

Gender Participation and Role of Women in Livestock Management Practices in Bundelkhand Region of Central India

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Abstract

The present work studies gender participation in crop production and animal husbandry in the villages of Bundelkhand region in central India. The effect of different socio- economic factors such as age, education and land holding on the participation of women in different activities per day was also analyzed. 260 farmers were surveyed through open-ended questions but for detailed study 120 farmers (including 90 women) were involved from the two villages in Jhansi (U.P.) and members of 11 SHGs working on livelihood issues at community land in Chardwari area of Orchha, Tikamgarh (M.P.). Mean scores were analyzed to get frequency and percentage for the level of participation.

It was found that most of the hard work in animal husbandry and crop production was done by women while men were involved in those activities where major decision making was needed. The majority of women respondents were in the age group 25-50 years (58%), illiterate (58%) and belonged to the category of marginal farmers (48%). A strong impact of socio- economic factors such as age, education and land holding was observed on the relative participation of farm women in different activities. In total they spent about 14-17 hours per day on different household and farm activities. The illiterate (16.35 hrs./day), landless (17.3 hrs./day) and women in age group of 25-50 years (16.5 hrs./day) were found to be more

involved in different activities per day. Results pertaining to these findings are discussed in this paper.

1. Introduction

According to the 2001 census of India, about 74% of women are involved in agriculture and allied activities out of a total female working population (Anonymous, 2005). The data shows that there is a sharp decline of 11% of women in the agriculture sector in comparison to the 1991 census. But, agriculture in India is still a family enterprise where the family participates as a unit and the share of women is half of the human resource in farming. The social, economic and cultural conditions of the area determine women's participation in home and farm activities. It also varies from region to region and within a region, their involvement varies among different farming systems, castes, classes and socio- economic status (Swaminathan, 1985). In most parts of the country, women of higher caste and socio-economic status are not allowed to participate in on-farm activities. In poor families, the women are the main performers in the field and income earned by them goes directly into the food basket of the family while the male's income goes in social taboos like drinking, smoking and gambling. But the role of women in economic and social development has not received due recognition so far in our society.

In this context efforts have been made by the authors to evaluate the gender participation of males and females in different on-farm activities and the impact of factors such as age, education and land holding on the participation of women in different household and on-farm activities in Bundelkhand region of Central India.

Bundelkhand region is located between 23° 8' - 26° 31' latitude and 78° 11' - 81° 31' E longitude. This region is characterized as a hot semi arid eco region with a growing period of 90-150 days. The annual rainfall which is often erratic ranges from 838.6 to 1251mm over the region. The diurnal variation in temperature is very high. This study involves farmers of two villages from district Jhansi (Uttar Pradesh) and 125 self help group (SHG) members from Orchha, district Tikamgarh (Madhya Pradesh) working on natural resource management and livelihood issues with a national NGO, Development Alternatives.

2. Materials and method

2.1 The study area

Figure -1: Location map of Bundelkhand region in Central India



2.2 Data Collection

260 farmers, 80-80 from selected villages and 100 from SHGs, were surveyed and due to incomplete information and inconsistency in data 120 farmers (involving 90 women) were selected for detailed study. Data was collected through participatory rural appraisal (PRA), focused group discussion and survey by empirical investigation. Survey was mainly done on a pre tested and modified format by open ended interviews about the gender participation of both males and females in different on-farm activities related to crop production and livestock management. The impact of factors such as age, education and land holding on relative time spent in different daily chores and on farm activities particularly by women was also documented. The age of respondents was studied at three levels - <25 yrs, 25- 50 yrs and > 50 yrs while the education level was distributed as illiterate, primary level and middle level or above. On the basis of their land holdings, farmers were classified as big (> 6 ha), small (1-2 ha), marginal farmers (<1h a) and landless farmwomen. A stratified random sampling technique was used for this purpose. The collected data was tabulated and statistical tools like mean and percentage were used to come to a logical conclusion.

3. Results and Discussion

3.1 Gender participation in farm activities

The different management practices carried out in crop production were identified as ploughing of fields, sowing of seeds, weeding, harvesting, threshing, winnowing and storage of grain and fodder at studied sites. It can be observed from Table1 that there was a division of labour in the performance of all activities. The ploughing of fields (86%) was the mainstay of men. However, 14% farmers preferred to involve women also, mainly for cleaning of the field. Activities like sowing of seed (72%), weeding (85%), harvesting (50%), winnowing (98%) and storage of grain and

dry fodder (40%) were mostly done by women. For harvesting (33%) and threshing (42%), both were found to participate.

