



GENDER DESEGREGATED PARTICIPATION IN VEGETABLE CULTIVATION IN PUNJAB

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Abstract

Agriculture is one of the major occupations of India. Especially in Punjab, cultivation is one of the major sources of income of the people. This study was undertaken with the objective to map gender desegregated operations and roles performed by selected cultivators in vegetable cultivation. On the basis of highest concentration of vegetable cultivation area, two districts *i.e.* Patiala and Sangrur were selected purposefully. From each districts, vegetable growing cluster was selected. From each selected 20 men & 10 women cultivators were selected randomly as respondents. Thus the sample comprise of 60 respondents. Finding of the study revealed that independent decisions by male cultivators was predominant in all activities related to vegetable cultivation followed by joint decisions while independent female decision for most of the activities was negligible. Almost all the male and female cultivators had access, control and ownership of economic resources. More than 50 per cent of male cultivators had access, control and ownership farm equipments while very few female cultivators had access, control and ownership of farm equipments. The study shows that although women are participating in agricultural operations along with men, their role in decision making is less. In the current study as all the female cultivators were either widow or divorcee, therefore they have better access, control and ownership of all resources.

Introduction

India is the second largest producer of vegetables in the world. Among various Indian states, Punjab has made commendable progress in vegetable production. Vegetable cultivation in Punjab has a vast potential of improving the economic status of farming families especially women folk that is engaged equally along with their male counterparts in activities involved in its cultivation. Perhaps, ironically, it is because women have so many responsibilities that they have been over looked by agriculturalists and policy makers — it has been more convenient to label men as farmers and women as child raisers and cooks. In truth, women are involved in all aspects of agriculture, from crop selection to land preparation, to seed selection, planting, weeding, pest control, harvesting, crop storage, handling, marketing and processing. In other words, rural women form the most important productive work force in the economy of majority of the developing nations including India.

However the nature and extent of women's involvement in agriculture varies greatly from region to region. Practices related to vegetable cultivation have now been considered as a family enterprise in which husband and wife participate to share work and pleasure both. Thus, it is expected that all decisions related to practice of vegetable cultivation are also taken jointly (Chouhan *et al.*, 2014). Despite of participation of women in agricultural & allied activities, women are poorer than men mostly because they are deprived of equal rights and opportunities, denied of the access to the financial/ economic resources and the status in the society (Baba *et al.*, 2010).

As many studies support that rural women are extensively involved in agricultural activities, it is pertinent to identify the nature and extent of their participation as involvement differs with the variations in agro-production

systems. Various studies show that rural women participate in agricultural operations physically and mentally by sharing the decisions but their participation varies from state to state. However, lack of access, control and ownership may still be barrier in their participation in vegetable cultivation. Keeping this in view, the current study was conducted in Punjab state with following objectives -

1. To map gender desegregation of male and female cultivators in decision making for vegetable cultivation.
2. To study the access of the selected respondents to various agricultural resources and services.

Material and Methods

The study was conducted in two districts of Punjab namely Patiala and Sangrur. On the basis of the highest concentration of vegetable cultivators, a cluster of two villages from each district was selected. From each cluster, 20 men & 10 women cultivators were selected randomly as respondents. Thus the sample was comprised of 60 respondents. Less women were taken due to the non-availability of female cultivators in Punjab. The female cultivators found were either divorced or widowed. To conduct the study, an interview schedule was developed keeping in view the objectives of the study. This interview schedule included items related to role performed by vegetable cultivators regarding decision making of various operations related to vegetable cultivation. It also included items regarding access to various agricultural inputs, economic resources (land and credit) and extension services. The interview schedule was pre-tested on 10 cultivators from the non-sampled area. The collected data were analysed with the help of appropriate statistical tools such as frequencies, percentage, mean score and z test.

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Results and Discussion

The study revealed that almost all the male cultivators (97.50%) were married and 95.00 per cent female cultivators were widow. Only 2.50 per cent of male were unmarried and 5.00 per cent of female cultivators were divorced. All the female respondents were either widow or divorced, this was because none other women were working as cultivators. Forty five per cent of the male cultivators belonged to the middle aged group, 30.00 per cent were young and 25.00 per cent were in old age. Similarly, 45.00 per cent of the female cultivators belonged to the middle aged group, followed by 40.00 per cent who belonged to upper age group of 54-73 years while only 15.00 per cent female cultivators belonged to young age group. Cent per cent of the male as well as female cultivators were head of their families. All the female cultivators were head of their families as they were not living with their husbands either due to widowhood or divorce.

Participation of male and female cultivators in decision making

Table 1 presents participation of male and female cultivators in decision making related to vegetable cultivation. With respect to decision related to choice of vegetable crops to be grown, around 46.60 per cent of the cultivators said that the decision was taken by male cultivators followed by 33.00 per cent of the cultivators who said that decision was taken jointly. Only 20.00 per cent of the cultivators reported that decision related to choice of vegetable crops to be grown is taken by female cultivators independently.

