

# Rural Women's Participation in Crop and Livestock Production Activities in Faisalabad–Pakistan

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## ABSTRACT

Rural women in Pakistan, under small holding system of farming, play a pivotal role in farming. They are actively participating in all range of activities related to crop production and livestock management. Rural women remain busy from dawn to dusk in various agricultural activities including pre-harvest, post-harvest and livestock management activities. Their participation is well dispersed but less perceived, because of insufficient data to show their active involvement in various agricultural activities. Keeping in view these facts, the present study had been designed to explore the extent of their participation in crop and livestock production activities in the Punjab, Pakistan. District Faisalabad was selected as the universe of present research study. A total of 125 rural women were selected through multistage random sampling technique and interviewed with well designed and pre-tested interview schedule, finally analysed by using SPSS. The results of the data analysis revealed that rural women's participation was high in harvesting of vegetables ( $M = 2.58$ ). On the other hand among post harvest activities women's participation was maximum in storage of cereals ( $M = 2.87$ ). Similarly, among livestock and poultry management activities rural women's involvement was maximum in cleaning of animal's sheds ( $M = 2.90$ ).

**Key Words:** Crop and livestock activities; Rural women; Participation

## INTRODUCTION

Women along men are the main actors in feeding the world. Because in many, if not most, rural societies women are, in fact, farmers; often bear the major or sole responsibilities for crop production. They work as mothers, household labourers and as social production workers (FAO, 1983; CTA, 1993; FAO, 1995; Felsing & Baticados, 2001; FAO, 2002). Throughout the world rural or farm women are involved extensively in agricultural operations. A number of research studies had proved their participation in various agricultural activities having complementary roles, sharing activities related to crop production and livestock production and management, fish farming and forest management with her male counterpart (Franzel & Helen, 1992; Saito & Spurling, 1992; Sharma *et al.*, 1997; Ahmad & Ismail, 1998; Lovenbalk *et al.*, 2003; Oladeji, 2004; Oyesola, 2004). However, in some parts of the world their participation in agricultural activities is higher than that of male person (Prakash, 2003; Tacio, 2003). Literature proved that their involvement in agricultural operations varies from country to country and region to region due to the change in social setup of every country (Ratna, 1991; World Bank, 1994; Karl, 1996; Huda, 1998; FAO, 1999; Ozcatalbas & Ozkan, 2000; FAO, 2002; Mohammed, 2002; Farrington & Deshingkar, 2003; Mwange, 2004). They are equally involved in pre-harvest agricultural activities like preparation of soil, planting, weeding, harvesting etc. and

post-harvest activities like storage of food grains (Saini & Koppen, 2001).

Like agriculture rural women actively participate in activities related to livestock caring and management (Huss-Ashmore, 1996; Sharma *et al.*, 1997; IFAD, 1997; Amuguni, 2001). Women in most of the parts of world reported that they work in livestock in a better way than men (Ishani, 2004). Male person tend to own large animals but female person have control over the large animals (Flintan, 2003). In small land holder household women earn income by raising livestock and they were more likely to spend it for food of the households (Mullins *et al.*, 1996; Dolberg, 2001). It is widely acknowledged that among all the livestock production and management women perform most of them (Tulachan & Karki, 2000). Women are responsible for milking animals and caring for the young stock and any sick animals (Bekure *et al.*, 1991). In livestock production women spend 2.2 h/day/household in animal care activities (Agarwal *et al.*, 1999).

