

Original Research Article

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Livelihood Security through Participations of Tribal Farm Women in Rice-Based Farming System in Bastar Plateau of Chhattisgarh

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ABSTRACT

The study highlights the extent of tribal farm women's actively participation through various farm and household activities for livelihood security to their family life in rice based farming system. A study was undertaken in Narayanpur district in Bastar plateau of Chhattisgarh state to analyze the livelihood security through tribal farm women in rice based farming system and identify different farm development activities. The participations of tribal farm women in Narayanpur district mainly from rice cultivation, horticulture and animal husbandry activities were taken for the study. The results further revealed that the income may be generated through different farm activities by enhancement in empowerment of farm women in rice based farming system. The data showed that majority of the tribal farm women 56.66 per cent were actually involved in rice transplanting under pre sowing activities 86.00 per cent in weeding and 95.33 per cent drying and cleaning under intercultural, harvest and post harvest activities respectively as well as Illiteracy was perceived as the top most constraints by 89.33 per cent respondent's empowerment through participation in farm activities for income generation for livelihood security in rice -based farming system in the study area. For betterment of livelihood security in their family life, basic facilities and requirements to be provided for raising the employment and generating income through farm different developmental programmes including household enterprises activities along with actively participation of tribal farm women.

Keywords

Tribal livelihood,
Tribal farm women,
Empowerment,
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Introduction

It shows the study of history that it was the tribal women who first domesticated crop plants thereby initiated the arts and science of farming (Swaminathan, 1985). The

involvement of tribal women, especially in agriculture is an old age practice. Tribal Farmwomen play a significant role in agriculture along the side of their men folk sharing the burden of farm works, care of animals and poultry keeping in addition to

their responsibilities along the side of their men folk sharing under the household as home maker. Enhancing women's economic status is an important strategy for improving the welfare of entire the family. Socio-economic upliftment and improvement of livelihood condition of the people can be directly linked with empowering rural women for agricultural sustainability and efficient use of available farm resources to make them self sufficient in term of employment generation.

Narayanpur is known as primitive tribes' district in India. Mariya and Muriya are main tribes of the district. According to census survey (2011), total population of the district is 139820. In which more than 70 per cent populations are come under tribal community. Rice is cultivated as main crop and secondary crop are maize, millets (Kodo, kutki, finger and fox millets), oilseed and pulses under raifed situations. Farmers do not adopt advance agricultural technology in the district. Due to which, production and productivity is very low as compare to other district of Chhattisgarh state. There Rice-based farming is productive enterprises to generate of employment, family income, utilize natural resources, and ensure food and nutritional security in Narayanpur district in *Bastar* plateau (Chhattisgarh). In this plateau, agricultural is a main source of occupation and the tribal farm women are actively involved in several farm activities in rice - based farming system for their livelihood security. Thus, the importance role and contribution of farm women to upliftment their household in rice based farming system. do not Therefore, extension services may accordingly be turned to fully integrated them for their enhancing productivity in rice cultivation, so that their standard of living pattern may be uplifted from below poverty line. In this context a study was undertaken in Narayanpur district *Bastar* plateau of *Chhattisgarh* with the following objectives:

1. To study the livelihood security and involvement of tribal farm women in different activities in rice based farming system.
2. To identify the constraints in empowerment of tribal farmwomen's in the study area.

Materials and Methods

The study was conducted in *Narayanpur* block of *Narayanpur* district, *Chhattisgarh*. A total of 150 tribal farm women as respondents were selected from five selected village *panchayats* viz., *Bijli*, *Palki*, *Brehbeda*, *Kudkajhore* and *Garhbengal* through simple random sampling methods. The data were collected through personal interview techniques with pre-tested interview scheduled and analyzed for percentage and mean score. Regarding the involvements of tribal farm women different activities in rice based farming, the response were recorded from tribal farm women in 3-point scale i.e. actively involved (2 scores), moderately involved (1 score) and not involved (0 scores). The responses ranked on the basis of mean scored were obtained.

Results and Discussion

In *Narayanpur* district (C.G.), the livelihood pattern of tribal farm women in rice based farming system mainly from rice cultivation, horticulture and animal husbandry activities were taken to the study. Therefore, it is very important to know the involvement of tribal women in these three activities for their livelihood security. The relating to the involvement the tribal farmwomen's in rice based farming system with respect to three major areas, viz., agriculture (rice cultivation), horticulture (vegetable cultivation) and animal husbandry (Dairy and poultry) activities were taken at particular study area.

