

## **INVOLVEMENT OF RURAL FEMALE WORKFORCE IN DECISION MAKING PROCESS IN AGRICULTURE: A STUDY OF MORIGAON DISTRICT OF ASSAM**

**Ms Nilakshi Goswami.\***

---

**Abstract:** The contribution of rural women to agriculture production and rural development is mostly unappreciated in spite of their dominant role in the sector. Women are taking a significant proportion of the total burden of survival and sustenance of agriculture and rural development. Therefore they deserve to get recognition in decision making process in agriculture. Existence of patriarchal society with other socio-economic factors affects women involvement in decision making process. Present study examines the involvement of rural women in decision making process in agricultural activities and attempts to identify the factors influencing their participation in decision making process. It concludes with the result that in spite of their active participation in agriculture activities, involvement of women in decision making process is not much impressive. Socio economic factors like caste, religion, type of family, education have significantly influence female workforce participation in decision making process in agriculture.

---

\* **Research Scholar, Department of Economics, Dibrugarh University**

**Introduction:**

Women play important roles in rural economy as farmers, wage earners and entrepreneurs. As per census 2011 as large as 30.58 percent of the total workforce engaged in agriculture is female work force, who has been contributing a major proportion to the farm production as well as household income. Women are found actively participate in the developing process by performing activities in both home and outside home. In agriculture women are engaged in various agricultural activities like seeding, planting, weeding irrigation, processing, harvesting, and threshing operations. The various activities performed by women can be divided into two broad headings-“Market activities” which constitutes women’s participation in various farm and nonfarm activities for wages, another part in “Non-market activities” which includes women’s contribution to a household as a mother, wife or daughter. The dual role of women as a paid worker in outside the family and unpaid worker in the household contributes a significant portion in real terms to the productive system of a country. But throughout the world rural women is under represented in the development process (Davender Dommati 2011). In our country in different process of agricultural operation female workforce plays significant role although quantitative valuation in terms of money is ignored. Moreover women in rural areas face constraints in engaging in economic activities because of gender based discrimination and social norms, disproportionate involvement in unpaid work and unequal access to education, healthcare, property and financial and other services.

Decision making is a process of making choices by identifying a decision, gathering information and assessing alternative resolutions. In other words decision making is a process of making choices from a number of alternatives to achieve a desired goal. Here the best alternative is chosen to get a desired result (Fred C Lunenburg 2010). The contribution of rural women to agriculture production and rural development is mostly unappreciated in spite of their dominant role in the sector. Women compete more favorably than men in terms of their participation in agriculture activities and household economy is often unappreciated. Women are taking a significant proportion of the total burden of survival and sustenance of agriculture and rural development. Therefore they deserve to get recognition in decision making process in agriculture. Existence of patriarchal society with other socio-economic factors affects women involvement in decision making process (Baba Ismail et al.2015). Although women’s

participation in the decision making process has a significant impact on their improved status and greater role in society, their involvement in decision making process specially related to money matter is low. In rural families, type and size of the family, caste, size of land holding, socio economic status of families, education level of rural women, their employment status etc. affect their involvement in decision making (Subhadip Pal and Sourav Haldar 2016). It has been assumed that there is a positive relationship between women empowerment and decision making at households level. Achieving the goal of equal participation of men and women in decision making will provide a balance that more accurately reflects equal development in the society.

**Objectives:**

The study seeks to examine-

- The involvement of women in decision making process in various agricultural activities and
- The socio economic factors which influence female participation in decision making process of household's agricultural activities.

**Methodology:**

The paper is based on a field survey done on Morigaon district of Assam. According to census 2011, 58.96 percentage the total agricultural workers are female in this district. A multistage random sampling design has been used for the selection of sample households. In the second stage Mayong block is selected where percentage of female agricultural worker out of total female workers is the highest. In the third stage four villages selected randomly for intensive study. In the last 10 percentage households from each village is selected for intensive study.

