

ROLE OF WOMEN ENTREPRENEURSHIP IN AGRICULTURE IN NORTHERN INDIA

Dr. Satya Pal¹ and Dr. Abhimanyu Kumar²

ABSTRACT

India is a developing country. The main occupation is agriculture, because 60 per cent of the population is involved in this occupation. Around 40 per cent women in northern states are occupied in agriculture land. Women occupation in agriculture in low income these states in India are between 12-15 per cent. In almost, in northern states, the number of women employed in agriculture as a percentage of the economically active population is higher. Long standing obstacles faced by rural women in terms of limited access to productive resources (Land, Credit, Inputs, Transport, Extension Services, Storage and Technical Assistance) prevent them from adopting new technologies or encoring them economies of scale. This paper examines the average size of holdings by women, distribution of operational holdings and operated area by women, status of women i.e. female population, female working population, female main workers, female farmers and female agriculture labours and per female value of output of various sub-sectors of agriculture in northern states.. Women also have less access to productive resources in agriculture exception Punjab and Haryana especially in these states. Due to these reasons and women's lower education level compel the women have a greater tendency to remain in subsistence agriculture. Professional women continue to discrimination in hiring and promotion.

Key Words: Women, Agriculture, Northern states, and Agriculture labourer.

¹ Research Associate , ITMU
Central Avian Research Institute, Izatnagar, Bareilly UP-243122
² Assistant Professor , Department of Sociology
Govt. P.G. College, Ranikhet, Almora Uttarakhand

INTRODUCTION:

Swaminathan, the famous agricultural scientist describes 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. Women have played and continue to play a key role in the conservation of basic life support systems such as land, water, flora and fauna. They have protected the health of the soil through organic recycling and promoted crop security through the maintenance of varietal diversity and genetic resistance.

That women play a significant and crucial role in agricultural development and allied fields including in the main crop production, livestock production, horticulture, postharvest operations, agro/ social forestry, fisheries, etc. The nature and extent of women's involvement in agriculture, no doubt, varies greatly from region to region. Even within a region, their involvement varies widely among different ecological sub-zones, farming systems, castes, classes and stages in the family cycle. But regardless of these variations, there is hardly any activity in agricultural production, except ploughing in which women are not actively involved. Studies on women in agriculture conducted in India and other developing and under developed countries all point to the conclusion that women contribute far more to agricultural production than has generally been acknowledged. Recognition of their crucial role in agriculture should not obscure the fact that farm women continue to be concerned with their primary functions as wives, mothers and homemakers.

India's Northern regions comprise of the states of Himachal Pradesh (HP), Uttarakhand (UKD), Jammu & Kashmir (J&K), Punjab (PUN), Haryana (HAR), Rajasthan (RAJ) and Bihar (BHR). The states falling in the Indian Himalayan Region are sparsely populated as compared to other Northern states. These hilly regions are relatively less developed and are one of the most fragile and vulnerable ecosystems in the world due to their unique agro-ecological features and socio-economic conditions. The regions are characterized by winter and summer temperatures ranging 4°-7°C and 13°-18°C, respectively. The higher reaches are perpetually under snow and ice. The average annual rainfall exceeds 200 cm in the east but it is much less in the west. The positive attributes of this region are the niche advantages in the form of temperate climate for livestock and crop production as well as the nature-based farming tradition which still prevails. Notwithstanding the many hardships and the difficult terrain, local communities have created agriculture opportunities with great determination. On the other hand, the states such as UP and Bihar falling in Northern plains are densely populated. These states witness wide variations in annual temperature, rainfall and other weather parameters.

Table 1: Human population and density in Northern Indian states

States	Human Population (millions)			Density (per sq km)
	Male	Female	Total	
J&K	6.67	5.88	12.55	124
HP	3.47	3.38	6.86	123
UP	104.59	94.99	199.58	828
UKD	5.15	4.96	10.12	189
PUN	14.63	13.07	27.7	550
HAR	13.51	11.85	25.36	573
RAJ	35.62	33	68.62	201
BHR	54.18	49.62	103.8	1102
India	623.72	586.47	1210.99	382

Source: Census of India 2011, G O I

The human population in the eight Northern states under reference together accounted for about 454.8 million (37.58%) of country's population. UP and BHR together account for over 25% human population as per 2011 census data. HP is the most sparsely populated state followed by J&K, UKD and RAJ (Table 1). Population density in the states other than these states is more than that of average population density of the country.

