

WOMEN: DYNAMIC PARTNERS IN LIVESTOCK PRODUCTION: REVIEW

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Women's involvement in livestock production and development has been a long-standing global tradition. In rural areas they are engaged in different tasks from dawn to dusk such as watering of farm animals, including feeding and watering of poultry, preparing feed for animals, cleaning the animal housing/sheds and making dung cakes for use as fuel. The proverbial saying that dairying is women's industry sounds true. It seems more true in rural areas. Dairy animals keep rural women busy for much longer time than any other animal-related task. After milking the animals, the milk is not sold as such, is processed to make curd, butter, "Lassi" and ghee from it. Some families may prepare cottage cheese as well. The sale of milk as such or ghee, Teddy goats, eggs and poultry birds fetch a lot of income for the rural households. No doubt it is largely the women-generated income. However, in urban areas the magnitude of involvement of women in poultry and livestock production is very small. A small percentage of women especially qualified in animal health and production traits are working in dairy industry, feed industry and diagnostic laboratories both as veterinarians and livestock production extension workers. More females should be encouraged to enter into higher education and vocational training in animal husbandry. Experience has suggested that employing more women qualified in this field would help solve most of the day-to-day problems encountered by promoters of livestock production. This will improve animal productivity resulting into increased availability of milk, meat, eggs, etc. so badly needed for better nutrition and health of the masses. Also, it will fetch more income for those involved in raising livestock and poultry, especially the rural women. Presently the data available concerning the role of women in livestock production is very scanty. However, with implementation of the suggestions given herein, a wider database would be available for further planned involvement of women in livestock production.

Key words: livestock production, women

Worldwide Historical Perspective: Women have been involved in livestock production since times immemorial, especially in Asian countries where domestic animals have been an integral part of family-farming system. Although livestock production patterns differ in different ecological zones and social systems but women's role has always been a central one regarding the care and management of farm animals (including poultry) and preparation of their by-products (Sharma, 1988). With large and small ruminants such as buffaloes, cattle, goat and sheep, women have more to do with their physical care and their products than in the management of overall husbandry (Stephens, 1991). Dairying was originally developed as a women industry (Chavangi and Hanssen, 1983). Women have been milking the cows. Then they made butter and cheese in Europe while butter, ghee and yoghurt in Asia and by doing so they have been earning cash for their families (Sharma, 1988). Later mechanization was introduced but women continued their association with the industry as workers in dairy laboratories/plants, research centres and in some countries in the farm extension services (FAO, 1988; Sharma, 1988 and Sachs, 1991). Beyond production the role of women in the processing and marketing of livestock products varies according to cultures and practices within individual countries.

In colder regions such as the Himalayan mountain areas

of Bhutan, India, Nepal, Pakistan or in the northern parts of China, Korea and Mongolia, the hair or wool from animals is processed in the dexterous hands of women. Old women spin as they watch the world go by and most women knit, felt or weave the cloth. They later stitch into garments, shoes and blankets. Young women graze the herds or cut and fetch fodder, cut and pluck the hair and wool, wash, comb and tease it ready for spinning. Women of all ages dye it and use, sell or exchange it for things they need (Stephens, 1991).

In Nepal, goat raising projects have proved successful in income generating activities for poor rural women. Women devote 55% of their time to household works and 25-30% to livestock production (Kaztawal, 1991). On average women worked at farm 9.9 hr a day as against 5.8 hr a day by men and about 50% of total income was earned by women (Mahi et al., 1992), while in Bangladesh chicken raising projects have elevated the women from destitution into a position as major contributor in a self-reliant household economy. All over India and Pakistan, poor rural women have survived and even prospered through co-operative dairying activities (Stephens, 1991). Small animals and poultry can provide important sources of protein for rural families but for the poor families, cash is probably more important than their own dietary needs (Sachs, 1991). Several case studies have shown that women producers sell all or almost

all of the eggs from poultry for cash, leaving their family members short of protein and rich foods (Zdybel, 1983;

FAO, 1988).

Female dairy extension workers in India have been found more effective than men in persuading dairy farmers to improve their method for hygienic milk production (Viswanathan, 1989). With few exceptions, however, women are a tiny minority of professional veterinarians and technicians in animal husbandry. In Thailand, training given to illiterate men was not very effective, since they forgot much of the subject matter before they could teach it to their wives who did the work (Natpracha, 1989). The women of rich families do not work themselves but they hire workers, whereas most of the rural and tribal women do most of their work themselves (Ranekar, 1992).

