49.17)	52 (43.33)
Buying of Clothes	05 (04.17)	04 (03.33)	0.00	0.00	58 (48.33)	53 (44.17)
Marriage of Children	05 (04.17)	08 (06.67)	0.00	0.00	66 (55.00)	41 (34.17)
Ceremonial Aspects	19(15.83)	35 (29.17)	0.00	0.00	56 (46.67)	10 (08.33)
Invitation Outside the Home	34(28.33)	07 (05.83)	04 (03.33)	0.00	39 (32.50)	36 (30.00)
Interaction with Neighbors	8(06.67)	04 (03.33)	02 (01.67)	0.00	89 (74.17)	17 (14.17)
Economic aspects	**Father**	**Mother**	**Brother**	**Sister**	**Self**	**Husband**
About Savings	0.00	0.00	0.00	0.00	67 (55.83)	53 (44.17)

Selling, Buying of Holdings	09 (07.50)	02 (01.67)	0.00	0.00	59 (49.17)	50 (41.67)
Domestic Animals	07 (05.83)	06 (05.00)	0.00	0.00	49 (40.83)	58 (48.33)
Buying of Raw Materials at Agriculture Work	04 (03.33)	01 (00.83)	0.00	0.00	44 (36.67)	49 (40.83)
Buying Farm Machinery	09 (07.50)	02 (01.67)	0.00	0.00	21 (17.50)	88 (73.33)
Food and Household Materials	07 (05.83)	06 (05.00)	0.00	0.00	**98 (81.67)**	09 (07.50)
Luxurious Materials	01 (00.83)	05 (04.17)	0.00	0.00	66 (55.00)	48 (40.00)
Other Necessary Materials	02 (01.67)	0.00	0.00	0.00	55 (45.83)	63 (52.50)
Selling of Food Grains	04 (03.33)	01 (00.83)	0.00	0.00	33 (27.50)	82 (68.33)
Vegetables	07 (05.83)	05 (04.17)	0.00	0.00	56 (46.67)	52 (43.33)
Selling of Agri. Products	03 (02.50)	01 (00.83)	0.00	0.00	45 (37.50)	49 (40.83)
Selling Poultry Products	05 (04.13)	05 (04.13)	0.00	0.00	56 (46.67)	54 (45.00)
Selling of Domestic Products	04 (03.33)	03 (02.50)	0.00	0.00	29 (24.17)	84 (70.00)
Regarding Borrowing money	09 (07.50)	05 (04.17)	0.00	0.00	55 (45.83)	51 (42.50)
Return of Borrowed Money	01 (00.83)	02 (01.67)	0.00	0.00	46 (38.33)	71 (59.17)
Buying of jewelry	02 (01.67)	12 (10.00)	0.00	02 (1.67)	**89 (74.17)**	17 (14.17)

Selling of Jewelry	06 (05.00)	05 (04.17)	0.00	0.00	16 (13.33)	93 (77.50)

Frequency is shown and the Percentage is in parentheses.

From Table 3, it can be seen that most of the individual decisions were taken in agriculture activities like seasons of growing (79.10%), and time of manuring (70.83 %), whereas major decisions in family and economic matters were given to women in activities like taking care of children (85.00 %), education of children (82.50%), household materials (81.66 %), and buying jewelry (74.10%).

e. Gender discrimination prevailing in different areas of participation in the study area.

In most workplaces in India, gender discrimination is common. Women work mostly in agriculture, either as paid or unpaid laborers, but their wages are lower than those of their male counterparts [5]. Thus, to conduct more in-depth research, this paper attempted to observe if there was any discrimination occurring in the participation and decision-making patterns of farm women.