The data presented in Table 1. Participation of respondents in rice cultivation was studied in three selected sub-areas namely, pre sowing and sowing activities, inter cultural activities and harvest and post harvest activities. The data revealed that majority of tribal women (56.66%) were actively involved in transplanting followed by manure application and nursery raising i. e. 44.66% and 26.26% respectively under Pre sowing & sowing activities. This type of result was also observed by Beohar *et al.*, (1999), Hussain *et al.*, (2011), Kumari *et al.*, (2016) and Mohanta (2017). In case of inter cultural activities, majority of respondent were actively involved in weeding (86.00%) and thinning & gap filling (80.00%) in rice cultivation activities as well as in Harvest & Post harvest activities greater percentages of tribal farmwomen were engaged in operation like drying & cleaning (95.33%), harvesting (93.33%), winnowing (92.00%) and threshing (23.33%), whereas, only 4.66 per cent respondents were actively involved in treating grains with insect repellants. Having showed the data of this table, it may be reason behind that the tribal women are more aware to their house livelihood upliftment and it is possible to participate in farming activities so that income may be generated because agriculture is main occupation of the study area. These findings are in line with the findings of Bhople and Patki (1992), Mohanty (1993), Gopalappa (1997) and Das (1999).

The data with respect to horticultural activities i. e. vegetable cultivation is presented in Table 2. Shows that majority of the tribal women were actively involved in weeding (84.66%), Harvesting(80.66%), Thinning & gap filling (75.33%), Uprooting & transplanting (65.33%), Seed sowing & watering the nursery (63.33%) Nursery bed preparation (50.66%), Collection of vegetable seeds (41.33%) whereas only (3.33%) respondents actively involved in Preparation

of value added products in the study area. The reason behind that the more participation of tribal women in horticultural activities due to maximum horticultural crops grown near at house or farm as well as their cultural habitation also. They know that it is the good source of secondary income which may be taken round the year from vegetables, where irrigation facilities are available as well as income is achieved earlier as compare to rice cultivation. The tribal farm women belong to low income group and income obtained from small holding is insufficient for a reasonably comfortable living. The poor involvement of tribal farm women in preparation of value added product might be due to illiteracy, lack of awareness and exposure to different training programmes. The same type of findings was observed by *Gidda Reddy* (2003).

The mean score and rank for involvement in dairy activity presented in table 3 revealed that the first four areas in which respondents participated actively were care and management of animals, Maintenance of cattle shed, Fodder collection and Feeding of animals with mean scores of 1.13, 1.08, 1.04 and 0.98 respectively. Only Marketing of milk and Milking cow mean score was 0.16 and 0.08 with fifth and sixth ranks in the study area. The rank was very low in case of Milking of cow and Marketing of milk. On the basis of observations like less use of milk in family due to their cultural habitation as well as unawareness about marketing of dairy. The results supports the findings of *Sharma et al.*, (1989), *Shashikala et al.*, (1990 and *Jamal* (1994) and *Chouhan* (2009).

Majority of the tribal women under poultry activities (42.66%) actively involved in maintenance of birds cages followed by Feeding of birds, Care and management of birds and Selling eggs/birds i. e. (30.66%), (30.00%) and (27.33%) respectively. The

results shows that there is no more management in case of poultry keeping and it is possible along with housekeeping, which is good source of income for household, which may be easily adopted due to their cultural habitant. The same types of findings was also reported by Saikia *et al.*, (1986) and Waghmare and Chaudhari (1989).

The constraints in empowerment as perceived by tribal farm women are furnished in Table 4. It was evident that Illiteracy was perceived as the top most constraints as (89.33%) respondents agreed with it as many as (79.33%) respondents opined that lack of practical knowledge as the second most

important hindrance in empowerment. The other constraints perceived by the respondents in order of importance were lack of exposure to training programme (34.00%), male dominance in decision making activities (48.66%), Problems of financial supports (34.00%). Only (26.00%) respondents expressed heavy works load due to dual responsibility as one of the constraints in empowerment for livelihood security in rice based farming system. There was also found literacy rate of very low, lack of awareness in women education, low marriage of tribal girls due to their socio cultural phenomena in the society.

