

Time Use Pattern of Hill Women: A Study in Lesser Himalayan Region of Nainital District in Uttarakhand

Karuna Joshi¹ and Neelam Bhardwaj²

1. Ph.D. Scholar, 2. Professor, Department of Agricultural Communication,
G.B. Pant University of Agriculture & Technology Pantnagar, Uttarakhand (India)-263145

Corresponding author e-mail: karuna.komal@gmail.com

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ABSTRACT

Time use pattern of hill women was studied in lesser Himalayan zone of Uttarakhand with a sample size of 150 covering two blocks of district Nainital viz. Dhari and Okhalkanda. The data were collected through interview using 24 hours recall method and participatory observation with the help of structured interview schedule. Findings revealed that women spent maximum time in agricultural works followed by household / personal work and livestock care in peak and house hold / personal work followed by mid time rest , livestock care and other business in slack periods as observed by both the methods. Hill women use to spend minimum time on water collection, study/ reading and religious works during both peak and slack periods. For productive work during slack and peak periods, hill women on an average spent almost equal time. It was further observed that time saved by women from agricultural works during slack period was diverted towards household / personal work, fuel wood and fodder collection, income generating activities etc. Time spent on constructive activities was positively correlated with education, family size and annual income and negatively with age.

Key words: Time use pattern; Hill women; Lesser Himalayan region; Productive time input;

Time is an important resource for everyone. It is also a limited resource in that we have only 24 hours in a day to put to competing uses. How we use this limited resource is important and has implications to our economic and social wellbeing. Time use studies give information on what people actually do in their lives and therefore, provide information on work and labor allocation (including that of children) within households both at a point of time and over a period of times. Time use studies are therefore, very useful for understanding overall transformation or changes societies go through. Research evidences focused that women play a significant and crucial role in various fields like household, agriculture, animal husbandry, natural resource management etc. The nature and extent of women's involvement in agriculture varies greatly from region to region. Even within a region their involvement varies widely among different ecological sub-zones, farming systems, caste, class and socio-economic status of

families etc. (Swaminathan, 1985). Regardless of these variations, there is hardly any activity in agriculture production except ploughing in which women are not actively involved due to taboo preventing women from touching plough while male doing domestic chores are ridiculed (Varma, 1992). Time use surveys attempt to provide a more complete account of time use by women. Such studies usually are not nationally representative and are not directly comparable because they usually cover small samples, report on different types of activities and use different methodologies. The work pattern of hill women revolves around a variety of jobs in the home, farm and livestock management. *The National Perspective Plan (1988)* rightly points out that for the majority of the women in the country, there is more work than wages, more load than capacity and more compulsion than choice. Studies on time utilization pattern of men and women in rural households in India indicate that rural women work longer hours than men.

Review of the literature however, reveals major gaps in information especially pertaining to work status of hill women and how the time use pattern varies with their work status and/or agricultural season. The present study was therefore an attempt in this direction.

METHODOLOGY

The study was carried out in two blocks (Dhari and Okhalkanda) of Nainital district of Uttarakhand with a sample size of 150. The sample was selected by proportionate random sampling technique. From these blocks eight villages (four from each block) were selected. The data were collected through interview using 24 hours recall method and participatory observation with the help of semi structured interview schedule. The data on 24 hours time use pattern were collected by spot observation with the help of participatory observation from 150 households for both peak and slack periods. The peak period in lesser Himalayan region of Uttarakhand is considered when maximum agricultural production activities in farm are done and when planting/sowing is over, the period is slack period. Simple mean and percentages was calculated to determine the time spent by women in various activities. Correlation of time use pattern of hill women with selected variables was also studied with the help of coefficient of correlation.

RESULTS AND DISCUSSION

Personal profiles: The women in study area are medium to old aged (83 per cent) with medium sized family (4-11) as indicated by 90.67 per cent women. Most of the families of respondents were falling in category of above poverty line. The educational status of the women is primary to middle standard (Table 1). In hills young ones used to go outside for service or study and middle or old aged people are generally engaged in subsistence farming. This factor might have led to higher percentage of old/middle aged women in the study area. *Nashine et al., (2004)* observed 62.5 per cent women up to age group of 35 years. *Bishnoi and Ahmed (2006)* also reported most farm women belonging to age group of 25 to 60 years. The size of family on an average was large. This might be due to the fact that 76 per cent women were living in joint family. *Goyal and Singh (2003)* were also of similar view. However, the observations made by *Kumar and Bhardwaj (2005)* indicated higher percentage of nuclear family 55.36 per