**Result and discussion:**

Being an agricultural based state, this sector provides employment opportunities to a large extent both male and female workers in the rural area. In the study area it was found that female workers actively participate in different activities like transplanting, weeding, harvesting, winnowing and sun drying etc. Table 1.1 reveals how much time spent by male and female workers in different agricultural activities.

**Table: 1.1 Average time spent by male and female workers in different household agriculture activities:**

Activity	Period	Person	Working time (in Hours)
Crop cultivation	Daily	Male	8.17
		Female	7.25
	Weekly	Male	56.91
		Female	50.82
Livestock	Daily	Male	1
		Female	1.4
	Weekly	Male	7
		Female	11.32
Vegetables cultivation	Daily	Male	2.07
		Female	1.38
	Weekly	Male	14.47
		Female	10

**Source:** Compiled from field survey

It is clear from the Table: 1.1 that the female workers spend almost average 7.25 hours per day in crop cultivation. In livestock breeding activities they spend average 1.40 hours per day and in case of vegetables cultivation they spend average 1.38 hours per day.

Female workers are participating in various agricultural activities like transplanting, harvesting, weeding, threshing, livestock breeding etc. while male members are engaged primarily in land preparation, fertilizer application, threshing, mechanization, marketing etc. This study attempts to analyze decision making power of female agricultural worker in different agricultural activities. For this we have selected ten types of activities namely land preparation, transplanting, harvesting, weeding, fertilizer application, threshing, marketing, mechanization, agricultural loan and livestock breeding. To analyze the participation in decision making of female workers, their participation pattern is classified into five categories i.e. no participation, only informed, opinion matters to some extent, opinion matters to a large extent and takes final decision. Table 1.2 reveals women's participation in decision making process in various types of agricultural activities. It reveals that in case of land preparation 43.6 percent female workers do not

participate in decision making process. Other activities like fertilizer application, marketing, mechanization, agricultural loan etc, majority of female workers i.e. 48.2 percent, 48.2 percent, 42.7 percent and 53.6 percent respectively do not participate in decision making process. Here women participation in decision making is assumed as appreciable if their opinion matters to a large extent and for activities like transplanting, harvesting, weeding, livestock breeding the percentage of female workers whose opinion matters to a large extent are 40.9 percent, 40 percent, 31.8 percent and 24.5 percent respectively.

**Table: 1.2. Participation in Decision making by women in Agricultural activities**

Type of activities	No Participation	Only informed	Opinion matters to some extent	Opinion matters to a large extent	Final decision
Land preparation	48 (43.6)	16 (14.5)	37 (33.6)	7 (6.4)	2 (1.8)
Transplanting	10 (9.1)	29 (26.4)	24 (21.8)	45 (40.9)	2 (1.8)
Harvest	12 (10.9)	26 (23.6)	26 (23.6)	44 (40.0)	2 (1.8)
Weeding	28 (25.5)	16 (14.5)	29 (26.9)	35 (31.8)	2 (1.8)
Fertilizer application	53 (48.2)	23 (20.9)	29 (26.9)	3 (2.7)	2 (1.8)
Threshing	16 (14.5)	36 (32.7)	41 (37.3)	15 (13.6)	2 (1.8)
Marketing	53 (48.2)	13 (11.8)	30 (27.3)	12 (10.9)	2 (1.8)
Mechanization	47 (42.7)	24 (21.8)	20 (18.2)	17 (15.5)	2 (1.8)
Agricultural loan	59 (53.6)	19 (17.3)	22 (20)	7 (6.4)	3 (2.7)
Livestock breeding	7 (6.4)	12 (10.9)	43 (39.1)	27 (24.5)	21 (19.1)

**Source:** Compiled from field survey

Figures in the ( ) represents column wise percentage

Socio economic factors like age, education ,size of family, type of family etc. have influence on the decision making power of female agricultural workers. Subhadip Pal and Sourav Haldar (2016) analyze the influence of various socio economic factors like age, education, caste on decision making power of farming women. To analyze the influence of socio economic factors on decision making power of a woman, decision making score is calculated for each woman. For this women with no participation in decision making process were given 1 score. Score of 2 was given if women were only informed about decision. A score of 3 was given if women opinion

was given some weight. A score of 4 was given if women participated in decision making to a large extent and a score of 5 was given if woman took decision independently. Ten activities related to agriculture are selected for this purpose and scores are given according to their pattern of participation. Thus decision making score is calculated for each respondent. It ranges from 10 to 50 where 10 imply no participation and 50 imply full participation in decision making process. Following Table: 1.3 gives a detail picture on it.