Similar situation prevails in our beloved homeland, Pakistan, whose total population consists of 148.72 million people. Out of which 51.32% are male and 48.68% are female. Further about 49.09% females are residing in rural areas as compared to 50.91% males (Government of Pakistan, 2005). Majority of our population residing in rural areas, whose livelihood depend directly or indirectly on agriculture sector. Like other parts of the world, rural women in Pakistan are among millions of landless male

labourers and small farmers, who are fighting back rural poverty and toil hard to meet basic needs of food, clothing and shelter through their reliance on crop production. These women play a major role in agricultural production, livestock raising and cottage industries and remain busy from dawn to dusk to supply food to men in fields, fetching water, collect fuel wood and management of livestock. While working shoulder to shoulder with men, they really supplement their efforts in cultivation of the crops right from the preparation of soil to the post-harvest operations (Habib, 1996). They are equally efficient in seed bed preparation, tilling, sowing, fertilizer application, fodder cutting, weeding, interculturing, transplanting husking, threshing, drying, storing cereals and fodder, selling produce and harvesting of crops, fruits and vegetables (Chaudhary *et al.*, 1970; Ahmed & Hussain, 2004). Rural women often devote more time to these tasks than men do. Surveys have revealed that a woman works 12 to 15 h a day on various economic activities and household chores (ESCAP, 1997). According to another survey report women often devote more time from 16 - 18 h against 8 - 10 h by men in a day to these tasks (FAO, 2001). According to the report of UNDP (1997) rural women's participation rate in crop and livestock production activities is about 79.4%, which is higher than that of men (60.8%). Literature shows that rural women residing in rural areas of four provinces extensively involve in the production of major field crops as well as in fruits and vegetables (Shaheed & Mumtaz, 1990; FAO, 1997; Rashdi, 2002).

In Punjab province their participation is the highest in cotton production throughout the province. Picking cotton is exclusively a women's task (Qaudri & Jahan, 1982). About 35% of the women are engaged in pre-harvest field activities such as cottonseed preparation. In addition women are involved in various primary and secondary cotton operations, such as weeding and thinning (59.5%), manuring (29%), hoeing (52.5%), cotton cleaning (77%) and stick removing (72.5%) (Asghar, 1994). Actually their participation in production of major crops has been estimated to be approximately 30% in rice, 25% in cotton, 23% in sugarcane, 18% in wheat and 26% in vegetables (Ahmed & Hussain, 2004). A survey conducted in five districts of NWFP revealed that 82% of women participated in agro-based activities. They spent 45.0% of their time and were responsible for 25.0% of the production of major crops. They produced 30.0% of the total food (FAO, 1997).

Similar to crop production sector it is evident that women play a dominant role in the crop production and management activities and their contribution in this sector is more visible than in crop production. The role of women involves a wide range of tasks such as making feed concentrates, feeding, collecting fodder, grazing, cleaning animals and their sheds, making dung cakes, collecting manure for organic fertilizer, as well as milking, processing and marketing of animal products such as ghee and eggs (Khushk & Panhwar, 2006). All these activities related to

livestock caring and management takes up 35.0% of a village women's time and it is hard to walk around a village without seeing hens, goats, cows and buffaloes etc. (Taylor, 1985). A rural woman in Pakistan works 15.50 h a day, spending 5.50 h in caring for livestock, but provides only 50 min for the care of her own children (ESCAP, 1997). Poultry, sheep and goats are very important to rural women for being the only source of income fully under their control. Women are responsible for 60.0 to 80.0% of the feeding and milking of cattle. Over 90.0% of the rural families keep an average of 12 adult birds per family and hatch chicks under a brood hen. The women apply their own methods of rearing, brooding, breeding and management based on the experience handed down from the elder family members (Katuwal, 1991; ESCAP, 1996).

From the above mentioned facts it is crystal clear that women mostly participate extensively in crop production as well as livestock production and management. Although so many research studies had been designed to investigate the rural women's involvement in agriculture but there is still an inadequate database on 'what farm women do. To integrate women in any agricultural development project's design and implementation, it is essential to have a complete knowledge of 'what women do'. The single major reason attributed to this lopsidedness of development plans and policies is that economic contribution by women has not only been underestimated and un-recognized but very little has actually been written and known about what women do in different sectors of the national economy and particularly in agricultural sector (World Bank, 2003). So keeping in view the above facts, an attempt had been made by the researcher to explore the extent of rural women's participation in different agricultural activities related to crops, livestock and poultry production in the Punjab province, Pakistan.

