

## Gender Differences in Decision Making Pattern of Hill Vegetables Growers

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### ABSTRACT

*The present study was carried out to understand the decision making patterns of farmers and farm women in vegetable cultivation activities in Uttarakhand in 2011. The study was aimed to know the role of decision making of farmers and farm women in vegetable cultivation activities. The study was undertaken in two villages, Rousil and Ladkhora, of Nainital district. The data were collected through pretested structured interview schedule and focused group discussion with 49 men and 49 women farmers. The data were analyzed using appropriate statistical tool. It is evident from the study that hill women play a crucial role in vegetable cultivation activities and spend much more time than men but their role in decision making in all the vegetable cultivation activities was very less. Farm women participate to a considerable extent in vegetable cultivation activities, yet their participation in decision-making was very poor. The findings showed that majority of respondents were in middle age group, educated upto middle level. Majority of respondents had received no training; among them women farmer's percentage was higher than men farmers. Majority of the respondents had medium level of achievement motivation, among them 75.51 per cent were women and 67.34 per cent were men. Almost all the variables of both men and women respondents were positively correlated with role performance except age and education of women.*

**Key words:** Decision making; Vegetable cultivation; Farmers; Farm women; Role performance;

India is the second largest producer of vegetables next to China with 2.8 per cent of total cropped area under vegetables (Kumar et. al. 2011). Rural women are extensively involved in agricultural activities. It is well established fact that hill women participate in agricultural operations like manuring, weeding, land preparation, hoeing, sowing and taking care of standing crops, harvesting, threshing, home and animal care. Men and women work together in farm activities, but the extent of participation of women is higher than men. Majority of the world's agricultural producers are women. Women's role becomes all the more important in the traditional society of Kumaon hills, where the livelihood of the people is still dependent on vegetable cultivation.

Due to the lack of gender sensitive data collection women's contributions and concerns remain invisible. Women's work and women's jobs are undervalued in comparison to those done by men. Therefore, both for consideration of sustainability and equity, it is essential that vegetable farming research and extension should be

more gender centered reflecting the role of women and men as vegetable farmers. Considering the gender perspective of vegetable cultivation in the hills, the present study was conducted with the following objectives:

- i. To study the socio-personal characteristics of farmers and farm women.
- ii. To find out the decision making roles of men and women in vegetable cultivation activities.
- iii. To find out relationship between role performance of men and women with their selected socio-personal characteristics.

### METHODOLOGY

Nainital district of Uttarakhand state was selected purposively as it represents high hills of Uttarakhand and is the highest producer of vegetables. Nainital district comprises eight blocks. Bhimtal and Dhari blocks were selected through Simple Random Sampling using Chit method. Out of these blocks, village Rousil in Bhimtal block and village Ladkhora in Dhari blocks were

selected purposively. Thus, the sample of study consisted of 98 respondents (49 men and 49 women farmers) whose primary occupation was vegetable cultivation. The data were collected through interview schedule. The coefficient of correlation was calculated to find out the relationship between socio-personal characteristics with role performance and the significant correlation was tested by using t-test.

## RESULTS AND DISCUSSION

*Socio personal Characteristics of respondents:* It is clear from Table 1 that majority of the respondents were of middle group (71.43%). Among them men farmers constituted 73.46 per cent of the population where as women respondents were 69.38 per cent. There were only 12.25 per cent and 16.32 per cent respondents who belonged to young and older groups respectively which constituted 16.32 per cent and 12.24 per cent women and 8.16 per cent and 20.40 per cent men respectively. From the overall view, it can be concluded that in the area studied, most of the respondents were in the middle age group. Similar results were also reported by *Leilaniclu, j. (2007)* and *Gupta and Tripathi (2006)* who also found that majority of respondents were of middle age group.

**Table 1. Distribution of respondents according to age**

| Categories         | Men (49)   | Women (49) | Overall (98) |
|--------------------|------------|------------|--------------|
| Young (< 31 yrs)   | 4 (8.16)   | 8 (16.32)  | 12 (12.25)   |
| Middle (31-51 yrs) | 36 (73.46) | 34 (69.38) | 70 (71.43)   |
| Older (>51 yrs)    | 10 (20.40) | 6 (12.24)  | 16 (16.32)   |

Note: Figures in parentheses indicate the percentage of total respondents in respective category

**Table 2. Distribution of respondents according to Education**

| Categories       | Men (49)   | Women (49) | Overall (98) |
|------------------|------------|------------|--------------|
| Illiterate       | 3 (6.12)   | 8 (16.32)  | 11 (11.23)   |
| Primary          | 6 (12.24)  | 12 (24.48) | 18 (18.37)   |
| Middle           | 10 (20.40) | 17 (34.69) | 27 (27.55)   |
| High School      | 10 (20.40) | 14 (28.57) | 24 (24.49)   |
| Intermediate     | 13 (26.53) | 1 (2.04)   | 14 (14.28)   |
| Graduate & above | 4 (4.08)   | -          | 4 (4.08)     |

