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***RESEARCH ARTICLE*.....**

Relative contribution of rural women to animal husbandry activities in Haryana

ANIKA MALIK, GAUTAM **AND** KAMALDEEP

ABSTRACT..... India is predominantly an agrarian society where animal husbandry forms the backbone of national economy. Many of the important tasks in animal husbandry are performed by women besides their responsibilities as home makers and caring of animals is considered as an extension of domestic activities. This study emphasized the relative contribution of rural women in various animal husbandry activities. The study was conducted in Hisar district of Haryana state. 30 women farmers were chosen from each selected villages thus constituting a sample size of 120 by simple lottery method. Gender inequality in terms of contribution to animal keeping activities was assessed. The role performance was assessed by documenting the contribution of both men and women family members in the routine activities (feeding, management, dung disposal and milking) and non-routine activities (health-care, breeding and animal marketing) associated with animals. The average time spent in the animal husbandry activities by a household was 6.76 hours. Out of this women farmer's contribution was 5.17 hours. The contribution of the male members of the family was lesser, and was restricted for most part to the feeding and management activities. They contributed a little in the dung and milk management. Women reportedly contributed significantly (64 % of the feeding, 76 % of the management, 100% in dung disposal and 89% in the milking of animals). And in case of non-routine activities there were distinct roles adopted by men and women. The roles appear strictly gender demarcated with women being assigned the activities that have to do with routine care of animals at home. It appears that patriarchal system is prevalent and is facilitating male dominance.

KEY WORDS..... Livestock, Rural women, Role performance

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INTRODUCTION.....

In this process of domestication, women have played key roles. Based on ethnographic observations about women nursing young animals, scientists believe that women played a major role in the taming of young stock and in bonding between humans and young animals during the early phases of domestication (Serpell, 1989 and Uerpmann, 1996). Köhler-Rollefson and Rollefson (2002) consider it logical to assume that they were also the world's first livestock owners. Even today their

contribution to animal rearing is significant. Women compose not only around 70 per cent of the poor, they also make up the majority of poor livestock keepers. It is estimated that 600 million poor livestock keepers in the world, around two-thirds are women and most live in rural areas (FAO, 2011 and Thornton *et al.*, 2002). Women play significant and crucial role in agricultural development and allied fields like dairy farming, mushroom production, pisciculture etc. Various micro level studies have highlighted the significant role women play in dairy production (Jain and Verma, 1992; Singh *et al.*, 2005 and Yadav *et al.*, 2005). Yet, when it comes to the sharing of benefits, it usually appears to be tilted in favour of men. For example, Sangwan *et al.* (1990) opined that there is a distinct sphere of participation amongst men and women in farm and dairy sector, the men being the planners and women actually doing the activity. Similarly, Matthewman and Ashley (1996) after a study in India concluded that livestock extension is generally provided by men for men, despite the key roles that women play. Dairy farming is major occupation of rural women in Haryana. The present investigation was designed to study the role and extent of involvement of rural women in various animal husbandry activities.

RESEARCH METHODS.....

Present study was conducted in Hisar district of Haryana out of which two blocks were selected randomly (Aghroa and Hisar-1). Two villages were then randomly chosen from each of the two blocks using simple lottery method. The selected villages were Kuleri and Chickenwas (Agroha) and Kaimri and Satrod kurd (Hisar-I). In the present study, the animal husbandry was restricted to dairy farming (*i.e.*, those respondents were considered who rear cattle and buffalo). 30 women farmers were chosen from each selected villages thus constituting a sample size of 120 by simple simple lottery method The sampling plan is represented in the Fig. A.

The role performance was assessed by documenting the contribution of both men and women family members

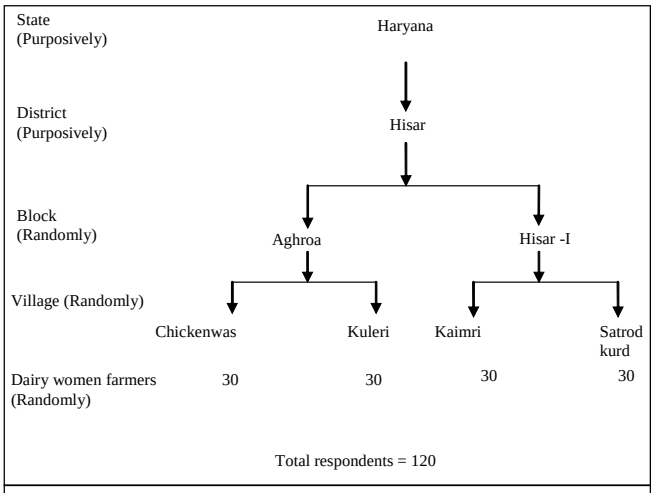

Fig. A : Sampling procedure followed for selection of respondents

in the routine and non-routine activities associated with animal husbandry. The contribution to routine activities (feeding, management, dung management and milk management) was assessed in terms of time spent by women and their male counterparts for each activity. On the other hand, the contribution to non-routine activities (like ensuring animal healthcare, breeding services and animal husbandry marketing) was assessed in terms of percentages.

