



Original Research

Analysis of Time Utilization Pattern of Rural Women Engaged in Livestock Rearing as Compared to Men Folk

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Abstract

Rural women in our country share abundant responsibilities both at household and farm level and perform a wide spectrum of duties but their role in livestock management continues to be underestimated at large. In J&K state no data regarding their role in livestock management was available from any area or region, therefore analysis of time utilization pattern of rural women engaged in livestock rearing as compared to men folk in Kathua district of J&K state was undertaken. The data was collected from four blocks of Kathua district taking 120 female respondents as well as their male counterparts engaged in livestock rearing. Thus, 240 respondents in all interviewed. In socio-economic profile context of rural women, it was found that majority of the respondents were of the middle aged, having poor education, marginal land holding, engaged in mixed type of family occupation and moving towards to nuclear family as per the normal trends of Indian family system. The time utilization pattern of rural women was significantly higher as compared to their male counterpart in general livestock related activities but when it came to marketing, credit, health and reproductive management of animals, rural men were more prominently engaged and had given major time in all such activities.

Key words: Livestock Rearing, Rural Women, Time Utilization Pattern

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Introduction

Women make essential contributions to the agricultural and rural economies in all developing countries. The agriculture is the major stay of our economy where, women are active partners in farming and undertake management along with men. Women have played and continue to play a key role in conservation of basic life support system, such as, land, water, flora and fauna. Rural women play a crucial role in agricultural development and allied fields, including crop production, livestock production, horticulture, post-harvest



operations, fisheries, etc. Except ploughing, women carry out almost all crop production tasks to help their men folk (Chandra, 1981). The linkage between these sectors is well understood by women as they work between sectors and perform multiple tasks. The role and contribution of women to livestock development is very well recognized. Studies clearly revealed that women spend on an average about 5 to 6 hours a day on various livestock activities (Taj *et al.*, 2012) which include cleaning of sheds, washing of animals, feeding and milking.

Women work remains invisible in family enterprises. At present in rural India, about 33 percent of cultivators and about 47 percent of agricultural labourers are women. Female agricultural labourers are high in some states compared to other. Agriculture in most backward districts attracts larger percentage of women than men at the same time; more prospective districts have less number of women than men. (Agarwal, 2008). It has been found that women from weaker sections of the society and possessing small or no land holding participate in large proportion in agricultural operations than women from middle class socio-economic status. They are actively involved in agricultural development and allied fields including crops production (FAO, 1991).

Materials and Methods

The study was conducted in the Kathua district of J&K state. Kathua district was divided into four clusters having two blocks each (as Kathua district comprises of eight blocks). From each cluster one block was selected at random, so there was a total four blocks for the study. A comprehensive list of villages of the selected blocks was prepared. Three villages were selected randomly from each of four selected blocks. Thus, a total of twelve villages were selected in all. The data was collected from 120 female respondents as well as their male counterparts engaged in livestock rearing. Thus 240 respondents were interviewed in all.

Results and Discussion

Time Utilization Pattern of Rural Men and Women in Livestock Management Activities

General Management Aspects

The present study as shown in Table 1 depicted that rural women utilize their time 'oftenly' in all the activities under general management aspects like cleaning of cattle shed (70.8 %), disinfection of the shed (60 %), collecting and storing animal dung (63.3 %), bathing of animals (62.5 %), making of cowdung cakes (77.5 %) and their storage (85.8 %), weaning of calves (68.3 %), milking of animals (82.5 %) and storage of milk (72.5 %) as compared to majority of the rural men who 'sometimes' utilize their time in all such activities and also some of them 'never' utilize their time in any of activities of livestock rearing. The above findings got support from Akmal and Sajida (2004) who stated that women generally contributed

more labour inputs in watering, cleaning of animals and their sheds etc. Milking the animals and milk processing has also been attributed to the women folks. Manure collection, preparation of dung cakes and maintenance of animal sheds are also the exclusive activities of rural women.

Table 1: Distribution of respondents according to time utilization pattern in general management aspects of livestock rearing practices

