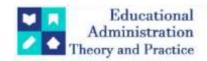
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**Research Article** 



# Women Participation In Decision Making In Various Agricultural Activities: A Case Study Of Haryana

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ARTICLE INFO	ABSTRACT
	Women have a key role in making decisions regarding food security and preservation of agricultural bio diversity. However, women lag in getting access to the resources, land, seeds, technology, market requisites, credit, training etc. This gender gap is something which needs to be addressed promptly. Women are mediocrely involved in taking decisions related to farm activities. Several steps like developing their skills, ensuring better access to health and education, introducing digital ecosystem, and providing the training related to new technologies can be momentous in elevating women's status and empowering them. This paper endeavors to investigate the level of women participation in taking decisions regarding activities related to agriculture sector of Haryana. Also, an attempt has been made to figure out the constraints faced by women in decision making regarding various agricultural activities in Haryana.
	<b>Key Words:</b> Agricultural Activities, Women Participation, Decision Making, Education

#### INTRODUCTION

"When you invest in a man, you invest in an individual. When you invest in a woman, you invest in a community," expressed International Fund for Agriculture (IFAD) President Kanayo F. Nwanze.

Women play a substantial role in building the nation's economy. According to Food and Agriculture Organization (FAO), in the least developed nations, majority of the economically active women are engaged in the agriculture sector. Globally, about 43 per cent women are present in the agriculture workforce with only less than 15 per cent of them possessing land rights. Nevertheless, women do not have equal access to the resources such as land, livestock, fertilizers, and credit services. Mostly they are responsible only for the execution of non-mechanized activities like winnowing, harvesting, sowing, and other laborious works. This disparity of resource access creates a 'gender gap' which holds true in the case of India too.

Women constitute about half of the population of India. Their participation in agriculture is significant for the sustained development of the country. As per Oxfam India (2018), approximately 80 per cent women in India are employed in the agriculture sector. 55 per cent of the total female workforces are agricultural labourer while 24 per cent of them are cultivators. However, gender disparity has been reflected by the fact that women hold only 12.8 per cent of the entire operational holdings (Census, 2011). The growing migration of men from rural to urban areas in search of better non-farm jobs and higher incomes led to the 'feminization' of agriculture. This further increased women's responsibilities as entrepreneurs, cultivators, and labourers. Presently, there are 48 per cent men in agriculture sector as compared to 75 per cent females. Due to out-migration, desertion or widowhood, women head more than 20 per cent of rural houses (Planning Commission; Economic Survey, 2017-18). Women are responsible for the production of 60 to 80 per cent of the country's food and 90 per cent of the dairy production (Oxfam India, 2018). Therefore, the role of women in Indian agriculture is a significant one and hence it is imperative to empower them in order to economically progress.

Participation of women in agricultural activities is determined by the prevailing socio-economic conditions of the particular area. It varies from one region to another according to the status of class, caste, and family systems (Swaminathan, 1985). Nevertheless, women are coming out of stereotypical roles gradually and handling larger tasks regarding farming activities now. Women have a key role in making decisions regarding food security and preservation of agricultural bio diversity. However, women lag in getting access to the resources, land, seeds, technology, market requisites, credit, training etc. This gender gap is something which needs to be addressed promptly. Women are mediocrely involved in taking decisions related to farm activities.

Only 45.33 per cent women take the authority to make harvesting decisions, 48 per cent in intercultural operations whereas just 36 per cent in financial management (Unnati et al, 2012). Even though they participate actively and extensively in farming activities, with a contribution of 60 to 90 per cent of the total agricultural tasks (Damisa and Yohana, 2007), they are still dependent on the land owners or the patriarch of the family for decision making etc. Their efforts remain unaccounted and they do not receive direct and equal payments. Singh and Vinay, 2013, titled women as 'invisible workers' as their role in agriculture is not emphasized in our country. Women could be substantial in realizing the Sustainable Development Goals (SDGs), particularly SDG2 which aspires to end 'hunger and malnutrition by 2030'. Improving their knowledge and providing them better access to authentic and relevant resources can empower women to modify food consumption and production for using the land sustainably. Moreover, changing the dynamics of the economic model by eliminating gender and economic inequality can be beneficial in reducing poverty. As mentioned by Food and Agriculture Organization (FAO), "Across all regions women are less likely than men to own or control land, and their plots often are of poorer quality. Less than 20 per cent of the world's landholders are women. If women farmers had the same access to resources as men, the number of hungry people in the world could be reduced by up to 150 million due to productivity gains".

