

# Feminism in Indian Agriculture

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## ABSTRACT

Feminism in Indian agriculture signifies the involvement of women in agriculture and allied activities. Agriculture is one of the strong hold of Indian Economy with growth rate of 3.4 per cent and is accounted for 17.32 per cent to the total GDP during 2018-19. During 2011-12, Agriculture employed more than 50 per cent of the Indian work force. It was estimated that 45.3 per cent of agricultural labour force consist of women but a large number of women remained invisible workers. Therefore, women constitute an important part of our labour force in agriculture and perform multidimensional roles. In rural India, the percentage of women who depend on agriculture for their livelihood is as high as 84 per cent (Census, 2011). Women make up about 30 per cent of cultivators and about 43 per cent percent of agricultural laborers. As small farmers face the increasing competition with larger farm operations an increasing number of men migrate to city centers for higher wages and employment. Women are in turn left to support the family structure and support small farm lifestyle. Since, there has been concern expressed regarding the gap between women's actual economic participation and public perception, several researchers have attempted to overcome this invisibility through gendered empirical research studies for using on gender analysis and gender roles. This topic is highlighting the female participation and wages in agriculture across various Indian states. The secondary data collected for the research is used to study the growth rate of the female agricultural worker for several years. Various challenges are still persistent so special policy as well as programs should be organized to mitigate them. Agricultural education be made gender sensitive and research, development, extension and services be engendered to give due recognition to the multiple role played by women agriculturists.

## Highlights

- ① Participation of both men and women in agriculture has declined, but the rate of decline has been faster among men than it has among women.
- ② Correction in statistical invisibility of women's work through preparation of an account that should include in detail the work that women undertake is required.

**Keywords:** Women participation, feminism, wages, multidimensional roles

Feminism in agriculture refers to the measurable increase of women's participation in the agriculture sector, particularly in the developing countries. Some historians believe that it was woman who first domesticated crop plants and thereby initiated the art and science of farming. While men went out hunting in search of food, women started gathering seeds from the native flora and began cultivating those of interest from the point of view of food, feed, fodder, fiber and fuel. The history of Indian Agriculture is as old as Indus Valley Civilization

Era and even before that in some parts of Southern India. Agriculture is one of the stronghold of Indian Economy with growth rate of 3.4 per cent and is accounted for 7.32 per cent to the total GDP during 2018. During 2011-12, Agriculture employed 48.8 per cent of the Indian work force. It is estimated that 45.3 per cent of agricultural labour force consist of women but a large number of women remained invisible workers. Therefore, women constitutes an important part of our labour force in agriculture and plays multidimensional role in

agricultural Activities like sowing, transplanting, weeding, irrigation, fertilizer application, plant protection, harvesting, winnowing, storing etc. as well as in domestic activities like cooking, child rearing, water collection, fuel wood gathering, household maintenance etc. and allied activities like cattle management, fodder collection, etc. Mainly rural women are engaged in agricultural activities in three different ways depending on the socio-economic status of their family and regional factors. They work as paid labourers, cultivator doing labour on their own land and managers of certain aspects of agricultural production by way of labour supervision and the participation in post harvest operations. Women is responsible for household food and nutrition security, 90 per cent of the hoeing and weeding in food production, 80 per cent of the work on food storage and transport, more than 90 per cent of post harvest management including food processing, providing water and energy and more than 60 per cent of harvesting and marketing (Ghosh *et al.* 2014).

In India, 70 per cent of the rural households own livestock. It serves as a source of employment in rural India, especially for women. It has considerable potential for generating additional employment through milk, meat, wool and eggs production. Milk production alone involves more than 30 million small producers. Gender equity is more pronounced in livestock sector, as women participation is 71 per cent of the labour force. As many as 75 million women are engaged in the livestock sector as against 15 million men. Women have good knowledge about livestock behavior and local feeds. (Census, 2011). Now, Ministry of Agriculture & farmer's welfare initiated to celebrate 15<sup>th</sup> October as *National Women Farmer Day* in order to give impetus to skill development and entrepreneurial ability of women farmers. Also, the day is celebrated as International Day for Rural women every year as per UN. Invisibility of women in agriculture which always remained in the society and widely ignored by the researchers. To fill this gap, the objectives of our present study was: (i) to analyze year to year variation in composition of female agricultural laborers and cultivators, (ii) to analyze the state wise ownership rights of women, (iii) to identify various challenges faced by female workforce.

## MATERIALS AND METHODS

To measure the year to year variations compound annual growth rate was calculated disparities. To analyze the state wise ownership rights and wage structure simple tabular analysis was done. Whole study was based on Census data (various issues) and 68<sup>th</sup> round of NSSO had been used which was conducted in 2011-12.