S. No.	Activities General Management Aspects	Rural Men (n=120)			Rural Women(n=120)		
		Never (0)	Sometimes (1)	Often (2)	Never (0)	Sometimes (1)	Often (2)
1	Cleaning of cattle shed	22 (89.3)	89 (74.2)	9 (7.5)	0 (0.00)	35 (29.2)	85 (70.8)
2	Disinfection of the shed	22 (18.3)	94 (78.3)	4 (3.3)	0 (0.00)	48 (40)	72 (60)
3	Collecting and storing animal dung	42 (35)	78 (65)	0 (0.00)	0 (0.00)	44 (36.7)	76 (63.3)
4	Bathing of animals	29 (24.2)	90 (75)	1 (0.8)	0 (0.00)	45 (37.5)	75 (62.5)
5	Making of cowdung cakes	63 (52.5)	57 (47.5)	0 (0.00)	0(0.00)	27(22.5)	93 (77.5)
6	Storage of cowdung cakes	59 (49.2)	61 (50.8)	0 (0.00)	0 (0.00)	17 (14.2)	103 (85.8)
7	Weaning of calves	27 (22.5)	93 (77.5)	0 (0.00)	0(0.00)	38(31.7)	82 (68.3)
8	Milking of animals	39 (32.5)	81 (67.5)	0 (0.00)	0 (0.00)	21 (17.5)	99 (82.5)
9	Storage of milk	33 (27.5)	87 (72.5)	0 (0.00)	0 (0.00)	33 (27.5)	87 (72.5)

Animal Health Management Aspects

It was visualized from the present study that rural women 'sometimes' utilize their time in health management aspects i.e. 74.2 per cent in vaccination of animals, whereas majority (82.5 %) of the rural men 'oftenly' utilize their time in vaccination of animals.

Table 2: Distribution of respondents according to time utilization pattern in animal health management aspects

S. No.	Activities Animal Health Management Aspects	Rural Men (n=120)			Rural Women (n=120)		
		Never (0)	Sometimes (1)	Often(2)	Never (0)	Sometimes(1)	Often(2)
1	Vaccination of animals	0 (0)	21 (17.5)	99 (82.5)	12 (10)	89 (74.2)	19 (15.8)
2	Taking animals in and out of the shed	21 (17.5)	96 (80)	3 (2.5)	0 (0)	34 (28.3)	86 (71.7)
3	Taking care of lactating animals	25 (20.8)	95 (79.2)	0 (0)	0(0)	31(25.8)	89 (74.2)
4	Taking care of sick animals	11 (9.2)	106 (88.3)	3 (2.5)	0 (0)	33 (27.5)	87(72.5)
5	Taking care of newly born calves	26 (21.7)	94 (78.3)	0(0)	0(0)	29 (24.2)	91 (75.8)

Similarly in other activities under health management aspects like taking animals in and out of the shed (71.7 %), taking care of lactating animals (74.2 %), sick animals (72.5 %) and newly born calves (75.8 %),

rural women 'oftenly' utilize their time as compared to rural men who 'sometimes' utilize their time. The above findings are in accordance with Christy and Thirunavukkarasu (2002) who conducted a study on role of farm women in livestock keeping and reported that on an average, farm women spent 294.34 and 87.71 minutes per day per household on large and small ruminants care, respectively.

Animal Feeding and Breeding Aspects

It could be seen in Table 3 that a higher percentage of rural women had 'often' utilization of time in all the activities under feeding and breeding aspects like grazing of animals (66.7 %), cutting of fodders (67.5 %), fodder collection for animals (70.8 %), feeding of animals (70 %), watering of animals (70.0 %), colostrum feeding to the calves (65.0 %) as compared to taking animal for AI or calling Veterinary Assistant Surgeon/Livestock Assistant for treatment where their percentage under 'often' time utilization category was a bit lesser (34.2 %) than rural men who were having 40.8 per cent under the same category of time utilization, whereas in case of taking animal for pregnancy diagnosis rural women contributed slight more i.e., 32.5 per cent in 'often' time utilization category as compared to rural men who were having 29.2 per cent of contribution in the same category. The above findings are in accordance with Akmal and Sajida (2004) who stated that women generally contributed more labour inputs in areas of fodder cutting.

Table 3: Distribution of respondents according to time utilization pattern in animal feeding and breeding aspects

S. No.	Activities	Rural Men (n=120)			Rural Women(n=120)		
		Never (0)	Sometimes (1)	Often(2)	Never (0)	Sometimes(1)	Often(2)
1	Grazing of animals	29 (24.2)	91 (75.8)	0 (0)	0(0)	40(33.3)	80 (66.7)
2	Cutting of fodders	34 (28.3)	86 (71.7)	0(0)	0 (0)	39 (32.5)	81 (67.5)
3	Fodder collection for animals	31 (25.8)	89 (74.2)	0 (0)	0 (0)	35(29.2)	85 (70.8)
4	Feeding of animals	32 (26.7)	88 (73.3)	0 (0)	0 (0)	36 (30)	84 (70)
5	Watering of animals	27 (22.5)	93 (77.5)	0 (0)	0(0)	36(30)	84 (70)
6	Colostrum feeding to the calves	23 (19.2)	94 (78.3)	3 (2.5)	3 (2.5)	39 (32.5)	78 (65)
7	Taking animal for AI or calling VAS/LSA for treatment	0 (0)	71 (59.2)	49 (40.8)	5 (4.2)	74 (61.7)	41 (34.2)
8	Taking animal for pregnancy diagnosis	1 (0.8)	84 (70)	35	9 (7.5)	72 (60)	39 (32.5)