Women are involved in multifarious activities ranging from household chores to agricultural and domestication tasks. Their empowerment can help in diversifying the crops to a great extent. In conformity with "International Food Policy Research Institute (IFPRI)" greater the involvement of women in decisions regarding crop production more is the diversification of crops in households (Bryan et al., 2021). In other words, it was observed that the households where the production decisions were taken by the women of the house tend to have diverse crops, mostly replacing crop production with vegetable farming.

Therefore, for reaping more benefits from crop diversification, it is important that women should be empowered economically and socially with introducing certain changes. As per NITI Aayog's suggestions (Patel and Sethi, 2021), participation of women at community level and investments in women farmers related schemes should be enhanced in order to speed up the empowerment mission for a better economy. Several steps like developing their skills, ensuring better access to health and education, introducing digital ecosystem, and providing the training related to new technologies can be momentous in elevating women's status and empowering them.

This paper endeavours to investigate the roles women played in taking decisions regarding activities related to agriculture sector of Haryana. Also, an attempt has been made to figure out the constraints faced by women in decision making regarding various agricultural activities in Haryana.

### RESEARCH METHODOLOGY

This section deals with the methodology adopted for the present study. Research methodology is a way to solve the research problem in an organized manner. Research methodology is the procedure for conducting a study. It should be planned carefully. The reliability, adequacy and accuracy of results depend on the information collected in a systematic manner.

Haryana state has been selected purposively because there is ample amount of potential for agricultural development by increasing women's participation in the sector since Haryana is one of the recipient states of green revolution. Multistage sampling has been used for the research work. The sampling has been done in four stages i.e., District, Blocks, Villages and Farmers. At the first stage a total of four districts namely Kaithal, Hisar, Rohtak and Sonipat have been selected randomly for the research. For collecting primary data, it has been decided to select two blocks from each district therefore, a total of eight blocks have been selected randomly. On the same scale, two villages from each block have been selected. In totality, 16 villages have been selected for collecting the primary data. At last, 20 households from each village have been selected randomly. In this manner, a total of 320 households have been selected from the state of Haryana. Therefore, the sample size is one state, four districts, eight blocks, sixteen villages and three hundred and twenty farmers.

To fulfill the objectives of the study, women involved in agriculture have been interrogated to analyse their extent of participation on a five-point Likert scale. Regarding various agricultural activities, women interviewees categorized their roles into major or minor decision makers, equal decision makers, sole decision makers or whether having no participation at all (Kaur, 2011).

Sole Decision Maker - 5
Major Decision Maker - 4
Equal Decision Maker - 3
Minor Decision Maker - 2
No participation - 1

## EXTENT OF PARTICIPATION OF WOMEN IN AGRICULTURE SECTOR

In this section, discussion corresponding to various roles women played in taking decisions with respect to agriculture practices has been carried out.

## **Extent of Participation of Women in Various Crop Production Activities**

Following outcomes have been derived concerning the part women play in agricultural activities as compared to men. As depicted in table no. 1, 41.25 per cent women turned out playing minor role regarding decision making in activities pertaining to crop selections. Another 17.81 per cent have no participation at all in the same. There are only a few sole women decision makers i.e., 5.63 per cent, and 2.19 per cent major decision maker regarding selection of the crops to be sown. Approximately same results are obtained relating to the participation of women in the selection of areas under different crops; where more than 50 per cent women have either minor role in decision making or have no participation at all. A considerable fact behind this finding is that men tend to manage crop cultivation activities more as compared to women who are rather involved more in assisting activities. The table further elaborates the details regarding the variety of seeds to be selected for crop production. The table clearly indicates that more than 70 per cent women have very low participation in the decision-making in opting variety of seeds since it is found that men have better knowledge related to selection of seeds to be sown as this process is basically based on their past experiences of the product.