## RESULTS AND DISCUSSION

### Tracking the shift in Agricultural Employment

In India, the percentage of women who depend on agriculture for their livelihood is as high as 65.1 per cent during 2011 whereas in non agricultural activities women participation is 34.9 per cent. It can be interpreted from table 1 that although the participation percentage of male as well as female decreased in agriculture and increased in non agricultural activities since 1981 to 2011 still the percentage of women employed in agriculture is more. As small farmers face the increasing competition with larger farm operations an increasing number of men migrate to city centers for higher wages and employment (Pattnaik *et al.* 2017). Women are in turn left to support the family structure and support small farm lifestyle. Women make up about 30 per cent of cultivators and about 43 per cent percent of agricultural laborers (Census, 2011).

**Table 1:** Work Participation in Agricultural and Non agricultural sectors by gender

Census Year	Agriculture			Non Agriculture		
	Male (per cent)	Female (per cent)	Total Agr (per cent)	Male (per cent)	Female (per cent)	Total Agr (per cent)
1981	66.3	82.6	70.3	33.7	17.8	29.7
1991	60.9	82.4	67.2	39.1	17.6	32.8
2001	51.9	71.8	58.4	48.1	28.2	41.6
2011	49.8	65.1	54.4	50.1	34.9	45.5

Source: Census of India.

### State wise Partnership of Women in Agriculture

Out of total female workforce employed in agriculture different states have different percentage

of female workforce employed in agriculture as shown in table 2. The table signifies that Bihar (84 per cent) was the state which was having highest contribution of female workforce in agricultural activities followed by Nagaland (83 per cent), Himachal (82 per cent) and Rajasthan (81 per cent), whereas West Bengal (67 per cent), Punjab (75 per cent) and Kerala (78 per cent) are having more females employed in industrial/ service sector.

**Table 2:** State wise partnership of women in agriculture and non agriculture activities during census year 2011

State	Total Female workers	Per cent of Female workers in agriculture	Per cent of Female workers in non agricultural activities
Bihar	3541857	83.56	16.44
Nagaland	279166	82.66	17.34
Himachal	630521	82.47	17.53
Rajasthan	4595570	81.07	18.93
MP	5046293	79.45	20.55
Maharashtra	10331758	74.53	25.47
Andhra Pradesh	9585381	73.44	26.56
UP	4999389	65.87	34.13
Karnataka	5467914	61.11	38.89
Orissa	1584529	60.47	39.53
Tamil Nadu	7454473	59.3	40.7
Gujarat	3544508	57.2	42.8
Manipur	229137	55.59	44.41
Tripura	170238	52.78	47.22
Assam	1265065	42.47	57.53
West Bengal	3528612	32.62	67.38
Punjab	1409704	24.51	75.49
Kerala	1776280	21.27	78.73

Source: Ghosh et al. 2014, census 2011.

### Composition of Female workforce in Agriculture

Compound annual growth rate was used to analyze the year to year growth rate as growth rate is not independent of previous year value. The CGR was calculated by:

$$Y_t = Y_0 (1 + r)^t$$

$$\text{i.e. } \log Y_t = \log Y_0 + t \log (1 + r)$$

Where,  $r$  is the compound rate of growth is calculated by the equation

$$r = (\text{Antilog } b_1 - 1) * 100.$$

Table 3 represents the growth of cultivators and agricultural labourer since 1961 to 2001 and signifies that CGR is almost uniform for all the states except few like Himachal Pradesh, Manipur and Rajasthan illustrated a fine Compound Growth Rate for female cultivators. But Nagaland showed highest CGR in case of both male and female cultivators.

**Table 3:** CGR of cultivators and Agricultural Laborers (1961-2001)

State	Cultivator		Agricultural Labour	
	Male CGR	Female CGR	Male CGR	Female CGR
Andhra Pradesh	1.00	0.996	1.015	1.01
Kerala	0.989	0.973	1.007	1.039
TN	0.994	0.994	1.016	1.014
Karnataka	1.004	0.994	1.016	1.015
Gujarat	1.006	0.989	1.022	1.012
Maharashtra	1.005	1.00	1.013	1.056
MP	1.001	0.987	1.015	1.011
Punjab	0.989	0.953	1.012	1.02
UP	1.003	0.987	1.017	0.999
Rajasthan	1.008	1.003	1.021	1.016
HP	1.011	1.008	1.025	1.019
Bihar	0.997	0.972	1.02	1.003
Orissa	0.999	0.98	1.013	1.015
West Bengal	1.001	0.992	1.019	1.018
Assam	1.00	0.992	1.019	1.02
Nagaland	1.019	1.016	1.037	1.026
Manipur	1.004	1.004	1.063	1.058
Tripura	1.00	0.99	1.03	1.05

Source: Ghosh et al. 2014.

