

## **Comparison of Time Utilization of Urban, Rural and Tribal Farmwomen in Farming and Post-Harvest Activities**

**Chitra M. Bellurkar**

*Research Associate – All India Coordinated Research Project – Home Science,  
Dept. of Home Sc. Extension & Communication Mgt., College of Home Sc., VNMKV, Parbhani (MS). Cell – 09420194216.  
Corresponding Author's E-mail: chitra\_kanishka@rediffmail.com*

### **ABSTRACT**

*Farm women constitute so significant part of working women population in our country that it necessitates a fuller understanding of their status and role not only as they now are but as they may be in future. The study was carried out from two agro-climatic zones of Maharashtra. Nanded district was selected from Central Maharashtra Plateau zone and Nagpur district was selected from Central Vidarbha zone. This research consist sample of 409 farmwomen for farming activities and 410 farmwomen for post-harvest activities from urban, rural and tribal areas. In the present study, time spending pattern of the respondents was compared in farming and post-harvest activities for rabi and kharif seasons. Time spending of the respondents in both the seasons was recorded in days per year. Overall it can be concluded that tribal respondents under this study utilized more time i.e. 126.67 days per year for performing the farming activities followed by rural women who spent 123.05 days. Urban women spent comparatively less time i.e. 104.06 days for farming activities. For the post-harvest activities, urban women spent 77.93 days per year whereas tribal women spent 47.82 days followed by rural women who spent 46.37 days for both the seasons per year.*

**Key words** - Comparison, Farmwomen, Kharif, Rabi, Seasons, Time Utilization

Farm women constitute so significant part of working women population in our country that it necessitates a fuller understanding of their status and role not only as they now are but as they may be in future. The studies undertaken earlier do not reflect a clear and complete picture as to the nature of farmwomen's participation in farming and allied activities with special reference to rabi and kharif seasons. Much additional research is needed for a comprehensive and distinctive understanding their role as farm workers.

Rural and tribal women are the integral part of agricultural system. They live within the system to internalize their role and value in search of alternatives for better performance of their roles. The visibility of women in agriculture duly acknowledges their potentiality in performing multifarious crop production and management activities. The farm women lead difficult lives and spend maximum time in arduous works in farm and homestead activities.

Manju Suman (2002) in the research study 'Involvement of women in agricultural activities' mentioned that about two third of the manual labour in farming is constituted by rural women. Irrespective of their degree of affluence, they provide 14 to 18 hours of productive physical labour every day in a wide variety of activities directly connected with agriculture, allied and domestic chores.

Now a days the modernized agricultural production has brought a great upheaval in existing traditional living patterns of the farmers. The two things, time utilizations and the engagement in other activities have got a dent upon each other. The development of latest technologies of farming and many other cropping patterns like multiple cropping and inter cropping patterns, the time utilization of farmers has been altered in the recent times. (Shree Ram Singh et al. – 1991). Hence to get the correct idea of time spending pattern of the farmwomen in rabi and kharif seasons, this investigation was carried out with

the following objectives :

1. To study average time utilization of urban, rural and tribal farmwomen in farming activities for rabi+kharif seasons.
2. To investigate average time utilization of urban, rural and tribal farmwomen in post-harvest activities for rabi+kharif seasons.

### **METHODOLOGY**

The study was carried out from two agro-climatic zones of Maharashtra. Nanded district was selected from Central Maharashtra Plateau zone and Nagpur district was selected from Central Vidarbha zone. This research consist sample of 409 farmwomen for farming activities and 410 farmwomen for post-harvest activities from urban, rural and tribal areas. It was easy to get sample of farmwomen from rural and tribal areas but difficult from urban area. Hence the localities of the urban area, where farming or farm related activities were done by the women, were selected. Data were collected by administering the pre-tested interview schedule. All the respondents were interviewed personally by the investigator at work spot, which enabled her to get the first hand information.

Time utilization of the respondents for farming and post-harvest activities in rabi and kharif seasons was recorded in days. Hence the total days per season utilized for that particular activity were recorded. Finally the total days per year per activity were calculated. For example, a respondent spends 10 days in rabi and 14 in kharif season for the activity land preparation. It means she spends totally 24 days in a year for the activity land preparation. Likewise total days per year per activity were recorded. Frequencies and percentages were calculated for statistical analysis.