Table 2: Average size of holdings by women

States	(Hectares)				
	Marginal	Small	Semi-medium	Medium	Large
J&K	0.32	1.35	2.64	5.39	12.12
HP	0.33	1.39	2.69	5.59	14.63
UP	0.35	1.37	2.69	5.37	14.17
UKD	0.45	1.45	2.68	5.22	18.60
PUN	0.57	1.37	2.53	5.76	14.05
HAR	0.45	1.45	2.84	6.04	15.99
RAJ	0.48	1.42	2.80	6.08	16.35
BHR	0.25	1.26	2.59	5.13	12.31
India	0.36	1.40	2.66	5.68	15.83

Source: Agricultural Census 2010-11, Dept. of Agri. & Coop., GOI

Table 3: Distribution of operational holdings by women

States	(%)				
	Marginal	Small	Semi-medium	Medium	Large
J&K	90.57	7.55	1.89	-	-
HP	82.09	11.94	4.48	1.49	-
UP	85.45	9.93	3.70	0.86	0.06

UKD	78.89	15.56	4.44	1.11	-
PUN	33.33	22.22	22.22	22.22	-
HAR	50.52	19.07	17.01	10.82	2.58
RAJ	43.96	21.98	16.85	13.37	3.85
BHR	92.35	5.27	2.07	0.31	-
India	71.58	17.02	8.21	2.82	0.37

Source: Agricultural Census 2010-11, Dept. of Agri. & Coop., GOI

A closer look on tables 2, 3 and 4 reveals that that about 89-98% women farmers have either Marginal or small land holdings in the Northern states with the exception of PUN, HAR and RAJ where such farmers account for about 56,70 and 66% holdings, respectively. A major proportion of total cultivated area is operated by marginal and small farmers in these states barring PUN, HAR and RAJ where distribution of land holdings is skewed towards medium and large female farmers however it is negligible in PUN toward large farmers. Thus, majority of farmers in these states have larger holdings as compared to those in Northern hilly states such as J&K, HP and UKD. Needless to emphasize that majority of farmers these hilly states have meagre resources to sustain their livelihood in agriculture.

Table 4: Distribution of area of operated by women

	(%)				
States	Marginal	Small	Semi-medium	Medium	Large
J&K	65.96	21.28	10.64	2.13	-
HP	40.91	25.00	20.45	11.36	2.27
UP	51.05	23.31	17.09	7.70	0.84
UKD	47.06	29.41	16.18	5.88	1.47
PUN	9.09	13.64	27.27	45.45	4.55
HAR	10.89	13.37	23.27	31.19	21.29
RAJ	8.65	12.87	19.41	33.48	25.58
BHR	62.82	17.88	14.47	4.47	0.35
India	27.55	25.55	23.40	17.17	6.33

Source: Agricultural Census 2010-11, Dept. of Agri. & Coop., GOI

As per published data in Agricultural Statistics at a glance 2014, India's female working population was 150 million which was about 26 percent of total female population of which 12 per cent female main workers, 6 per cent female farmers and 10 per cent female agriculture workers. Whereas the female population in rural areas in the country has increased by 13% during 2011 over the previous census figures of 2001, the same in the urban areas has increased by nearly three times of rural population. Another interesting observation has been declined of female rural population in 2011 as against 2001 census in the states/ UT like Goa (-17.65%), Nagaland (-13.92%), Sikkim (-4.55%), Chandigarh (-66.67%), Daman & Diu (-25%) and Delhi (-55.81%) and increased in female population in others states/UT however Kerala was maximum

(52.89%). Among Northern states, the highest female rural population was reported in the state of UP followed by BHR, RAJ, PUN, HAR, J&K, UKD and HP while highest female urban population in state of UP followed by RAJ, BHR, PUN, HAR, UKD, HP and J&K (table 5). India's female working population was 150 million of which the eight Northern states accounted for merely 30% against total female working population besides female main workers, female farmers and female agriculture labours were 31%, 40% and 26% respectively of India's female main workers, female farmers and female agriculture labours in these states.

Table 5: Status of women in various Northern states, 2011. (Figure thousand nos.)

States	Female Population		Female Working Population		Female Main Workers		Female Farmers		Female Agriculture Labours	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
J&K	4333.6	156.7	901.1	226.5	216.7	121.7	450.5	29.3	122.5	10.9
HP	3065.7	317.0	1453.0	63.0	574.2	49.3	1148.6	7.3	70.5	1.5
UP	74324.3	21007.5	13598.1	2369.9	5726.5	1488.7	3470.7	75.7	5952.7	183.0
UKD	3517.9	1430.6	1158.9	161.5	6748.0	125.1	838.0	7.0	110.9	5.8
PUN	8250.7	4835.2	1183.4	639.8	689.2	497.1	170.4	10.8	328.6	20.4
HAR	7735.4	4121.4	1610.9	499.0	763.2	391.5	677.4	14.3	462.1	24.8
RAJ	24858.6	8138.8	10609.8	979.4	5103.5	710.9	6008.2	92.2	2720.8	86.2
BHR	44267.6	5553.7	8923.1	579.7	3735.9	353.0	1424.1	26.7	5658.1	116.8
India	405967.8	181616.9	121834.5	28042.9	67714.6	21582.5	35129.4	856.5	59064.2	2525.3

Source- Agricultural Statistics at a glance 2014, Ministry of Agriculture, Department of Agriculture and Cooperation, Directorate of Economics and Statistics, GoI, New Delhi.