Involvement of women in livestock management practices varied depending upon the type of management practices. Data presented in Table 1 shows that most activities like collection of fodder (88%), cleaning of animals and sheds (67%), feeding animals (79%), milking (46%) and traditional healthcare (67%) are performed by women. Milk disposal (85%), sale (96%) purchase of animals (100%), vaccination (100%) and breeding of animals are mainly done by men. For watering, 62% of men are involved. Because of drought and scarcity of underground water in Bundelkhand region, women have to fetch drinking water from wells situated in low lying areas from long distances. Due to the prevalence of grazing in the area, most animals drink water from community hand pumps or stored rainwater in ditches or ponds. Senior males (62%) of the family take animals for grazing in most families

3.2 Gender participation in decision making about farm practices

It was observed that in decision making regarding selection of crop for the season, procurement and sowing seeds of new varieties, breeds of animals, selling of fodder, milk and animals and procurement of fertilizers, the senior most males of the family are involved. Women were found to bring information regarding new technologies from aanganwadis and self help groups (SHGs) but for the adoption of new technologies, the final decisions were taken by male members of the family (Table 2). This may also be because of the low risk bearing capacity of farmers in that region due to droughts and low soil fertility.

3.3 Association between socio- economic factors and participation of farmwomen in different farm activities

In this study the association between socio-economic factors and participation of 90 women from a total sample of 120 was evaluated in different farm activities (Table 3). The percent composition of farmwomen in different categories of age, education and land holding is presented in Table 3. Of the women surveyed, 23%, 58% and 20% were of < 25 years, between 25 - 50 years and > 50 years of age, respectively. The majority were illiterate (58%), 31% had studied up to primary level and 11% were educated up to middle level. On the basis of land holding, the percentage of farmwomen in big farmer, small farmer, marginal farmer and landless were 13%, 22%, 48% and 17%, respectively.

3.3.1 Age and participation in different activities

The overall time spent by farm women on domestic and farm activities varied from 14-16 hours/day (Table 4). Women of the middle age group (25-50 years) spent most of their time performing activities related to household and farm as compared to those from other age groups. Farmwomen below 25 years of age were generally newly married, in their reproductive stage and because of certain social customs, did not participate actively in farm activities. Similarly, women above 50 years of age, because of health problems and other duties participated less in farm activities. These findings clearly show that the middle age group of farmwomen devoted more time to farm and household activities.

3.3.2 Education and participation in different activities

Data presented in Table 4 indicates that there was a strong impact of education level on the performance of farm women in different farm activities. The total time spent in household and farm activities by illiterate, education up to primary and education up to middle and above women was 16.35 hrs./day, 16.05 hrs./day and 15.45 hrs./day, respectively. Illiterate women spent

comparatively more time in different activities. Women educated up to middle and above spent more time in household activities and collection of fuel and fodder rather than in crop production and livestock care. This shows the ability of educated women in proper management of different activities that also took less time.

3.3.3 Land holding and participation in different activities

On the basis of land holding, a strong correlation was observed in their participation in different household and farm activities (Table 4). Landless laborers spent maximum (17.3 hours/ day) time doing different activities. Their major time was spent in the performance of farm and animal husbandry activities rather than household; this was mainly to generate extra resources by participating in income generating activities. The big farmwomen were found to spend more time (6.50 hours/day) in household activities because for farm and animal husbandry work, they totally depend upon landless laborers and marginal farmers. The major time spent by big farm women in agriculture activities was in winnowing, clearing and storage of grains and seeds. The small and marginal farm women comparatively spent more time in animal husbandry, collection of fuel and fodder than big farm women, mainly to save money being spent hiring labour

Conclusion

It can be concluded from the study that women were the main performers in crop production as well as animal husbandry activities in the area of study. However, for decision making on farm activities, it was mainly men who were involved. For effective and beneficial participation of women in any activity, it is imperative to enhance the level of education for better management and dispersal of knowledge in society.