It further shows that 74.06 per cent women have either no role or a very small role in the decision making while only 4.37 per cent women are sole decision maker in the state regarding the machinery and equipment to be used in the production processes, majorly because most women are found to be hesitant of using machinery and other technical equipment. Further table reveals the decision-making role played by women in selecting several production inputs like insecticides, pesticides, and fertilizers etc. and it is indicated in the table no. 1 that 56.25 per cent of women perform minor decision-making roles regarding same. Another 18.75 per cent women play no role at all in the process. An equal role is played by 18.44 per cent of the respondents. 6.56 per cent constitute major women decision makers. Therefore, it is evident that decision making in case of various inputs' selection is smaller for women. As far as concerned about the use of FYM and fertilizers, about 39.38 per cent women are equal decision makers because women are more involved in the selection of farm yield manure.

Table no. 1 exhibits the extent of the role women play in decision making pertaining to the methods of protecting plants. Accordingly, 6.56 per cent women in the state play a major role regarding this, which is a few in numbers. 38.75 per cent women have played equal role as compared to men for the same. In case of use of pesticides, women have not played much significant role as 63.75 per cent of the women are reported either playing a minor or no role at all. Further, more than 50 per cent of the women have minor participation regarding intercultural operations in various crop production activities while 36.88 per cent women are equal decision makers in the process.

Further, the data in table no. 1 reveals the information about the cutting, harvesting, and picking of crops. Women have a very high level of participation i.e., 66.88 per cent respondents are equal decision makers and 16.25 per cent are major decision maker for the same as vegetables are highly labour-intensive crops where the labour is hired on a regular basis and most of the farm labour work is being done by women farm labourer, as reported by the respondents. Women play a considerable role in decision-making regarding hiring farm labourer at the time of harvesting as it is convenient for them to hire women farm labourer in rural areas. The data indicates that women have an important role in hiring the farm labourer as 83.13 per cent respondents either have a major or an equal role in the decision-making process. Moreover, the table also provides information about extent of women playing decisive roles in matters related to financial sources, as per requirements. 31.56 per cent women have played an equal role compared to men. More than 50 per cent women have either low or no participation in such a decision-making process. Hence, women do not have much significant role in making decisions regarding financial sources.

"SDM - Sole Decision Maker
MDM - Major Decision Maker
EDM - Equal Decision Maker
MiDM - Minor Decision Maker
NP - No Participation"

Table No. 1 Extent of Participation of Women in Various Crop Production Activities in Haryana

	ilai yana									
Decision related to	SDM	MDM	EDM	MiDM	NP	Weighted Score	Mean Score	Rank		
Crop Selection	18 (5.63)	07 (2.19)	106 (33.12)	132 (41.25)	57 (17.81)	757	2.366	9		
Area under selected	18 (5.63)	07 (2.19)	115 (35.93)	123 (38.44)	57 (17.81)	766	2.394	7		
crops										
Selection of variety of seeds	14 (4.37)	11 (3.44)	56 (17.5)	145 (45.31)	94 (29.38)	666	2.081	16		
Use of machinery in production process	14 (4.37)	05 (1.57)	64 (20.00)	180 (56.25)	57 (17.81)	699	2.184	13		
Equipment to be used for crop production	14 (4.37)	05 (1.57)	61 (19.06)	180 (56.25)	60 (18.75)	693	2.166	15		
Selection of Variety/Brand of Input	14 (4.37)	07 (2.19)	59 (18.44)	180 (56.25)	60 (18.75)	695	2.172	14		
Use of Manure and Fertilizers	14 (4.37)	11 (3.44)	126 (39.38)	112 (35)	57 (17.81)	773	2.416	4		

