

Extent of participation of women farmers and their problems in rice production in Assam

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■ **ABSTRACT :** This study examined the level of participation of women farmers in rice production in Jorhat district of Assam. Data for the study were obtained from 200 respondents and summarized using frequency distribution, percentages and correlation. Our analysis reveals that in rice cultivation all the activities except weeding and ploughing is dominated by women in the sample area. Majority of the rural women were involved independently in activities like processing (62.25%), transplanting (57.75%), cleaning (55.50%), drying (54.25%) and winnowing (52.00%). Though their participation in different rice production activities were high but rural women faced various problems in production of rice crop and decision making. This study however recommends that government should facilitate the availability of credit facilities, inputs and infrastructural facilities and also revitalize and encourage ago-based industries so as to improve the efficiency in processing and marketing of rice products.

■ **KEY WORDS:** Participation, Women farmers, Rice production, Problems, Decision making

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Rice is the staple food for more than half of the world's population. In Asia, more than 80 per cent of the people live on rice, and their primary food security is entirely dependent on the volume of rice produced in this part of the world. The women are the backbone of agriculture work force, but worldwide her hard work has mostly been un-paid. In India around 70 per cent of population earns their livelihood from agriculture. In the rural scenario, there is hardly any agricultural activity where women are not found contributing except probably ploughing field. They have to do varied field operations like tilling, manuring, weeding, transplanting, harvesting, threshing, and storing. They also

have to look after dairy animals, poultry, fuel needs, food processing, drawing and storing water activities within house are classified as housework and not considered as contribution to the economy and most of their work is invisible. The statistical data shows that poor the family, the more it depends on economic productivity of its women. Another dimension of women's wellbeing is related to the unequal distribution of work and leisure according to gender. Women work longer hours than men and often carry a disproportionate share of the burden of coping with poverty. Usually women spent on an average 20 per cent more than men in rural area and 6 per cent in urban areas, because, of their reproductive

roles, their responsibilities relating to rearing of children and serving the aged persons in the family, their greater responsibility for agricultural work in family owned farms and barriers to their entry in urban area markets.

Rural women of Assam actively engaged in farming and list out her contribution operation wise particularly for paddy crop it has been found that about 80-85 per cent of the operations are conducted by women, either alone or along with men folk. The operations which merit a mention are seed-bed preparations, transplantation, weeding, harvesting, and to some extent application of fertilizers and insecticides, weedicides and fungicides along with men-folk and threshing of grains. All does not end here and she continues to put in her bit in winnowing and bagging of threshed crop and its storage and after care in the home. But Rural women are generally do not have the same access as men to education and extension-training programmes, productivity gains from rice technologies will be difficult to achieve unless women are the direct recipients of new technologies.

Objectives:

- The objectives taken up for the present study are –
- To study the profile of farm women participating in farm and allied activities
 - Determine the extent of participation of women in rice farming operation.
 - Identify the factors hindering women's participation in rice farming.

RESEARCH METHODS

The study was conducted in two development Blocks of Jorhat district of Assam, under the multistage stratified random sampling technique. Further, two villages from each block were selected by using simple random sampling method. Thus finally four villages were selected for carrying out the present research study. For selection of respondents, a list of rural women from each selected villages was prepared separately in consultation with the village level workers and member of representative Gram Panchayat. From each list, fifty rural women were selected by using simple random sampling method. Thus, two hundred rural women were selected for data collection. Structured interview schedule was designed and used to collect information according to the objectives of the study. The data were

collected through personal interview method and analyzed with the help of appropriate statistical technique.

RESEARCH FINDINGS AND DISCUSSION

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads :

Social background of respondents :

It is evident from Table 1 that majority 51 per cent of rural women of the study areas belonged to lower middle age group *i.e.* 36-49 years. 31.5 per cent of rural women had education upto middle school level. A large majority (84.00%) of rural women were married. Forty nine per cent of rural women belonged to Other Backward Caste (OBC). Majority (65.50%) of rural women belonged to nuclear family and (52.5%) of rural women belonged to medium family size. A large majority 71.00 per cent of the rural women's family primary occupation was farming. It is evident from data in Table 1 that majority of the women respondents (51.5%) had medium level of farming experience *i.e.* between 12 to 27 years, whereas 34 per cent of respondents had low (above 27 years) and 14.5 per cent of respondents had high farming experience (upto 11 years). Majority of the women respondents (51.5%) had low level of mass media exposure whereas 34 per cent of respondents had medium level of mass media exposure and 16.5 of respondents had high level of mass media exposure.

Type and extent of participation of rural women in rice production activities :

This refers to the actual role performed by the rural women in different farm related and post harvested activities of rice farming. The participation of rural women in rice farming activities is presented in Table 2.

