

**RESEARCH ARTICLE :**

# Participation of farm women of Assam in cultivation of rice and problems faced by them

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**SUMMARY :** Women are the backbone of agricultural workforce also and make essential contributions to the agricultural and rural economies in all developing countries. Compared to men, farm women are generally involved in a wider range in crops, livestock and agro-based activities. Women are usually employed in most difficult field operations like sowing, transplanting, weeding, intercultural operations, harvesting, threshing and agro- processing. Though women plays an active part in agricultural activities but they faced lots of constrains. Thus, the present study was conducted to find out participation of farm women of Assam in cultivation of rice and problem faced by them with the following objectives to find out the background characteristic of farm women, to study the participation of farm women in cultivation of rice and to determine the problems faced by the farm women in cultivation of rice. The study was conducted in six districts of Assam. A purposive cum simple random sampling technique was adopted for selecting the respective samples for the study. Altogether 1500 farm women were selected for the present study. Data were collected personally by interview method. The findings reveals that more than fifty per cent of farm women contributed labour independently in areas such as cleaning (55.17%), transplanting (55.08%), harvesting (54.75%), winnowing (51.08%) and drying of grain (50.16%). And the problem faced by the farm women in cultivation of rice were lack of knowledge on plant protection ranked I followed by lack of irrigation facility ranked II, and lack of need based training ranked III.

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## **BACKGROUND AND OBJECTIVES**

Women constitute nearly one half of the world's population having enormous potential and they are the builder and moulder of any nation's destiny. In the history of human development, women were as important as man. In fact, the status, employment and work performed by women in society is the indicator

of a nation's overall progress. Without the participation of women in national activities, the social, economical or political progress of a country will stagnate. A woman is the nucleus of the family, she share abundant responsibilities to perform wide spectrum of duties both at home and outside the home. She takes care of the children and members of the family, their health, orientation and

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education and attends to various income generation activities. She manages all the household matters, looks after the family assets, produce agricultural crops, manages livestock and works for almost 14-16 hours a day.

Women are the backbone of agricultural workforce also and make essential contributions to the agricultural and rural economies in all developing countries. 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. Compared to men, women are generally involved in a wider range in crops, livestock and agro-based activities. Many of these activities are not defined as “economically active employment” in national accounts but they are essential to the well-being of rural households.

Women are usually employed in most difficult field operations like sowing, transplanting, weeding, intercultural operations, harvesting, threshing and agro-processing. Though women plays an active part in agricultural activities but they faced lots of constrains. Thus, the present study was conducted to find out participation of farm women of Assam in cultivation of rice and problem faced by them with the following objectives to find out the background characteristic of farm women, to study the participation of farm women in cultivation of rice and to determine the problems faced by the farm women in cultivation of rice.

## RESOURCES AND METHODS

### Sample and sampling procedure :

The study was conducted in three agro-climatic zones of Assam state in India : Upper Brahmaputra Valley Zone, Central Brahmaputra Valley Zone and North Bank Plain Zone. A multistage purposive cum- random sampling design was followed. From each selected agro-climatic zone two districts, (total six) were selected purposively. Again from each selected district one sub-division (total six) were selected purposively considering the involvement of farm women in agricultural activities. From each selected sub-division two blocks total (twelve) were selected purposively. From each selected block four villages were selected randomly. Thus 48 villages were selected for carrying out the study. From each selected village 25 farm women, (total 1,200) were selected randomly.

### Variable and its measurements :

#### *Socio-economic status :*

This refers to the position of the respondent in society and was determined by various social and economic variables such as caste, land holding, education, type of house, main family occupation, family type, family size, material possession and organizational membership of farm women. The socio-economic status of farm women were measured by the socio-economic scale developed by Trivedi (1963) with slight modification. On the basis of score obtained by the farm women they were categorized into the 3- three categories: Low with score range below  $X - Sd$ , medium with  $X - Sd$  to  $X + Sd$  and high with above  $X + Sd$ .

### Participation of farm women in different farm and non-farm activities :

This refers to actual role performed by the farm women in selected farm and non-farm activities.

The farm activities included in the present study are land preparation, seed treatment, raising of seedlings and nursery management, transplanting, application of manure and fertilizer, weeding, irrigation/water management, application of pesticides, harvesting, threshing, winnowing, cleaning, drying of grain, retention of grain for consumption, retention of grain for seed, storage of grain, packaging of produce for marketing, and food processing.

The extent of participation in each activity was categorized and scored as:

Category	Score
No participation	1
Joint participation	2
Independent participation	3

### Problems faced by farm women in cultivation of agricultural crops :

In the present study, problems faced by farm women are operationally defined as the constraints faced by the farm women in carrying out the farm activities.

A list of problems were identified and listed out after thorough study of different journals, research reports, consultation with experienced persons of related field and informal discussion with farm women. Thus 12 problems were selected for the study.

Then the problems were administered to the respondents to know their reactions in a 3 point scale as follows :

Category	Score
Always	3
Sometime	2
Never	1

### Analysis of data :

The collected data were coded, tabulated and analyzed in accordance with the objectives of the present study by using appropriate tests and techniques.

## OBSERVATIONS AND ANALYSIS

The results obtained from the present study as well as discussions have been summarized under following heads:

### Socio-economic status of farm women :

Majority 55.08 per cent of farm women of the study areas belonged to middle age group *i.e.* 30-40 yrs. Large majority (91.66%) of farm women were married. 44.75 per cent of farm women belonged to general caste. 41.33 per cent of farm women belonged to the category of marginal farmer. 38.50 per cent of farm women had education upto middle school. 46.42 per cent farm women had mixed type of house. 46.50 per cent of the farm women's family occupation was farming. Majority (77.89%) of farm women belonged to nuclear family. The data reveals that majority (63.95%) of farm women belonged to small family. Cent per cent of farm families possessed hoe and hand tools, followed by desi plough (99.08%) and bullock (98.25%). Majority 60.91 per cent of farm families possesses two wheelers. 87.08 per cent of farm families possess mobile followed by television (70.42%). Large majority (95.42%) of farm families possess traditional chullah. 64.09 per cent of farm women were member of one organization. 52.60 per cent of farm women belonged to low socio-economic status.