Plants protection	14 (4.37)	11 (3.44)	124 (38.75)	114 (35.63)	57 (17.81)	771	2.409	6
methods								
Use of pesticides	14 (4.37)	07 (2.19)	95 (29.69)	147 (45.94)	57 (17.81)	734	2.294	12
Intercultural operations	14 (4.37)	11 (3.44)	118 (36.88)	120 (37.50)	57 (17.81)	765	2.391	8
Cutting, harvesting, and	18 (5.63)	34(10.62)	214 (66.88)	04 (1.25)	50 (15.62)	926	2.894	2
picking of crops								
Storage	18 (5.63)	05 (1.57)	93 (29.06)	147 (45.94)	57 (17.81)	740	2.313	10
Hiring farm labourer	18 (5.63)	69(21.56)	187 (58.44)	02 (0.62)	44 (13.75)	975	3.047	1
Sources of Finance	14 (4.37)	05 (1.57)	101 (31.56)	143 (44.69)	57 (17.81)	736	2.300	11
Diversification	18 (5.63)	05 (1.57)	125 (39.06)	115 (35.93)	57 (17.81)	772	2.413	5
Expansion	18 (5.63)	05 (1.57)	128 (40.00)	112 (35.00)	57 (17.81)	775	2.422	3

Source: Calculations are based on survey schedule of current study area Note: Figures in parenthesis denoted percentages.

In decision making regarding diversification in agriculture, the role played by women has been explained further. 39.06 per cent women respondents play an equal role in such decision making mostly because this process necessitates the family to make the financial investments for the same, also due to increasing penchant of women in the new initiative. 17.81 per cent women have no role in the decision while another 35.93 per cent played a minor role in the decision making, maybe due to involvement of crop enterprises in the diversification process. Perhaps, due to the absence of male members in the household, remaining 7.20 per cent women possess a major decision-making role. Similar to the role played in diversification, women have significant role in decision making pertaining to the expansion of agricultural practices too, as 40 per cent women play an equal role as compared to men while around 35 per cent have a minor role and 17.81 per cent do not have any role in the same. Rest of the 7.20 per cent respondents are major decision makers. So, the role of women in diversification and expansion decision making is a very important one.

Further, the weighted and mean score of respondents based on their extent of participation in different agricultural activities has been calculated and it is evident from the table that highest participation of women is found in hiring labourer, followed by cutting, harvesting, and picking of crops. In diversification and expansion of agriculture, women have played a significant role. While in the selection of seeds and use of machinery or other equipment, least role is being played by women, as clearly observed by the ranking in the table.

#### Extent of Participation of Women in Various Buying and Selling Activities

Table no. 2 shows the data regarding the decision making of various buying and selling activities in Haryana. Out of the total 320 respondents from the selected districts of Haryana, 157 are equally involved in decision making regarding the sale and purchase of land. Around 6 per cent of women are either sole or major decision makers as compared to men. 50 per cent of the women tend to play an equal decision-making role related to the farm machineries' sale-purchase.

Table No. 2 Extent of Participation of Women in Various Buying and Selling Activities in

naryana									
Decision related to	SDM	MDM	EDM	MiDM	NP	Weighted Score	Mean Score	Rank	
Sale and Purchase of land	14 (4.37)	05 (1.57)	157 (49.07)	115 (35.93)	29 (9.06)	820	2.563	2	
Purchase variety of seeds	14 (4.37)	03 (0.94)	37 (11.56)	184 (57.50)	82 (25.63)	643	2.009	7	
Sale and Purchase of Farm Machinery	14 (4.37)	01 (0.31)	160 (50.00)	102 (31.88)	43 (13.44)	801	2.503	3.5	
Sale and Purchase of Farm tools	14 (4.37)	01 (0.31)	165 (51.57)	92 (28.75)	48 (15.00)	801	2.503	3.5	
Purchase of FYM and Fertilizers	14 (4.37)	03 (0.94)	51 (15.94)	172 (53.75)	80(25.00)	659	2.059	6	
Purchase of pesticides and insecticides	14 (4.37)	03 (0.94)	27 (8.44)	193 (60.31)	83 (25.94)	632	1.975	8	
Sale of produce	14 (4.37)	0 (00)	82 (25.63)	135 (42.19)	89 (27.81)	675	2.109	5	
Paying Wages to Labourer	14 (4.37)	38 (11.88)	213 (66.56)	03 (0.94)	52 (16.25)	919	2.872	1	

Source: Calculations are based on survey schedule of current study area Note: Figures in parenthesis denoted percentages.

