TRIBAL WOMEN'S WORK STRUCTURE AND TIME UTILIZATION PATTERN IN SUBSISTENCE PRODUCTION

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ABSTRACT

Women play a significant and crucial role in agriculture and allied fields. Apart from household chores tribal women spent substantial portion of their time in agriculture activities. The paper aims to explore tribal women's time utilization pattern in subsistence production in terms of work structure. Tribal women on an average spent 232 minutes in a normal day in subsistence production with higher time spent in backward region as compared to advanced region. Intra work structure analysis showed that subsistence producers devote more time on agriculture and allied activities. Hence, it is important that in place of cumbersome equipment, simple, low cost, subsidized, user friendly technical equipment should be introduced which are also time and energy saving.

Key Words: *Women; Work Structure; Time Utilization*

INTRODUCTION

Women have always worked and yet it is only recently that their work has become a topic of discussion among scholars and national development planners. The major characteristic of women in the developing world is their predominant role in the primary sector of the economy (Devi, 1987; Varma, 1992; Sharma, 1993). An ILO study showed that more than 65 per cent of women in developing countries are involved in agriculture and related activities. Scholars have found out that women on an average work for 14 to 17 hours a day in countries of the South (Dixon, 1978; Whyte & Whyte, 1982; Afshar, 1985; Molokwa, 1985). The ILO Geneva Report (1975) on women power missed no words in pointing out that women work longer hours than men in market and non-market activities both in urban and rural areas of Asia, Africa and Latin America. The ILO action guide (1996) to ensure more and better jobs for women and to support poor and working women argued that in developing countries women spend 31 to 42 hours per week in unpaid work while men spend 5 to 15 hours in such work.

Research evidences focused that women play a significant and crucial role in agricultural development and allied fields including crop production, livestock production, horticulture, post-harvest operations, agro-social forestry 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 (Ferber and Spaeth, 1984; Singal, 1989; Varma, 1992).

The multiple roles played and the productive inputs made by women in terms of work hours contributed or equivalent income generated in the family are neither attended nor recorded (Debi, 1991; Verma, 1992), despite the fact that they contribute about three fourth of the labour required for agricultural operations. The implication of women's arduous and wide ranging contribution not being counted as productive work entails a lower status for them at the personal level while at the national level it presents a distorted picture of the GNP with concomitant distortions of investment and development polices (Chhabra and Basu, 1980). Hence, the present study aims to explore tribal women's time utilization pattern in subsistence production in terms of work structure.

METHODOLOGY

The study was based on descriptive design along with causal comparative component to determine the status of women in terms of time use pattern in subsistence production and women's work structure. Multi-stage sampling design was adopted treating purposive random selection of blocks as the first stage, purposive selection of the villages on the basis of developmental programmes and infrastructure facilities as the second stage and random selection of tribal households as the third and final stage of sampling. A total sample of 278 households i.e. 130 from advanced and 148 from backward region were selected. Structured interview schedule was constructed to collect information related to tribal women's time devoted in three distinct spheres of work structure i.e. SP (Subsistence Production), VMP (Village Market Production) and OVMP (Out of Village Market Production). The unit of inquiry was tribal household and tribal women were key informants. Student 't'test was used to analyse the significant difference between time utilization pattern of tribal women in subsistence production and work participation in non-market and market activities in terms of intra and inter regional basis.

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RESULTS AND DISCUSSION

It was observed that tribals have fragmented land and several empirical research studies showed that rural women participated highly in pre-harvesting, harvesting and post-harvesting agricultural activities (Saikia, 1984; Kaur and Punia, 1988; Sen, 1988; Sethi, 1988; Sangwan et.al., 1990; Shashikala et.al., 1990). Pre-harvesting activities such as selection of seed, ploughing, application of fertilizer, repairing of irrigation channels, sowing of seeds, uprooting and transplanting seedlings, weeding, application of pesticides/insecticides, irrigation and guarding of crop consumed an average of overall 124 minutes per day. Due to higher dependence on agriculture by market and non-market participants in backward region time spent on pre harvesting activities by respondents was relatively more as compared to advanced region (region A=83 minutes, region B=164 minutes). In backward region, respondents were highly dependent on SP apart from market participation depending on availability of work in nearby village or within village. Moreover, tractor was also used for ploughing in advanced region, which saved time and energy of the respondents. Significant regional difference was revealed regarding tribal women's time spent on pre harvesting activities (t=10.02, sig. level 0.01). This was mostly due to higher dependence on subsistence production in backward region, which was substantiated through significant regional variation in tribal women's non-market participation and time spent on pre harvesting activities (t=3.14, sig. level 0.01). Further significant inter-regional variation also emerged between pre-harvesting activities and respondents market participation (t=6.50, sig. level 0.01). This again is mainly due to respondents' higher dependence on subsistence farming and non-availability of short duration job in backward region. Work structure probing revealed that time spent by respondents on pre-harvesting activities was significantly more among SPs (region A=140 min., region B=170 min.) as compared to market producers in both the regions (region A=72.18 min., region B=158.50 min.), which was least. Intra-work structure analysis showed significant difference between non-market and market participants regarding pre-harvesting activities of overall sample respondents (t=7,36, sig. level 0.01). This can be attributed to more time spent on pre harvesting activities by non-market producers. Students 't' test was also found to be significant regarding non-market and market activities in advanced region (t=4.72, sig. level 0.01). This can be related to more time spent on subsistence production in advanced region.