Table 4 Gender discrimination prevailing in different areas in the study area

S. No	Sub-areas	X^2 -Value
I.	**Participation of farm women**	
A.	Agriculture	
i.	Rice	6.53*
ii.	Cotton	2.87
iii.	Vegetables	7.12**
B.	Dairy activities	1.65
C.	Household activities	3.09
II.	**Decision-making patterns of farm women**	
1.	Agricultural Activities	4.89*
2.	Family Matters	5.21
3.	Economic matters	0.008*

***Significance at 5% level, **Significance at 1% level.**

According to Table 4, it was found that discrimination was happening in the participation of women in agricultural activities like the cultivation of rice and vegetables with chi-square values are 6.53 (significant at a 5% level of significance), and 7.12 (significant at a 1% level of significance), but no such discrimination was observed in dairy and household activities. Along with this, women were also facing discrimination in decision-making patterns, mainly in agricultural activities, and economic matters, with chi-square values of 4.89 (significance at the 5% level) and 0.008 (significance at the 5% level). Similar conclusions were noticed in *Jena (2017) [10]* article, which stated that most women are only confined to transplanting, uprooting, harvesting, preparing the seedbed, vegetable cultivation, and water in fields.

f. The extent of association (correlation) between Independent and dependent variables taken for the study purpose in the study area

The overall development of women is mainly influenced by the patterns of their lives. In addition to actual production, several socioeconomic attributes and physical assets are taken into account when determining the relationships between their productivity and living because they play a significant role in improving their livelihood.

Table 5 Analysis of association (correlation) between Independent and dependent variables

S. No	Variables	Pearson's Correlation Coefficient Value (r)
A.	**Participation and Socioeconomic Variables**	
1.	Caste	0.0253**
2.	Religion	0.247**
3.	Material Possession	0.751**
B.	**Decision-making and Socioeconomic Variables**	
1.	Caste	0.421**
2.	Religion	0.463**
3.	Type of Land Holding	0.246**
C.	**Knowledge and Socioeconomic Variables**	
1.	Caste	0.462**
2.	Religion	0.427**
3.	Type of Land Holding	0.336**

4.	Material Possession	0.189*
5.	Extension Personnel Contact	0.181*

**** Significant at 0.01 level (2-tailed), *Significant at 0.05 level (2-tailed).**

Pearson's correlation coefficient was used to examine the various associations between behavioral attributes and economic levels. Table 5 represents that caste, religion, and material possessions were influencing their participation and knowledge levels, but in decision-making, the size of the landholding was also noticed and external personnel contact was observed in affecting their knowledge levels.

g. To identify the constraints being faced by the women in their participation in agriculture in this study area.

In general, women face problems in obtaining access to land, water, education, credit, agricultural implements, and new practices *[13].* Based on the prevailing problems, a questionnaire was prepared to address all common issues that women face in their profession, and these constraints are ranked according to the mean scores obtained. Thus, the results indicated that the majority of women lack alternate employment opportunities, credit facilities, and the freedom to make decisions about their profession. Considering the constraints, it can be suggested that recognizing their hard work and providing good access to extension services, information, and land would be beneficial. Moreover, developing access to financial services can contribute to women overcoming their issues and help in poverty reduction *[13].* On a broader level, the government should take several steps toward developing equality programs and providing opportunities for people to advance in their careers.

V. SUGGESTIONS

The main conclusions were considered, and several recommendations were made. Women participated extensively in minor agricultural practices such as weeding, transplanting, packaging, and grain collection, which the government should encourage by providing implements that reduce drudgery in their work. Encouraging women to use KCC (Kisan Credit Cards) and providing them with access to financial services would increase their participation in family economic decisions. Furthermore, regular campaigns and demonstrations of the latest technologies can improve farm women's knowledge and nutrition levels, along with

encouraging them to learn farm mechanization, which can improve their efficiency and increase their involvement in agriculture.

VI. CONCLUSION

Women have been engaged in household and agricultural work for centuries, but their employment and economy remain difficult. Recognizing women's contributions is critical to a country's development. This study focused on the main factors that influence women's agricultural participation levels and shed light on several ideologies to help policymakers and researchers design better strategies and fill gaps in underserved regions. The study's major findings concluded that the majority of the women were middle-aged, had a medium annual income, and participated in agricultural activities such as weeding, transplanting, harvesting, and seed treatment. Despite their knowledge of agricultural activities, gender discrimination prevails. Their level of occupational participation was influenced more by caste, religion, size of land holdings, and material possessions. Along with all of this, several constraints were identified and noted for further clarification. As a result, the study is expected to contribute to the scarcity of literature and assist the government in addressing the issues confronting farm women.