Marketing and Credit Facilities

The present study as in Table 4 indicated that equal percentage (74.2 %) of rural men and women utilize their time under 'sometimes' category in selling milk and milk products, whereas related to purchase and sale of animals and availing loan facilities for purchasing animals, much higher percentage of men 'oftenly' utilize their time i.e. 92.5 and 95.8 per cent respectively as compared to greater majority of the rural women

who utilize 'no time' in both the activities i.e. purchase and sale of animals (83.3 %) and availing loan facilities (85 %). The above findings got support from the findings of Munawar *et al.* (2013) who conducted a study on factors inhibiting the participation of rural women in livestock production activities and concluded that on an average women spent more than six hours per day on livestock management activities like marketing of animal products etc.

Table 4: Distribution of respondents according to time utilization pattern in marketing and credit facilities

S. No.	Activities	Rural Men(n=120)			Rural Women(n=120)		
		Never (0)	Sometimes (1)	Often(2)	Never (0)	Sometimes(1)	Often(2)
1	Selling milk and milk products	31 (25.8)	89 (74.2)	0 (0)	31 (25.8)	89 (74.2)	0 (0)
2	Purchase and sale of animals	0 (0)	9 (7.5)	111 (92.5)	100 (83.3)	20 (16.7)	0 (0)
3	Availing loan facilities for purchasing animals	0 (0)	5 (4.2)	115 (95.8)	102 (85)	18 (15)	0(0)

Table 5: Correlation estimates between time utilization pattern of rural women engaged in livestock rearing and socio-personal, socio economic and communication profile

S. No.	Particulars	Time utilization pattern of rural women engaged in livestock rearing				
		General aspects	Animal health & hygiene aspects	Animal feeding & breeding aspects	Marketing & Credit facilities	Overall time utilization pattern of rural women
1	Age	0.194*	0.137	0.191*	0.032	0.197*
2	Education	-0.109	-0.069	-0.095	-0.417**	-0.146
3	Family size	0.13	0.175	0.251**	-0.047	0.195*
4	Family type	-0.139	-0.14	-0.223*	-0.004	-0.184*
5	Family occupation	-0.049	-0.156	-0.076	-0.054	-0.093
6	Social participation	-0.205*	-0.107	-0.131	-0.094	-0.176
7	Land holding	0.045	0.058	0.062	0.185*	0.078
8	Herd size	-0.056	-0.095	0.017	0.146	-0.022
9	Income from Dairying	-0.129	-0.195*	-0.122	0.347**	-0.113
10	Gross annual income	0.168	0.07	0.114	-0.019	0.134
11	Extension contact	-0.068	-0.149	-0.108	0.102	-0.096
12	Mass media exposure	-0.044	0.026	0.007	-0.317**	-0.044
13	Milk production	-0.132	-0.177	-0.088	0.251**	-0.106
14	Experience in livestock rearing	0.122	0.065	0.127	0.043	0.125
15	Sources of information	-0.139	-0.108	-0.139	0.066	-0.136

*Significant at 5% level; ** Significant at 1% level

It was found from the Table 5 that correlation estimates between time utilization patterns of rural women engaged in livestock rearing and socio-personal, socio economic and communication profile that all independent variables except age, family size, gross annual income and experience in livestock rearing were negatively correlated with the dependent variables. On cross examination of time utilization pattern of rural women in different aspects of livestock rearing, it was found that majority of the independent variables related to socio-personal, economic and communication profile were found to be negatively associated with general management aspects of livestock rearing. It was noticed that majority of the background variables related to socio-personal, economic and communication profile were found to be negatively associated with animal health and hygiene aspects of livestock rearing except age and family size as shown in table 5. On analysis of time utilization pattern of rural women in animal feeding and breeding aspects of livestock rearing, it was seen that all independent variables except age, family size, gross annual income and experience in livestock rearing were negatively associated with dependent variables. On cross examination of time utilization pattern of rural women in marketing and credit facilities it was noticed that all independent variables were negatively associated except land holding, herd size, income from dairying, extension contact and milk production.

Conclusion

Time utilization by rural women in general management and animal feeding and breeding aspect was more than the rural men whereas in case of marketing and credit facilities related to livestock rearing, time utilization by rural men was much higher than the rural women. Regarding animal health management aspects, time utilization by both rural men and rural women was found to be closer.

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