Table 2. Data reveals that the maximum percentage (27.55%) of respondents had education up to middle level. Among them, 34.69 per cent were women followed by men (20.40%). It is important to note that about one fourth (24.49%) of respondents had high school level education which constituted 20.40 per cent

of men and 28.57 per cent women. There were 18.37 per cent of respondents who had passed primary level education which constituted 12.24 per cent of men and 24.48 per cent women. It is also important to note that 14.28 per cent respondents had passed intermediate education which constituted more than one fourth (26.04%) of men and only 2.04 per cent women. Overall only eleven farmers were illiterate; among them 16.32 per cent were women and 6.12 per cent men. There were only four men who were graduates.

Thus, it was found that about one fourth of the respondents (27.55%) had acquired middle level education. In general, the educational status of the women respondents was high. It is interpreted that women understands the need of education. The findings of the present study are in line with *Pant and Kumar (2003)* who reported that majority of respondents had middle level education.

**Table 3. Distribution of respondents according to Training Received in vegetable cultivation**

| Categories     | Men (49)   | Women (49) | Overall (98) |
|----------------|------------|------------|--------------|
| No training    | 15 (30.61) | 27 (55.10) | 42 (42.85)   |
| 1 -2 trainings | 22 (44.89) | 17 (34.69) | 39 (39.79)   |
| Three or more  | 12 (24.48) | 5 (10.20)  | 17 (17.34)   |

Data regarding this aspect has been presented in Table 3. It is evident from Table that maximum respondents (42.85%) had received no training, among them more than half (55.10%) were women and 30.61 per cent were men. Rest of the respondents that is 39.79 per cent had received one to two trainings (34.69 per cent women and 44.89 per cent men) and 17.34 per cent (10.20 per cent women and 24.48 per cent men) had received three or more trainings. The findings show that more numbers of women farmers were found to be in the category of no training in vegetable cultivation.

**Table 4. Distribution of respondents according to Achievement Motivation**

| Categories | Men (49)   | Women (49) | Overall (98) |
|------------|------------|------------|--------------|
| Low        | 8 (16.32)  | 11 (22.44) | 19 (19.39)   |
| Medium     | 33 (67.34) | 37 (75.51) | 70 (71.43)   |
| High       | 9 (18.36)  | -          | 9 (9.18)     |

It is evident from Table 4 that majority (71.43%) had medium level of achievement motivation followed by low (19.39%) and 18.36 per cent men had high achievement motivation which very clearly depicts the status of women in our society where women are most of the time suppressed to aim high.

**Table 5. Response of test population (N = 98) on participation in decision making in various vegetable cultivation activities**

| Activities/Tasks    | Men        | Women      | Jointly    |
|---------------------|------------|------------|------------|
| Land preparation    | 74 (75.51) | 6 (12.24)  | 18 (18.36) |
| Selection of seeds  | 79 (80.61) | 13 (13.26) | 6 (6.12)   |
| Ploughing of fields | 98 (100)   | -          | -          |
| Cleaning of fields  | 32 (32.65) | 41 (41.83) | 25 (25.51) |
| Leveling of field   | 77 (78.95) | 7 (7.14)   | 14 (14.28) |
| Raising nursery     | 8 (8.16)   | 83 (84.69) | 7 (7.14)   |
| Seed treatment      | 5 (5.10)   | 93 (94.89) | -          |
| Sowing              | 87 (88.77) | 3 (3.06)   | 8 (8.16)   |
| Transplanting       | 55 (56.12) | 39 (39.79) | 4 (4.08)   |
| Hoeing              | 64 (65.30) | 21 (21.42) | 13 (13.26) |
| Weeding             | 44 (44.89) | 37 (37.75) | 17 (17.34) |
| Irrigation          | 88 (89.79) | 6 (6.12)   | 4 (4.08)   |
| Plant protection    | 83 (84.69) | 5 (10.20)  | 10 (5.10)  |
| Harvesting          | 76 (77.55) | 9 (9.18)   | 13 (13.26) |
| Marketing           | 93 (94.89) | 5 (5.10)   | -          |
| Post harvesting     | 78 (79.59) | 7 (7.14)   | 13 (13.26) |

Note: Figures in parentheses indicate the percentage of total respondents in respective category

The data presented in Table 5 reveal that the activity, land preparation (including cutting bushes, soil preparation, breaking clods on field) and selection of seeds as to which variety is most suitable for sowing were mostly dominated by the decisions of men (75.51% and 80.61%) and both men and women (18.36% and 6.12%) only. As regards to decision making on land preparation and seed selection, women account only for 12.24 per cent and 13.26 per cent, respectively. In hills, decision-making on ploughing has traditionally been regarded as men's domain. In the activity cleaning of field such as to clean the field and remove weeds from the field majority of decisions were taken by women (41.83%) followed by men (32.65%) and only 25.51 per cent men and women jointly took decisions in this respect.

