

Research Paper :

## A study of time and energy utilization pattern of tribal women in district Balrampur (U.P.)

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### ABSTRACT

The present study was undertaken to investigate the utilization pattern of time and energy of tribal women of District Balrampur, U.P. The utilization of time and energy was investigated for rainy, winter and summer seasons of joint and nuclear families. The data were further analysed to get the role of age in their utilization of time. The type of family was also considered a probable variable to affect the utilization of time and energy. The amount of time spent on activities out of home, varied from rainy, winter and summer seasons. The tribal women spent more time and energy in rainy season, moderately in winter and less in summer season, which showed a linear declining trend for both time and energy. The analysed data revealed that younger tribal women spent more time and energy compared to older women and the trend of decline was linear.

**Key words :** Family, Tribal women, Energy, Seasons

The women, through out the world, have shown their contribution in social and economic development of their countries. India is primarily an agricultural country and women working out of home, specially on farms, is not a new phenomenon. They have worked side by side males on the farm and monopolised some of the farm activities. Vasudevan (2007) and Ogale *et al.* (1990) have reported that tribal women have participated in agricultural activities and they were deeply involved in home and home management, besides agricultural activities. They have been able to do inside and out of home activities due to their skill in time and energy management practices. They have played significant role in agricultural production, livestock management and other allied farm activities. The total work load on tribal women ranged from 160-170 days per year for different family types. Saxena (1985) has reported that participation in farm activities was more or less the same for tribal and non-tribal farm women (8.25 hrs per day). The pattern of time allocation to farm and household depends on age of the women.

### METHODOLOGY

#### Place of study:

The study was conducted in Puchperwa block of Balrampur district. Three Nyay Panchayats were selected randomly. A sample of 341 tribal women of various age groups ranging from 30 to 60 years were randomly selected from the villages of Panchperwa block of Balram district.

#### Data collection:

Data were collected with the help of a questionnaire developed for the purpose of this study. Besides interview, observation was also made to supplement the data.

#### Measurement tools:

The tools used in collection of data included Nickell and Dorsey (1967) scale which has categorized as 1.4 to 2.0 KCal per minute work as light, 2.0 to 3.5 KCal as moderate and 3.5 to 4.5 KCal per minute as heavy work. The light to heavy energy work ranged from 1.4 to 4.5 KCal per minute and its mid value of light work was 1.7 and moderate work, 2.75 KCal while heavy work has 4 KCal per minute. The energy expenditure was calculated for each woman, which has been used to correlate it with other variables of the study.

The results have been presented in percentage, mean and significance of differences.

### FINDINGS AND DISCUSSION

One of the main objectives of this study was to find out the time and energy spent by tribal women in different seasons. The variation in pattern of expenditure of above two variables were compared with type of family. The respondents were divided into nuclear and joint families. Table 1 reveals that there were 216 nuclear and 125 joint families. The pattern of time and energy spent by tribal women were analysed separately and the difference was found out.

**Nuclear family and pattern of expenditure of time and energy:**

The pattern of expenditure of time and energy was analysed for rainy, winter and summer seasons. In rainy season, the mean value of time and energy expenditure was calculated in the form of mean value of time and energy spent. Table 1 reflects that each tribal woman spent 6.88 hrs (413.0 minutes) per day in activities carried out on farm or such other activities. Similarly they spent their energy, 1538.13 KCal per day per woman for the similar kind of activities.

When the time and energy spent during winter season was compared, it was observed the same respondents spent 6.31 hrs (381.67 minutes) per day per woman. On the other hand, amount of energy consumed for winter work was 1521.23 KCal per day per woman. This shows that during rainy season, the tribal women put in more hours of work out of home and also spent more energy per day compared to winter. The difference in time and energy expenditure between two seasons was marginal (0.47 hrs of time or 16.90 minutes).

Similarly, when time and energy spent during winter

and summer seasons were compared, a declining trend was observed. In summer, tribal women spent only 4.84 hrs (290.97 minutes) of time and 1088.97 KCal of energy per day while in winter, it was 6.31 hrs of time and 1521.23 KCal of energy. In other words the declining trend was observed in utilization of time and energy from rainy season to summer season as shown in Fig. 1.

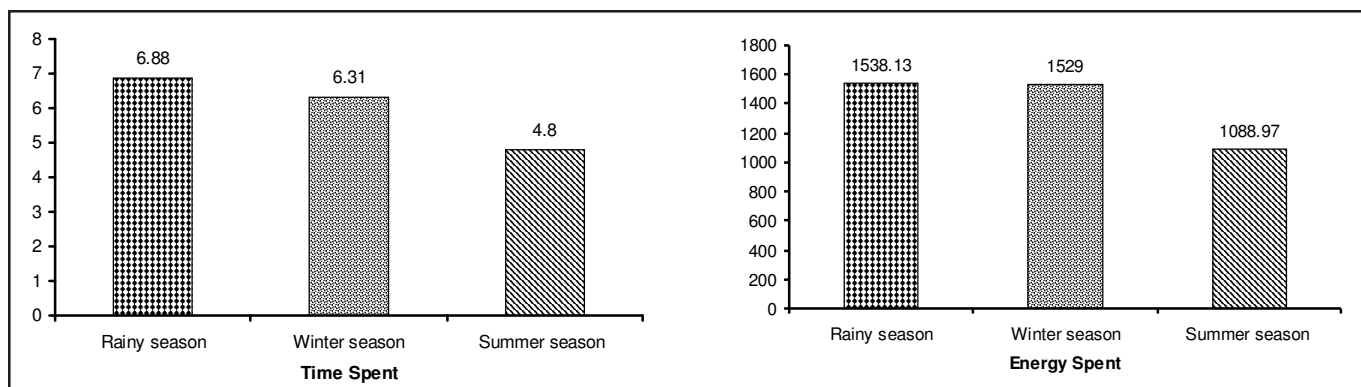
**Time and energy spent in joint family:**