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Table 1: Gender wise participation in farm activities of sample farmers at selected sites in Bundelkhand region (n=120)

Farm Activities	Relative participation (no. of sample farmers)		
	Female	Male	Both
1. Ploughing of fields	0 (0)	103 (86)	17 (14)
2. Sowing of seeds	86 (72)	28 (23)	16 (13)
3. Weeding	102 (85)	0 (0)	18 (15)
4. Harvesting	60 (50)	20 (17)	40 (33)
5. Threshing	20 (17)	50 (42)	50 (42)
6. Winnowing	98 (82)	5 (4)	17 (14)
7. Storage of grains and fodder	48 (40)	10 (8)	52 (43)
8. Collection of fodder from fields, community land	105 (88)	0 (0)	15 (13)
9. Procurement of feed and fodder from market	20 (17)	85	15 (13)
10. Cleaning of animals and shed	80 (67)	25 (21)	15 (13)
11. Feeding of animals	95 (79)	10 (8)	15 (13)
12. Watering	45 (38)	62(52)	13 (11)
13. Grazing	10 (8)	95 (79)	15 (13)
14. Milking	55 (46)	40 (33)	25 (21)
15. Milk disposal	5 (4)	102 (85)	13 (11)
16. Sale of animals	0 (0)	115 (96)	5 (4)
17. Purchase of animals	0 (0)	120 (100)	0 (0)
18. Traditional health care to animals	80 (67)	25 (21)	15 (13)
19. Vaccination and visits to animal hospital	0 (0)	120 (100)	0 (0)
20. Breeding of animals	0 (0)	120 (100)	0 (0)

Figures in parenthesis are percentage

Table -2: Relative participation in decision making on farm activities of sample farmers at selected sites in Bundelkhand region (n=120)

Farm activities	Relative decision making (no. of sample farmers)		
	Women	Men	Both
1. Selection of crops of the season	30 (25)	80 (67)	10 (8)
2. Selection and procurement of seeds of new varieties	35 (29)	85 (71)	0 (0)
3. Selection of breed of animals			
4. Storage of green fodder for lean period	40 (33)	80 (67)	0 (0)
5. Selling of surplus dry fodder	105 (88)	10 (8)	5 (4)
6. Procurement of dry fodder from market			
7. Selling of green fodder in market	35 (29)	75 (63)	10 (8)
8. Procurement of fertilizers	5 (4)	112 (93)	7 (6)
9. Selling of livestock			
10. Selling of milk	54 (45)	56 (47)	10 (8)
	25 (21)		0 (0)
	15 (13)	95 (79)	7 (6)
	56 (47)	98 (82)	12 (10)
		52 (43)	

Figures in parenthesis are percentage

Table 3: Distribution of farmwomen according to their socio-economic characteristic at selected sites

Character	Group (Age and Education)	No. of respondents*	Percent (%)
Age	< 25 years	21	23
	25- 50 years	52	58
	>50 years	17	20
	Total	90	100
Education	Illiterate	52	58
	Primary	28	31
	Middle and above	10	11
	Total	90	100
Land holding	Big farmers	12	13
	Small farmers	20	22
	Marginal farmers	43	48
	Landless	15	17
	Total	90	100

* 90 respondents were women in sample farmers of 120 analyzed

Table 4: Association between different factors and participation (Average time spent/day in hrs.) in different activities by Farmwomen at selected sites

Activities	Age group			Education level			Land holding			
	<25 years	25-50 years	>50 years	Illiterate	Primary	Middle and above	Big farmers	Small farmers	Marginal farmers	Landless farmers
Household activities	5.30 (37.2)	4.8 (29)	3.00 (22.0)	5.30 (32.4)	5.00 (31.15)	5.50 (36.0)	6.50 (46.4)	5.40 (34)	5.0 (30.3)	4.0 (23)
Agriculture	2.50 (17.5)	3.30 (20)	3.00 (22.0)	2.40 (15.0)	2.50 (15.58)	2.15 (14.1)	2.8 (20.2)	2.5 (16)	2.5 (15.2)	3.0 (17.3)
Animal husbandry	2.25 (15.8)	3.30 (20)	2.08 (15.1)	3.75 (23.0)	3.50 (21.8)	3.0 (19.70)	2.5 (18.5)	3.5 (22)	3.5 (21.2)	4.0 (23)
Collection of fodder	2.20 (15.43)	2.80 (18)	2.80 (20.32)	2.0 (12.23)	2.30 (14.33)	2.50 (16.4)	1.2 (8.6)	2.5 (16)	3.0 (18.3)	3.5 (20.3)
Collection of fuel	2.00 (14.0)	2.30 (13)	2.90 (21.04)	2.90 (17.73)	2.75 (17.13)	2.30 (14.84)	1.0 (7.3)	2.0 (12)	2.5 (15)	2.8 (16.5)
Total	14.25 (100)	16.5 (100)	13.78 (100)	16.35 (100)	16.05 (100)	15.45 (100)	14.0 (100)	15.9 (100)	16.5 (100)	17.3 (100)

(Figures in parenthesis show the % spent time)