

TRIBAL WOMEN PARTICIPATION IN AGRICULTURE AND ALLIED SECTORS IN GARIABAND DISTRICT OF CHHATTISGARH



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ABSTRACT

Agriculture is the most important and significant part of our life. It plays a vital role in Indian economy. Farm women's are backbone of Indian agriculture. Present study was conducted at Teka and Kopra villages of Fingeshwar block, Gariaband district, Chhattisgarh. The aim of study is to ascertain the participation rate of tribal women of farm, wage discrimination, and constraints faced. A sample size of 150 households seventy-five each from two village viz. Teka and Kopra through random sampling method. The data was collected through structured interview schedule. Findings of the study that the per year participation of tribal households in different operations of farm were 250.07 man-days on an overall basis. Participation rate of tribal women in agriculture and allied sectors is high as compared to their male counterparts. The study revealed that the difference in wages of female and male wages was found to be much lower than the government wage rate. Major constraints of tribal women in the study area was low wages, less awareness on developmental programmes, lack of education, lack of freedom to take decision, health issues etc. there is need to put more attention on awareness programmes government schemes of scheduled tribes by the extension services.

1. INTRODUCTION

A social group is usually identified by a common territory, dialect and cultural homogeneity, social and political organization. It may include several sub groups. Generally, tribe becomes Scheduled Tribe only when it is notified as Scheduled Tribe under Article 342 of Constitution of India. Agriculture is one such area where the developmental activities can be planned for the tribal farm women. Modern agricultural technology is almost unknown to the tribal community and has been left out from the main stream of economic development (Shamna *et al.*, 2018). The rural women are extensively involved in agricultural activities. The nature and extent of their involvement differs with the variations in agro production systems. The way of participation of female in agricultural production varies with land-owning status of farm households. Their roles ranges are from managers to landless labourers (Vinod Kumar *et al.*, 1985). Tribal farm women play an important role and make significant contribution to small and medium sized farm (Mohanta, 2017). Tribal women engaged at about 90 per cent in agricultural activities. The present study present study has taken up following objectives:

- 1) To analyse the participation of tribal women in different operations of farm.
- 2) To examine the wages of tribal women in agriculture & allied sector.

- 3) To study the constraints faced by tribal women workers in the study area and to Suggest some suitable measure for the same.

2. MATERIALS AND METHODS

The study was conducted in Teka and Kopra villages the area in Fingeshwar block of Gariaband district, Chhattisgarh. The villages Teka and Kopra were selected randomly & purposively selected the district Gariaband and block Fingeshwar through maximum no. of tribal female population. The total size of sample consists of 150 tribal household, seventy five households each from two villages were selected. Primary data was collected through structured personal interview and secondary data was collected through various books, journals and websites. The data are analyzed and tabulated by using of percentage and the total time spent converted into man-days. The results are discussed in the following tables.

3. RESULTS AND DISCUSSIONS

The results discuss about the participation rate in different activities of farm, wage discrimination and constraints faced by tribal women.

Table 1: General profile of respondent Tribal

S. No.	Particulars	Category	Respondents in No.	Respondents in Per cent
1.	No. of respondents	Landless	6	4.00
		Marginal	103	68.67
		Small	32	21.34
		Medium	9	6.00
2.	Total family member	Landless	26	3.87
		Marginal	465	69.29
		Small	143	21.31
		Medium	37	5.51
3.	Working member	Landless	15	2.20
		Marginal	247	36.81
		Small	82	12.22
		Medium	21	3.1
4.	Total family size	Land less	4.3	-
		Marginal	4.5	-
		Small	4.4	-
		Medium	4.1	-
5.	Total Land holding	Landless	0	-
		Marginal	0.43	-
		Small	1.16	-
		Medium	2.27	-
6.	Education	Illiterate	58	38.67
		Primary education	69	46.00
		Secondary education	21	14.00
		Graduate	2	1.33
7.	Literacy rate		-	73.20
8.	Age	Young<30	23	15.33
		Middle 30 to 50	109	72.67
		Old >50	18	12.00

