

## Participation of women as per educational status in pre sowing / sowing activities

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### Abstract

The women in agriculture are the main workforce but worldwide her hard work has mostly been unpaid. She does the most tedious and back-breaking tasks in agriculture, animal husbandry and homes. But the agricultural development system has not yet taken farm women population seriously in the mainstream of its development process; therefore, it is high time that this issue is deliberated upon at regional and the national level. In order to sanitize people about its potentiality, prospects and obstacles and charting the course of actions devoted to bringing women as active partners in research and development with equal rights and privileges.

**Keywords:** Women, Educational Status, Sowing, Activities

### 1. Introduction

India like other countries lacks adequate quantitative data on women in agriculture. Farm women constitute so significant a part of the working women population in our country that it necessitates a fuller understanding of their status and role not only as they now are but as they may be developed in the future. Such understanding will mirror, at least, allocation of their time to all types of activities within and outside the home, the magnitude of their contribution to agriculture development in a border sense of the term, their potential, constraints and employment calls for an improvement in skills and technologies for increasing their productivity. Quite a few but sporadic and top-sided studies on women in agriculture are no doubt, available. They have been conducted under various limitations and so most of these studies do not reflect a clear and complete picture as to the nature and extent of participation of farm women in a wide range of household and non-household activities.

Keeping in view the vital role of women in agriculture and overall development, various research works have been carried out in district Doda of Jammu and Kashmir State. In one of such studies conducted it has been observed that in the traditional practice in Doda district women perform maximum farm operations contributing a lot towards the upliftment of economic and social status of their respective families. Study conducted revealed that the majority of selected women respondents perform enormous role in agriculture practices. Almost all the respondents had an active role in storage of grains followed by about 89% performing hoeing and weeding operations where as 80% respondents had a major play in harvesting operations. Similarly 75%, 45%, 28%, 22%, and 12% respondents had significant role in threshing, tillage, soaring manure and fertilizers, plant protection measures and irrigation respectively. The role of women in agriculture and allied activities in hills shows that rural women play significant role in maximizing the agriculture returns and simultaneously improve the social and economic stratum thus contributing reasonably towards the rural upliftment. Indeed rural women are the driving forces in accelerating the pace

and prosperity towards the overall development and upliftment of rural setup (Slathia P.S. *et al* 2004).

### 2. Objectives of the study

- To identify the problems faced by the farm women and the efforts made by the Government to overcome them
- To study the extent of exposure of farm women to Modern crop technology and follow up of recommended technologies.

### 3. Methodology

**3.1 Selection of Sample:** 200 farm women were selected on the following criteria:

- a. 200 farm women represent the said 20 villages.
- b. Each village is represented by 10 households on the basis of:
  - i. Land holding of more than 3 kanals
  - ii. Dealings in animal husbandry.
  - iii. Vegetable cultivation.

The farm women were interviewed while working in their fields. A well-meaning survey questionnaire was framed, on the basis of the objectives. Respondents were interviewed and elaborate discussions were held with them. Based on these discussions, the questionnaires were filled.

**3.2 Selection of variables:** The variables were selected for the study under following two broad headings:

- A) Independent variables.
- B) Dependent variables.

#### (A) Independent variables

These variables are related to the general information of a farm women respondent: the inputs about the age, marital status, educational back ground, size of the family, annual income and the total possession of land( irrigated or un-irrigated).

#### (B) Dependent variables

These variables mostly include the farm related information

about each respondent. These variables were incorporated in questionnaire as under:

- Time spent on the farm and allied activities related to agriculture.
- Role expected.
- Role performed.
- Knowledge about the farming.
- Type of role performed in agriculture and allied activities.
- Livestock holding and role performed.
- Role in vegetable cultivation and marketing.
- Decision making with respect to the adoption of improved agricultural practices.
- Decision making with regard to the implementation of crop technologies available.
- Utilization of spare time.

- Type of income generating activity involved.
- Exposure to the crop technologies.
- Knowledge about the chemicals available to control the plant/animal diseases and fertilizers used to improve production.
- Participation in trainings/workshops organised by the line department.
- Whether recommended package and practices adopted.
- Whether any assistance received from the development departments.