Regarding selection of seeds, majority (63.30%) of the cultivators reported that this decision was taken by male cultivators. One-fourth *i.e.* 30.00 per cent of the cultivators stated that decision regarding selection of seeds was taken jointly. Decisions related to selection of fertilizers/manures were taken by majority of male cultivators (68.30%) followed by joint decisions (26.60). Further decisions related to selection of pesticides/insecticides and machinery/equipment were also mainly taken by male cultivators (70.00 % each) followed by joint decisions (20.00% each). Very few *i.e.* 5.00 per cent each of the female cultivators took the decision related to selection of seeds, fertilizer/manure, pesticides/insecticides and machinery/equipment each independently.

Regarding arrangement/purchase of inputs, majority (66.60%) of the cultivators reported that decision related to arrangement of fertilizer/manure, seeds, pesticides/insecticides and machinery/equipment each was taken by males. One-fourth *i.e.* (28.30 % each) of the cultivators said that this decision was taken jointly. Negligible *i.e.* 5.00 per cent cultivators shared that decisions regarding arrangements of inputs was taken by females independently.

For decision regarding land preparation, cultivators reported that majority *i.e.* 70.00 per cent of the male cultivators took this decision followed by 25.00 per cent of the cultivators who stated that they took decisions jointly. Only 5.00 per cent of the female cultivators took the decision of land preparation independently.

Three-fourth (75.00% and 73.30% each) of the cultivators reported that decision regarding time of sowing and raising of nursery were taken by male cultivators followed by 21.60 per cent and 15.00 per cent of the cultivators who shared that such decisions were taken jointly. Very few *i.e.*

11.60 and 3.33 per cent of female cultivators took the decision related to time of sowing and raising of nursery independently.

Half of the cultivators (55.00%) said that decision related to uprooting and transplanting of seedling were taken by male cultivators followed by 28.3 per cent of the cultivators who stated that this decision was taken jointly. Only 16.00 per cent of the female cultivators took decision regarding uprooting and transplanting of seedling. Majority (68.30 %) of the cultivators stated that adoption of HYV were taken by male cultivators while around one-fifth *i.e.* 21.60 per cent of the cultivators took this decision jointly and only 10.00 per cent of the cultivators reported that decision regarding adoption of HYV were taken by females. For decisions related to intercultural operations, around half (53.30%) of the cultivators said that male cultivators took the decision followed by more than one-fourth (28.30%) who said that decision was taken jointly. Around one-fifth (18.30) cultivators said that female cultivators took such decisions independently. Overall, it is concluded that for all of the activities decisions was taken by male cultivators followed by joint decisions while independent decisions by female was very less for most of the activities. The findings are in line with Aggarwal *et al* (2013) found that in spite of the major role played by women in different agricultural and allied activities, their role in the decision making is negligible which further becomes a constraint for them.

Access and control over resources by male and female cultivators

Table 2 presents the data related to access and control over resources by male and female cultivators. In case of access of land cent per cent of male and female cultivators had access while about 97.5 per cent of the male reported that they had control and ownership of land while all of the female cultivators had ownership of land. The results are contradictory to earlier studies by Dossah *et al* (2016) who reported that majority of female cultivators do not won name in their names. This owed to the reason that in the current study data was collected from female headed families for female respondents. This is because the female cultivators were either divorced or widowed. Hence, the land was in their name. Almost all (97.50%) of male cultivators had access to credit facilities while cent per cent of female cultivators stated they had access to credit. Nearly all, (97.50%) of male cultivators and (95.00%) of female cultivators stated that they had their control on credit. Almost all male (97.50%) and cent per cent female had ownership of credit. The gender difference the two was statistically non-significant.

Access to farm equipments like jeep and tractor were more in case of male cultivators (55.00%) and very less in case of female cultivators (10.00%) which was statistically significant ($z= 3.35$). More than half (55.00%) of male cultivators had control and ownership over jeep and tractor while none of the female cultivators had control over and ownership of farm equipments. Fifty seven per cent of male and 45 per cent of female cultivators had access to agricultural machinery and the difference was statistically significant. More than half (55.00%) of male cultivators had control and ownership of machinery while only 20 per cent of females have control and ownership of agricultural machinery. Statistically, there was a significant difference between control and ownership by male and female cultivators ($z= 2.58; p \leq 0.01$).

Almost all (95.00%) of the male cultivators had access to agricultural inputs like seeds, fertilizers and pesticides while three-fourth (75.00%) of the female cultivators had access to seeds & fertilizers and 70.00 per cent of females have access to pesticides. The gender difference was significant for all agricultural inputs, seeds and fertilizers ($z=2.27$; $p\geq 0.05$ each) and pesticides ($z=2.69$; $p\leq 0.01$).

Control and ownership of various agricultural inputs like seeds, fertilizers and pesticides was reported by more than 90 per cent of male cultivators while around 50 per cent of female cultivators had control and ownership over these inputs and there was a significant gender difference.

Regarding use of extension services small numbers (10.00%) of male and female (20.00%) had access to use of services of KVK and PAU respectively. Further in the current, a few male (10.00%) and female (5.00%) cultivators reported access and control over services of state departments. All the respondents had access, control and ownership over friends and mass media

Conclusion

The focus of present research and extension system is to diversify agriculture. In such a scenario, vegetable cultivation has lot of scope in terms of production but most of the extension programmes are designed to cater to the needs of male farmers. Women who perform almost most of the operations in vegetable cultivation are almost neglected. The study was conducted in rural areas of Sangrur and Punjab and included 20 men and 10 women from each districts. The total respondents was 60 cultivators.

