chapter five

Gender and Livestock

In view of women's significant role in livestock production, it is vital to address gender concerns in the sustainable management of livestock in mixed crop-livestock farming systems and in marketing. It is believed that, without the involvement of women farmers from the very beginning, no livestock development programme can be expected to succeed. Unfortunately, there have been only a few studies carried out on gender issues in relation to livestock systems in the Himalayan areas. Based on these limited studies, this chapter discusses the major gender-related issues.

Gender Division of Work

In the mountain areas, contribution of labour is the most important factor in livestock management and production. Sex and age both play a critical role in determining labour allocation. Generally, women perform activities such as collecting green grasses/weeds (including fodder tree forage), feeding animals, grazing animals, cleaning animal sheds, and composting animal waste. Elderly women milk the animals and prepare butter and ghee. Children of both sexes (although mostly female) graze the animals. Elderly males make decisions regarding the breeding of animals and marketing of animal products.

In the mid-mountain areas, where paddy is the dominant summer crop, the daily labour for collecting fodder grasses decreases sharply from June to September. Two factors contribute to this decrease. First, paddy planting requires the most work, so labour is diverted from livestock production to planting out rice. Secondly, green grasses and field weeds are found in abundance, and hence a reduction in the time required to collect them. The

decrease in labour allocated to green fodder collection from October to December is also attributable to the paddy harvest time when land must be prepared and planted with winter crops such as wheat and mustard. In contrast, the sharp increase in labour allocated to grazing from February to June is due to the fact that farmers are relatively free from cropping activities. Moreover, green grasses/weeds are not available to be cut and carried.

Collection of Green Grasses/Weeds and Tree Fodder

With the first rainfall in May, native grasses and weeds begin to emerge. Green grasses/weeds are plentiful along the village roadside, field bunds, water canals, and in communal grazing areas during the summer. They continue to be available for six to seven months per year, although the quantity available declines sharply in the latter months. Forage from fodder trees is available during the dry period of the year when there are no green grasses or weeds. Fodder trees are grown around homesteads, on field bunds, and at roadsides. The number of hours spent by women farmers every day in this activity is significantly higher than the number of hours spent by men. The labour hours fluctuate from season to season, depending on the peak and lean period of crop production activities. Women usually feed the livestock. In some months, mainly during the peak period for crop production, men also allocate time for feeding animals.

Grazing

The maximum hours spent per day on grazing animals takes place during the first two months of the year, Baisakh–Jestha (mid-April to mid-June), the dry period of the year and during the last three months of the year, from Magh–Chaitra (mid-January to mid-April). Green grasses become scarce in these months and animals must graze on the crop stubble in fallow fields, on public grazing lands, along field bunds, and at the village roadside. Women spend much more time grazing animals than do men.

Cleaning the Animal Shed

During the lean period — Chait, Baisakh, and Jestha (mid-March to mid-June), animal sheds are cleaned exclusively by women, although in some households they may be assisted by a

permanently employed *hali* (ploughman). However, during the peak season, such as during paddy transplanting, weeding, and harvesting, male members of the household contribute more than 50 per cent of the total time spent on cleaning animal sheds.

Preparation of Cooked Feed

During periods of feed scarcity, farmers feed livestock on home-made concentrate called *kudo* (a mixture of rice bran, maize flour, and mustard cake boiled in water). Only women prepare this and feed it mostly to lactating animals in the morning and evening. The time spent on its preparation is highest during the dry period, and less during the monsoon season when plenty of native green grasses and field weeds are available.

Pandey (1997) provides gender disaggregated data regarding women's involvement in rearing livestock and growing crops, as follow.