Table 1. Averge time spent by the respondents in subsistence production according to the work structure (minutes/normal day)

Time spent in subsistence production	Advanced Region N=130			Backward Region N=148			Grand Total		
	SP	VMP	OVMP	TOTAL	SP	VMP	OVMP	TOTAL	N=278
		n=45	n=20	n=65	N=130	n=106	n=21	n=21	N=148
Pre Harvesting	140.00	63.00	75.00	83.00	170.00	164.00	153.00	164.00	124.00
Sd	74.60	81.00	78.90	84.60	41.90	31.70	57.20	47.00	79.60
	t=4.72**								t=7.36**
Harvesting	11.00	5.00	6.00	6.00	15.00	11.00	11.00	14.00	10.00
Sd	.00	5.90	6.00	6.80	6.10	2.20	4.50	5.90	7.30
	t=4.47**				t=3.99**				t=8.72**
Post Harvesting	16.00	5.00	7.00	8.00	16.00	12.00	11.00	14.00	11.00
Sd	12.80	6.80	7.20	10.30	7.50	2.60	4.50	7.00	9.30
	t=5.42**				t=3.71**				t=8.12**
Livestock/Poultry	80.00	35.00	40.00	46.00	135.00	113.00	121.00	128.00	87.00
Sd	56.70	54.40	47.40	54.30	38.40	29.90	36.10	40.30	63.10
	t=4.30**				t=2.66**				t=8.29**
Total Time	246.00	107.00	128.00	144.00	335.00	300.00	297.00	320.00	232.00
Sd	106.80	140.30	116.20	133.90	68.80	52.10	86.90	79.80	141.20
	F=16.59**			F=4.13*				F=45.2**	
	t=5.70**				t=2.88**				t=9.33**

* Significant at 0.05 level of probability. ** Significant at 0.01 level of probability.

Harvesting activities consumed on an average was 10 minutes (60.83 hours/year) of the respondents work time on a normal day. This harvesting time spent by tribal women was quite less i.e. 241.33 hours\year (141.15 in kharif and 100.18 hours in rabi) reported by Kaur (1988) Harvesting activities consumed on an average 10 minutes (60.83 hours/year) of the respondents work time on a normal day. Thus harvesting time spent by tribal women was quite less i.e. 241.33 hours\year (141.15 in kharif and 100.18 hours in rabi) reported by Kaur (1988) and Singal (1989), which can be related to rainfed agriculture and large land holding size. More time was spent on harvesting by respondents in backward region as compared to those in advanced region (region A=6 minutes, region B=14 minutes). Significant regional variation was found regarding respondent's time devoted in harvesting activities (t = 10.50, sig. level 0.01). This can be related to greater dependence on subsistence production in backward region, hence more time was spent on harvesting activities. Significant regional

variation was found between the times spent for harvesting activities by non-market respondents (t = 3.52, sig. level 0.01). Similar significant regional difference emerged with respect to time spent on harvesting activities and respondents market production as well (t = 5.22, sig. level 0.01). Time spent on harvesting by respondents was more among SPs workers/ UFWs as compared to respondents involved in market production/paid activities in both the regions.

Table 2. Student 't' test showing inter regional variation in respondents time spent on Subsistence Production

Area of Subsistence	W.S.	Region A		Region B		't' Value	Grand
		Mean	Sd	Mean	Sd	df	Total
Pre-Harvesting	N M	140.00	74.60	170.00	41.90	3.14**	149
	M	72.18	79.56	158.50	46.57	6.50**	125
	Total	83.00	84.60	164.00	47.00	10.02**	276
Harvesting	N M	11.00	7.00	15.00	6.10	3.52**	149
	M	5.76	5.99	11.00	3.54	5.22**	125
	Total	6.00	6.80	14.00	5.90	10.50**	276
Post Harvesting	N M	16.00	12.80	16.00	7.50	0.00	149
	M	6.53	7.16	11.50	3.71	4.22**	125
	Total	8.00	10.30	14.00	7.00	5.74**	276
Livestock/Poultry	N M	80.00	56.70	135.00	38.40	6.93**	149
	M	38.82	49.18	117.00	33.39	9.29**	125
	Total	46.00	54.30	128.00	40.30	14.40**	276
Total SP Time	N M	246.00	106.80	335.00	68.80	6.11**	149
	M	123.06	122.54	298.50	71.66	8.57**	125
	Total	144.00	133.90	320.00	79.80	13.50**	276