RESEARCH FINDINGS AND ANALYSIS.....

The findings of the present study as well as relevant discussion have been presented under following heads :

Role performance of respondents in various routine activities of animal husbandry :

The respondents were asked about time they spent in various animal husbandry rearing activities. The activities were divided into different classes *viz.*, Feeding, Management, Dung Management and Milk Management. The average time spent (in hrs) by both women and men members of the family in each identified activity was solicited (Table 1). The average time spent

Table 1 : Average time spent in routine animal husbandry activities

Sr. No.	Activity	Men (hrs)	Women (hrs)	Total (hrs)
1.	Feeding	1.04	1.88	2.92
2.	Management	0.42	1.37	1.79
3.	Dung management	0	0.84	0.84
4.	Milking management	0.13	1.08	1.21
5.	Total	1.59	5.17	6.76

in the animal husbandry activities by a household was 6.76 hours. Out of this women farmer's contribution was 5.17 hours which is about five time more as compared to men. The contribution of the male members of the family was lesser, and was restricted for most part to the feeding activities and to a certain extent in management. Their contributed a little in the dung management and milk management. So it is concluded that about 76 per cent role in Animal Husbandry is performed by women. Others have also highlighted the disparity in the contribution. Arshad *et al*. (2010) concluded that a rural woman in Punjab works almost 15 hours a day, spending about 5-6 hours in caring for livestock. They remained busy in activities like: cutting fodder, cleaning sheds, milking dairy animals, processing animal products and looking after the health of the herd. Rathod *et al.* (2011) also documented that 90 per cent women were involved in milking while 89.16 per cent women cared for newborn or young animals.

A closer look at the activities performed by men and women in animal husbandry would reveal the similar division of work. On the whole, women members spent 1.88 hrs out of 2.92 hrs. in feeding activities which is about 29 per cent higher than the time spent by their counterparts (Table 2). As is evident from the Table 3, three activities *viz.*, cleaning of animal sheds and water troughs and mangers, bathing of animals, shifting them from one shed to another, preparation of bedding material and smoking for insects were largely being performed by women members of the family. On the whole, women

Table 2 : Average time spent in feeding of animals (Item-wise)

Sr. No.	Activity	Average time spent (min)			Percentage	
		Men	Women	Total	Men	Women
1.	Harvesting of fodder	24.67	30.06	54.75	55	45
2.	Bringing fodder from field.	24.08	11.88	35.95	73.33	26.66
3.	Chaffing of fodder.	8.21	7.62	15.83	48.33	51.66
4.	Preparation of feed for animals.	2.46	33.88	36.33	6.66	93.33
5.	Preparation of concentrate meal for animals.	0.42	11.53	11.94	1.66	98.33
6.	Offering water and feed to animals.	2.79	17.68	20.47	11.66	88.33
7.	Bringing feed from market.				94.17	5.83
8.	Total (hrs)	1.04	1.88	2.92		

Table 3 : Average time spent in management of animals (Item-wise)

Sr. No.	Activity	Average time spent(min)			Percentage	
		Men	Women	Total	Men	Women
1.	Cleaning of animal shed.	0.13	18.65	18.77	0	100
2.	Cleaning of water troughs and mangers.	0.17	6.82	6.98	2.5	97.5
3.	Bathing/Cleaning of animals.	4.34	25.55	29.89	15.83	84.17
4.	Shifting of animals from one shed to another or in open area.	1.42	11.68	13.22	12.5	87.5
5.	Taking animals to pond for drinking water.	12.67	9.25	21.79	43.33	56.67
6.	Taking animals to pasture land for grazing.	3.96	1.35	5.08	94.17	5.83
7.	Preparation of bedding material for animals.	0.25	5.98	6.23	5.83	94.17
8.	Grooming of animals.	1.87	0.13	1.99	98.33	1.67
9.	Smoking for prevention of insects.	0.67	2.73	3.4	7.5	92.5
10.	Total (hrs)	0.42	1.37	1.79		

Table 4 : Average time spent in dung management of animals (Item-wise)

Sr. No.	Activity	Average time spent (min)			Percentage	
		Men	Women	Total	Men	Women
1.	Collection of dung.	0	15.21	15.21	0	100
2.	Preparation and storage of dung cakes.	0	17.33	17.33	0	100
3.	Disposal of infected litter material.	0	18	18	0	100
4.	Total (hrs)	0	0.84	0.84		

members spent 1.37 hrs out of 1.79 hrs in the management activities which is about 53 per cent higher than the time spent by men. All the activities of dung management were solely taken care of by the women members of the family (Table 4). Table 5 reveals three activities *viz.*, milking, boiling of milk, cleaning of milk utensils, churning and preparation of milk products were largely being performed by women members of the family. On the whole, the women members spent 1.08 hrs out of 1.21 hrs in the milk management activities which is nearly 79 per cent higher than the time spent by men.