Source: Primary data

3.1. PARTICIPATION OF TRIBAL WOMEN IN DIFFERENT OPERATIONS OF FARM

It was observed in Table 2 that the participation of tribal was 189.90 man-days per year, on an overall basis. The highest man-days found in marginal i.e. 244.48 man- days per year. In agricultural operations, the highest man-day was seen in transplanting i.e. 46.85 man-days per year. The women labourers got on 127.96 man-days of employment in a year in agriculture in Chhattisgarh State (Jaiswal, 2018). The tribal women earned on an average 158 days of work per year on farm (Naresh, 2014). In transplanting highest man-days was found in small farmers i.e. 59.39 man-days per year. Jaiswal (2018) reported that the total no. of man-days per year involved in agriculture was highest in transplanting which are 24.75 man-days per year. Shaman *et al.* (2018) reported that the total man-days in rice, jute and mustard cultivation in terms of man-days in different operations were 379.2, 280.4 and 472.4 man-days per year respectively.

Table 2: Per household employment in Agriculture (man-days)

Operations	Landless	Marginal	Small	Medium	Overall
Field Preparation	4.51	10.44	10.76	12.27	9.49
Sowing	1.07	5.16	7.26	8.3	5.45
Transplanting	21.37	56.89	59.39	49.77	46.85
Irrigation	2.43	2.70	1.93	1.32	2.09
Weeding	28.75	68.00	51.3	37.79	46.46
Fertilizer/Manure/Plant Protection	0.63	4.78	2.89	4.27	3.14
Harvesting	34.12	59.28	50.81	39.17	45.84
Threshing	1.04	5.16	5.54	4.9	4.16
Winnowing	1.15	6.44	3.81	4.5	3.97
Grading & Packaging	1.78	5.44	9.39	8.06	6.17
Transport (Loading & Unloading)	2.65	13.54	16.88	8.65	10.43
Marketing	3.51	6.65	8.38	7.66	6.55
Total	103.01	244.48	225.45	186.66	189.90

Source: Primary data

Table 3 revealed that the participation of tribal women in agriculture was 56.62 per cent. Among all the agricultural operations the highest participation of tribal women was found in transplanting that's holding rank 1st with 97.87 per cent participation followed by weeding, harvesting, grading & packaging, winnowing, sowing, having rank II, III, IV, V, VI, respectively. Less involvement in irrigation, threshing, marketing, fertilizer/manure/plant protection measures, field preparation having rank VII, VIII, IX, X, XI and they do not involved in transports (loading and unloading) having rank XII. The results are in line with the findings of Mohanta (2018).

Table 3: Participation Rate of Tribal women in Agriculture operations

Operations	Per cent	Rank
Transplanting	97.87	I
Weeding	95.74	II
Harvesting	93.34	III
Grading & Packaging	62.23	IV
Winnowing	51.12	V
Sowing	44.45	VI
Irrigation	24.45	VII
Threshing	22.23	VIII
Marketing	20.00	IX
Fertilizer/Manure/Plant Protection measures	11.12	X
Field Preparation	6.66	XI
Transport (Loading & Unloading)	0.00	XII
Total	56.62	-

Source: Primary data

3.2. PER HOUSEHOLD EMPLOYMENT DETAILS IN KITCHEN GARDENING/VEGETABLE CULTIVATION

Table 4 shows that highest total number of man-days per year contributed in vegetable production was observed in harvesting (3.56) followed by transplanting (3.40). Least man-days observed in grading 0.57 man-days per year.

