

Women Labour Use in Vegetable Cultivation in Punjab -Employment Status and Challenges

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Abstract

Women's contributions to agriculture have been neglected and undervalued. Keeping into account the importance of women labour in agriculture, the present study was undertaken to investigate the quantum of women labour use in major vegetables viz potato, peas and cauliflower grown in Punjab. The study was carried out in selected blocks of Jalandhar, Amritsar, and Hoshiarpur districts with a sample size of 30 vegetable growers and 20 female labour for each crop, thereby making a sample of 150 respondents. The study brought out that daily wage difference prevails between male and female labour, even the contractual wage rate is also low for female labour compared to male labour. Female labours earned mostly during picking operation in peas which was nearly Rs.10270 as compared to other operations in cauliflower and potato. However, as far as total employment is concerned, in case of cauliflower, female labours were employed the most vis-a-vis pea and potato crops. As far as constraints confronted by women labour is concerned, most of the female respondents suffered because of the seasonality of agriculture labour (91.67%) followed by dissatisfaction with the wage received (88.33%) and not having any ownership right of resources, especially land (85%). To improve the status of women labour, more employment opportunities should be created in rural areas and emphasis should be laid on their empowerment.

Key words: Women labour, vegetables, wages, constraints.

JEL Classification: J16, J31, E24

Introduction

Women make up half of the world's population and one-third of the labour force. However, they labour two-thirds of the world's hours and get only one-fourth of the income and, only one per cent of the world's property was owned by women as reported by the International labour organization (ILO). Agriculture is one of India's most important sources of revenue. This occupation employs approximately 70 per cent of the population in India. Agriculture employs a large number of women in poor countries. In low-income Asian countries, women make up 60-80 per cent of the agricultural workforce (SOFA team and Cheryl Doss, 2011). According to M.S. Swaminathan, a noted agricultural scientist, it was a woman who domesticated crop plants and thus began the art and science of farming. While men went hunting for sustenance, women began collecting seeds from the local flora and cultivating those that were of interest in terms of food, feed, fodder, fiber, and fuel. Women play a vital part in agricultural development and related fields, such as; main

crop production, animal production, horticulture, post-harvest activities, agro forestry, fisheries and so on. Without a doubt, the form and scope of women's involvement in agriculture varies widely from one location to the next. Even within a region, their participation varies greatly between ecological sub-zones, farming methods, castes, classes, and stages in the family cycle. The studies which are undertaken in India and other developing and underdeveloped countries, about "Women in agriculture" all point to the conclusion that women contribute significantly more to agricultural productivity than is commonly recognized. Their critical role in agriculture should not be overshadowed by the fact that women labour still continues to be preoccupied with their fundamental functions as wives, mothers, and homemakers. Women, despite their role in agricultural output, face significant pitfall. They make up the largest group of landless labourers, with little actual protection in the event of family disintegration due to death or divorce; inheritance rules and customs discriminate against them. In most land reform and settlement programmes, the husband is given sole title and hence the security needed to get production credits.

Vegetables are an important part of the human diet, and they were popularised in India as a way to combat protein deficiencies. Vegetables can be used to supplement carbohydrates through cereals in a very effective way. Because most vegetables are short-term crops, they can be grown in succession on the same plot, utilising all of the vegetable grower's family labour throughout the year. This is more of a requirement in the case of a vegetarian diet. Vegetable production and consumption in the country are currently insufficient, accounting for only one-fourth to one-third of the daily dietary need (Sandeep Sachdeva, Tilak R Sachdev and Ruchi Sachdeva, 2013). It is critical to significantly boost vegetable output in order to improve the quality of people's diets.

Punjab is one of the most agriculturally progressive state in the country. Because agriculture is a family activity, women have made important contributions to the state's agricultural development. Female wage labourers are now performing the operations that were formerly undertaken by male family members. Women from lower socioeconomic backgrounds serve as daily wage labourers on large farms, performing tasks such as; weeding, hoeing, grass cutting, picking, and so on. The current study was undertaken to compare the remuneration received by women labour vis-a-vis men labour force and to bring out the problems encountered by women labour.

Data Sources and Methodology

In order to fulfill the objectives of the study, data regarding area under vegetables was collected from the Department of Horticulture, Punjab and based on this, three key vegetables i.e.– potato, cauliflower and pea were selected for the study based on the area under cultivation and participation by women labour for undertaking various farm operations. Keeping in view the higher concentration of area under vegetables, Amritsar, Jalandhar, Hoshiarpur districts were selected for pea, potato and cauliflower crops, respectively. As far as selection of respondents is concerned, 30 farmers and 20 female labourers were selected randomly, for each vegetable crop thereby making a total sample of 150 i.e. 90 farmers and 60 female labourers. The selected sample of farmers was divided into three categories to the land owned by them. Two separate schedules, one for

the farmers and other for the female labourers were prepared for collection of first hand information from the respondents. The respondents were interviewed personally to achieve the desired objectives. The issues faced by the female respondents during vegetable cultivation of the study area were listed during the study. Frequency and percentage for every issue faced by the female respondents were calculated based on the responses obtained from the female respondents.

