

# Gender issues in agriculture: An overview

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## Abstract

**Objectives:** To analyze the gender aspects in agriculture and allied fields.

**Methods/Statistical analysis:** The simple statistical tools like averages and percentages were used to analyze the status of women, gender wise share of agriculture workers, land holding, operation-wise daily wage rate. The data was collected from Census Report, GOI, 1991 & 2001, Agriculture Census, 2010 and India stat.

**Findings:** Women play a significant role in agriculture as well as in allied sectors. Female land holdings account for only 10.5% of total land holdings as against male land holdings (89.5%). Out of the total female land holdings, 75% accounts for marginal, small and medium land holdings. Women agricultural workers, although they represent a big proportion of all women workers, continue to receive lower wages than men. In India, about 76.6% of the entire female workforce is engaged in agricultural operations and only 54.6% of the entire male workforce is engaged in agricultural operations. Women play a significant and diverse role in agriculture and contribute to agriculture more than men. Though women agricultural workers account for 39.2% in India their overall empowerment status is low.

**Application/Improvements:** Helps to know the key role played by women to agriculture and allied sectors. There by the study makes an attempt to know the contributions made by women.

**Keywords:** Agriculture, Women, Land holdings, Empowerment.

## 1. Introduction

Women play very important role in agriculture and allied fields. Swaminathan, the famous agricultural scientist describes that "it was woman who first domesticated crop plants and thereby initiated the art and science of farming". The extent of women's participation in agriculture varies from one region to other. Women comprise 43% of the agricultural labour force in developing countries; this figure ranges from around 20% in Latin America to 50% in parts of Africa and Asia, and exceeds 60% in other countries [1]. In India, about 76.6% of the entire female workforce is engaged in agricultural operations, and only 54.6% of the entire male workforce is engaged in agricultural operations. When compared to female farm workers male farm workers are free during off-season. Women are critical to the well-being of farm households. Women also augment family resources through tasks such as collection of fuel, fodder, drinking water and water for family members and domestic animals.

Farm women are the principal food producers, in addition to undertaking subsidiary enterprises like livestock, sericulture, poultry, bee keeping, mushroom cultivation, fish culture, social forestry, tailoring and other income generating activities. In addition to above mentioned activities, women are also expected to collect fuel wood from fields. This fuel wood is being used as a major energy source for cooking. Because of the increasing population pressure, over grazing, women face difficulties in searching/browsing/collecting fire wood. Clean drinking water is another major problem in rural areas. Like collection of wood, fetching of water from remote areas is also the duty of women.

Their sacrifices for the family are unmatched to any women in the world. Hence, they are also the worst sufferers in all angles compared to any part of the world. Status of women: It can be seen from Table 1 that there is increase in population from 2001 to 2011 by 17.6%, and there is increase in female population at faster rate than male population which is good sign of growth of country and there is improvement in sex ratio from 2001 to 2010 by 0.75%.

However, the child sex ratio has declined by 1.4%. In the case of literacy rate female literacy is less than male literacy in both decades and In the case of male's literacy rate in urban was more 89.67 % as compared to rural literacy rate which is 78.57%. In the case of female literacy, rural literacy rate is very much lower it is 58.75% as compared to urban literacy rate which is 79.92%.

Table 1. Population and literacy rate of women

Particulars	2001	2011	% Change from 2001 to 2011
Total population in million	1028.7	1210.2	17.6
Female population in million	495.7 (48.1)	586.5 (48.4)	18.3
Male population in million	533.0 (51.9)	623.7 (51.6)	17.0
Female literacy rate (%)	53.7	65.5	-
Male literacy rate (%)	75.3	82.1	-
Sex ratio(females per 1000 males)	933.0	940.0	0.75

Source: Table prepared by author using data from [2][3]

## 2. Total agricultural worker population in India

The share of female agricultural work force participation in total female work force during 2001 has increased to 76.6 % (Table 2), whereas male agricultural workforce participation in total male work force accounts for 54.8 % which is an indication of feminization of agriculture.

Table 2. Share of agriculture workers in total work force

Year	Particulars	Work force (In millions)	Agricultural work force (In millions)	% share in work force
1991	Total	313.7	210.5	67.1
2001	Total	402.5	248.0	61.6
	Female	127.1(31.6)	97.3(39.3)	76.6
	Male	274.8(68.4)	150.6(60.7)	54.8

Source: Table prepared by author using data from [3][4]

## 3. Women's share of agricultural employment

When we talk about agricultural labour, woman labour has a special significance. It may be seen from Table 3 that 61.6% of total workers are working in agricultural sector while the remaining in non-agricultural sector.

It would be interesting to note that out of 127.3 million cultivator's men accounts for 67.2% far exceeding women cultivators who accounts for 32.9%.