ACKNOWLEDGMENT

I am deeply grateful to Dr. R.K. Doharey, Professor and Head, Department of Extension Education, Acharya Narendra Dev University of Agriculture and Technology, Ayodhya, U.P., and other acquaintances for their able guidance, kind cooperation, and unending assistance in the preparation of this manuscript.

COMPETING INTERESTS

The authors declared that they have no competing interests.

REFERENCES

Chappa, H. Sundaram, S. M. Sivakumar, T. and Venkataramanan, R. (2018). Socio-economic status, Husbandry practices followed and constraints faced by Madras red sheep farmers in their field flocks in Kanchipuram district. *Indian j. vet. anim. sci.* 47(4), 1400.

Damisa, R. Samndi and M. Yohana (2007). "Women Participation in Agricultural Production- A probit Analysis" *Journal of Applied Sciences*. 7(3): 412-416.

Farid, K. S., Mozumdar, L., Kabir, M. S., & Goswami, U. K. (2009). Nature and extent of rural women's participation in agricultural and non-agricultural activities. *Agricultural Science Digest*, *29*(4), 254-259.

https://www.fao.org/india/fao-in-india/india-at-a-glance/en/. FAO, 2021.

Ghosh, M., & Ghosh, A. (2014). Analysis of women participation in Indian agriculture. *IOSR J. Human. Soc. Sci*, 19(5), 1-6.

Gopi, R. Narmatha, N. Sakthivel, K. M. Uma, V. and Jothilakshmi, M. (2017). Socio-economic characteristics and its relationship with information seeking pattern of dairy farmers in Tamilnadu, India. *J Dairy Foods Home Sci.* 36(1): 16-20.

https://desagri.gov.in/wpcontent/uploads/2021/07/Agricultural-Statistics-at-a-Glance-2021-English-version.pdf. Indian Agricultural Statistics. 2021.

https://hdr.undp.org/content/human-development-report-2019. United Nations Development Report. 2008.

https://www.weforum.org/events/india-economic-summit-2017/stream/india-economic-summit India Economic Summit. 2017.

Jena, R. (2017). Issues and concerns of Gender Discrimination in Irrigated Agriculture: An Analysis. *Orissa Economic Journal*, 237.

Kumar, B. N., Sreenivasulu, M., Preethi, M., & Sagar, G. C. V. (2019). Profile Characteristic of Rice Drum Seeder Technology Farmers in Khammam District of Telangana State, India. *Int. J. Curr. Microbiol. App. Sci*, *8*(3), 1180-1184.

Mohan. M, S. Balazzii Naiik, M. Rajkumar, RVT. Bhavyamanjari, BV. Suresh, M M. and Vijay, K. P. (2020). Socio-economic profile of fish farmers of Nizamabad District, Telangana. J. entomol. zool. stud. 8(5): 1727-1732.

Patra, M., Samal, P., & Panda, A. K. (2018). Constraints and opportunities for women in agriculture in India. *Journal of Pharmacognosy and Phytochemistry*, 7(5), 2092-2096.

Prasad, J. V. D. (2017). A Study on the Profile of Organic Cotton Farmers in Telangana. *Int. j. adv. res. dev.* 2(5), 85-89.

Rajashekar, B. Sudharani, V. Parveen, S. K. and Shivacharan, G. (2017). Knowledge of farmers about integrated weed management (IWM) practices in major crops. *Int. j. farm sc.* 7(1): 33-36.

Roy, PK. Haque, S. Jannat, A. Ali, M. Khan, and MS. (2017). Contribution of women to household income and decision making in some selected areas of Mymensingh in Bangladesh. *Progressive Agriculture,* 28 (2): 120-129.

Sarma J. Payeng, S. (2012). Women Dairy Farmers and Decision-Making Pattern in Sonitpur District of Assam. *Indian Journal of Hill Farming*, 25(1): 58-62.

Sathyanarayan, K., Jagadeeswary, V., Murthy, V. C., Ruban, S. W., & Sudha, G. (2010). Socio-economic status of livestock farmers of Narasapura Village-A Benchmark analysis. *Veterinary World*, *3*(5), 215.

Tiwari, S. C. Kumar, A. and Kumar, A. (2005). Development & standardization of a scale to measure socio-economic status in urban & rural communities in India. *Indian J. Med. Res.* 122(4): 309

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