Table 4: Per household employment in Kitchen gardening/Vegetable cultivation (man-days)

Operations	Landless	Marginal	Small	Medium	Overall
Nursery preparation	0.78	1.32	1.54	1.73	1.34
Field preparation	0.32	1.21	2.13	2.55	1.55
Sowing	0.12	1.78	1.83	2.71	1.61
Transplanting	1.78	2.76	4.93	4.15	3.40
Irrigation	0.11	0.54	0.82	0.97	0.61
Fertilizer/Manure/Plant protection	0.2	0.29	0.86	0.98	0.58
Intercultural operation	1.63	2.78	3.07	3.94	2.85
Harvesting	1.43	3.79	4.38	4.64	3.56
Grading	0.27	0.53	0.64	0.86	0.57
Transport (loading & unloading)	0.73	0.84	1.49	1.23	1.07
Marketing	0.19	2.26	4.2	4.31	2.74
Total	7.56	18.1	25.89	28.07	19.90

Source: Primary data

Table 5: Participation rate of tribal women in Kitchen gardening/vegetable cultivation

Operation	Per cent
Nursery preparation	100
Field preparation	68.89
Sowing	86.67
Transplanting	100
Irrigation	53.33
Weeding	91.11
Intercultural operation	93.33
Harvesting	100
Grading	46.67
Transport (loading & unloading)	28.89
Marketing	64.44
Total	77.96

Source: Primary data

Table 5 depicts that the total percentage participation of tribal women among the kitchen gardening/vegetable cultivation is 77.96 per cent. Contribution of tribal women is highest in nursery preparation, transplanting and harvesting which accounts 100 per cent. Least participation of tribal women in transport (loading & unloading) 28.89 per cent and fertilizer/manure/plant protection measures 40 per cent.

3.3. PER HOUSEHOLD EMPLOYMENT DETAILS IN DAIRY

Table 6 reveals that overall per household employment in dairy is 25.55 man-days per year. Employment for landless, marginal, small and medium farmers assimilates 5.89, 29.74, 35.7 and 30.89 man-days per year in dairy every year. Overall man-days is maximum in provide feed and water (5.42). Maximum no. of man-days is small farmers in provide feed and water 7.82.

Table 6: Per household employment in Dairy according to no. of farmers (man-days)

Operations	Landless	Marginal	Small	Medium	Overall
No. of farmers	1	12	7	2	22
Cleaning of animals	0.63	3.61	4.72	4.78	3.43
Provide feed and water	1.23	7.32	7.82	5.32	5.42
Cleaning of sheds	0.78	3.97	4.34	4.37	3.36
Milking	1.29	4.36	4.29	3.62	3.39
Milk processing	0	0.53	2.1	1.44	1.02
Grazing	0.93	4.54	7.38	5.51	4.59
Marketing	0	2.03	2.72	3.64	2.09
Disposal of dung	1.03	3.38	2.33	2.21	2.23
Total	5.89	29.74	35.70	30.89	25.55

Source: Primary data

Table 7 illustrates the per cent participation of tribal women in dairy operations is 54.05 per cent. Cattle rearing and other major work of related to livestock is being carried out by the tribal women only. No participation of tribal women in grazing and marketing.

Table 7: Participation rate of tribal women in Dairy

Operations	Per cent
Cleaning/brushing of animals	41.67
Provide feed and water	75.59
Cleaning of sheds	100.00
Milking	32.42
Milk processing	53.33
Grazing	0.00
Marketing	100.00
Total	54.05

Source: Primary data

3.4. PER HOUSEHOLD EMPLOYMENT DETAILS IN GOATRY

Table 8 shows that per household employment in Goatry, 8.41 man-days per year. Employment for marginal, small and medium farmers assimilates 10.38, 15.14 and 9.15 man-days per year in goatry every year.

Table 8: Per household employment in Goatry according to no. of farmers (man-days)

Operations	Landless	Marginal	Small	Medium	Overall
No. of farmers	0	7	2	1	10
Cleaning of animals and sheds	0	2.21	3.73	1.17	1.77
Provide feed and water	0	3.23	3.19	3.03	2.36
Disposal of dung	0	1.49	1.37	1.23	1.02
Grazing	0	2.16	4.22	2.1	2.12
Marketing	0	1.29	1.36	1.3	0.99
Milking	0	0	0.27	0.32	0.15
Total	0	10.38	15.14	9.15	8.41

Source: Primary data

Table 9 illustrates the participation percentage of tribal women in Goatry operations is 44.44 per cent. The maximum participation per cent of tribal women has found in disposal of dung operation (100 per cent). No participation of tribal women in grazing, milking and marketing.