One of the reasons could be because machineries like combines, tractors and trolleys are heavy investment so women of the family are consulted before taking such decisions of their procurement. 31.88 per cent women are minor decision makers and 13.44 per cent are not at all involved in the decision making whereas around 5 per cent women respondents are major or sole decision makers. There are similar results regarding decision making in the case of other such investments done by the households. Therefore, it is conclusive that women play significant role in making decisions about sale-purchase of land and farm machineries and equipment. Further, the data presented in table no. 2 also gives the details regarding the purchase of seeds for crop produce. 83.13 per cent respondents have very low or no participation at all whereas about 5 per cent women are sole or major decision makers regarding the purchase of variety of seeds. Further, on the same lines, role of women in the purchase of FYM, fertilizer, insecticides and pesticides are shown in the table. Around 80 per cent respondents have either none or minor decision-making role whereas around 5 per cent women are sole

decision makers in the process. The data also informs about the extent of decisions taken by women in the case of selling produce. Around 70 per cent of the respondents have a minor or no role at all in it, as compared to men. This is because of the nature of the activity, as the sale of produce in mandis, being altogether an outdoor one, requires a lot of dealing and financial transactions with the people and women are hesitant doing it, as reported by the respondents. Considering the decision-making regarding payment of wages to labourer, the role of women is a significant one. It is clear from the table that 66.56 per cent of women have an equal participation as men, whereas 17.19 per cent respondents are having either minor or no participation at all in the decision-making process for the same.

Table no. 2 also indicates the ranking of buying and selling activities; women have highest participation in paying wages to labourer and have a considerable role in buying and selling of land and farm machinery while the least role has been played in purchase of fertilizers and pesticides.

## **Extent of Participation of Women in Farm Expenditure**

The detailed information regarding the participation of women in different expenditure activities related to crop production in the state has been depicted in table no. 3. It is evident from the table that around 50 per cent women have played a role equal to that of men regarding participation in decision making in expenditure to be done on farm machinery and other implements. This may be because expenditure on machinery and other tools are to be taken by the family and not by the individual. Around 5 per cent women are major decision makers whereas around 45 per cent have a low or no participation in the decision-making regarding expenditure on different farm implements and machinery.

Table No. 3 Extent of Participation of Women on Farm Expenditure in Haryana

Decision related to	SDM	MDM	EDM	MiDM	NP	Weighted	Mean	Rank
						Score	Score	
Expenditure on farm machinery	14 (4.37)	01 (0.31)	149 (46.57)	111 (34.69)	45 (14.06)	788	2.463	2
Expenditure on farm implements	14 (4.37)	01 (0.31)	181 (56.57)	45 (14.06)	79 (24.69)	786	2.456	3
Expenditure on seeds	14 (4.37)	01 (0.31)	40 (12.50)	181 (56.57)	84 (26.25)	640	2.000	4
Expenditure on FYM and Fertilizers	14 (4.37)	05 (1.57)	28 (8.75)	192 (60)	81 (25.31)	639	1.997	5
Expenditure on Wages to labourer	18 (5.63)	08 (2.50)	239 (74.68)	03 (0.94)	52 (16.25)	897	2.803	1

Source: Calculations are based on survey schedule of current study area Note: Figures in parenthesis denoted percentages.

Table no. 3 further depicts the data regarding the expenditure on seeds, FYM and fertilizers. More than 80 per cent women have very less participation in making decisions related to these expenditures. It may be because most of the work regarding the application of pesticides and fertilizers has been performed by men, so they have better knowledge than women. In case of decision making regarding the expenditure on wages given to the labourer, around 75 per cent women are equal decision makers as men. It may be because in case of vegetable cultivation, most of the work in hiring farm labourer is being done by women since most of the cutting, harvesting, and picking has been performed by women farm labourer so the payment is also done by them.