- Women play a greater role in feeding animal, making compost/FYM, and crop production activities and in collecting and carrying fodder and litter to the house (Tables 5.1, 5.2, and 5.3).
- Women spend three to six hours a day on livestock and FYM activities, two to eight hours/day on crop-related farm

Table 5.1 **Involvement in Feed and FYM Management (Data for the Hills)**

Activities	% of Labour from Women
Feeding fodder	34
Feeding concentrate	66
Cleaning sheds and making compost	52
Applying manure	68
Source: Pandey (1997)	

Table 5.2: **Involvement in Crop Production (Data for the Hills)**

Crops	% of Labour from Women
Maize	65
Millet	74.5
Pulses, legumes, oilseeds	61
Source: Pandey (1997)	

Table 5.3: **Percentage-wise Labour Input in Goat Production System (Tanahu District)**

Labour Input	Adult Females	Girls	Total Females	Adult Males	Boys	Total Males
Barn sanitation	82.0	8.6	90.6	6.0	3.4	9.4
Watering	80.5	10.6	91.1	4.4	4.7	9.1
Grazing	42.0	25.0	67.0	20.0	13.0	33.0
Forage collection	78.2	9.5	87.7	8.1	4.2	12.3

Source: Pandey (1997)

activities, and about three hours a day on fodder, bedding material, and fuel collection.

- They expend 62 per cent of their total labour on fodder, bedding material, and fuel collection, 52 per cent on cleaning sheds and compost making, 68 per cent on FYM application, and 61 to 75 per cent on crop production as a whole.

Women put in more than 80 per cent of the work required for the management of small ruminants such as goats. For example, a field study in the mid-hills of Tanahu District (Pandey 1997) shows that the labour contribution by women farmers was 90.6 per cent for barn sanitation, 91.1 per cent for watering, 87.7 per cent for forage collection, and 67 per cent for grazing; giving a total labour contribution of 84.1 per cent. In contrast, the contribution of male farmers was only 15.9 per cent. A study in a hill village (Bhatt *et al*. 1994) reveals that in, on a typical day, a young Tamang girl's chores include a considerable amount of time spent on livestock management-related activities (see Annex 7)

Data from Himachal Pradesh show that labour spent by women on livestock management is close to three times higher than that spent by men. On the other hand, labour spent on cereal crops, vegetables, and fruit does not show significant difference (see Table 5.4).

Gender Equity and Decision-making

Most of the women interviewed expressed a growing trend of equity between themselves and their husbands in labour expended. Although men have added social obligations to meet the needs of

Table 5.4: **Hours Spent by Men and Women in Production of Cereal Crops, Vegetables, Fruit and Animal Husbandry in the Low Hills, Mid-hills and High Hills (hrs per worker per day)**

Activities	Low Hills		Mid-hills		High Hills	
	Male	Female	Male	Female	Male	Femal
Cereal Crops	1. 28	1.04	0.82	0.70	0.54	0.5
Vegetables	--	--	2.11	1.74	0.10	0.1
Fruit	--	--	--	--	1.75	0.8
Animal Husbandry	1.95	4.74	5.01	4.05	0.40	2.4

Source: Adapted from Singh 1995.

the family, women have facilitated these obligations by carrying out as much as 60 to 70 per cent of the household work.

An interesting example of gender equity is seen in the innovative ideas of some farmers. One such case concerns a farmer in Batule Chaur (Ram Bahadur Biswakarma) regarding the duties related to the management of livestock carried out by himself and his wife (Box 5.1).

A case study in the hills of Tanahu District of Nepal suggests that most of the decisions regarding livestock systems are taken jointly by husbands and wives. Nevertheless, except for breed selection, decisions regarding marketing, household management, the spending of income, and issues related to goat raising are mostly made by women (Table 5.5).

Box 5.1 A Case of Gender Equity in Livestock Production Management

When Ram Bahadur bought a milch buffalo, he discussed division of labour with his wife. Instead of assigning the duties for his wife and for himself, he preferred to play an approximate version of heads and tails: He asked his wife what she would like to choose, heads or tails? If the head part was chosen, the duties assigned would be collecting and cutting grass along with duties related to feeding. If she chose the tail part, the duties would be related to milking the buffalo, cleaning the shed, selling the milk, etc. The wife chose heads and Ram Bahadur was unfortunately left with most of the labour.