Table 9: Participation rate of tribal women in Goatry

Operations	Per cent
Cleaning of animals and sheds	85.71
Provide feed and water	71.43
Disposal of dung	100.00
Grazing	0.00
Marketing	0.00
Milking	0.00
Total	44.44

Source: Primary data

3.5. PER HOUSEHOLD EMPLOYMENT DETAILS IN POULTRY

Poultry farming can be taken as a part-time occupation especially by women, landless, small and marginal farmers the inputs required for poultry farming are available locally in rural areas. Simple equipments for feeding, watering and sheltering for small units can be manufactured from materials locally available in the villages with the help of local artisans. Land required for starting poultry units is small. Table 10 discusses about the per household employment days in poultry.

Table 10: Per household employment in Poultry according to no. of farmers (man-days)

Operations	Landless	Marginal	Small	Medium	Overall
No. of farmers	0	4	6	2	12
Spreading bedding material for cock/hen	0.00	1.39	1.63	1.92	1.23
Cleaning of bedding	0.00	1.74	2.58	1.70	1.50
Provide feed and water	0.00	2.42	2.65	1.90	1.74
Apply pesticide	0.00	0.00	0.34	0.20	0.13
Total	0.00	5.55	7.2	5.72	4.62

Source: Primary data

Study revealed that 4.62 man-days per year involved in poultry employment on a total basis. Marginal, small and medium farmers employed in poultry 5.55, 7.2 and 5.72 man-days per year respectively. Drinking and water management man-days maximum which stands 1.74 man-days per year. In the study area landless farmers have no employment found in poultry.

Table 11 illustrates the participation percentage of tribal women in poultry operations is 46.15 per cent. The maximum participation of tribal women in provide feed & water (100 per cent) followed by spreading bedding material for cock/hen i.e. 52.38 per cent. In cleaning of bedding, participation per cent of tribal women is 42.85 per cent. Least participation is in application of pesticide 28.57 per cent.

Table 11: Participation rate of tribal women in Poultry

Operations	Per cent
Spreading bedding material for cock/hen	52.38
Cleaning of bedding	42.85
Provide feed and water	100.00
Apply pesticide	28.57
Marketing	0.00
Total	46.15

Source: Primary data

3.6. PER HOUSEHOLD EMPLOYMENT DETAILS IN FISHERY

The table 12 reveals that per household employment details in Fishery. Overall man-days found in fishery are 1.69 man-days per year. Highest man-days found for marketing (0.96) in overall basis.

Table 12: Per household employment in Fishery according to no. of farmers (man-days)

Operations	Landless	Marginal	Small	Medium	Overall
No. of farmers	1	2	1	0	4
Supplying feed	0.62	0.89	0.93	0	0.73
Marketing	1.09	1.38	1.02	0	0.96
Total	1.71	2.27	1.95	0	1.69

Source: Primary data

Table 13 illustrates the percentage involvement of tribal women in fisheries is 43.16 per cent. Involvement of tribal women in Provide feed is 47.05 per cent and in marketing operations is 35.19 per cent.

Table 13: Participation rate of tribal women in Fishery

Operation	Per cent
Supplying feed	47.05
Marketing	35.19
Total	43.27

Source: Primary data

Table 14 reveals that the highest overall man-days per year were in agriculture as compared to among all the sectors. Overall man-days per year of farm were 250.07 man-days per year. Second highest man-days are showed in kitchen gardening/vegetable cultivation. The results are in line with the findings of Jaiswal (2018) and K. Suman *et al.* (2010).