In rural areas while the proportion of workers engaged as cultivators among total male workers accounts for 41.8% exceeding those among total female's workers who accounts for 36.9% in the category of agricultural laborers the proportion of workers among females accounts for (42.7%) far exceeding the males who accounts for 27.5%. Table 4 we can see that the proportion of cultivators, agricultural labors, workers in plantation, livestock in married group were found to be dominant followed by never married group.

Table 3. Total workers in agriculture

Particulars		2001 (In million)		
		Total	Rural	Urban
Cultivators	Total	127.3(100.0)	124.7(100.0)	2.6(100.0)
	Female	41.9(32.9)	41.2(33.0)	0.7(26.9)
	Male	85.5(67.2)	83.4(66.9)	1.9(73.1)
Agricultural laborers	Total	106.8	102.4	4.4
	Female	49.5	47.7	1.8
	Male	57.3	54.7	2.6
Plantation, livestock, forestry, fishing and in the allied activities	Total	13.9	12.1	1.8
	Female	6.0	5.6	0.4
	Male	7.9	6.4	1.4
Total agricultural workers	Total	248.0	239.2	8.7
	Female	97.4	94.6	2.9
	Male	150.6	144.7	6.0
Total work force	Total	402.5	310.7	91.9
	Female	127.0	111.5	15.6
	Male	275.5	199.2	76.3
Percentage of females/males in the total agricultural work force	Female	39.3	39.5	32.6
	Male	60.7	60.5	68.6

Source: Table prepared by author using data from [2]

Female land holding accounts for 16.5 million hectare (Table 5), which constitute 10.5% of total land holding and male land holding accounts for 141.2 million hectare with a share of 89.5% in total land holdings.

Table 4. Female agricultural workers classified by marital status

Marital Status	Total female workers (In million)	Cultivators (In million)	Ag labourers (In million)	Plantation, Livestock, Fisheries and allied
Never Married	16.8(13)	4.7(11)	6.0(12)	0.8(13)
Married	98.4(77)	34.3(82)	38.7(78)	4.8(78)
Widowed	10.5(8)	2.7(6)	4.1(8)	0.4(7)
Divorced/Separated	1.4(1)	0.2(1)	0.6(1)	0.1(2)
Total	127.1(100)	41.9(100)	49.4(100)	6.1(100)

Source: Table prepared by author using data obtained from Census Report, GOI, 2001

Out of total marginal land holding male share is 87.2 far exceeding females share of 12.8% and in small land holding male share is more than 88% exceeding females share.

The average time spent by farmwomen in household and agricultural activities. In the peak season an active farmwoman spends seven to eight hours per day on the farm (Table 6). Agriculture and allied activities almost take the equal time at par with household activities.

Table 5. Area of holding classified by size group and by gender (In Million Hectares)

Particulars	Marginal	Small	Semimedium	Medium	Large	Total
Female Land holdings	4.5 (27.5)	4.2 (25.5)	3.8 (23.2)	2.8 (17.1)	1.1 (6.7)	16.5 (100.0)
Male Land holdings	30.8 (21.8)	30.9 (21.9)	33.6 (23.8)	30.8 (21.8)	15.1 (10.7)	141.2 (100.0)
Total landholding men plus women	35.4	35.1	37.5	33.6	16.2	157.7
Percentage of women LH to total land holding	12.8	12.0	10.2	8.4	6.8	10.5
Percentage of men LH total LH	87.2	88.0	89.8	91.6	93.2	89.5

Note: Marginal LH <1 ha, Small LH =1-2 ha, Medium LH =2-4 ha, Semi medium LH=4-10 ha, Large LH>10 ha  
Source: Table prepared by author using data from [5]

Several activities during crop production (Table 7) are taken up by women they include land preparation seed cleaning sowing weeding intercultivation activities harvesting etc. Out of total women agriculture work force in India 86% of women agricultural workers performed inter cultivation activities, 80% were involved in seed cleaning and sowing, 84% were involved in harvesting reaping, winnowing, drying, cleaning and storage and 32% participated in land preparation.

Table 6. Time spent by rural women on different activities

Activities	Duration(hrs)
Domestic activities	7.55
Agriculture and allied activities	7.50
Sleep	6.00
Rest and recreation	2.15
Total	24.00

Source: [6]

Table 8 indicates study taken up in Kolar district of Karnataka, where a sample of 80 respondents were interviewed and post stratified into high and low women empowerment categories. It can be seen from table that economic contribution was high in women of high women empowered rainfed situation (₹24,436/annum), followed by women of low women empowered irrigated situation (₹20,054/annum). Economic contribution of women increased with increase in empowerment of women.

Table 7. Share of farm women in agricultural operations

Activity	Involvement (%)
Land preparation	32
Seed cleaning and sowing	80
Inter cultivation activities	86
Harvesting reaping, winnowing, drying, cleaning and storage	84

Source: [2]

Women agricultural workers, although they represent a higher proportion of workers, continue to receive lower wages than men. "The Ministry of labour puts the difference at 60% of men's wages, while the Indian Labour Journal showed that women received 75% of men earnings" [8]. The low rates of wage for women laborers are due to the seasonal and informal nature of employment, wrong presumption on the part of female that they do less work compared to male.