Pre-testing was conducted on 10% (20 respondents) of the total sample to determine the suitability and validity of the questionnaire. In the light of the findings from the pilot study, certain modifications were made in order to make the tool more purposeful

**Results and Discussion**

**Table 1:** Participation of women as per educational status in pre sowing/sowing activities (N=200; row %age; multiple choice)

ACTIVITY	Educational status				Total	
	Literate		Illiterate		Number	Percentage
	Number	Percentage	Number	Percentage		
Levelling of land	56	34.8	105	65.2	161	80.50
Ploughing	0	0	0	0	0	0
Removal of trash	62	33.5	123	66.5	185	92.50
Repairing of bunds and channels	14	21.5	51	78.5	65	32.50
Maintenance of Agriculture Tools/Implements	6	28.6	15	71.4	21	10.50
Preparation of Compost/FYM	66	34.7	124	65.3	190	95.00
Seed selection	55	34.6	104	65.4	159	79.50
Seed treatment before sowing	21	48.8	22	51.2	43	21.50
Sowing/Transplanting of seedlings	66	34.0	128	66.0	194	97.00
Thinning/Gap filling	65	34.2	125	65.8	190	95.00
Application/Spreading of fertilizers	61	37.7	101	62.3	162	81.00
Total		31.13		59.78		62.27

Irrespective of their educational status the women have registered 62.27 percent participation in the pre-sowing / sowing operations in the given sample of 200 respondents.

The maximum participation of 97 percent has been shown against the activity of sowing / transplanting of the seedling, 95 percent in the preparation of composite / FYM and in the thinning /gap filling, 92.50 percent in the removal of thrash and 81 percent in the application cum spreading of fertilizers,80.50 percent participation in the levelling of land, 79.50 percent in the seed selection, 32.50 percent in the

repairing of bunds and channels and 21.50 percent in the seed treatment before sowing. The least participation of 10.50 percent has been found in the maintenance of agriculture tools / implements.

59.78 percent illiterate women with have shown maximum participation in the given set of activities followed by the literate respondents with 31.13 percent participation.

Thus illiterate women even present times are engaged more in the agriculture and its allied activities as compared to the literate women.

**Table 2:** Participation of women as per educational status in post sowing activities (N=200; row %age; multiple choice)

Activity	Education				Total	
	Literate		Illiterate		Number	Percentage
	Number	Percentage	Number	Percentage		
Weeding	66	34.0	128	66.0	194	97.00
Scaring of birds	65	34.6	123	65.4	188	94.00
Application of fertilizers	60	37.0	102	63.0	162	81.00
Plant protection measures	10	35.7	18	64.3	28	14.00
Procurement	3	50.0	3	50.0	6	3.00
Storage and carrying of pesticides	31	45.6	37	54.4	68	34.00
Solution/ Mixture preparation of pesticides	5	62.5	3	37.5	8	4.00
Spraying/dusting/plant propagation	4	26.7	11	73.3	15	7.50
Manuring	61	33.3	122	66.7	183	91.50
Irrigation	67	34.4	128	65.6	195	97.50
Repair of field channel bunds	50	37.9	82	62.1	132	66.00
General inspection of the crops	62	34.8	116	65.2	178	89.00
Total		38.88		61.13		56.54

Under the post –sowing operations 56.54 percent of the respondents have expressed their participation in the sample size of 200 respondents. 97.50 percent have participated in the irrigation, 97 percent in weeding, 94 percent in the scaring of birds, 91.50 percent in the manuring, 89 percent in the general inspection of crops, 81 percent in the application of fertilizers, 66 percent in the repair of field bunds and channels and 34 percent in the storage and carrying of pesticides,14 percent

have participated in the plant protection measures,50 percent in the spraying / dusting / plant propagation and just 3 percent in the procurement activity.

61.13 percent Illiterate respondents have expressed the maximum participation in the post –sowing operations while as literate respondents have registered 38.88 percent participation.

**Table 3:** Participation of women as per educational status in harvesting activities (N=200 row % age; multiple choice)

Activity	Education				Total	
	Literate		Illiterate		Number	Percentage
	Number	Percentage	Number	Percentage		
Harvesting	67	33.7	132	66.3	199	99.50
Bundling	65	34.0	126	66.0	191	95.50
Hatch making	65	34.8	122	65.2	187	93.50
Threshing	66	34.2	127	65.8	193	96.50
Winnowing	67	34.2	129	65.8	196	98.00
Bagging	67	35.8	120	64.2	187	93.50
Weighing	59	34.7	111	65.3	170	85.00
Transporting of produce	45	30.0	105	70.0	150	75.00
loading and unloading of straw	47	31.1	104	68.9	151	75.50
Loading and unloading of grains	47	33.1	95	66.9	142	71.00
Total		33.56		66.44		88.30

In harvesting activity 88.30 percent of respondents are involved in the given sample of 200 respondents. 99.50 percent are engaged in harvesting, 98 percent in winnowing, 96.50 percent in threshing, 95.50 percent in bundling, 93.50 percent in bagging and hatch making and 85 percent in

weighing activity, 75.50 percent in the loading / unloading of straw, 75 percent in the transporting of farm produce and 71 percent in loading / unloading of grains. 66.44 percent illiterate and 33.56 percent literate respondents were engaged in the above activities.