The participation of women in higher veterinary education varies widely. In 1970, it was found that the number of female veterinary students enrolled at university level was below 5% of the male students in countries such as Pakistan, India while their number was much higher in Sri-Lanka and Thailand where they comprised over one-third of all veterinary students. By 1984, girls constituted 45% (69 out of 143) of university level veterinary students in Sri-Lanka, the highest proportion in the region. However, it has been observed during recent years that in Pakistan, large numbers of girls students are getting interested to enter into animal husbandry and veterinary professions. Among factors for their low representation in countries like Pakistan are socio-cultural taboos, unattractiveness of career in rural areas, especially for the females raised in urban areas. In view of these hurdles, the admission of girl students to the said professions is still restricted to 8-10% of total admission to veterinary and animal husbandry courses.

Because of veterinary orientation of those who are presently at the helm of affairs, the Govt. Dept. of Livestock and Dairy Development, discourages the animal husbandry graduates (well trained as livestock production and extension workers) to avail the opportunity of getting jobs in that Dept. Women animal husbandry graduates are especially suffering on this account. However, poultry industry and animal feed industry in private sector and nearly half a dozen other Govt. research and development organisations are beneficially utilizing their services, including those of women animal husbandry graduates.

Women Participation in Livestock Production: Progress is always based on the equal participation of men and women in almost all national activities. An impression prevails that women in the rural areas of Pakistan are not involved in so called "Gainful Employment". The statistics presented are quite misleading because women in our villages while working on family farms are not paid in cash and thus they do not figure as full-time workers. But the fact is that women in rural areas work as much as men or some times more than them (Bettles, 1980; Safdar, 1999). It has

been found that the percentage of females in the category of so called unpaid labourers was between 40-57% in Muslim countries (Yousaf, 1977). Women in villages work 15 hr daily in contrast to men who put in 9 hr daily (Anwar and Bilquees, 1975; Safdar, 1999). They spend 7-8 hr for household work and 6-7 hr for animal care and management (Zdybel, 1983). On average women work 40 hr a week to take care of farm tasks (Rathge et al., 1985) and remain engaged in household/non-household jobs for 16-18 hr daily from dawn to dusk (Baluch and Qammer, 1988; Carpenter, 1991). They spend 5-8 hr for care of animals (Gulfam, 1991). An average village women in Pakistan not only performs normal household works such as cooking, cleaning, mending clothes and child bearing and rearing (Kazmi, 1999) but also participates in cutting and fetching fodder, attending animals/poultry birds, milking the animals, fetching water, making yoghurt, butter, "Lassi" and ghee. In addition, she makes dung cakes for use as fuel (Zdybel, 1983; Rathge et al., 1985; Baluch and Qammer, 1988; Mahjabeen and Masood, 1989).

Backyard poultry production is particularly assigned to women which contributes a lot to family nutrition and health. It is also a source of family income; It was estimated that about 40% poultry products come from villages which are exclusively produced by women as a side business. Due to the location of rural poultry in remote areas, several transactions are involved before the product reaches the consumer. In the hot summer months most of the eggs may be spoiled in transit resulting in a loss of income to the family. It is customary as well as a requirement of almost all rural households to keep a small poultry flock (5-25 birds) for domestic consumption and for sale of eggs and birds. Nearly 50% of these households also keep 2-3 Teddy goats. Both the species are managed by women except that in the evening while coming back from their farms men bring some fodder for the goats and their kids. These animals make a reasonable contribution to the family income. Safdar (1999) reported that in NWFP, poultry-related sales in the form of eggs and birds, in some cases account for 50-60% of poor families weekly cash income.

Thus in our farming system, the rural woman is a central part of the human ecosystem in which resources are produced, bought or gathered and transformed for use or sale by family. Livestock form a part of this ecosystem and women's role especially in rural areas extends from her labour, contribution through participation in decision making about the choice of animals and poultry, their feeding, housing and the use of animal products and marketing (FAO, 1988; Jamal, 1994; Nasreen et al., 1994; Mann et al., 1997). Poor women are often seen in local markets selling "Surpluses" from domestic livestock production. A few eggs may be used to make cakes or cookies for sale. In many cases sale of home-spun wool also provides economic security

in the event of family emergencies (Stephen, 1991). However, mechanization has effected certain changes in the patterns and processes mentioned above (Sharma, 1988).

In 1998, a study was conducted in Faisalabad district to determine female participation in different livestock activities. The findings are given in Table 2.