The data presented in Table 2 indicates that more than fifty per cent of respondents contributed labour independently in areas such as processing (62.25%), transplanting (57.75%), cleaning (55.50%), harvesting (55.50%), drying of grain (54.25%) and winnowing (52.00%). This finding is in agreement with the findings of Thejaswini *et al.* (2004); Slathia *et al.* (2004); Goudappa *et al.* (2012) and Saikia (2015) who found that majority of the women's independent participation was high in transplanting, harvesting and post harvest

Table 1 : Distribution of respondents according to social background (n=200)

Sr. No.	Frequency	Percentage
Age in years		
1. Young (23-35 years)	40	20
2. Lower middle (36-49 years)	102	51
3. Upper middle (50-62 years)	58	29
Education level		
1. Illiterate	31	15.5
2. Primary School	53	26.5
3. Middle School	63	31.5
4. High School	35	17.5
5. College and above	18	9
Marital status		
1. Unmarried	9	4.5
2. Married	168	84
3. Widow	21	10.5
4. Divorce	2	1
5. Unmarried	9	4.5
Caste		
1. Schedule tribe (ST)	8	4
2. Scheduled caste (SC)	12	6
3. Other backward cast (OBC)	98	49
4. General	51	25.5
Family type		
1. Nuclear	131	65.5
2. Joint	60	30
3. Extended	9	4.5
Family type		
1. Small (Upto 4 members)	72	36
2. Medium (5-7 members)	105	52.5
3. Large (more than 7 members)	23	11.5
Occupation		
1. Farming	142	71
2. Service	28	14
3. Business	13	6.5
4. Daily wage earner	17	8.5
Experience in farming levels		
1. Low	68	34
2. Medium	103	51.5
3. High	29	14.5
Mass media exposure		
1. Low	99	34
2. Medium	68	24
3. High	33	16.5

activities which requires great physical efforts and also need adequate care and patience.

Furthermore, joint participation with husband was reported by more than seventy per cent of respondents in engagement of labour (84.75%), management of cash earned (82.50%), retention of grain for sale (82%), storage of grain (71.5%), seed treatment (70.25%) and more than half in retention of grain for seed (57.75%), and seed/variety selection (55.50%). Joint participation with husband was reported by 52.00 per cent of the respondents in activities such as fertilizer application, retention of grain for consumption and marketing of produce. Similar finding was reported by of Arunachalam (2006).

Joint participation with children, relatives and with hired labour was also recorded and found that a negligible per cent of rural women participated with them but in threshing participation of hired labour was 22.25 per cent which may be due to the fact that in the state of Assam agriculture is an occupation which provide work opportunities to women irrespective of the age level. These findings are in conformity with the findings of Goswami (2013).

Overall extent of participation of rural women in rice farming activities :

The data presented in Fig.1 reveals that majority (60.75%) of respondent had medium level of participation followed by low (21.25%) and high level participation (18.00%) in rice farming activities. The medium level participation of respondents in farm activities might be due to prevailing cultural and social practices of Assam and in some activities the independent participation of rural women was almost nil such as land preparation,

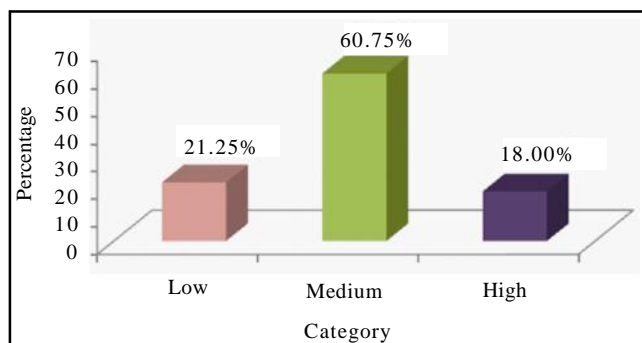


Fig. 1 : Distribution of respondents according to overall extent of participation in rice farming activities

Table 2 : Distribution of respondents according to type of participation in rice farming activities (n = 200)