* Significant at 0.05 level of probability, ** Significant at 0.01 level of probability

Intra work structure analysis of overall sample respondents showed significant difference between time spent on harvesting activities by non-market and market participants (t = 8.72, sig. level 0.01), advanced (t = 4.47, sig. level 0.01) and backward region (t = 3.99, sig. level 0.01). Thus the test results lead to the conclusion that respondents involved in non-market activities spent more time on harvesting activities than their counterpart and this emerged very sharply in the backward region.

Post-harvesting activities like thrashing winnowing, drying of grains, storage and transportation consumed on an average 11 minutes (66.92 hours\year) of respondents on a normal day. Somewhat similar findings were reported by Kaur (1988), Singal (1989) that rural women spent 74.38 hours\year (36.22 hours in karif and 38.17 hours in Rabi) on post harvesting activities. Time spent on post harvesting activities by respondents was more in backward region as compared to advanced region (region A = 8 minutes, region B = 14 minutes). Significant regional variation was found regarding time spent on post harvesting activities by respondents was available to non-market producers; hence their participation in post harvesting activities was higher.

Several research scholars reported that farmwomen participate in management of cattle (Munjal, 1984; Varma and Malik, 1984; Kaur and Punia, 1988; Shashikala et.al. 1990; Sharma, 1993). 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 (region A = 46 minutes, region B = 128 minutes). Anonymous (1987) also reported identical findings that animal care on an average demanded 129 min./day. Dubey and Singh, (1978) revealed similar findings that Sikh women in Karnal spent only 2 hours on animal based activities. Regional difference was found to be significant regarding time spent on livestock and poultr. Significant regional variation was also found between non-market respondents and time spent on livestock and poultry (t = 6.93, sig. level 0.01). Furthermore, significant variation was also found between market producers and time spent on livestock and poultry (t = 9.29, sig. level 0.01). Inspite of market participation respondents in backward region spent substantial portion of their time on livestock and poultry for livelihood due to uncertainty of their jobs. Furthermore, time spent on livestock and poultry by respondents was more among SPs (sphere-II) and was lower among respondents involved in market production (sphere III and IV) in both the regions. Intra work structure analysis

showed significant difference between non-market and market participants regarding time spent on livestock and poultry for overall sample (t = 8.29, sig. level 0.01), advanced region (t = 4.30, sig. level 0.01) and backward region (t = 2.66, sig. level 0.01) respondents.

Thus it can be summarised that tribal women spent substantial time on subsistence farming. SPs spent highest time on agricultural activities. Regional difference was found to be significant regarding time spent on subsistence production by respondents (t = 13.50, sig. level 0.01). Significant regional variation was also found between non-market respondents and time spent on subsistence production (t = 6.11, sig. level 0.01). Furthermore, significant variation was also found between market producers and time spent on subsistence production (t = 8.57, sig. level 0.01). Inspite of market participation respondents in backward region spent substantial portion of their time on farming, livestock and poultry for livelihood due to uncertainty of their jobs. Inspite of this, tribal women suffer from certain disability in subsistence economy, ploughing is absolutely a taboo for them, the concept of impurity is attached to them (Sen, 1988). Significant variation was found between non-market and market participants regarding time spent on subsistence production by overall (t = 9.33, sig. level 0.01), advanced (t = 5.70, sig. level 0.01) and backward region (t = 2.88, sig. level 0.01) respondents.

CONCLUSION

It can be concluded that no less important is the factor of operation and application of material contraptions. Although the tribal woman performs a multiplicity of tasks pertaining to subsistence and livestock production and tends to dissociate herself from these jobs as the use of technical equipment increases. This inability often creates a sense of inferiority among them. As such, it is important that in place of cumbersome equipment simple, low cost, subsidized, user-friendly technical equipment should be introduced for rural women which are also time and energy saving. This will release them for market production. It is therefore, desirable that the research institutions, agricultural engineering colleges and home science colleges devise appropriate technical equipment. Adequate efforts should be made to impart necessary training and skill to the women folk through demonstrations, exhibitions, fairs, plays etc. about the use and handling of the equipment efficiently. All this needs to be done in a non-bureaucratic and interesting manner so that the target group feels attracted towards it.

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