Data regarding response on decision making on leveling of field were also male dominated (78.95%) followed by men and women jointly (14.28%). Only seven farm women were responsible for taking decisions on leveling of field. Raising nursery for seedling means before transplanting a sapling is prepared for transplanting and seed treatment. Before sowing majority (84.69% and 94.89%) of women took decisions followed by men (8.16% and 5.10%). Only 7.14% men and women jointly reported to have been taking decisions in raising nursery for seedling. The decisions about the activity sowing seeds,

when to sow and how to sow were also male dominated (88.77%) followed by men and women jointly (8.16%). Only three farm women were responsible for taking decisions on sowing of seeds.

In the pooled data it was observed that the decisions about transplanting, hoeing and weeding were mostly dominated by the decisions of men which were 56.12 per cent, 65.30 per cent and 44.89 per cent respectively followed by women (39.79%, 21.42% and 37.75%). Whereas, joint decisions were taken by both men and women regarding transplanting (4.08%), hoeing (13.26%) and weeding (17.36%).

In the activities irrigation and plant protection measures majority of decisions were taken by men (89.79% and 84.69%) followed by women (6.12% and 10.2%). Very small percentage of respondents (4.08% and 5.10%, respectively) reported to have been making joint decisions for irrigating the field and plant protection measures. The decisions about harvesting were also male dominated (77.55%). Only nine women had an opportunity to take decisions regarding harvesting and 13.26 per cent could decide with the help of their male counterpart.

The decisions about the activity marketing of vegetable produce were also male dominated (94.89%) followed by only 5.10 per cent women who had an opportunity to take decision regarding marketing of the produce. These findings are in line with those of Choudhary and Singh (2003) and Singh et. al (2004). Post harvest activities include storage and processing were also male dominated (79.5%) followed by 13.26 per cent men and women jointly. Very few women (7.14%) reported to have been taking decisions regarding post harvest technologies.

*Relationship of selected socio-personal characteristics with role performance:* For the present study data regarding role performance was done through focused group discussion. Two focused group discussions were held with women and men vegetable farmers in village Rousil and two focused groups were held with women and men farmers in village Ladkhora were organized. Majority of the vegetable cultivation operations were carried out by the women farmers such as- land preparation, cleaning of field, raising nursery for seedling, seed treatment before sowing, leveling of field, transplanting, hoeing, weeding. Only four activities selection of seeds, sowing, and irrigation, ploughing of

field and marketing of vegetable produce was male dominated.

**Table 6. Correlation analysis between role performance and selected independents variables**

| Variables              | Men     | Women  |
|------------------------|---------|--------|
| Age                    | -.143   | -.142  |
| Education              | 0.598** | 0.009  |
| Training received      | 0.585** | 0.309* |
| Achievement/Motivation | 0.610** | 0.210* |

\*\*Significant at P<0.05 level

\*Significant at P<0.01 level

Table 6 depicts the relationship between role performance and various selected independent variables of farmers and farm women, correlation analysis was carried out. The data suggested that as far as age is concerned, it had negative correlation with role performance for both the genders but was non-significant. As regards to education, the study revealed that it was positively significant for men and non-significant for women which imply that with the increase in education of men, they perform more in vegetable cultivation operations. Role performance was also found to be having positive correlation with training received and achievement motivation for both the genders. But level of significance varied 0.05 per cent for men and 0.01 per cent for women respectively, which infers that with enlightenment through agricultural trainings and motivation for higher achievements one would show

more inclination and involvement in his / her role in vegetable cultivation.

## CONCLUSION

The present study concludes that a large section of respondents belonged to middle age group, who received education up to middle level. Majority of respondents had received no trainings; however, compared to women farmers, men farmers had undergone relatively more trainings. Majority of the respondents had medium level of achievement motivation, almost all the variables of both men and women respondents were positively correlated with role performance except age and education of women. Majority of decisions regarding ploughing the field, levelling of field and marketing activities were male dominated. In the activities, raising nursery for seedling and seed treatment before sowing, majority of decisions were taken by women. Though most of the activities in vegetable cultivation were carried out by women, yet their participation in decision making was very poor. This kind of gender gaps in decision making is a type of obstacle to women's development. There is an urgent need of capacity building workshops for both the genders to understand the gender dynamics and fill the gender gaps that exist in the society, which can be hindrance to overall development of farmers.

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