## MATERIALS AND METHODS

The present research study was conducted in Punjab province, which comprises of 35 districts. Out of which one district, Faisalabad was selected as the study area, which is divided into five tehsils or sub-divisions namely Chak Jhumra, Faisalabad, Jaranwala, Samundari and Tandlianwala. Out of these five tehsils one tehsil Faisalabad was selected as the study area. The selection of tehsil Faisalabad is based on the fact that agriculture is the main occupation of many people residing in rural areas of the said tehsil. Almost all the important crops like Wheat, Sugarcane, Maize, Rice and Vegetables are successfully grown in the area (Government of Pakistan, 2000). Further approximately half of the population consists of females residing in rural areas, who are engaged in a wide range of agricultural activities related to crop production, livestock management and poultry raising.

All the rural farm women residing in tehsil Faisalabad served as the population of the study. A multistage sampling

technique was used for the selection of study respondents as adopted by Erabaugh *et al.* (2003). Tehsil Faisalabad consists of 58 rural union councils, out of which, five were selected through simple random sampling technique (Acharjee *et al.*, 2002). From each selected union council, one village was selected randomly and from each selected village, 25 farm families were selected at random. From each selected farm family, one woman, who was actively engaged in farming was selected, thereby, making a sample of 125 respondents. The data were collected during the year 2003 by the help of a well structured and validated interview schedule (Eck & Torres, 1996; Cho, 2002; Wingenbach *et al.*, 2003). The extent of rural women participation in agricultural activities were measured by using a three point continuum namely 'Mostly', 'Occasionally' and 'Not at all', which was assigned scores of 3, 2 and 1, respectively (Sailaja & Reddy, 2003). The ranking of activities was done on the basis of their mean value. The data, thus, collected were analyzed by using Statistical Package for Social Sciences (SPSS) (Davis *et al.*, 2004).

## RESULTS AND DISCUSSION

The data presented in Table I depicts that among pre-harvest agricultural activities women's participation in harvesting of vegetables was at the top (M = 2.58) followed by hand weeding/hoeing (M = 2.50), harvesting of crops (M = 2.46), thinning (M = 2.42), sowing of vegetable (M = 2.33), transplanting of rice (M = 2.30), plant protection operations (M = 1.82), sowing of crops (M = 1.81), broadcasting of seed/fertilizer (M = 1.78), threshing (M = 1.65), picking of cotton (M = 1.60), irrigation (M = 1.14), selection of variety (M = 1.09) and land preparation (M = 1.06). In the study area women's participation in picking of cotton fall on the rank order '11' among pre-harvest activities but in cotton producing areas of Punjab picking of cotton is exclusively the women task. The difference is due the reason that small area was under cotton cultivation in the research area. The results of the present negate the results of Nazar (2004) and Luqman *et al.* (2006), who reported that women's involvement in cotton picking was at the top assigning rank order '1'.

Throughout the developing and developing countries rural women exclusively involve in post harvest and food security activities. Keeping in view, the respondents were asked questions about their extent of participation in post harvest agricultural activities in the research area and the data in this regard is given in Table II shows that among post-harvest agricultural activities the participation of rural women was highest in storage of cereals with mean value 2.87 and rank order '1'. The other areas of rural women's involvement were winnowing (M = 2.73), cleaning of seeds (M = 2.57), drying of seeds (M = 2.50), grading and drying of vegetables (M = 2.41), storage of seed (M = 2.38), grading of seeds (M = 2.30), husking of corn (M = 2.30),

**Table I. Ranking of rural women's participation in pre-harvest agricultural activities**

Pre-harvest agricultural activities	Mean	SD	Rank
Harvesting of vegetables	2.58	0.69	1
Hand weeding/hoeing	2.50	0.74	2
Harvesting of crops	2.46	0.79	3
Thinning	2.42	0.72	4
Sowing of vegetable	2.33	0.77	5
Transplanting of Rice	2.30	0.71	6
Plant protection operations	1.82	0.91	7
Sowing of crops	1.81	0.73	8
Broadcasting of seed/fertilizer	1.78	0.88	9
Threshing	1.65	0.79	10
Picking of cotton	1.60	0.89	11
Irrigation	1.14	0.35	12
Selection of variety	1.09	0.28	13
Land preparation	1.06	0.25	14

