P-ISSN: 2618-0723
E-ISSN: 2618-0731

NAAS Rating: 5.04
www.extensionjournal.com

International Journal of Agriculture Extension and Social Development

Volume 7; SP-Issue 11; November 2024; Page No. 174-176

Received: 13-10-2024
Accepted: 18-11-2024

Indexed Journal
Peer Reviewed Journal

Participation of rural women in on-farm operations: A correlation analysis

[1]Jyoti Soni, [2]Dr. Asit Kumar and [3]Dr. MA Khan

[1]M.Sc., Department of Agricultural Extension Education, College of Agriculture, IGKV, Raipur, Chhattisgarh, India

[2]Professor, Department of Agricultural Extension Education, College of Agriculture and Research Station, Bemetara, IGKV, Raipur, Chhattisgarh, India

[3]Professor, Department of Agricultural Extension Education, College of Agriculture, IGKV, Raipur, Chhattisgarh, India

DOI: https://doi.org/10.33545/26180723.2024.v7.i11Sc.1374

Corresponding Author: Jyoti Soni

Abstract

The present study entitled "Participation of rural women in on farm activities: A correlation analysis" was focused to know the participation of rural women in on-farm activities. The Bemetara District comprises four blocks: Bemetara, Saja, Navagarh, and Berla. Two blocks were chosen randomly for the study. From each selected block, six villages were also randomly selected, resulting in a total of 12 villages (6×2=12) being included in the study. Within each of these 12 villages, 10 rural women were randomly chosen as respondents, bringing the total number of respondents to 120 farm women (12×10=120) for the study. It was observed that the participation of rural women in various farm operation of rice cultivation, a maximum 77.50% respondent had participation index on farm operations with nursery raising and transplanting techniques. In the case of wheat cultivation majority of 93.42% had respondents had participation index on post-harvest technology. Out of these variables only size of land holding, annual income, family type and extension contact were found correlated at 95 percent level of significance. Whereas education and social participation were found significant at 99 percent level of significance. The remaining 4 variables were not indicated significant relationship with participation of rural women. A correlational analysis indicates that an individual having higher education and more social participation had more participatory index.

Keywords: Participatory index, rural women, on-farm operations

Introduction

Women play a critical role in agriculture all over the world. Along with their daily routine activities, their participation in agricultural activities enhances the standard of living. More often women's farm work is unpaid or undervalued (Tripathi, *et al.*, 2012) [4]. Women's role in the crop sector has been significant since the stone age. Women are extensively involved in the production of major crops like cotton, rice, pulses, and vegetables (Sadaf, 2005) [3]. They participate in all operations related to crop production, such as sowing, hoeing, transplanting, weeding, harvesting, and post-harvest operations such as threshing, winnowing, drying, grinding, husking, and storage (Jamal, 2005) [2].

Rural women are the backbone of the agriculture workforce, but worldwide, their hard work has mostly been unpaid. She does the most tedious and backbreaking tasks in agriculture, animal husbandry, and homes. Most developing countries depend on agriculture for their livelihoods and food security. Agriculture needs manpower, and if the manpower is split gender-wise, the amazing fact is that women's contribution is greater or equal to that of men. The women work harder in agriculture than their counterparts. They participate in most of the agricultural operations like application of manures, land preparation, seed grading, sowing dibbling planting, transplanting, weeding, hoeing, irrigation, fertilizer application, plant protection, harvesting, threshing, shelling, hulling, winnowing, cleaning, storing food grains and seed, feeding the cattle, looking after milch animals and poultry, kitchen gardening, etc. Nearly 80 percent of Indian rural women are employed in agriculture and are responsible for 60 to 80 percent of food production. They play a major role in animal husbandry, horticulture, and poultry, which are their main sources of income, and it is noticed that they are always involved in labor- and tolerance-intensive works like transplantations and weeding operations.

Materials and Methods

The Bemetara District comprises of four blocks i.e. Bemetara, Saja, Navagarh, and Berla. Two blocks were chosen randomly for the study. From each selected block, six villages were also randomly selected, resulting in a total of 12 villages (6×2=12) being included in the study. From each of these 12 villages, 10 rural women were randomly chosen as respondents, bringing the total number of respondents to 120 farm women (12×10=120) for the study. The primary data were collected from the respondents through survey and personal interview method. A set of 8 farm operations were used on which the major crop production technology was organized to get the responses of respondents, which were recorded on a two-point continuum scale, i.e., yes and no, with scores of 1, and 0, respectively.