**Table 1.3: Decision making score among Sample Households**

Decision making score	Frequency	Percentage
0-10	1	0.9
11-20	47	42.7
21-30	23	20.9
31-40	37	33.6
41-50	2	1.8
Total	110	100

**Source:** Compiled from field survey

Figures in the ( ) represents column wise percentage

From the Table: 1.3 it is clear that the number of respondents who do not participate in decision making process and who took decision independently are very less. 33.6 percent respondents have decision making score in between 31-40. In this way 42.7 percent of respondents have decision making score in between 11-20. Various socio economic factors like caste, religion, educational qualification, type of family, age group etc have influence on decision making power and in this study attempt has been made to analyze the influence of these socio economic factors on decision making power of female agricultural workers.

**Table: 1.4 Decision making score among various caste**

Decision making score	Caste				
	General	OBC	SC	ST	Total
0-10	1 (100)	0	0	0	1(100)
11-20	29 (61.7)	6 (12.8)	2 (4.3)	10 (21.3)	47(100)
21-30	2 (8.7)	7 (30.4)	3 (13)	11 (47.8)	23 (100)
31-40	1 (2.7)	8 (21.6)	5 (13.5)	23 (62.2)	37 (100)
41-50	1 (50)	0	0	1 (50)	2 (100)
<b>Total</b>	34(30.9)	21 (19.1)	10 (9.1)	45 (40.1)	110 (100)

**Source:** Compiled from field survey

Figures in the () represents column wise percentage

From the Table: 1.4 it is revealed that majority of respondents i.e. 47 no of respondents have decision making score between 11-20 where 61.7 percent are from general caste, 12.8 percent are from OBC, 4.3 percent are from SC and 21.3 percent are from ST caste. Like this 37 no of respondents have decision making score in between 31-40 where 2.7 percent are from general caste, 21.6 percent are from OBC caste, 13.5 percent are from SC caste and 62.2 percent are from ST caste. Only two respondents have decision making score in between 41-50.

**Table 1.5. Decision making score among various religion**

Religion	0-10	Nov-20	21-30	31-40	41-50
Hindu	0	21 (25)	23 (28)	37 (45)	2 (2)
Muslim	1(4)	26 (96)	0	0	0
<b>Total</b>	1(0.90)	47 (42.73)	23 (20.90)	37 (33.64)	2 (1.82)

**Source:** Compiled from field survey

Figures in the () represents column wise percentage

In the study area we have found households from two religious groups i.e. Hindu and Muslim and it is found that out of the total 110 respondents, 83 respondents are Hindu and 27 respondents are Muslim. Among the Hindu respondents 45 percent respondents have decision making score in between 31-40 and 25 respondents have decision making score in between 11-20. Only 2 percent respondents have decision making score in between 41-50. In case of the Muslim respondents 96 percent respondents have decision making score in between 11-20 and 4 percent respondents have decision making score between 0-10.

**Table: 1.6. Educational qualification of the respondents and decision making score**

Education of the respondents	0-10	11-20	21-30	31-40	41-50
Illiterate	1 (100)	26 (55.32)	7 (30.43)	11 (29.73)	1 (50)
Primary school level	0	12 (25.53)	5 (21.74)	7 (18.92)	0
Middle school level	0	6 (12.77)	5 (21.74)	10 (27.02)	1 (50)
HSLC level	0	3 (6.38)	4 (17.39)	7 (18.92)	0
HS level	0	0	0	2 (5.41)	0
Graduate level	0	0	2 (8.70)	0	0
<b>Total</b>	1 (100)	47 (100)	23 (100)	37 (100)	2 (100)