A perusal of Table 1 shows how the respondent farmers were divided into categories based on land owned by them. Small and semi medium category is merged here because very less respondents were under less than two hectare categories i.e. small category and in semi medium category respondents were higher than small category so these categories were merged to form small farms category. In accordance with the normal classification, there were 27 small, 42 medium, and 21 large farms.

Results and Discussions

The results have been discussed under the following sub-heads:

I. Operation-wise Remuneration for Labour Use in Vegetable Cultivation

The operation-wise remuneration received by labour in case of potato, pea and cauliflower cultivation has been discussed as under:

Remuneration Received by Labours in Potato Cultivation

In potato cultivation, male labourers had a per hour wage of Rs.50.02 for field preparation operation, which is more than any other operation except harvesting and grading, because it was a technical operation. Rest operations like applications of manure and fertilizer, seed sowing, earthing up and weeding, irrigation and plant protection measures were paid according to the normal wage rate. Harvesting and grading operation was a contractual operation, that's why the per hour wage rate was higher than the normal wage rate and in overall it was Rs.52.25/hour for male labour. Female labours only participate in harvesting and grading operations and get a wage rate of Rs.48.98/hour, which was also higher than the normal wage rate because of contractual operation.

Table 1. Classification of sampled farms based on land owned, Punjab, 2021-22

Category	Small farms (<4 ha)	Medium farms (4-10 ha)	Large farms (≥10 ha)	No. of respondents
Potato	9	15	6	30
Pea	7	13	10	30
Cauliflower	11	14	5	30
Overall	27	42	21	90

Table 2. Operation wise average per hour remuneration received by labours in potato cultivation on sample farms, Punjab, 2021-22 (Rs/hr)

Operations	Small		Medium		Large		Average	
	Male labour	Female labour	Male labour	Female labour	Male labour	Female labour	Male labour	Female labour
Field preparation	49.84	—	50.82	—	48.53	—	50.02	—
Application of manure and fertiliser	42.38	—	37.26	—	39.59	—	39.20	—
Seed sowing	41.21	—	49.36	—	49.30	—	46.97	—
Earthing up and weeding	43.21	—	41.77	—	42.41	—	42.47	—
Irrigation	36.57	—	38.43	—	40.26	—	38.48	—
Plant protection	45.38	—	44.23	—	47.93	—	45.80	—
Harvesting and grading	51.25	49.19	52.85	48.83	52.26	49.08	52.25	48.98

Remuneration Received by Labours in Pea Cultivation

In pea cultivation; picking, require women and male labour and earned Rs.50.68/hr and Rs.51.11/hr respectively, while for hoeing and weeding operation the corresponding figures were Rs.51.84/hr and Rs.52.12/hr per hour respectively, which were more than the normal wage rate because both operations were done on a contractual basis. Field preparation operation was done solely by male labour and got a per hour wage rate of Rs.52.11, it was also higher being a technical work. Rest of the operations such as; application of manure and fertilizer, seed sowing, irrigation and plant protection measures were also done only by the male labours, and got a normal wage rate for these operations.

Remuneration Received by Labours in Cauliflower Cultivation

In cauliflower cultivation, female labour participation was more than the participation of female labour in potato and

pea cultivation. Operations such as; transplanting, harvesting and grading, earthing-up and hoeing require both male and female labour. In transplanting operation females were paid on a contractual basis and hence got Rs.38.52/hr, which was higher than normal wage rate. In earthing-up, hoeing and harvesting operations female labours were paid according to the normal wage rate which is Rs.30.82/hr and Rs.30.35/hr respectively. Rest of the operations like: the application of manures, field preparation, irrigation and plant protection were done by male labourers and got the normal wage rate for the operations.

II. Time of Employment of Female Labours in Vegetable Cultivation

Agriculture gives seasonal employment to female labours. In potato cultivation sampled female labours were employed in December, January, and February months for on an average of 12.42, 20.38, 12.11 days respectively and earned around Rs.4867 in December, Rs.7986 in January and Rs.4745 in February month. In pea crop women were

Table 3. Operation wise average per hour remuneration received by labours in pea cultivation on sample farms, Punjab, 2021-22 (Rs/hr)

Operations	Small		Medium		Large		Average	
	Male labour	Female labour	Male labour	Female labour	Male labour	Female labour	Male labour	Female labour
Field preparation	49.96	—	51.38	—	54.28	—	52.11	—
Application of manure and fertiliser	44.01	—	40.12	—	42.10	—	42.01	—
Seed sowing	42.55	—	43.45	—	44.32	—	43.38	—
Hoeing and weeding	51.11	52.89	53.03	53.11	51.66	49.57	52.12	51.84
Irrigation	37.85	—	33.20	—	34.78	—	34.64	—
Plant protection	47.34	—	48.28	—	47.02	—	47.70	—
Picking	51.05	50.67	51.16	50.72	51.08	50.63	51.11	50.68

Table 4. Operation wise average per hour remuneration received by labours in cauliflower cultivation on sample farms, Punjab, 2021-22 (Rs/ha)