Table 14: Per household employment of Farm (man-days)

Farm sectors	Landless	Marginal	Small	Medium	Overall
Agriculture	103.01	244.48	225.45	186.66	189.90
Kitchen gardening/vegetable cultivation	7.56	18.10	25.89	28.07	19.90
Dairy	5.89	29.74	35.7	30.89	25.55
Goatry	0.00	10.38	15.14	9.15	8.41
Poultry	0.00	5.55	7.2	5.72	4.62
Fishery	1.71	2.27	1.95	0	1.69
Total	118.17	310.52	311.33	260.49	250.07

Source: Primary data

It is evident from table 15 that in allied sectors, the highest participation rate of tribal women looked in kitchen gardening having rank 1st along with 77.96 per cent followed by dairy, poultry, goatry, fishery having rank II, III, IV and V respectively.

Table 15: Participation rate of tribal women in Allied sectors of farm

Allied sectors	Participation per cent	Rank
Kitchen gardening	77.96	I
Dairy	54.05	II
Poultry	46.15	III
Goatry	44.44	IV
Fishery	43.27	V

Source: Primary data

Tribal Women Participation in Agriculture and Allied Sectors in Gariaband District of Chhattisgarh

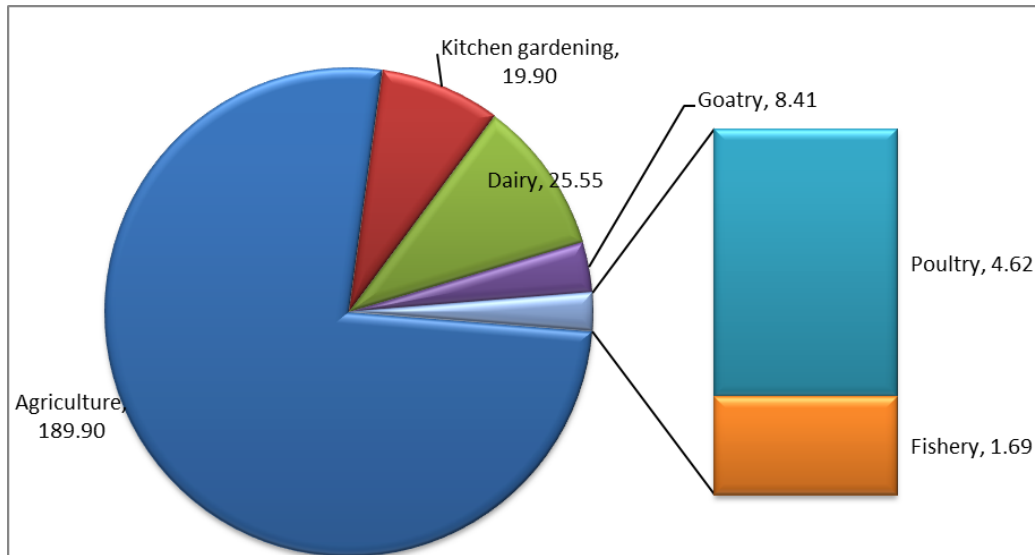


Figure 1: Per household employment of farm (man-days)