Each tribal woman in joint families spent 6.40 hrs (383.90 minutes) per day during rainy season which was 6.88 hrs in nuclear families. It is evident that joint families spent less hours per day in the activities carried out at home. Similar trend was observed in case of energy spent. They spent 1526.27 KCal of energy where as in nuclear families, tribal women spent 1538.13 KCal per day which was 1.86 KCal less from nuclear families.

When time and energy in joint families were compared to time and energy spent in rainy and winter seasons, Table 1 clearly shows that even joint families spent less time and energy during winter season compared to rainy season. Similar situation was observed in energy

**Table 1 : Allocation of time (minutes) and energy (K Cal)/day spent on agriculture activities by tribal females in different season according to the family type**

Sr. No.	Family type	No. of respondents	Rainy season		Winter season		Summer season		Average time and average energy	
			Mean value of time (min./day)	Mean value of energy (K. Cal/day)	Mean value of time (min./day)	Mean value of energy (K. Cal/day)	Mean value of time (min./day)	Mean value of energy (K. Cal/day)	Mean value of time (min./day)	Mean value of energy (K. Cal/day)
1.	Nuclear	216	413.00 (6.88 hrs)	1538.13	381.67 (6.31 hrs)	1521.23	290.97 (4.84 hrs/day)	1088.97	361.88 (6.03 hrs)	1382.78
2.	Joints	125	383.90 (6.40 hrs)	1526.27	351.66 (5.86 hrs)	1427.89	262.56 (4.38 hrs)	1056.58	332.71 (5.55 hrs)	2719.69
	Total	341	796.9	3064.40	733.33	2949.12	553.53	2145.53	694.59	2719.69



**Fig. 1 : Time and energy spent by nuclear families in rainy, winter and summer seasons**

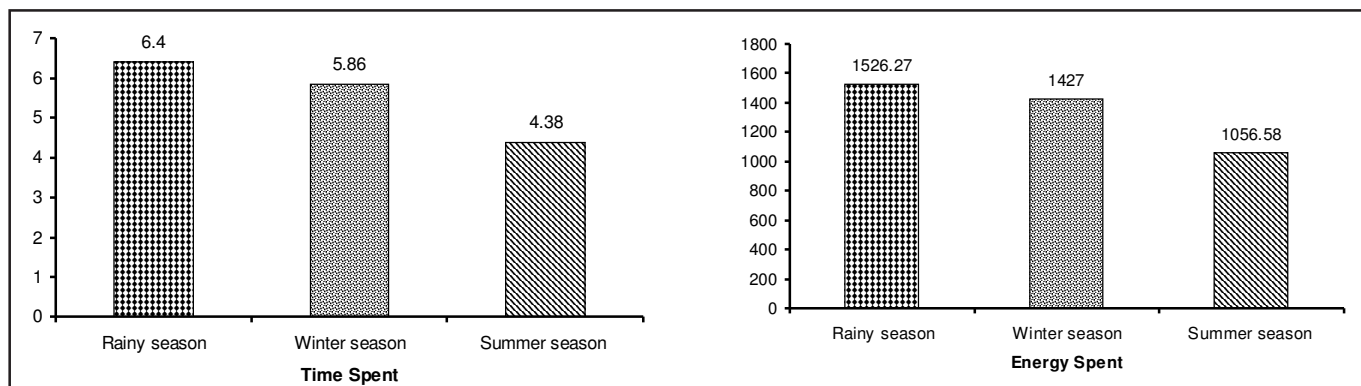


Fig. 2 : Time and energy spent by joint family women in different seasons

expenditure. The time and energy expenditure during winter in joint families was again less than the nuclear families.

Table 1 also reveals that time spent was 4.38 hrs (262.56 minutes) per hour and amount of energy spent was 1056.58 K Cal. In this case also, the time and energy expenditure were less than those of nuclear families (Fig. 2).

It can be summarized that joint and nuclear families have similar expenditure pattern of time and energy during rainy, winter and summer seasons. It is also evident that joint families spend less time and energy in all the three seasons compared to nuclear families, though the difference is marginal.

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## REFERENCES

- Ogle et al.** (1990). Participation of tribal women in agriculture. *Maharashtra J. Extn. Edu.*, **9** : 215-220.
- Maheshwari, S.** and Saini, S. (2007). Empowering women through income generating activity for sewing beekeeper's clothing, Souvenir, National Seminar on women empowerment : A challenge for the Home Scientists..
- Sexena, D.** (1985). A comparative study of time utilization pattern of tribal and non-tribal and non-tribal women. *Indian J. Extn. Edu.*, **2** (1 & 2) : 83-85.
- Srivastava, S.** (1985). *Harvesting technology for improving the quality of life in rural women* (ed.). Rawat Publication, Jaipur, pp. 38-74.
- Vasudevan, S.** (2007). Holistic empowerment of rural women-swa-shati experience. Souvenir, National Seminar on women empowerment : A challenge for the Home Scientists.

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