**Table 4:** Participation of women as per educational status in post- harvesting activities (N=200; row %age; multiple choice)

Activity	Education				Total	
	Literate		Illiterate		Number	Percentage
	Number	Percentage	Number	Percentage		
Drying	68	34.0	132	66.0	200	100.00
Sorting	67	33.7	132	66.3	199	99.50
Packing	68	34.2	131	65.8	199	99.50
Milling	65	34.8	122	65.2	187	93.50
Dehusking	64	33.3	128	66.7	192	96.00
Storage	62	33.3	124	66.7	186	93.00
Storage	65	34.6	123	65.4	188	94.00
Total		33.99		66.01		96.50

In the phase of post-harvesting the respondents have expressed 96.50 percent participation. In the drying operation 100 percent, in sorting and packing 99.50 percent each, in dehusking 96 percent, in Storage 94 percent and in milling it

has been 93.50 percent participation. 66.01 percent illiterate respondents are engaged most in the given set of activities while as literate have the recorded least 33.99 percent participation.

**Table 5:** Participation of women as per educational status in vegetable cultivation (N=200; row %age; multiple choice)

Activity	Education				Total	
	Literate		Illiterate		Number	Percentage
	Number	Percentage	Number	Percentage		
Land preparation	68	34.3	130	65.7	198	99.00
Application of manure	68	34.3	130	65.7	198	99.00
Weeding and Hoeing	68	34.7	128	65.3	196	98.00
Application of Pesticides/Fungicides	64	37.4	107	62.6	171	85.50
Harvesting	66	33.5	131	66.5	197	98.50
Grading	60	32.8	123	67.2	183	91.50
Marketing	31	54.4	26	45.6	57	28.50
Total		37.34		62.66		85.71

In the vegetable cultivation women have registered 85.71 percent involvement in such operations. 99 percent in the land preparation and application of manure, 98.50 percent in harvesting, 98 percent in weeding / hoeing, 91.50 percent in grading, 85.50 percent in application of

pesticides and fungicides and least 28.50 percent in the marketing has been shown by the respondents. 62.66 percent Illiterate and 37.34 percent literate respondents have registered participation indicating that illiterate women dominate most of the operations rather than literate women.

**Table 6:** Participation of women as per educational status in animal husbandry/dairy activities (N=200; row %age; multiple choice)

Activity	Educational status				Total	
	Literate		Illiterate			
	Number	Percentage	Number	Percentage	Number	Percentage
Bringing & Chaffing the fodder	66	34.6	125	65.4	191	95.50
Health care of animals	65	34.9	121	65.1	186	93.00
Milking	68	34.3	130	65.7	198	99.00
Marketing of milk and milk products	48	38.4	77	61.6	125	62.50
Cleaning of shed and preparing of cow dung cakes	66	37.3	111	62.7	177	88.50
Total		25.64		45.79		62.64

In the field of animal husbandry 62.64 percent of respondents were involved in the given sample of 200 respondents. 99 percent in milking, 95.50 percent in bringing and chaffing the fodder, 93 percent in the healthcare of animals, 88.50

percent in cleaning of sheds and preparing of cow dung cakes, 62.50 percent in marketing of milk and milk products. 45.79 percent Illiterate women are involved in most of the activities as against literate women with 25.64 percent.

**Table 7:** Participation of women as per educational status in house hold activities (N=200; row %age; multiple choice)

Activity	Educational status				Total	
	Literate		Illiterate			
	Number	Percentage	Number	Percentage	Number	Percentage
Cooking	68	34.0	132	66.0	200	100.00
Attending of children	66	35.5	120	64.5	186	93.00
Caring of livestock	68	35.8	122	64.2	190	95.00
Meeting neighbours and relatives	67	35.1	124	64.9	191	95.50
Fetching of water	23	37.1	39	62.9	62	31.00
Collection of firewood and cow dung	31	36.5	54	63.5	85	42.50
Cleaning of house and washing of clothes	67	34.5	127	65.5	194	97.00
Pickle making	44	34.6	83	65.4	127	63.50
Total		35.39		64.61		77.19

A total of 77.19 percent respondents as per above data were involved in the household activities in the given sample. 100 percent in cooking, 97 percent in cleaning of house / washing of cloths, 95.50 percent in meeting neighbours/ relatives, 95 percent in the caring of livestock, 93 percent in attending the children, 63.50 percent in pickle making, 42 percent in the

collection of firewood and cow dung cakes and 31 percent involvement in the activity of fetching of water. Illiterate respondents have 64.61 percent involvement in most of the given set of activities as compared to literate respondents (35.39 percent).