Table.1 Distribution of respondents on the basis of involvement in rice cultivation activities

Pre sowing & sowing activities	AI	MI	NI	Mean Score	Rank
Land preparation	11 (7.33)	42 (28.00)	97 (64.66)	0.43	IV
Manure application	67 (44.66)	50 (33.33)	33 (22.00)	1.22	II
Seed selection and treatment	15 (10.00)	24 (16.00)	111 (74.00)	0.36	V
Sowing of seed	16 (10.66)	21 (14.00)	113 (75.33)	0.35	VI
Nursery raising	40(26.26)	45 (30.00)	65(43.43)	0.83	III
Transplanting	85 (56.66)	48 (28.66)	17 (11.33)	1.45	I
Intercultural activities					
Weeding	129 (86.00)	15(10.00)	06 (4.00)	1.82	I
Thinning & gap filling	121(80.66)	20 (13.33)	09 (6.00)	1.74	II
Irrigation	10 (6.66)	17 (11.33)	123 (82.00)	0.24	III
Pesticide application	00 (0.00)	05 (3.33)	145 (96.66)	0.03	V
Fertilizer application	09 (6.00)	15 (10.00)	126(84.00)	0.22	IV
Harvest & Post harvest activities					
Harvesting	140 (93.33)	10 (6.66)	00 (0.00)	1.93	II
Threshing	35 (23.33)	93 (62.00)	22 (14.66)	1.08	V
Winnowing	138 (92.00)	12 (8.00)	00 (0.00)	1.92	III
Drying & cleaning	143 (95.33)	07 (4.66)	00 (0.00)	1.95	I
Treating grains with insect repellants	07 (4.66)	12 (8.00)	131 (87.33)	0.17	VI
Storing grains	128 (85.33)	10 (6.66)	12 (8.00)	1.77	IV

(Figures in the parentheses represent percentage)

AI= Actively Involved MI= Moderately Involved NI= Not Involved

Table.2 Distribution of respondents on the basis of involvement in horticultural (vegetable cultivation) activities

Activities	AI	MI	NI	Mean Score	Rank
Collection of vegetable seeds	62 (41.33)	47 (31.33)	41 (27.33)	1.14	VII
Nursery bed preparation	76 (50.66)	30(20.00)	44 (29.33)	1.21	VI
Seed sowing & watering the nursery	95 (63.33)	29 (19.33)	26 (17.33)	1.46	V
Uprooting & transplanting	98 (65.33)	32 (21.33)	20 (13.33)	1.52	IV
Thinning & gap filling	113 (75.33)	22 (14.66)	15 (10.00)	1.65	III
Weeding	127 (84.66)	15 (10.00)	08 (5.33)	1.79	I
Harvesting	121 (80.66)	18 (12.00)	11 (7.33)	1.73	II
Preparation of value added products	05 (3.33)	15 (10.00)	130 (86.66)	0.16	VIII

(Figures in the parentheses represent percentage)

AI= Actively Involved MI= Moderately Involved NI= Not Involved

Table.3 Distribution of respondents on the basis of involvement in animal husbandry (dairy and poultry) activities

Dairy Activities	AI	MI	NI	Mean Score	Rank
Milking cow	03(2.00)	07 (4.66)	140 (93.33)	0.08	VI
Feeding animals	53 (35.33)	42 (28.00)	55 (36.66)	0.98	IV
Maintenance of cattle shed	69 (46.00)	24 (16.00)	57 (38.00)	1.08	II
Fodder collection	61 (40.66)	35 (23.33)	54 (36.00)	1.04	III
Care & management of animals	69 (46.00)	32 (21.33)	49 (32.66)	1.13	I
Marketing of milk	07 (4.66)	11 (7.33)	132 (88.00)	0.16	V
Poultry Activities					
Feeding of birds	46 (30.66)	53 (35.33)	51 (34.00)	0.96	II
Maintenance of birds cages	64 (42.66)	47 (31.33)	39 (26.00)	1.16	I
Care and management of birds	45 (30.00)	50 (33.33)	55 (36.66)	0.93	III
Selling eggs/birds	41 (27.33)	44 (29.33)	65 (43.33)	0.84	Iv

(Figures in the parentheses represent percentage)

AI= Actively Involved MI= Moderately Involved NI= Not Involved

Table.4 Constraints perceived by tribal farmwomen for income generating activities in rice based farming system

Constraints	Frequency	percentage	Rank
Illiteracy	134	89.33	I
Lack of practical knowledge	119	79.33	II
Lack of exposure to training programme	94	62.66	III
Problems of financial supports	51	34.00	V
Male dominancy in decision making activities	73	48.66	IV
Heavy works load due to dual responsibility	39	26.00	VI

(* The added percentage is more than 100 since multiple response were allowed)

Findings of the above study it was concluded that the women participations is very important in farm activities in rice based cropping system to increase the employment and income generation. For better standard of living in their family life, improved crops and livestock management technologies as well as household activities, input and services, awareness about training and education, organized marketing and credit facilities is to be provided by different line department like agriculture, horticulture, veterinary and allied sectors as well as it should be organized training programme actively participation with farm women in the field of agriculture including household enterprises as well as activities is to in proper time. so that the more employment opportunities and income could be generated by the tribal farm women to their family.

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