Table 5.5: **Decision-making Process in Tanahu District (%)**			
Items	Male	Female	Both
Breed selection	28.0	15.8	56.2
Marketing	21.9	22.1	56.0
Household management	15.5	47.9	36.6
Spending of income	26.6	32.6	40.8
Goat raising	20.2	39.0	40.8
Source: Pandey (1997)			

Among the routine jobs is feeding the animals in the early morning before the animals are sent out to graze; cleaning the animal/cowshed; putting the dung in a proper place (generally in a heap away from the house); and milking cows (and/or cleaning them). Stall-fed cows are also fed with bran and oil cakes or specially prepared animal feed two to three times a day during the lactation period.

The situation is more or less the same in other parts of the mountains. For example, in HP, rearing domestic animals, particularly caring for milch animals, is the primary responsibility of the women of the household (see Table 5.6). Women have to fetch the green fodder from the field bunds on their own fields in the rainy season and from CPRs in other seasons. Daily care of cows/

Table 5.6: **Daily Time Allocation for Maintaining Improved Cross-bred Cows in Himachal Pradesh**		
Activity	Time (minutes)	
	Male	Female
Taking the animals out of the shed in the morning	20%	*80% 15 minutes
Cleaning sheds	10%	(90%) 30 min
Feeding (grass)		*10 minutes
Cleaning/washing		*10 minutes
Milking		*15 minutes
Feeding (feed) and giving concentrates		*5 minutes
Watering the animals		*5 minutes
Feeding grass (2–3 times a day)		*7 minutes
Milking in the evening and feeding bran/concentrate after taking the animals to the shed		15 minutes
* means mostly women are involved. Source: Negi (1998)		

buffaloes is their responsibility in about 95 per cent of cases. However, this is a little different in the case of the lower hills where more buffaloes are kept. In this case, men also share in animal care, but the main responsibility is that of the women, who stay at home.

- During the day, women water the stall-fed/young stock animals.
- In the high hills and mid-hills women also collect tree fodder for the animals.
- Average estimates of time required for these activities are given below (male and female, as per the general practice).

Men, for the most part, take the livestock to the veterinary hospital for health care and for artificial insemination. Bullocks and local cows are mainly open-grazed. During the ploughing season, bullocks are usually given a special diet. This includes animal feed, wheat/barley bran, barley grain, and so on.

Changing Gender Roles

Because of the heavy investment and rising cash income opportunities from improved dairy animals, male members of the family are taking on more of the workload for livestock management. In many areas, men are becoming more involved in the purchase of manufactured livestock feed and milking and even in fodder collection and feeding of animals. In addition, decisions about investing in improved animal breeds are made jointly, involving women in the decision-making process.

Although there have been some concerns regarding who gets to keep the cash from these activities, women do take care of marketing of milk to an increasing extent. The study group visited milk collection centres where women were found carrying milk from three to five hours' walking distance away and earning the money. This is an area in which further studies can be done.

During the rapid surveys in the mid-hills of Nepal, women were found to be more knowledgeable about indigenous fodder grass species and fodder trees than men. They are also more knowledgeable about local treatment methods than men. On the

other hand, men know more about introduced grass species and fodder trees as well as about modern veterinary treatment. This is mainly because institutional programmes are geared towards providing training and exposure opportunities for men rather than women.

Gender Roles in Soil Management

Sustainable soil management is a critical issue in the high pressure hill/mountain areas because of deteriorating soil fertility and the consequent decline in crop productivity. Women can play a crucial role in managing and improving soil fertility, if they are involved in an appropriate manner as suggested below (Bajracharya 1999). Some of the measures identified are as follow.

- Involve women farmers in all activities for feed and FYM management
- Give them information on nutrient loss in the stall-fed system and ways to prevent loss
- Discuss the importance of N-rich legume feed for increasing milk production
- Consider their knowledge and ideas (they do have knowledge worth exploring)
- Support them in getting the inputs and services required (training and extension)