**Source:** Compiled from field survey

Figures in the ( ) represents column wise percentage

From the table 1.6 it is revealed that only 1 respondent have decision making score between 0-10 and educational qualification of the respondent is illiterate. 47 no of respondents have decision making score in between 11-20 where almost 55 percent are illiterate, 13 percent have passed middle school level and 6 percent have passed HSLC level. 37 no of respondents have decision making score in between 31-40 where almost 30 percent are illiterate, 19 percent have education upto primary level, 19 percent have education up to HSLC level and 5 percent have passed HS level. Only 2 no of respondents are enjoying full decision making power 1 respondent is illiterate and another is middle school passed.

**Table: 1.7. Type of family and decision making score**

Type of family	0-10	11-20	21-30	31-40	41-50
<b>Nuclear</b>	0	16 (34)	9 (39)	37 (100)	2(100)
<b>Joint</b>	1 (100)	31 (66)	14 (61)	0	0
<b>Total</b>	1 (100)	47 (100)	23 (100)	37 (100)	2 (100)

**Source:** Compiled from field survey

Figures in the ( ) represents column wise percentage.

So far as type of family is concerned, performance of nuclear family in decision making process is more satisfactory than joint family. 37 no of respondents have decision making score in between 31-40 and all are belong to nuclear family. Similarly two female workers have decision making score in between 41 to 50 and they are also from nuclear family. 47 no of respondents have decision making score between 11-20 where 66 are from joint family and 34 are from nuclear family. Similarly 23 female workers have decision making score between 21-30 where 61 percent are from joint family and 39 are from nuclear family.

**Table: 1.8. Age group of the respondents and decision making score**

Age group of the respondents	Decision making score				
	0-10	11-20	21-30	31-40	41-50
15-24	0	11 (23)	1 (4)	9 (24)	0
25-34	0	17 (36)	8 (35)	10 (27)	0
35-44	0	5 (11)	8 (35)	15 (41)	0



45-54	0	9 (19)	2 (9)	3 (8)	1 (50)
55-64	1 (100)	4 (9)	4 (17)	0	1 (50)
65-74	0	1 (2)	0	0	0
<b>Total</b>	1 (100)	47 (100)	23 (100)	37 (100)	2 (100)

**Source:** Compiled from field survey

Figures in the ( ) represents column wise percentage

The Table 1.8 reveals decision making score of various age groups. Here it is seen that out of the 47 respondents those have decision making score between 11-20, 11 female workers belong to age group of 15-24, 17 belong to age group of 25-34, 5 belong to age group of 35-44, 9 belong to age group of 45-54, 4 belong to age group of 55-64 and only 1 belong to age group of 65-74. In this way 37 no of female agricultural workers belong to age group of 31-40. Out of them, 9 workers belong to age group of 15-24, 10 workers belong to age group of 25-34, 15 workers belong to age group of 35-44 and 3 workers belong to age group of 45-54.

### **Factors influencing Decision Making Power of Female Farm Workers:**

Thus on the above discussion attempt has been made to analyze the impact of various socioeconomic factors on decision making process. To examine the direct impact of various socio economic variables like education, age, type of family, size of family, Person days of female in agriculture activities etc. on decision making process, in this study a multiple linear regression model is run. Here the decision making power of women in agriculture activities which is measured in terms of decision making score is regressed in terms of socio economic variables caste, education, age, type of family, size of family, Person days of female in agriculture activities. The equation of the multiple linear regression model is as follows-

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + U$$

Here Y represents decision making power,  $X_1$ ,  $X_2$ ,  $X_3$ ,  $X_4$ ,  $X_5$  and  $X_6$  represents caste, education, type of family, age, size of family worker, Caste and Religion respectively.  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ ,  $\beta_5$  and  $\beta_6$  represents the regression coefficients and U is the random disturbance term and  $\beta_0$  is the constant term.

Now by applying the surveyed data, the following output results are found by using SPSS.