In Pakistan, livestock and poultry contribute a lot to the monthly income of a rural family. Besides many urban area females are also engaged in such activities as caring of animals, their milking, poultry raising and selling of milk, eggs, birds, etc. Hundreds of thousands of dairy animals kept in urban residential areas have recently been removed to outskirts (beyond municipal limits) of several big cities in Punjab (Pakistan) (Anonymous, 2000). This campaign is a part of a long awaited programme to keep the cities clean. This cleanliness drive no doubt has evident advantages. However, as a consequence, the role of urban women in production and care of dairy animals in Punjab would be further subdued.

Estimated income per month obtained from livestock/poultry sources as indicated by female respondents of certain rural areas of Faisalabad district is given in Table 3. Monthly income obtained by rural women from livestock/poultry sources is no doubt very meager but it is in spite of the fact that so far rural women have poor information about modern animal husbandry practices and veterinary care.

Table 1. Lady veterinarians and animal husbandry graduates employed by Livestock and Dairy Development Dept., Government of Punjab, Pakistan

Field	No. employed
Directorate of animal health	38
Directorate of bread improvement	11
Directorate of livestock farms	2
Directorate of research	34
Total	85

Source: Anonymous, 2000

Table 2. Distribution of female respondents according to their participation in livestock activities

Activities	Participation		No Participation	
	(No.)	(%)	(No.)	(%)
Cleaning sheds	127	84.66	23	15.34
Watering	128	85.33	22	14.67
Milking	126	84.00	24	16.00
Preparing ghee	144	96.00	6	4.00
Egg collection	142	94.66	8	5.34
Selling products	55	36.66	95	63.34

Source: Rasheed, 1998.

Table 3. Distribution of the respondents according to their monthly income (Rs.) from livestock sources

Sale Items	No income		Upto 300		301-600		601-900		901 +	
	(No.)	(%)	(No.)	(%)	(No.)	(%)	(No.)	(%)	(No.)	(%)
Milk	92	61.3	3	2.0	12	8.1	7	4.7	43	28.7
Butter	115	76.7	14	9.3	18	12.0	1	0.7	2	1.3
Ghee	106	70.7	14	9.3	27	19.9	1	0.7	2	1.3
Eggs	123	81.3	5	3.3	17	11.3	2	1.3	0	0.0
Meat	140	93.3	0	0.0	4	2.7	2	1.3	0	0.0
Animals	105	70.0	2	1.4	0	0.0	22	14.7	21	13.9

Source: Rasheed, 1998.

Suggestions to Improve Present Situation in Pakistan: Following measures are suggested to avoid neglect of women in livestock sector:

" There is a need to motivate and guide women who are directly involved in animal husbandry through extension and training programmes. Their access to capital inputs and services needs improvement.

" There is a need to encourage women to join hands in furthering the adoption of modern animal husbandry practices and to form and strengthen livestock cooperatives

and group ventures.

" It should be mandatory to reserve a reasonable number of posts for qualified women to work as extension staff to possibly promote scientific livestock raising by rural women. Mechanisms may be evolved to make the livestock extension service more attractive for women.

" Training curricula in animal sciences should be reviewed updated not only to address the specific needs of women farmers, but to conscientize men to the role of women and to the conditions and constraints under which they

live and work. In field level training and through extension, rural women be imparted skills and knowledge in the management and feeding of young animals, the hygienic production and processing of milk and milk products, accurate information on vaccination against and treatment of various animal diseases and the care, storage and marketing of animal products as well as the use of by-products for income generation or household use as may be appropriate.

* At higher academic and research institutions there is a need for a new research agenda which should take into account the dynamic role of women in the livestock sector.

* At the institutional level, certain structural adjustments are also needed. Experienced female animal scientists need to be recruited against positions of influence and management, not only as specialists but also to work in integrated rural development programmes and projects.

* Among tribal societies in Pakistan (e.g. Baluchistan and NWFP), traditional patterns of livestock production need to be studied to accommodate indigenous knowledge, skill and technologies in livestock development where women play a major role. Their productive and reproductive responsibilities should be documented in the whole farming system, so that their special needs in livestock development can be identified.

* Provision of insurance cover against disasters caused by the death of one or more buffalo(es), cow(s) deserves more attention. It becomes all the more important when such animal(s) is(are) owned by a landless rural poor, more so when owned by a rural poor woman.

* It should be a mandatory requirement for all rural development programmes to focus particular attention on livestock development.

* International agencies such as FAO, IFAD, ADB and the World Bank desire enhanced participation of women in their livestock development projects.

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