The maximum score for an individual could be 8.
The Participation index was worked out by using the following formula:

$$\text{Participation index (P.I.)} = \frac{\text{Total obtained score}}{\text{Maximum obtainable score}} \times 100$$

Also, correlation analysis was carried out using a software i.e. SPSS where 10 independent variables (age, education, family type, occupation, farming experience, social participation, size of land holding, annual income, extension contact, irrigation availability) were correlated with the total scores of participation 10 rural women in on- farm operations.

Results and Discussion

The results of the analysis of participation of rural women in various farm operations of rice cultivation are presented in table 1. The data revealed that in the study area, a maximum 77.50 percent of respondents had participation index on nursery raising and transplanting techniques followed by improved varieties (68.33%), post-harvest technology (61.67%), seed treatment (57.50%), harvesting (50.83%), integrated weed management (31.67%), integrated nutrient management (30.00%) and integrated pest management (24.17%).

Table 1: Distribution of the respondent according to their participation of rural women in various farm operations of rice cultivation

Sl. No.	Farm operations	Participation index	
		F	%
1.	Improved varieties	82	68.33
2.	Seed treatment	69	57.50
3.	Nursery raising and transplanting techniques	93	77.50
4.	Integrated nutrient management	36	30.00
5.	Integrated weed management	38	31.67
6.	Integrated pest management	29	24.17
7.	Harvesting	61	50.83
8.	Post-harvest technology	74	61.67

The results of the analysis of participation of rural women in various farm operations of rice cultivation are presented in tables 2. The data revealed that in the study area, a maximum 93.42 percent of respondents had participation index on post-harvest technology followed by harvesting (92.10%), weed management (85.52%), improved variety (78.94%), seed treatment (64.47%), sowing method (57.89%), irrigation management (43.42%), integrated weed management (40.78%), integrated post management (27.63%).

Table 2: Distribution of the respondent according to their participation of rural women in various farm operations of wheat cultivation

Sl. No.	Farm operations	Participation index	
		F	%
1.	Improved varieties	60	78.94
2.	Seed treatment	49	64.47
3.	Sowing method	44	57.89
4.	Irrigation management	33	43.42
5.	Integrated nutrient management	31	40.78
6.	Integrated weed management	65	85.52
7.	Integrated post management	21	27.63
8.	Harvesting	70	92.10
9.	Post-harvest technology	71	93.42

A Correlational Analysis

The result of correlational analysis is presented in Table 3. The finding revealed that out of 10 independent variables considered in the study, only 6 variables i.e. education, family type, social participation, size of land holding, annual income, extension contact were found positive and significantly correlated with participation of rural women. Out of these variables only size of land holding, annual income, family type and extension contact were found correlated at 95 percent level of significance. Whereas education and social participation were found significant at 99 percent level of significance. The remaining 4 variables were not indicated significant relationship with participation of rural women.

Table 3: Coefficient of correlation analysis independent variables

Sl. No.	Independent variables	Correlation coefficient (r)
1.	Age	0.132^{NS}
2.	Education	0.232**
3.	Family type	0.216*
4.	Occupation	0.021^{NS}
5.	Farming experience	0.112^{NS}
6.	Social participation	0.312**
7	Size of land holding	0.197*
8.	Annual income	0.162*
9.	Extension contact	0.197*
10.	Irrigation availability	0.023^{NS}

**Significance at 0.01probability level, *Significant 0.05 probability level, NS=Non-significant

Conclusion

Maximum (77.50%) participatory index was indicated by nursery raising and transplanting techniques in rice cultivation. Whereas, in case of wheat cultivation maximum (93.42%) participatory index was indicated by post-harvest technology in wheat cultivation. A correlational analysis indicates that an individual having higher education and more social participation had more participatory index as participation of an individual depends on their attitude towards new doing things and attitude is influenced by education and external contacts.

References

1. Handa T, Khan MA, Awasthi HK. A study on impact of diploma in agriculture extension services for input dealers (DAESI) on knowledge and skill development in Chhattisgarh plains. M.Sc. (Ag.) Thesis, IGKV, Raipur; c2021.

2. Jamal N. An investigation into the adoption of recommended livestock production practices by rural women in District Faisalabad; c2005.
3. Sadaf S. Need for agricultural extension services for rural women in Tehsil Faisalabad. A Master's Thesis, Deptt. of Agri. Extension, Univ. of Agric., Faisalabad; c2005.
4. Tripathi R, Chung YB, Deering K, Saracini N, Willoughby R, Wills O, *et al*. What works for women: Proven approaches for empowering women smallholders and achieving food security. Oxfam Policy and Practice: Agriculture, Food and Land. 2012;12(1):113-140.
5. Islam MS, Islam S, Fatema K, Khanum R. Rural women participation in farm and off-farm activities and household income in Bangladesh. Heliyon, 2022 Sep 1, 8(9).