#### PERCEIVED CONSTRAINTS FACED BY WOMEN IN DECISION MAKING

Constraints faced by women are the factors that should be solved for improving the conditions of women in decision making. This section of the chapter is devoted to examine the various constraints faced by women in decision making regarding various agricultural activities. For this, during the survey respondents have been asked to rate the constraints they are facing in taking decisions regarding agricultural activities on five-point Likert scale with a range - strongly agree to strongly disagree. Further, rank has been assigned to various constraints based on their weighted and mean score.

"SA - Strongly Agree

A – Agree

N - Neutral

D - Disagree

SD - Strongly Disagree"

Table no. 4 shows various constraints as reported by the respondents. The major constraint that women faced is dual responsibilities at home with mean score 3.944 (rank 1) as 68.44 per cent women either agree or strongly agree with the issue. Male dominance is another major hurdle with mean score 3.834 (rank 2) for less decision-making power of women as farmers because the male dominant society does not pay consideration to their opinions.

Table No. 4 Constraints Faced by Women in Decision Making in Haryana										
Statements	SA	A	N	D	SD	Weighted Score	Mean Score	Rank		
Literacy level	94 (29.39)	97 (30.31)	74 (23.13)	32 (10.00)	23(7.19)	1167	3.647	5		
Social and cultural constraints	95 (29.69)	112 (35.00)	74 (23.13)	14(4.38)	25(7.81)	1198	3.744	3		
Lack of agricultural services and women's organizations	68 (21.25)	91 (28.44)	74 (23.13)	52 (16.25)	35 (10.94)	1065	3.328	8		
Low Self-Confidence	69 (21.56)	108 (33.75)	66(20.63)	41 (12.81)	36 (11.25)	1093	3.416	7		
Lack of technical knowledge	82 (25.63)	95 (29.69)	69 (21.56)	46 (14.38)	28(8.75)	1117	3.491	6		
Lack of ownership of Landholding	92 (28.75)	95 (29.69)	86 26.88)	26(8.13)	21(6.56)	1171	3.659	4		
Male-dominance	107 (33.44)	105 (32.81)	76 (23.75)	12(3.75)	20(6.25)	1227	3.834	2		
Dual Responsibilities at home and farm	115 (35.94)	104 (32.50)	79 (24.69)	12(3.75)	10(3.13)	1262	3.944	1		

Source: Calculations are based on survey schedule of current study area Note: Figures in parenthesis denoted percentages.

As depicted in table no. 4 one of the major constraints faced by women is various social and cultural limitations on the name of traditions i.e., 64.69 per cent women either strongly agree or agree that this is a problem they are facing, with a mean score of 3.744 (rank 3), in the process of decision making. With mean score 3.659 (rank 4), ownership of landholding is another major constraint because if women have land possession, they are more economically empowered and can have more consideration in decision making process. Literacy with mean score 3.647 (rank 5) is another major constraint that hinder the growth of women as farmers because if women get proper education, they can raise voice for their rights. Another major constraint that women are facing are lack of technical knowledge, with mean score 3.491 (rank6), and low self-confidence, with mean score 3.416 (rank 7). This may be because women are not much handy with various machineries due to various social and cultural constraints and as a result, have low self- confidence regarding participation in decision making process for agricultural sector. Lack of agricultural services and women's organizations are considered as least significant constraints with mean score 3.328 (rank 8) among the respondents.

#### **CONCLUSION**

The study presented the extent of participation of women as compare to that of men in Haryana. The results revealed that their participation in agriculture sector is significant but major decisions were not taken by women as compared to men. Their participation as sole or major decision maker is not significant. Up to some extent on various factors like crop selection, expansion, diversification etc. women are equal decision makers as men while major role of women has been found in harvesting, cutting, picking of crops, and hiring farm labourer as far as concerned about agricultural production activities. In case of buying and selling activities like sale and purchase of land, machinery wage payment to labourer etc., around half of the women are equal decision makers, as these involve major financial decisions which are taken by the family and not by an individual. The results indicate that dual responsibilities at home, male dominance, social and cultural limitations, ownership of landholding, literacy, lack of technical knowledge, low self-confidence and lack of agricultural services and women's organizations are the major constraints affecting the contribution of women in different agricultural activities.

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