Regarding decision making, it was found that

independent decision by male was predominant. Joint decision varied between 15 per cent to 33 per cent for various activities. Independent female decisions for most of the activities was negligible. However, among all activities decision by female cultivators the choice of crops to be grown is highest (20%). The joint decisions were more in female headed households.

Almost all the male and female cultivators had access, control and ownership of economic resources. More than 50 per cent of male cultivators had access, control and ownership farm equipments while very few female cultivators had access, control and ownership of farm equipments. The study shows that although women are participating in agricultural operations along with men, their role in decision making is less. In the current study as all the female cultivators were either widow or divorcee, therefore they have better access, control and ownership of all resources.

References

- Aggarwal, H., Sharma, S. and Sharma, R. (2013). A study of agricultural activities performed by rural women and problems faced by them in Jammu District of J and K. *Int. J. Sci. Res.*, **3**: 1-3.
- Baba, S.H., Zargar B.A., Yousuf, S. and Sehr, H. (2010). Gender participation in vegetable cultivation in Kashmir Valley. *Ind. Res. J. Ext. Edu.*, **10**: 6-69.
- Chauhan, S.K., Bisht, K., Raghuvanshi, S. and Singh, P.S. (2014). Farm women participation in decision making in vegetable cultivation. *J. Multidi. Adv. Res.*, **3**: 19-25.
- Dossah, B.O., Mohammed, I.U. and Ndahi, A.K. (2016).

Table 1: Participation of male and female cultivators in decision making for vegetable cultivation

Activities	Decision by male		Decision by female		Joint Decision	
	f	%	f	%	f	%
1. Choice of vegetables to be grown	28	46.60	12	20.00	20	33.30
2. Selection of						
Seeds	38	63.30	3	5.00	18	30.00
Fertilizers/ manure	41	68.30	3	5.00	16	26.60
Insecticides/ Pesticides	42	70.00	3	5.00	15	25.00
Machinery/ equipment	42	70.00	3	5.00	15	25.00
3. Arrangements or purchase of inputs						
Fertilizer/ manure	40	66.60	3	5.00	17	28.30
Seeds	40	66.60	3	5.00	17	28.30
Pesticides/ insecticides	40	66.60	3	5.00	17	28.30
Machinery/equipment	40	66.60	3	5.00	17	28.30
4. Land Preparation	42	70.00	3	5.00	15	25.00
1. Times of sowing	45	75.00	2	3.33	13	21.60
2. Raising of nursery	44	73.30	7	11.60	9	15.00
3. Uprooting and transplanting of seedling	33	55.00	10	16.60	17	28.30
4. Adoption of HYV	41	68.30	6	10.00	13	21.60
5. Inter cultural operation	32	53.30	11	18.30	17	28.30

Table 2: Access and control over resources by male and female cultivators

Resources	Access				Z value	Control				Z value	Owbership				Z value
	Male (40)		Female(20)			Male (40)		Female(20)			Male (40)		Female(20)		
	f	%	f	%		f	%	f	%		f	%	f	%	
1. Economic resources															
Land	40	100.00	20	100.00	-	39	97.50	20	100.00	0.71NS	39	97.50	20	100.00	0.71NS
Credit	39	97.50	20	100.00	0.71NS	39	97.50	19	95.00	0.51NS	39	97.50	20	100.00	0.71NS
2. Farm equipment															
Jeep, tractor	22	55.00	2	10.00	3.35**	22	55.00	0	0.00	4.17**	22	55.00	0	0.00	4.17**
Agricultural machinery	23	57.50	9	45.00	0.91NS	22	55.00	4	20.00	2.58**	22	55.00	4	20.00	2.58**
3. Agricultural inputs															
Seeds	38	95.00	15	75.00	2.27**	39	97.50	11	55.00	4.16**	38	95.00	11	55.00	3.77**
Fertilizers	38	95.00	15	75.00	2.27**	37	92.50	10	50.00	3.77**	38	95.00	10	50.00	4.11**
Pesticides	38	95.00	14	70.00	2.69**	38	95.00	11	55.00	3.77**	38	95.00	11	55.00	3.77**
4. Use of Extension services/ Advisory Service															
KVKs	4	10	4	20	1.07NS	4	10	4	20	1.07NS	-	-	-	-	-
PAU	4	10	4	20	1.07NS	4	10	4	20	1.07NS	-	-	-	-	-
State departments	4	10	1	5	0.66NS	4	10	1	5	0.66NS	-	-	-	-	-
Friends/ neighbours	40	100.00	20	100.00	-	40	100	20	100	-	40	100	20	100	-
Mass media	40	100.00	20	100.00	-	40	100	20	100	-	40	100	20	100	-

Multiple responses

**Significant at 1% level of significance (p<0.01)

*Significant at 5% level of significance (p<0.05)