**Table 8:** Participation of women as per educational status in decision making (N=200; row %age; multiple choice)

Activity	Education				Total	
	Literate		Illiterate			
	Number	Percentage	Number	Percentage	Number	Percentage
Selection of varieties	67	36.2	118	63.8	185	92.50
Choice of substantive crops	56	38.6	89	61.4	145	72.50
Livestock raising	64	35.2	118	64.8	182	91.00
Purchase of agrochemicals/Farm Machinery	21	37.5	35	62.5	56	28.00
Kind of farm produce to be sold	57	32.8	117	67.2	174	87.00
Marketing of Farm Produce	43	40.6	63	59.4	106	53.0
Total		36.82		63.18		70.67

As per the data reflected in the above table the respondents have expressed 70.67 percent role in the decision making irrespective of their educational status. 92.50 percent in the selection of varieties, 91 percent in the live stock raising, 87 percent in the kind of farm produce to be sold, 72.50 percent in the choice of substantive crops and 53

percent in the marketing of farm produce, 28 percent in the purchase of agro chemicals / farm machinery. 63.18 percent illiterate women are involved in most of the decisions related with the given set of activities when compared to 36.82 percent literate women.

**Table 9:** Participation of women as per educational status in non-fulfillment of expected role (N=200; row %age; multiple choice)

Activity	Educational status				Total	
	Literate		Illiterate		Number	Percentage
	Number	Percentage	Number	Percentage		
Not Applicable	57	34.1	110	65.9	167	83.50
Domestic work	8	27.6	21	72.4	29	14.50
Attending children	3	14.3	18	85.7	21	10.50
Personal health	8	53.3	7	46.7	15	7.50
Total		32.33		67.68		29.00

Irrespective of their educational status 29 percent of women have attributed different reasons for non-fulfillment of their expected roles. 83.50 percent of respondents have mentioned no such reasons in accomplishing their assigned roles. 14.50 percent hold domestic work, 10.50 attending children and 7.50 percent personal health as reasons for non-fulfillment of their expected roles.

**Conclusion**

- The maximum participation of 97 percent has been shown against the activity of sowing/ transplanting of the seedling, 95 percent in the preparation of composite / FYM and in the thinning /gap filling, 92.50 percent in the removal of thrash and 81 percent in the application cum spreading of fertilizers,80.50 percent participation in the levelling of land, 79.50 percent in the seed selection, 32.50 percent in the repairing of bunds and channels and 21.50 percent in the seed treatment before sowing.The least participation of 10.50 percent has been found in the maintenance of agriculture tools / implements.
- Under the post –sowing operations 56.54 percent of the respondents have expressed their participation in the sample size of 200 respondents. 97.50 percent have participated in the irrigation, 97 percent in weeding, 94 percent in the scaring of birds, 91.50 percent in the manuring, 89 percent in the general inspection of crops, 81 percent in the application of fertilizers, 66 percent in the repair of field bunds and channels and 34 percent in the storage and carrying of pesticides,14 percent have participated in the plant protection measures,50 percent in the spraying / dusting / plant propagation and just 3 percent in the procurement activity.
- In harvesting activity 88.30 percent of respondents are involved in the given sample of 200 respondents. 99.50 percent are engaged in harvesting, 98 percent in winnowing, 96.50 percent in thrashing, 95.50 percent in bundling, 93.50 percent in bagging and hatch making and 85 percent in weighing activity, 75.50 percent in the loading / unloading of straw, 75 percent in the transporting of farm produce and 71 percent in loading / unloading of grains. 66.44 percent illiterate and 33.56 percent literate respondents were engaged in the above activities.
- In the phase of post-harvesting the respondents have expressed 96.50 percent participation. In the drying operation 100 percent, in sorting and packing 99.50 percent each, in dehusking 96 percent, in Storage 94 percent and in milling it has been 93.50 percent participation. 66.01 percent illiterate respondents are engaged most in the given set of activities while as literate have the recorded least 33.99 percent participation.

- As per the data reflected in the above table the respondents have expressed 70.67 percent role in the decision making irrespective of their educational status. 92.50 percent in the selection of varieties, 91 percent in the livestock raising, 87 percent in the kind of farm produce to be sold, 72.50 percent in the choice of substantive crops and 53 percent in the marketing of farm produce, 28 percent in the purchase of agro chemicals / farm machinery.
- Irrespective of their educational status 29 percent of women have attributed different reasons for non-fulfillment of their expected roles. 83.50 percent of respondents have mentioned no such reasons in accomplishing their assigned roles. 14.50 percent hold domestic work, 10.50 attending children and 7.50 percent personal health as reasons for non-fulfillment of their expected roles.

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