Role performance in non-routine activities:

It was acknowledged that there are some activities associated with animal rearing which are not required to be performed on daily basis. Three activities *viz.*, animal health-care, breeding and marketing were explored. There are clear-cut roles that men and women have taken up. Activities like 'taking animals to veterinary clinic' and 'bringing medicines' were largely being performed by male members of the family (Table 6). Breeding of animals by mating or artificial insemination was usually taken care of by male members of the family (Table 7). Table 8 reveals that selling of milk was largely being performed by women members of the family. On the other hand, sale and purchase of animals appeared to be the domain of male members of the family. On the other hand, activities performed by men include-bringing fodder and feed, taking animals for grazing, grooming, taking animals to veterinary clinic, and ensuring breeding of animals. These roles appear to have evolved in patriarchal

Table 5 : Average time spent in milk management (Item-wise)

Sr. No.	Activity	Average time spent(min)			Percentage	
		Men	Women	Total	Men	Women
1.	Milking	8.04	34.25	42.29	19.17	80.83
2.	Boiling of milk.	0	5.97	5.97	0	100
3.	Cleaning of utensils for milking.	0	10.48	10.48	0	100
4.	Churning of milk.	0	7.84	7.84	0	100
5.	Preparation of milk products/ghee.	0	6.38	6.38	0	100
6.	Total (hrs)	0.13	1.08	1.21		

Table 6 : Per cent contribution of men and women in animal health-care (Item-wise)

Sr. No.	Activity	Men (%)	Women (%)
1.	Health care of animals (like dehorning, de-worming, etc.)	50	50
2.	Care of sick animals.	36.67	63.33
3.	Care of newborn calves.	25	75
4.	Feeding of colostrums to newborn calves.	32.5	67.5
5.	Taking animals to veterinary clinic for vaccination and treatment.	92.5	7.5
6.	Bringing medicines from veterinary shops.	93.33	6.67

Table 7 : Per cent of men and women in breeding management (Item-wise)

Sr. No.	Activities	Men (%)	Women (%)
1.	Care of pregnant animals in advanced stages.	30	70
2.	Breeding of animals by natural method or by A.I.	97.5	2.5
3.	Post calving care	40	60

Table 8 : Per cent of men and women animal husbandry marketing (Item-wise)

Sr. No.	Activity	Men (%)	Women (%)
1.	Selling of milk.	40	60
2.	Keeping milk records.	50	50
3.	Money collection.	46.67	53.33
4.	Sale of Calf, heifer and milch animals	93.33	6.67
5.	Purchase of calf, heifer and milch animals	93.33	6.67

system in earlier times perhaps in keeping with the idea of masculine and feminine.

It appears that there is clear-cut work division in the family. The women members have been entrusted the role of feeding, watering, cleaning, bathing and milking the animals, etc. Why the women have acquired or been assigned specific role in the society has been a subject of enquiry since long. It is notable that Boserup (1970) had earlier pointed out that gender roles in farming had a distinct geographical pattern. Basant (1987) has earlier suggested that deep tillage of land reduces the need for transplanting, fertilizing and weeding operations, which are typically performed by women. Murdock and Provost (1973) in a cross-cultural research on sexual division of labour, provided codes on sexual division of labour for 50 tasks for the Standard cross-cultural sample. In explaining sexual division of labour, they appealed to a masculine advantage for tasks requiring greater physical strength or "brief bursts of excessive energy," and a feminine advantage for tasks not requiring long absences from the household. In a brilliant review on changing role of women in models of human evolution, Fedigan (1986) argued that one recurring theme in accounts of human evolution from Darwin to Lovejoy is that early men were achievers, the producers and technological innovators, whereas early women were limited by the reproductive demands of bearing and rearing children.

The question today is why it (the roles) continues to be the same despite the fact that there have been drastic changes in the way we do agriculture especially with the advent of mechanization. Wood and Eagly (2002) throw some light on this question by arguing that the origins of sex differences are best understood from a biosocial perspective that gives priority to the interaction between the bodily specialization of each sex and the attributes of societies' economy, social structure, and ecology. They cite others (Pratto, 1996 and Sidanius and Pratto, 1999), to suggest that dominant groups tend to maintain their hegemony by creating institutional practices and fostering legitimizing beliefs that support the status quo. Furthermore, it is argued that men's political and economic power in patriarchal social structures is perpetuated through male privileges that are incorporated into family structures, organizational practices, and political processes (Ibid). Therefore, it is unlikely that there will be significant changes in the role performance in near future. Taking a normative view, it is suggested that expanding the economic opportunities for women and strengthening their rights over resources will pave way for a more egalitarian society.

Conclusion :

It may be concluded that the rural women play an important and substantial role in dairy farming. The women family members spent 5.17 hrs out of total average of 6.76 hrs for animal husbandry activities. They are actively involved in various routine and non-routine activities of animal husbandry. Interestingly, it appears that there are well defined roles for both men and women. Say for example, the dung management is exclusively taken care of by the women members. Contrarily, the breeding, sale purchase of animals and visiting veterinary hospital are the areas where men dominate.

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