Table 1: Personal profile of the hill women

Variables	Categories	No.	%
Age Mean= 40.17, SD= 11.32	Young (less than 29 years)	24	16.00
	Middle (between 29-51 years)	61	40.67
	Old (above 51 years)	65	43.33
Family size Mean= 6.60, SD= 2.54	Small (less than 4)	8	5.33
	Medium (between 4-11)	136	90.67
	Large (above 11)	6	4.00
Annual income	Very-very poor (Rs. 7124-Rs. 11008/ year)	7	4.67
	Very poor (Rs. 11008-Rs. 15096/ year)	40	26.67
	Poor (Rs. 15096-Rs. 20128/ year)	24	16.00
	Above poverty line (Rs. 20128 and above)	79	52.67
Educational status	Illiterate	20	13.33
	Can read and write only	6	4.00
	Primary level	46	30.67
	Middle level	48	32.0
	High school level	9	6.00
	Intermediate	15	10.00
	Graduate and above	6	4.00

cent women belonged to nuclear family than joint family in *Kumaon* division of Uttarakhand. This might be due to difference in place of study and temporal factor. The educational status of the women shows that on an average 82.67 per cent women were literate and rest were illiterate. The high percentage of literacy in the study area might be due to educational institutions, mainly the public sector, at the doorstep of the women. *Chaurasia (1993)* and *Goyal and Singh (2003)* observed high literacy rate among women. Contrary to this *Shree (2002)* observed majority of women (67%) as illiterate. Thus literacy rate varies from place to place. **Time use pattern:** The data collected by interview method reveal that during peak period maximum mean time spent by hill women in a day was in agricultural works i.e. 4:05hrs, during peak period and 3:32 hrs during slack period followed by 3:11 and 3:03 hrs in household / personal work respectively during peak and slack periods compared to other activities (Table 2). Similar was the trend in participatory method except during slack period where maximum mean time spent was for household / personal work (4:49 Hrs) followed by participation in project activities (2:54 Hrs). In general, time spent on business, livestock care, fuel wood and fodder collection, income generating activities was more

Table 2. Time use pattern of hill women during peak and slack period

Activities	Interview method		Participatory method	
	Peak period	Slack period	Peak period	Slack period
Agricultural works	4:05	1:58	3:32	2:02
Other business	2:03	2:25	2:23	2:28
Household and personal work	3:11	3:03	3:27	4:49
Livestock care	2:18	2:45	2:32	2:45
Fuel wood and fodder collection	1:01	1:31	1:21	2:11
Water collection	0:19	0:20	0:57	0:58
Study/ reading	0:45	0:53	0:42	0:32
Income generating activities	1:39	2:07	2:39	2:01
Mid time Rest	1:22	2:50	1:43	2:54
Participation in project activities	1:42	1:12	1:45	0:59
Religious work	0:12	0:12	0:13	0:14
Sleeping +unaccounted time	8:42	9:31	8:22	7:29
Total productive time input (24 hrs-Sleeping + unaccounted time)	15:18	14:29	15:38	16:31

during slack period compared to peak period which might be due to utilization of time saved from agricultural activities. *Lodha (2006)* denotes time spent by tribal women on care of livestock/poultry activities such as bringing fodder/feed, chaff cutting, preparing and giving feed and water, bathing animals, cleaning shed, compost making, milking, grazing, medical treatment etc. was 87 minutes in a normal day. Time spent on livestock/poultry was more in backward region due to greater dependence on livestock for livelihood as compared to advanced region. Women were devoting more time for mid time rest during slack period compared to peak period. This might be due to less farm operation load during slack period. Least devotion to water collection activity might be due to availability of pipe line water source at or near vicinity of houses/villages. During peak period, the women also use to participate in various developmental project activities sponsored by Government. In the study area Uttarakhand Diversified Watershed Development Project was in operation during the study in which women of the area are also involved leading to more time devotion as participant in the project. Also the water

Table 3. Correlation of women's time use activities with selected variables in peak and slack periods

Time use activities	Variables			
	Age	Family size	Annual income	Education
<i>Peak Period</i>				
Agricultural works	-0.718	0.226	0.175	0.323*
Other business	-0.491	0.129	0.095	0.235
Household and personal work	-0.543	0.084	0.004	0.288*
Livestock care	-0.607	0.118	0.106	0.320*
Fuel wood and fodder collection	-0.672	0.246	0.190	0.343*
Water collection	-0.048	0.011	-0.030	0.061
Study/ reading	-0.383	-0.010	0.138	0.244
Income generating activities	-0.429	0.109	0.150	0.116
Mid time Rest	0.582*	-0.194	-0.121	-0.338*
Participation in project activities	-0.819	0.206	0.186	0.385*
Religious work	0.582*	-0.143	-0.026	-0.238
<i>Slack Period</i>				
Agricultural works	-0.805	0.273*	0.141	0.347*
Other business	-0.843	0.147	0.184	0.471*
Household and personal work	-0.446	0.085	0.160	0.236
Livestock care	-0.707	0.212	0.178	0.435*
Fuel wood and fodder collection	-0.675	0.197	0.186	0.350*
Water collection	-0.559	0.262	0.089	0.224
Study/ reading	-0.496	0.125	0.010	0.126
Income generating activities	-0.861	0.247	0.113	0.360*
Mid time Rest	0.012	-0.195	-0.097	-0.008
Participation in project activities	-0.599	0.321*	0.222	0.348*
Religious work	0.164	0.123	0.071	-0.022