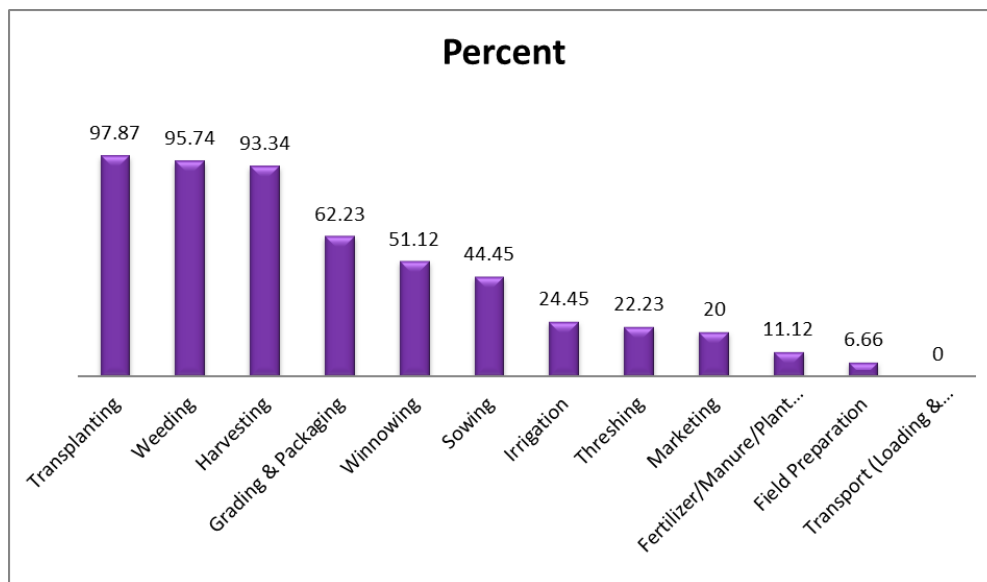


Figure 2: Participation of tribal women in agriculture

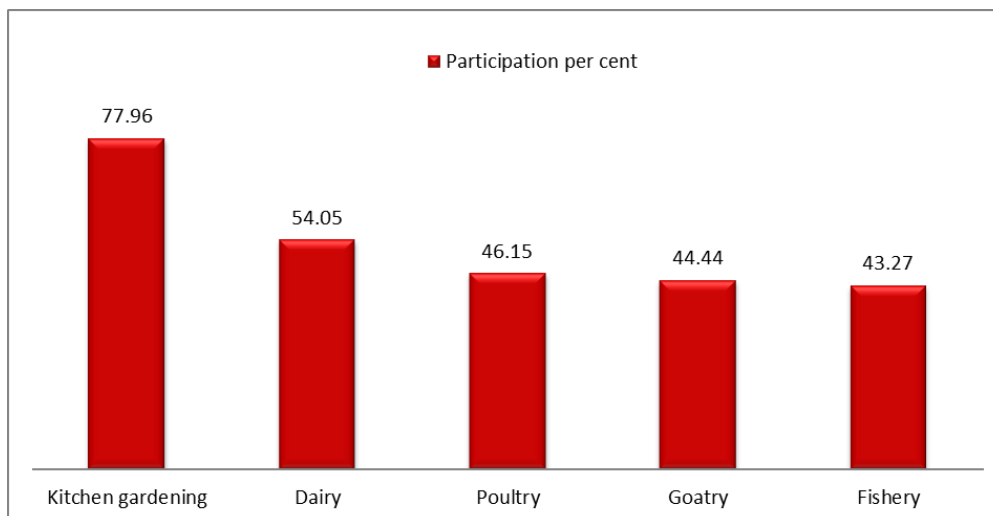


Figure 3: Participation of tribal women in allied sectors of farm

3.7. WAGE DISCRIMINATION

Evident from Table 16 that in the study area overall difference wage between male and female wage rate is ` - 22.08 and with difference percentage is 13.95 per cent.

Table 16: Sector wise total wage differentiation with male wage (₹ /day)

Sectors	Male wage rate	Female wage rate	Diff. (₹)	Diff. (%)
Agriculture	150.00	130.00	-20.00	13.33
Kitchen gardening	150.00	130.00	-20.00	13.33
Dairy	120.00	105.00	-15.00	12.50
Goatry	115.00	105.00	-10.00	8.69
Poultry	125.00	110.00	-15.00	12.00
Fish farming	120.00	110.00	-10.00	8.33
Others	300.00	250.00	-50.00	16.67
Overall	158.27	136.19	-22.08	-13.95

Difference (Diff.): (+ surplus; - deficit)

It is observed that highest difference between government wage and female wage was found in dairy and goatry sector. The overall difference between female and government wage was ` 103.48 with 43.17 percentage of difference per cent. Female wage rate has been compared with government wage rate in the other sectors is ` 10.33 profit and with difference percentage is 4.31 per cent.