### Operational Land Holdings Owned by Women in India

Operational holdings were used as proxy due to non availability of land ownership data through official sources. Table 4 shows land operated by women as well as total operational holdings. According to the latest census of 2010–11, out of the total operational land, 13.5 per cent was owned by women and only 11 per cent of land was operated by them. In spite of efficient participation of women in agricultural activities there existed gap between operational holding and land owned by among men and women. Women's owned holdings and operational holdings vary across states, being higher in states like Meghalaya, Andhra Pradesh and Kerala, etc.

These persisting gender inequalities resulted limited access to agricultural assets, inputs, information, etc. which ultimately hampered women's potential economic contributions in agriculture (World Bank 2008, FAO 2011). This gap not only led to the gender gaps but also resisted them to take part in institutional credit facilities and federal agricultural benefits. They also face problems in decision making and hence known as invisible workers.

**Table 4:** Operational holdings Owned & Operated by women (Census 2011)

State	Per cent Owned by Women	Per cent Operated by women
Meghalaya	34.60	34.00
AP	25.40	22.10
Goa	23.30	18.00
Kerala	19.80	15.00
Delhi	19.50	15.50
TN	19.20	16.60
Karnataka	19.00	15.70
Maharashtra	15.00	13.10
Bihar	13.70	12.90
Chhatisgarh	12.60	9.90
Uttanchal	11.30	10.50
Mizoram	10.90	9.70
Jharkhand	10.80	9.00
Arunachal Pradesh	10.70	8.20
Haryana	10.50	8.80
Gujarat	10.30	9.10
Tripura	10.30	8.80
Nagaland	10.10	8.70
MP	9.30	7.20
UP	9.10	7.60
Rajasthan	9.00	7.70
J&K	8.10	6.50
Himachal Pradesh	7.10	4.70
All India	13.50	10.90

Source: Pattnaik et al. 2017, census, 2011.

## Major Challenges

The major challenge behind development of women in agriculture observed was limited women land ownership. As per census 2011, only 14 per cent women had ownership rights which led to limited credit availability and availment of various financial benefits from institutions. Also women

were lagging behind in taking part in training organized by governmental organizations. It has also been observed that they were less paid as compared to male counterparts which made them backward in the society. The machineries were also made without any specific objective to be handled by man or women which further led to drudgery issues among women in agriculture as agriculture now a days technology dependent and due to above mentioned issue female were lagging behind of men. In most of the parts of nation women farmers were illiterate and having no awareness about the existing schemes, benefits, rights, etc. as a result of which female population engaged in agriculture had poor economic as well social growth.

## Opportunities for women entrepreneurship

Women centered training programs for agriculture and allied activities are run by NABARD. Subsidies provided to the credit linked SHGs in order to promote women participation and visibility on a large scale. The Indian Council of Agricultural Research established the NRCWA in the month of April 1996 at Bhubaneswar and has since been upgraded as the Directorate of Research on Women in Agriculture (DRWA) from the year 2008. DRWA is carrying out basic, strategic and applied research on various gender related issues in agriculture and allied sectors with thematic approach in creating a repository of gender disaggregated data and documentation, technology testing and refinement, drudgery assessment and reduction, gender sensitive extension approach, capacity building of scientists and functionaries, efficient resource management and gender mainstreaming.

## CONCLUSION

Participation of both men and women in agriculture has declined, but the rate of decline has been faster among men than it has among women (Pattnaik et al. 2017). The women are serving the nation without being credited for their work. They are less paid, having no rights in decision making as well as on their lands as well. They are invisible workers in agricultural activities who need attention of government as well as policy makers. Women is serving over every sphere but in agriculture they are still lagging behind due to few reasons like illiteracy, ownership rights, operational rights, lack

of training and drudgery issues so a special focus towards this special segment of our workforce is the need of hour. Correction in statistical invisibility of women's work through preparation of an account that should include in detail the work that women undertake is required. Policies and funds allocation need to take cognizance of this, and address women's needs. Adequate attention should be given towards the educational process through which women can engage with the institutions in an informed and empowered way. Agricultural education be made gender sensitive and research, development, extension and services be engendered to give due recognition to the multiple role played by women agriculturists. Women farmers can be moved towards entrepreneurship through various training programs.

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