Table value at 5% = 0.273 (at n-2 df)

and forest conservation activities taken by this project led to install water pipe line and recharged the traditional water sources (Naula, Gadhera, Simars etc) leading to less time devotion on water collection. Training provided to women by the Government agencies also led less time spent on reading/study.

Actively involved hill women contribute almost similar time for productive work during slack and peak periods. In contrast, *Suhao (2001)* observed during busy season, farm women's working hours in a diary day is significantly longer than those in a synthetic day for 3 to

5 hours. Due to fragile ecosystem in hilly areas, the time spent on various activities take more time input in hilly areas compared to plains resulting in more time spent (Antwal & Bellurkar, 2000). The data collected through both interview and participatory methods exhibited almost same time utilization pattern for various day to day activities and are therefore consistent and reliable. However, a slight variation in total time spent was seen in both the methods which may be due to approximation of time by women while responding during interview. It has been noted earlier that women have less free time available in smaller chunk (Winn & Heeter, 2009).

Correlation studies : The correlation between time use patterns with age of hill women was significantly negative for all the activities except with mid time rest and religious work where the correlation was positive in both the periods but significant only in peak working period (Table 3). Majority of women (43.33 %) in the study area are above 51 years (Table 1). It is indeed possible that the continuities in patterns of time use observed for the 'young-old' by gender and work status may not be found at older ages when declining health and declining physical endurance may restrict people's daily activities (Gauthier and Smeeding, 2000). Old aged people tend to spend slightly more time on passive leisure activities, and less time on active leisure activities. Decreasing health and physical endurance at older ages may introduce significant discontinuities in patterns of time at a later stage of the life-cycle and thus involvement in rest or religious works become more prominent resulting in such relationships. Significant positive correlation between age and mid time rest has also been reported by Kanwar *et al.* (2003). These results suggest that time input in constrictive and developmental activities decreases with increase in age. Galay (2007) also observed that pattern of time use differ by age. Total hours of work peaked for the respondents who are in their prime working ages (31-45). Larger the family size, the time spent on various activities also increases as is evident from the table 3. Family size was positively correlated with time spent on most of the activities but the correlation was significant only with agricultural works and participation in project activities in slack period. It was also observed that study/reading and religious work in peak period while mid time rest in both peak and slack periods was negatively correlated with family size indicating better distribution of work among family members leading to less tiredness thereby less

need of rest. Galay (2007) observed that time use also differs significantly by the type of family one belongs to. Respondents with children had longer duration of work than respondents without children.

Out of 12 activities, mid time rest in both periods, water collection and religious work in peak period were negatively correlated while remaining activities were positively correlated with annual income of the respondents. Such association is indicative of the fact that the family having more income spent less time in rest, religious work and water collection as these activities are less income generating compared to other activities. The time input on religious activities declines with enhanced economic condition (Kanwar *et al.*, 2003). Education plays a vital role in time management. In the present study, out of 12 activities agricultural works, livestock care, fuel wood and fodder collection, participation in project activities in both periods, household and personal work in peak period had significantly positive correlation with education. Remaining activities except mid time rest and religious work also were positively correlated with education in both the periods. These results suggest that more number of educated mass in a region spends more time on constructive and developmental activities. In the study area the women were mostly educated (about 62%) as is evident from the table 1. This peculiarity of the women might have diverted them towards spending more time input on constructive and developmental activities resulting in positive correlation instead of spending time on rest and religion.

CONCLUSION

This study indicates that women spend more time in agricultural work, household/personal work and livestock care in both peak and slack periods. Least time is devoted in religious, water collection and study activities. Time spend in mid time rest was more in slack period compared to peak period. Total productive time for various activities was almost similar in both the periods. Family size, annual income and educational profile of the women were positively correlated with time spent on constructional and development activities. Negative relationship of age with constructive and developmental activities and significant positive correlation with mid time rest and religious work was observed in both peak and slack periods.

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