Sr. No.	Activities	Independent participation of women	Joint participation with			No participation
		%	Husband %	Children/relatives %	Hired labour %	%
Farm related						
1.	Land preparation	0.00	46.00	4.00	3.00	47.00
2.	Seed/variety selection	1.75	55.50	0.00	0.00	42.75
3.	Seed treatment	0.50	70.25	0.00	2.50	26.75
4.	Nursery raising	27.75	22.25	14.25	8.25	27.50
5.	Sowing	23.75	42.00	5.50	8.50	20.25
6.	Uprooting of seedling	41.25	27.50	10.00	3.75	17.50
7.	Fertilizer application	0.00	52.00	0.00	14.75	33.25
8.	Transplanting	57.75	26.75	5.50	9.50	0.50
9.	Irrigation/water management	0.00	13.00	0.00	5.00	82.00
10.	Weeding	0.75	27.50	0.00	0.00	71.75
11.	Plant protection	1.50	42.00	1.75	0.50	54.25
12.	Harvesting	55.5	25.75	8.25	10.50	0.00
Post harvest management						
13.	Threshing	8.00	42.75	5.50	22.25	21.50
14.	Winnowing	52.00	5.50	22.25	13.25	7.00
15.	Cleaning	55.50	27.50	4.00	9.50	3.50
16.	Drying	54.25	26.75	14.25	3.50	1.25
17.	Retention of grain for					
	Consumption	27.75	52.00	8.50	2.50	9.25
	Seed	27.75	57.75	10.50	0.00	6.00
	Sale	9.50	82.00	4.00	0.00	4.50
18.	Storage	3.50	71.50	9.25	7.00	8.75
19.	Processing	62.25	9.50	25.75	0.00	2.50
20.	Marketing of produce	5.50	52.00	17.50	0.00	25.00
21.	Management of cash earned	4.00	82.50	8.50	0.00	5.00
22.	Engagement of labour	0.50	84.75	10.50	0.00	4.25

fertilizer application, irrigation and water management. This finding is in conformity with finding of Cherian *et al.* (2001); Chaudhary and Singh (2003); Butt *et al.* (2010) and Effiong *et al.* (2015).

Relationship between participation with selected independent variables :

To study the relationship between the extent of participation of rural women in rice farming and the selected independent variables, correlation co-efficient (r) was computed and the results are presented in the Table 3.

The independent variable age was found to be positively correlated which implies that the participation of women in rice production practices increased as age

advances. As for the parameter education is negatively correlated but not significant. As the educational qualification of women increases, the participation of women in rice farming was found to decrease, which may be inferred that women with formal education were getting employment in other sectors in opening an opportunity for earning regular cash income. It was also observed that family type was found to have positive correlation with the extent of participation of rural women in rice farming which indicates that women in joint and extended families were more actively participated may be labour input for other activities was easily available and they could share the responsibility among other members of the family. Family size was found to have a positive effect on the participation of rural women in

Sr. No.	Variables	'r' value
1.	Age	0.339**
2.	Educational qualification	- 0.127
3.	Family type	0.189
4.	Family size	0.390*
5.	Mass media exposure	0.359**

* and ** indicate significance of values at P=0.05 and 0.01, respectively
NS=Non-significant

Sr. No.	Factors	Mean score	Std. deviation	Rank
1.	Less amount of cultivated land	3.08	0.97	VII
2.	Lack of access to credit	4.31	0.64	II
3.	Poor economic conditions	3.36	0.68	VI
4.	Lack of knowledge on seed storage	2.93	1.12	VIII
5.	High cost of fertilizers/ chemicals	3.53	1.19	V
6.	Lack of knowledge on plant protection	4.48	0.71	I
7.	Lack of women specific technology	4.00	0.83	IV
8.	Lack of need based training	4.07	0.72	III
9.	Untimely supply of farm inputs	2.77	1.06	IX
10.	Lack of knowledge about processing	2.47	0.61	X

rice farming. It implies that participation of rural women in rice farming activities was increase with bigger family size. Mass media exposure was found to have a positive and significant relationship at 1 per cent level of significance. It indicates that the respondents who had more mass media exposure can easily get information on modern agricultural production techniques from wide range of sources.

Problems faced by farm women in cultivation of rice:

The data in the Table 4 reveals that lack of knowledge on plant protection ranked I with mean score (4.48) followed by lack of Lack of access to credit II, lack of need based training ranked III, lack of women specific technology ranked IV and High cost of fertilizers/ chemicals V with mean score (4.31), (4.07), (4.00) and (3.53).

It can be concluded that extension training programme could be planned considering the prioritized problems area perceived by the farm women in the study area. Similar work related to the present investigation was also carried out by Bharali (2013 and 2016); Girade and Shambharkar (2012) and Kumari *et al.* (2016).

Conclusion :

Women are good partners of the socio-economic

development of the country in general and the family in particular. They can contribute significantly to the socio-economic up liftment of the family if proper environment with facilities can be ensured. The analysis shows that women play an important role in rice production activities especially in post-harvest.

Recommendations :

– Women training centres should be established at national level whose responsibility to conduct training for rural women on different agricultural activities to enhance their knowledge and skill.

– KVK/line department, extension functionaries should give attention for increasing social and mass media participation, achievement motivation and innovativeness of farm women through effective and participatory trainings/ demonstrations for better understand and adoption of improved technology.

– Government should improve on the supply and access to improved and disease resistant rice varieties among women farmers in the study area.

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