Table 17: Sector wise wage differentiation (₹ /day)

Sectors	Govt. wage rate	Tribal male labour			Tribal female labour		
		Actual wage (₹)	Diff. (₹)	Diff. (%)	Actual wage (₹)	Diff. (₹)	Diff. (%)
Agriculture	239.67	150.00	-89.67	37.41	130.00	-109.67	45.76
Kitchen gardening	239.67	150.00	-89.67	37.41	130.00	-109.67	45.76
Dairy	239.67	120.00	-119.67	49.93	105.00	-134.67	56.19
Goatry	239.67	115.00	-124.67	52.02	105.00	-134.67	56.19
Poultry	239.67	125.00	-114.67	47.84	110.00	-129.67	54.10
Fish farming	239.67	120.00	-119.67	49.93	110.00	-129.67	54.10
Others	239.67	300.00	+60.33	25.17	250.00	+10.33	4.31
Overall	239.67	158.27	-81.40	33.96	136.19	-103.48	43.17

Difference (Diff.): (+ surplus; - deficit)

3.8. CONSTRAINTS FACED

During the survey, the tribal women reported to following prime constraints in listed on Table 17. The results showed that low wages (73.4 mean score) and less awareness on developmental programmes (66.6 mean score) are the major constraints of tribal women in the surveyed area. lack of education (65.2 mean score), lack of training (59.7 mean score), lack of alternative employments (52.1 mean score), priority for men workers (45.2 mean score), in sufficient credit facility (41.3 mean score), lack of freedom to take decision (37.6 mean score), family restrictions (34.6 mean score) and health issues (33.5 mean score) are also other major problems faced by the tribal women. The studies of Jaiswal (2018), Shamna *et al.* (2018) and Mareeswaran *et al.* (2017) are also in line with the above findings. The result concludes that the tribal women need to be trained and participate in developmental programmes. This will be help to improve themselves and will also increase their efficiency.

Table 17: Major constraints of tribal women

Sr. No	Constraints	Mean score	Rank
	Low wages	73.4	I

	Less awareness on developmental programmes	66.6	II
	Lack of education	65.2	III
	Lack of training	59.7	IV
	Lack of alternate employment	52.1	V
	Priority for male workers	45.2	VI
	Insufficient credit facility	41.3	VII
	Lack of freedom to take decision	37.6	VIII
	Family restriction	34.6	IX
	Health issues	33.5	X

4. CONCLUSIONS AND RECOMMENDATIONS

Tribal women plays a major role in the co-management of their natural, social, economic resources and agricultural development including crop production, livestock production etc. but they remain backward due to illiteracy, superstition, traditional values and many other social and cultural factors. The participatory role of tribal's in improving their living conditions by fully exploring natural endowments and alternative uses must find an appropriate place in the strategic approach. This study reported that the participation of tribal women is high as compared to the tribal men contribution in farm operations. Result of the study shows that tribal women make significant contribution in marginal small and medium sized farm. Overall man-days per year of farm were 250.07 man-days per year for per household tribal farmers. Total percentage contribution of tribal women in agriculture was 56.62 per cent. In agricultural operations, participation of tribal women was found maximum in transplanting with highest participation rate which accounted 97.78 per cent and which holds the rank I followed by weeding (95.56 per cent). In allied sectors the participation of tribal women was maximum in kitchen gardening/vegetable cultivation with highest participation per cent 77.96 and rank position I, followed by dairy and poultry with participation per cent 54.05 & 46.15 with rank position II & III respectively. In respect of their active involvement and participation in agriculture and allied sectors, they have not recognized and appreciated. In all the sectors wage differentiation is higher in female wages. Overall female wages are getting ` -103.48 lower than government wage rate with difference percentage of 43.17 per cent. Low wages is the prime constraints in the surveyed area. In general it requires that the support of family members to women in their family life. The tribal women in the study wanted to more and alternative job opportunity for jobless tribal women. Provide adequate information to increase the participation of tribal women in developmental programmes and educational institutions should be established in nearby areas. The government should be focused the empowerment of schedule tribe women and allocate separate funds throughout the five years plan. As per whole the following suggestions are forwarded here to overcome the constraints faced by tribal women in participation of developmental programmes for their livelihood security.

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CONFLICT OF INTEREST

The author have declared that no competing interests exist.

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