### Participation of farm women on different farm activities :

The division of labour in agricultural activities should be taken as the starting point for determining who should participate in agricultural extension training. It is generally found that women and men are responsible for different agricultural productive activities. Their roles may differ by type of activity, such as crop, livestock and fishery production, as well as by stage of production such as

land preparation, planting, weeding, harvesting, crop processing, marketing and so on.

The point of the activity profile is to produce a clear picture on "who does what". Which agricultural activities are the predominant responsibility of women? Which activities are carried out predominantly by men or by both? Agriculture calendars are one simple way of documenting the roles of both women and men for different crops and other productive activities, highlighting seasonal patterns as well.

The participation of farm women both in farm activities is presented in Table 1.

The data presented in Table 1 indicates that more than fifty per cent of farm women contributed labor independently in areas such as cleaning (55.17%), transplanting (55.08%), harvesting (54.75%), winnowing (51.08%) and drying of grain (50.16%). These findings are in agreement with Bordoloi (1997), Borkakoty (1999), Gogoi and Bhowmick (2003) and Deka *et al.* (2010). It stated that women were mostly involved in field works such as transplanting, harvesting and post harvest activities that does not require great physical efforts but adequate care and patience is highly required.

From the Table 1 it is seen that women and men are not only farmers; they are also wives/ husbands and mothers/fathers with responsibilities for both subsistence production and household maintenance These are particularly time-consuming and are often carried out with traditional tools and processes. These responsibilities also take time and effort. In almost all cases, women work more hours per day than men. For this reason, their reproductive and domestic activities also need to be taken into account by extension planners. Moreover, poor access to extension services by the farm women could be due to lack of proper attention to multiple roles performed by them at the time of planning extension programme for the farm women.

### Problem faced by farm women in cultivation of rice:

The data in the Table 2 reveals that lack of knowledge on plant protection ranked I with mean score (1.90) followed by lack of irrigation facility ranked II, lack of need based training ranked III, lack of women specific technology ranked IV and lack of knowledge on seed storage ranked V with mean score (1.89), (1.87), (1.82) and (1.79).

It can be concluded that extension training

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**Table 1 : Distribution of farm women according to their participation in both farm and non-farm activities (n=1200)**

Sr. No.	Activities	Types of participation					
		Independent participation		Joint participation		No participation	
		f	%	f	%	f	%
<b>Farm based activities</b>							
1.	Land preparation	2	0.16	184	15.33	1014	84.50
2.	Seed treatment	7	0.58	109	9.08	1084	90.33
3.	Sowing of seed	234	19.50	610	50.83	356	29.67
4.	Nursery management	338	28.17	618	51.50	244	20.33
5.	Uprooting of seedling	562	46.83	324	27.00	314	26.17
6.	Transplanting	661	55.08	522	43.50	17	1.42
7.	Application of manure and fertilizer	2	0.16	102	8.50	1096	91.33
8.	Weeding	5	0.42	98	8.17	1097	91.42
9.	Irrigation and water management	-	-	56	4.60	1144	95.33
10.	Application of pesticides	6	0.50	158	13.17	1036	86.33
11.	Harvesting	657	54.75	532	44.33	11	0.92
<b>Post Harvest activities</b>							
12.	Threshing	28	2.33	442	39.83	730	60.83
13.	Winnowing	613	51.08	424	35.33	167	13.91
14.	Cleaning	662	55.17	452	37.66	86	7.17
15.	Drying of grain	602	50.16	467	38.91	131	10.92
16.	Retention of grain for Consumption	123	10.25	824	68.66	253	21.08
17.	Retention of grain for seed.	87	7.25	623	51.92	490	40.83
18.	Storage of grain	81	6.75	777	64.75	342	28.50
19.	Packaging of produce for marketing	69	5.75	503	41.91	628	52.34

**Table 2 : Ranking of problem faced by farm women in cultivation of rice (n=1200)**

Sr. No.	Problem area	Mean score	Rank
1.	Less amount of cultivated land	1.03	XII
2.	Shortage of labour in the farm land	1.13	XI
3.	Lack of access to credit	1.77	VI
4.	Lack of knowledge on seed storage	1.79	V
5.	Lack of irrigation facility	1.89	II
6.	Lack of money for buying farm inputs	1.56	VIII
7.	High cost of fertilizers/ chemicals	1.42	IX
8.	Lack of knowledge on plant protection	1.90	I
9.	Lack of need based training	1.87	III
10.	Lack of women specific technology	1.82	IV
11.	Untimely supply of farm inputs	1.68	VII
12.	Lack of knowledge about processing	1.23	X

programme could be planned considering the prioritized problems area perceived by the farm women in the study area. Similar finding were reported by Sinha *et al.* (1984), Das (1995) and Bharali (2003).

**Conclusion:**

The findings presented in this study show that farm

women belong to low socio- economic status. They involved independently in transplanting, harvesting and post harvest activities. Despite important role played by farm women in rice production, they faced problems. Thus, the extension service should be more gender sensitive when organizing extension activities at different levels, so that women farmers have full and appropriate

access to extension meetings, demonstrations, field days and other activities. A proportion of women farmers participants should be targeted in each extension activity that can specifically benefit them.

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