Operations	Small		Medium		Large		Average	
	Male labour	Female labour	Male labour	Female labour	Male labour	Female labour	Male labour	Female labour
Field preparation	43.32	—	44.80	—	43.87	—	44.09	—
Transplanting	41.07	39.39	40.43	37.76	41.63	38.88	40.83	38.52
Application of manure and fertiliser	37.82	—	39.09	—	39.26	—	38.67	—
Earthing up and Hoeing	37.07	30.99	32.93	30.66	32.41	30.90	34.34	30.82
Irrigation	38.60	—	38.65	—	39.63	—	38.72	—
Plant protection	39.40	—	39.01	—	39.16	—	39.09	—
Harvesting and grading	38.43	30.14	38.17	30.41	38.03	30.66	38.24	30.35

employed for three months, i.e. in October for hoeing and weeding and in November and December for picking for an average 18.03, 10.15, 25.33 days respectively. Female labours in pea crop earned mostly during picking operation and it was nearly Rs.10270. In case of cauliflower cultivation female labours were employed the most vis-à-vis pea and potato crop. They were employed for five months, i.e. during September and October for transplanting, November for earthing up and hoeing operations and December for harvesting and grading operations for around 17.12, 14.08, 22.46, 20.88 days respectively. During cauliflower cultivation, women got higher income in earthing up and hoeing operation.

III. Constraints Faced by the Women Labour

It is necessary to acknowledge the significance of women's involvement in agricultural operations. However, the women are unable to complete their duties because

of many socioeconomic and other issues. The barriers to participation highlighted by the farm women indicated that the barriers take many different forms and vary in intensity as well.

A perusal of Table 6 reveals the issues faced by women labour during participation in agricultural activities and also some group specific problems are there for young aged group (25-40) and middle aged group (35-55). It is understandable from the data that female labour were mostly suffered because of the Seasonality of agriculture labour and this is the major problem faced by 91.67 per cent of the female labours, followed by dissatisfaction with the wage received (88.33%), not having any ownership right of resources (85%), the responsibility of household work and labourer to earn money (78.33%). Besides, access to technology, innovative methods and limited extension service (76.66%), lack of education (75%), subsidiary role on decision making (68.33%),

Table 5. Time of employment of female labour in potato, pea and cauliflower growing and average income generated, Punjab, 2021-22

Crop	Month	Farm operation	Average days (No)	Average income (Rs/labourer)	Total income	
Potato	December	Harvesting and grading	12.42	4867	17598	
	January		20.38	7986		
	February		12.11	4745		
Pea	October	Hoeing and weeding	18.03	7477	21862	
	November	Picking	10.15	4115		
	December		25.33	10270		
Cauliflower	September	Transplanting	17.12	5276	23870	
	October		14.08	4339		
	November	Earthing up and hoeing	22.46	5538		
	December		Harvesting and grading	20.88		5070
	January			15.02		3647

Table 6. Constraints faced by sample respondents, Punjab, 2021-2022

S no	Constraints	Age group	Frequency	Percentage	Rank
1	Seasonality of agriculture labour	All	55	91.67	1
2	Not satisfied with the wages received	All	53	88.33	2
3	Don't held ownership right of resources specially land	All	51	85.00	3
4	Responsibility of household work and labourer to earn money	All	47	78.33	4
5	Access to technology, innovative methods, and extension services is limited	All	46	76.66	5
6	Lack of education	35-55	45	75.00	6
7	Subsidiary role in decision making inside or outside home	25-40	41	68.33	7
8	Lack of family support on social participations	25-40	36	60.00	8
9	Lack of awareness regarding govt scheme	25-40	32	53.33	9
10	Don't get payment of wages on time from the farmer	35-55	24	40.00	10

lack of family support on social participation(60%), lack of awareness regarding government scheme(53.33%) and late payment of wages (40%) were the other major issues faced by female labours. There is group-specific problems as well like there is a tendency to give late payments to 35-55 age group female labours and they also suffer from illiteracy. Mainly the young age group (25-40) suffers because of lack of family support on social participation, lack of awareness regarding government schemes, and lack of access to technology, innovative methods and extension services.

Conclusion and Policy Implications

The study revealed that majority of female labour participates in cauliflower cultivation followed by pea and potato cultivation. Potato cultivation requires more machine labour compared to human labour, that's why female labour participation was also very less during potato cultivation. Female labours was employed for more number of months during cauliflower cultivation and earned highest income during cauliflower cultivation followed by pea and potato. Female labour mostly suffers because of the seasonality of agriculture labour and this is the major problem faced by majority of the female labours, followed by dissatisfaction with the wage received, not having any ownership right of resources, the responsibility of household work and labourer to earn money etc. There is group-specific problem as well like; there is a tendency to give late payments to female labourers and also suffer from illiteracy. Mainly the young age group suffers because of a lack of family support on social participation, lack of awareness regarding government schemes, and lack of access to technology, innovative methods, and extension services. To improve the status of

women labour, more employment opportunities should be created in rural areas and emphasis should be laid on their empowerment.

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