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.892 <sup>a</sup>	.796	.784	4.56045

a. Predictors: (Constant), Religion of the households, Typeoffamily, Education, Agegroup, sizoffamilyworker, caste

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8368.598	6	1394.766	67.063	.000 <sup>a</sup>
	Residual	2142.166	103	20.798		
	Total	10510.764	109			

a. Predictors: (Constant), Religion of the households, Typeoffamily, Education, Agegroup, sizoffamilyworker, caste

b. Dependent Variable: Decisionindex

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	42.708	4.500		9.492	.000		
	Education	1.478	.383	.199	3.858	.000	.742	1.347
	Typeoffamily	-9.819	1.125	-.495	-8.729	.000	.614	1.628
	Age	.686	.415	.087	1.653	.101	.714	1.401
	sizoffamilyworker	-.544	.414	-.080	-1.314	.192	.539	1.856
	caste	1.484	.489	.197	3.033	.003	.471	2.124
	Religion of the households	-10.360	1.650	-.456	-6.277	.000	.375	2.668

a. Dependent Variable: Decisionindex

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.888 <sup>a</sup>	.789	.781	4.59979

a. Predictors: (Constant), Religion of the households, Typeoffamily, Education, caste

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8289.166	4	2072.291	97.943	.000 <sup>a</sup>
	Residual	2221.598	105	21.158		
	Total	10510.764	109			

a. Predictors: (Constant), Religion of the households, Typeoffamily, Education, caste

b. Dependent Variable: Decisionindex

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	45.411	3.696		12.288	.000		
	Education	1.243	.352	.168	3.532	.001	.895	1.118
	Typeoffamily	-10.486	.906	-.529	-11.569	.000	.962	1.039
	caste	1.316	.475	.174	2.771	.007	.508	1.968
	Religion of the households	-10.621	1.462	-.468	-7.264	.000	.486	2.059

**Figure 1.2. SPSS Output result**

The multiple linear regression model is estimated based upon the data collected from 110 sample agricultural households from Morigaon district. Here Y is dependent variable and X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>, X<sub>5</sub> and X<sub>6</sub> are independent variables. Here we have found that caste, education have a strong positive impact upon on participation of decision making process of female workers. Type of family and Religion has negative impact on decision making score of female worker. The value of adjusted R<sup>2</sup> is 0.781 which indicates 78.1 percent goodness of fit of the full model.

**Conclusion:**

In the conclusion it can be said that women in the study area do not enjoy a high degree of autonomy in decision making in the household agricultural activities in spite of their significant contribution towards these activities. Decision making score increases with the level of education. There is a positive impact of Caste on decision making power of the respondents. In case of joint family, women's participation in the decision making process is less than in case of nuclear family. Education and improvement in their economic independence will help in increasing women's involvement in decision making in family. Female empowerment can yield positive spillover effects for other household's members. Women play a significant role as agricultural producers and as agent of food and nutritional security. Gender equalities will help to grow more food, generate more income and lower levels of poverty and food security. Government agencies working in the field of agricultural and rural development should consciously focus on women workers as a special category.

**References:**

1. Baliyan Kavita (2014): "Factors Affecting Participation of Women in Households Decision Making: Implication for Family Welfare and Agricultural Development", *Socio Economic Voices*, June-July 2014.
2. Dommati Devender, Reddi Chittedi Krishna (2011): "Socio-Economic conditions of Agricultural Labour in Andhra Pradesh: A Case Study in Karimnagar District", *International Journal of Bussiness Economics and Management Research*, Vol 2, Issue 3, pp 115-134.
3. Lunenburg C Fred (2010): "The decision making process", *National Forum of Educational Administration and Supervision Journal*, Volume 27, No 4. Pp1-12

4. Baba b Ismail et al (2015): “The Role of Women in Household Decision Making and Their Contribution to Agriculture and Rural development in Nigeria”, IOSR Journal of Humanities and Social Sciences, Volume 20, No 5 , pp30-39
5. Pal Subhadip, Haldar Sourav (2016): “Participation and role of rural women in decision making related to farm activities: A study in Burdwan district of West Bengal ”, Economic Affairs, Volume 61, No -1, pp. 55-63