Table 8. Sources of employment in production activities

Activities	High empowerment		Low empowerment (In Days/year)	
	l(n=15)	R(n=31)	l(n=25)	R(n=9)
<b>Crop</b>				
Wage Earning	36(4165)	72(8102)	8.89(947)	23.34(2334)
On own Farm	87(9533)	64(7102)	92.3(10153)	67.93(7472)
<b>Dairy</b>				
Wage Earning	-	-	-	-
On own Farm	75(8204)	84(9231)	81.4(8954)	44.58(4903)
<b>Total</b>	<b>198(21902)</b>	<b>220(24435)</b>	<b>182(20054)</b>	<b>136(14709)</b>

Source: [7]

There exists more than 15% wage difference between male and female wage rate (Table 9). Gender wage gap highlights the inequalities between men and women. This inequality can be attributed to undervaluing of women skills and work. Timely decisions are very important in agricultural activities. Active involvement of women both on farm as well as in domestic activities calls for their involvement in decision making with respect to those activities, as decision making directs the things to happen.

Table 9. Occupation-wise average daily wage rates in agricultural occupations in India (In Rupees)

Occupations	2007-08		2008-09		2009-10		2010-11		
	Men	Women	Men	Women	Men	Women	Men	Women	%*
Ploughing	91.4	49.9	102.9	55.4	120.8	70.4	145.5	87.2	40.1
Sowing	79.3	57.1	90.0	65.0	104.5	79.4	125.7	98.1	21.9
Weeding	70.1	58.2	80.1	68.0	92.7	78.9	111.2	95.7	13.8
Transplanting	73.8	61.9	83.2	71.4	98.2	86.7	120.1	104.1	13.3
Harvesting	75.24	62.3	87.0	71.5	102.8	84.9	122.5	102.3	16.4
Winnowing	71.1	56.0	81.2	65.1	96.3	79.0	112.8	94.8	15.9
Threshing	73.5	59.4	85.0	67.6	100.2	82.1	117.7	97.0	17.6
Picking*	72.5	58.1	81.1	66.3	96.9	78.9	121.1	101.1	16.4
Herdsmen	47.6	37.7	53.4	41.3	62.2	46.6	77.17	60.4	21.6
Well digging	106.9	58.3	116.2	63.4	140.8	75.4	170.3	93.8	44.9
Cane Crushing	77.9	54.9	87.2	61.2	98.4	75.4	120.3	89.0	25.9

Source: \* Indicates % wage difference between male and female worked out by Author [9]

Analysis of the decision making process revealed it to be more or less a male domain (Table 10). In none of the areas of farm decision making, except storage of farm produce, women were deciding on their own.

Table 10. Pattern of decision making regarding different farm activities

	Decision making by woman respondents						Decision making by man respondents					
	NI	OS	OC	JD	ID	Score	NI	OS	OC	JD	ID	Score
Crop & variety to be sown	5	10	25	40	20	2.6	0	5	20	35	40	3.1
Landpreparation	20	15	35	15	15	1.9	0	5	15	25	55	3.3
Labour hiring	15	15	20	35	15	2.2	5	10	15	25	45	3.0
Harvesting	20	15	25	30	10	2.0	0	10	15	45	30	3.0
Sale of farm produce	15	10	20	40	15	2.3	0	5	10	35	50	3.3

Source: NI: No Involvement, JD: Joint decision, OS: Opinion sought, ID: Independent decision, OC: Opinion considered [10]

#### 4. Conclusion

In India, about 76.6 % of the entire female workforce is engaged in agricultural operations; while only 54.6% of the entire male workforce is engaged in agricultural operations. Thus, women play significant and diverse role in agriculture and contribute to agriculture more than men. In spite of these, her decision making in farm activities is very low. Women agricultural workers account for 39.2% and male agricultural workers account for 60.8%. But women land holding accounts for only 10.5% against 89.5% of men land holding. Women do most of labour requiring works which are of drudgery there is a need to develop women friendly machineries which helps to reduce drudgery of women. Even though women work for longer hours than that of men because of gender discrimination get lower returns for their work, there exists wage gap. Men and women are like two sides of weighing balance. Balance can be achieved when both of them are considered equally. Hence no developing country can ignore the role of women, if they have to progress.

#### 5. Recommendations for gender equality

1. Awareness programme should be bought for men folk to give equal importance to women and respect their rights.
2. An appropriate mechanism should be evolved to quantify and account the economic contribution of women particularly in respect of household chores.
3. Special awareness programme among rural women has to be provided to reduce social inhibition and to make them aware of their roles and rights.
4. Priority must be given to women in accessing credit from banks and other financial institutions.
5. Participation of women in organization should be enhanced to 50% and should be strictly implemented at all levels through appropriate policy measures.

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