Looking at the Percentage share of agriculture female labours in working female population figures (table 6), it is evident that the highest share of female rural agriculture labour was reported in the state of BHR followed by UP, HAR, PUN, RAJ, J&K, UKD and HP while highest female urban agriculture labour in state of BHR followed by RAJ, UP, HAR, J&K, UKD, PUN, and HP

Table 6: Percentage share of agriculture female labours in working female population

States	Rural labor agriculture (%)	Urban labor agriculture (%)	Total (%)
J&K	13.59	4.80	11.83
HP	4.85	2.38	4.75
UP	43.78	7.72	38.43

UKD	9.57	3.61	8.84
PUN	27.77	3.20	19.14
HAR	28.68	4.98	23.08
RAJ	25.64	8.80	24.22
BHR	63.41	20.15	60.77
India	48.48	9.01	41.09

Data source: same as table5

The Value of Output (VoP) per female from all agriculture and allied activities was highest in PUN followed by HP, HAR and J&K (table 7). The per female VoP from all agriculture and allied activities was also higher than national average in HAR, PUN, HP, RAJ, HP and J&K. Other hand the HAR state a derived reasonably high value of output from total agriculture *vis-à-vis* national average. The contribution of (VoP) per female from total fisheries in all northern states was lower than the other sub- sector of agriculture.

Table 7: Per female value of output of various sub-sectors of agriculture (2010-11)

(Rs. per annum)

States	Total Agriculture	Total Livestock	Total Forestry	Total Fisheries	Agriculture and Allied Activities
J&K	2471	116	937	73	4640
HP	4094	147	1145	31	6741
UP	1949	789	207	39	2984
UKD	2173	102	905	7	4104
PUN	5083	2457	299	65	7904
HAR	39548	1978	282	51	6267
RAJ	2393	1672	428	11	4505
BHR	833	615	132	64	1644
India	2304	95	334	168	3762

Source: Director General, Central Statistics Office, Ministry of Statistics and Programme Implementation Govt. of India, New Delhi

OPPORTUNITIES:

About 66 percent women in eight northern states engage in agriculture activities to ensure their families' food security and diversify income sources. They contribute to agricultural and rural economies with their labour and valuable knowledge of crop varieties, biodiversity and agricultural practices. Their agriculture work is often low-skilled and low-paid, but is particularly important in facing the adverse shocks that affect agriculture, such as droughts or floods. Women's share in the agricultural labour force ranges from about 20 to 26 per cent in northern states of India.

Women's increasing role in family farming could be an opportunity for enhancing their economic and social empowerment as producers, traders, workers and entrepreneurs. If women have the same access as men to extension services, technologies and loans, they can contribute to

improving the agricultural productivity of family farms, engage in processing and marketing activities, and increase their voice in household decisions.

Self-help groups and other organizations have a major role in building women's self-confidence, providing access to financial opportunities and training, and engaging in collective processing and marketing of agricultural and other value-added products. Agribusiness entrepreneurs can also benefit from well-organized family farming groups or cooperatives. When women control the additional income from their multiple activities, they usually spend it on their children (education, health, and clothing) and improved nutrition and well-being for their families.

CHALLENGES:

The limitations that are common to all family farmers are often exacerbated for rural women because restrictive customary norms on women's role in households and public life limit their ability to make decisions and seize opportunities.

Women in smallholder family farms have greater overall workloads than men, combining household responsibilities (cooking, cleaning, collecting fuel wood and water), care of children and the elderly, farming activities, and often non-farm activities such as market trading, value addition or labouring. Women typically work 12 hours per week more than men. This situation leads to time poverty and lost opportunities for women to attend training, invest in other income-generating activities or participate in community-based organizations.

CONCLUSIONS:

India is a developing country and having mixed economy, male dominated society and women are assumed to be economically as well as socially dependent on male members. However rural women are the major contributors in agriculture and its allied fields. Her work ranges from crop production, livestock production, forestry production, fisheries and poultry production in northern states. About 89-98 per cent women farmers have either marginal or small land holdings in the northern states with the exception of PUN, HAR and RAJ where such farmers account for about 56, 70 and 66 percent holdings, respectively. The female rural population has been declined in 2011 as against 2001 census in the states/ UT like Goa (-17.65%), Nagaland (-13.92%), Sikkim (-4.55%), Chandigarh (-66.67%), Daman & Diu (-25%) and Delhi (-55.81%) and increased in female population in others states/UT however Kerala was maximum (52.89%). The highest share of female rural agriculture labour was reported in the state of BHR followed by UP, HAR, PUN, RAJ, J&K, UKD and HP while highest female urban agriculture labour in state of BHR followed by RAJ, UP, HAR, J&K, UKD, PUN, and HP. Women entrepreneurs are having basic indigenous knowledge, skill, potential and resources to manage agriculture activities, but simultaneously women entrepreneurs faced lots of problems like lack of education, social barriers, legal formalities, high cost of production, male dominated society, limited managerial ability, lack of self-confidence, harassment and not fulfillment of rules and regulation etc. Various factors like positive reinforcement and negative reinforcement influencing women entrepreneurs.

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