

Farm Women Livelihood in Maize Production and Utilization in Bihar

Usha Singh¹ and Shilpi²

In Indian, agriculture is the main base of the national economy. It engages 64 per cent of its population and contributes to 26.1 per cent of the national income according to 2001-2002 a report. Agriculture employs both men and women participation in agriculture to grow, cultivate and manage farms to fulfill the basic need of food for human beings. The importance of women's participation in agriculture has been reported by the investigators (Bhatt, 1988; Lal, 1988; Anandlakshmy and Swaney, 1988) They are engaged both as cultivators and as agricultural labours, irrespective of their age, family size, landholding, caste and community. The extent of participation of woman is governed by environmental factors, personal attributes, knowledge and skills as well as family control.

In India, maize occupies a significant place amongst the coarse cereals. It has worldwide significance as human food, animal feed and finds diversified uses in large number of industrial products (Singh *et al*, 2003). It is one of the most important cereal crops in Bihar. Recent advances in maize production and processing technology have found increased production and industrial uses and processing of food to make diversified food products available in the market for human consumption. Since women's role in production of agriculture in general is well established, the present investigation has been felt essential to study the participation of women in production and utilization practices of golden grain i.e. maize in Bihar.

METHODOLOGY

To study women's role in maize production and its utilization, three districts were selected that had large area under maize cultivation. From each district, two blocks were selected after discussion with the District Agriculture Officer of the respective districts and survey of the blocks suggested by the Officer. Twenty-five

households that grow maize were randomly selected from two villages of each block. Thus, a total of 150 households were included in the study from three districts in the state. The woman head was interviewed with the help of interview schedule to elicit information on the women's participation in maize production and utilization practices. The maize growing districts selected were Begusarai, Vaishali and Samastipur. The blocks selected were Begusarai and Balia from Begusarai districts; Goraul and Patepur from Vaishali district and Jitwarpur and Pusa from Samastipur district.

RESULTS AND DISCUSSION

Data regarding the female participation in maize production practices has been presented in Table 1. The women from marginal families (having less than two hectares of land) only were involved in maize production practices. That too, only 1.8 per cent women were involved in harvesting practices as main worker. Other women were involved in farm activities as assistant or supervisor. As assistant, the percentage of women's participation was highest in seed sowing and harvesting practices (25.0% each) followed by weeding (23.20%), thinning (19.60%), irrigation (3.60%). Fertilizer application (2.70%), insecticide spraying and herbicide application (0.90% each). As supervisor, the highest percentage of women were involved in seed sowing and thinning (17.0% each).

Table 2 brings forth the female participation in maize post-harvest activities. It was revealed that in Bihar more than 90 per cent were involved as main worker in post harvest practices of maize such as cob shelling (92.0%), cob drying (96.7%) and grain storage (95.3%). But very few women (10.0%) had their involvement in marketing of maize.

¹Associate Professor, Department of Food and Nutrition, Rajendra Agricultural University, Pusa-848125. Bihar., ² Shilpi, Lecturer, Deptt. of Home Science, Kumari Mayawati Govt. Post Graduate Girls College, Badalpur, Distt : Gautambudha Nagar, (U.P.)

Female participation in livestock and non-farm activities is given in Table 3. It was found that the participation of women in Bihar was as main worker in activities namely household work (96.7%), grazing animals (91.3%), milking animals (90.0%), child care (88.7%), supervision (70%), selling of milk (67.3%), collecting cattle (47.3%), education of children (46%), engaged in social events (23.3%), attend village meeting (8.0%) and go to bank (5.3%). As assistant, the women's participation were in attending village meeting (82.0%), social events (76.0%), banking (27.3%), collecting cattle (20.0%), selling of milk (16.7%), education of children (12.0%), supervision (of animals) and child care (6.0% each), grazing and milking of animals (4.0% and 3.3% respectively). As supervisor, the women's participation were in activities namely collecting cattle (31.3%), supervision (of animals) (24%), education of children (14.0%), banking (9.3%), milking of animals (6.7%), grazing (of animals) and selling of milk (4.7% each).

Table 1: Female participation in maize production practices

Sl. No.	Activities	< 2 ha (N=112)		
		1*	2*	3*
1.	Land preparation	-	-	0.90
2.	Seedbed preparation	-	-	0.90
3.	Seed selection	-	-	9.00
4.	Seed sowing	-	25.00	17.00
5.	Thinning	-	19.60	17.00
6.	Irrigation	-	3.60	8.90
7.	Weeding	-	23.20	15.20
8.	Fertilizer application	-	2.70	6.30
9.	Insecticide spraying	-	0.90	7.11
10.	Herbicide application	-	0.90	7.10
11.	Harvesting	1.80	25.00	14.20

* 1=as main worker; 2 = as assistant; 3 = as supervisor

Table 2: Female participation in maize post-harvest activities (Per cent)

Sl. No.	Activities	(N=150)		
		1*	2*	3*
1	Cob shelling	92.0	3.3	4.7
2	Cob drying	96.7	10.7	2.6
3	Grain storage	95.3	1.3	3.3
4	Marketing	10.0	18.0	48.9

* 1=as main worker; 2 = as assistant; 3 = as supervisor

Table 3: Female participation in livestock and non-farm activities (Per cent)

Sl. No.	Activities	< 2 ha (N=150)		
		1*	2*	3*
1.	Grazing	91.3	4.0	4.7
2.	Collecting cattle	47.3	20.0	31.3
3.	Milking animals	90.0	3.3	6.7
4.	Supervision	70.0	6.0	24.0
5.	Selling of milk	67.3	16.7	4.7
6.	Education of children	46.0	12.0	14.0
7.	Household work	96.7	0.1	1.3
8.	Child care	88.7	6.0	1.3
9.	Go to bank	5.3	27.3	9.3
10.	Attend village meeting	8.0	82.0	-
11.	Engage in social events	23.3	76.0	-

* 1= as main worker; 2= as assistant; 3= as supervisor

CONCLUSION

It can be concluded that non-farm activities were a female domain for participation in Bihar This participation pattern should be kept in mind while planning training and intervention programmes for women of the area. Women's participation in maintaining the farm/livestock interface consumes appreciably more of women's time than their participation in crop's harvest, storage and processing. A large portion of the time that women commit to livestock production goes towards collection and taking manure to the fields and bringing green fodder from the grazing land.

REFERENCES

Anandalakshmy, S. and Swaney, H.K., (1988). Women's contribution to productive process in agriculture and impact of modernization In: International Conference on Appropriate Agricultural Technologies for farm women—future research strategy and linkage with development system—Abstracts. New Delhi: ICAR p.8.

Bhatt, E.R., (1988). Multiple occupations of farm women: Issues and implications In: International Conference on Appropriate Agricultural Technologies for farm women – future research strategy and linkage with development system—Abstracts. New Delhi: Indian Council of Agricultural Research p .

- Lal, B., (1988). Message from Union Minister of Agriculture **In:** Appropriate Agricultural Technologies for farm women – future research strategy and linkage with development system – Proceeding of International Conference, New Delhi: Indian Council of Agricultural Research & International Rice Research Institute, P-5
- Singh, R.P., Kumar, R. and Singh, N.P., (2003). Transformation of Indian Maize Economy: Different Perspective **In:** Maize Production in India: Golden Grain in Transition (Eds. Kumar R. and Singh, N.P.) New Delhi: Division of Agricultural Economics, IARI, P-1