Scale: 1= Not at all, 2= Occasionally, 3= Mostly

**Table II. Ranking of rural women's participation in post-harvest agricultural activities**

Post-harvest agricultural activities	Mean	SD	Rank
Storage of cereals	2.87	0.42	1
Winnowing	2.73	0.63	2
Cleaning of seeds	2.57	0.70	3
Drying of seeds	2.50	0.73	4
Grading and drying of vegetables	2.41	0.70	5
Storage of seed	2.38	0.71	6
Grading of seeds	2.30	0.71	7.5
Husking of corn	2.30	0.67	7.5
Peeling of sugarcane	2.09	0.85	9
Cleaning of cotton lint	1.45	0.75	10

Scale: 1= Not at all, 2= Occasionally, 3= Mostly

**Table III. Ranking of rural women's participation in livestock management activities**

Livestock and poultry management activities	Mean	SD	Rank
Cleaning of animals' sheds	2.90	0.30	1
Feeding and caring of Livestock/poultry	2.78	0.42	2
Watering of animals and poultry birds	2.72	0.64	3
Collection of manure	2.70	0.66	4.5
Milk processing	2.70	0.58	4.5
Fodder cutting and chopping	2.66	0.60	6
Making feed concentrate	2.64	0.66	7
Feeding of poultry	2.61	0.49	8
Making and Storage of dung cakes	2.51	0.83	9
Calf rearing	2.46	0.62	10
Fodder carrying	2.42	0.66	11.5
Milking of animals	2.42	0.75	11.5
Hatching of eggs	2.35	0.76	13
Making animals' sheds	2.12	0.77	14
Grazing of animals	2.02	0.83	15
Marketing of animals and animals' produce	1.49	0.69	16

Scale: 1= Not at all, 2= Occasionally, 3= Mostly

peeling of sugarcane (M = 2.09) and cleaning of cotton lint (M = 1.45). The results of the present research study confirm the results of some international studies like Saini and Koppen (2001). On national level similar results were also observed by Saghir *et al.* (2005), who conducted a research study in Barani areas of Pakistan.

Like crop production the other sector, where women actively participate is livestock and poultry management

activities. In the study area rural women's participation in cleaning of animal's sheds among livestock and poultry management activities was at the top on the basis of mean value (M = 2.90) having rank order '1' as presented in Table III. The other areas of their participation were feeding and caring of Livestock/poultry (M = 2.78), watering of animals and poultry birds (M = 2.72), collection of manure (M = 2.70), milk processing (2.70), fodder cutting and chopping (M = 2.66), making feed concentrate (M = 2.64), feeding of poultry (M = 2.61), making and Storage of dung cakes (M = 2.51), calf rearing (M = 2.46), fodder carrying (M = 1.42), milking of animals (M = 2.42), hatching of eggs (M = 2.35), making animals' sheds (2.12), grazing of animals (M = 2.02) and marketing of animals and animals' produce (M = 1.49). More or less similar results were also observed by Yaqoob (2004).

## CONCLUSIONS

From the results it was concluded that rural women's participation was high in harvesting of vegetables (M = 2.58) with rank '1' and their involvement was low in preparation of land (M = 1.06) having rank '14' among pre-harvest agricultural activities. Among post harvest activities women's participation was maximum in storage of cereals (M = 2.87) with rank '1' and minimum in cleaning of cotton lint (M = 1.45) having rank '10'. Similarly, among livestock and poultry management activities rural women's involvement was maximum in cleaning of animal's sheds (M = 2.90) with rank '1' but minimum in marketing of animals and animals' produce (M = 1.49) having rank '16'.

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(Received 06 June 2006; Accepted 18 June 2006)