### **FINDINGS AND DISCUSSION**

**Time utilization of the respondents in farming activities (Average time utilization of the respondents in rabi+kharif seasons)**

Table 1 reflects about average time utilization of the respondents from urban, rural and tribal women in farming activities in rabi and kharif seasons. Average time utilization of totally 409 respondents in rabi+kharif seasons was recorded in days per year. It can be depicted from the Table that as far as the activity

land preparation was concerned; there was not much difference between time spent by tribal (19.34 days) and rural (18.05 days) respondents. It can also be seen that urban women utilized less time (12.46 days) per year in rabi and kharif seasons for this activity.

**Table 1**  
**Time utilization of the respondents in farming activities**  
**(Average time utilization of the respondents in rabi+kharif seasons)**

Sr. No.	Activity	Time utilized (days)		
		Mean $\pm$ SD		
		Urban (n=30)	Rural (n=190)	Tribal (n=189)
1	Land preparation	12.46 $\pm$ 8.57	18.05 $\pm$ 10.78	19.34 $\pm$ 7.97
2	Seed / variety selection	2.93 $\pm$ 2.55	0.65 $\pm$ 2.66	0.12 $\pm$ 0.69
3	Seed treatment	0.06 $\pm$ 0.36	0.08 $\pm$ 0.91	0.06 $\pm$ 0.50
4	Sowing	1.83 $\pm$ 4.19	10.28 $\pm$ 9.01	10.19 $\pm$ 8.18
5	Nursery raising	0.23 $\pm$ 0.72	0.50 $\pm$ 1.89	0.46 $\pm$ 1.84
6	Transplanting	0.06 $\pm$ 1.83	2.39 $\pm$ 6.44	0.88 $\pm$ 2.99
7	Manure & fertilizer application (By hand)	1.70 $\pm$ 4.06	6.33 $\pm$ 8.53	7.16 $\pm$ 7.77
8	Insect and pest control through spraying	0 $\pm$ 0	0 $\pm$ 0	5.15 $\pm$ 6.39
9	Traditional method	0.20 $\pm$ 0.76	1.22 $\pm$ 3.46	1.13 $\pm$ 3.40
10	Irrigation/water management practices	4.36 $\pm$ 7.05	2.05 $\pm$ 8.92	1.11 $\pm$ 5.88
11	Weeding	53.26 $\pm$ 22.94	62.15 $\pm$ 25.70	61.70 $\pm$ 20.72
12	Harvesting	7.13 $\pm$ 3.54	16.21 $\pm$ 9.08	17.08 $\pm$ 10.23
13	Engagement of labour	5.73 $\pm$ 2.70	1.98 $\pm$ 3.59	1.69 $\pm$ 2.78
14	Credit/loan - Procuring-	3.33 $\pm$ 3.54	0.28 $\pm$ 1.24	0.06 $\pm$ 0.55
	i) Source			
	ii) Amount	3.36 $\pm$ 3.62	0.27 $\pm$ 1.22	0.19 $\pm$ 0.92
15	Repaying - i) Amount	3.63 $\pm$ 3.95	0.27 $\pm$ 1.22	0.16 $\pm$ 0.88
	ii) Mode			
	Total days	104.06 $\pm$ 34.49	123.05 $\pm$ 46.08	126.67 $\pm$ 35.43

For the activity seed/variety selection, women from all the areas found to be spending very less time as this activity was performed by the males. Among them urban respondents spent only 2.93 days per year. Figures for rural (0.65 days) and tribal (0.12 days) women were meagre.

Majority of the respondents replied that they purchased the seed from the market which was already treated. Hence time utilization for seed treatment for all the women was very negligible. It was noted that rural women spent 0.08 days while time utilization for urban and tribal women was same i.e. 0.06 days.

Sowing was the activity in which women participated with men. It was found that rural (10.28 days) and tribal (10.19 days) respondents under this investigation were utilizing almost same period for the activity sowing while urban women were spending very less time i.e. only 1.83 days for this activity.

As regards the activity nursery raising, it was noticed that very less amount of time was utilized by the respondents from all the areas. It was seen that rural women were spending 0.50 days, tribal women spending 0.46 days whereas urban women were found to be spending only 0.23 days per year for this activity. For the activity transplanting also time utilization by all the respondents was negligible. It was noted that rural women spent 2.39 days; tribal women spent 0.88 days while urban women spent only 0.06 days for this activity. The reason behind this may be that the activities nursery raising and transplanting are carried

out where the rice is grown. The zones selected for the study are those where rice is not a major crop.

In case of the activity manure and fertilizer application (by hand), it was observed that tribal women spent 7.16 days followed by rural women who spent 6.33 days for both rabi and kharif seasons. Comparatively urban women spent very less time (1.70 days) for this activity. During investigation it was noted that in Vidarbha zone this activity was performed only at the time of sowing by the females. Hence no special time utilized by them for this activity. It is included in the activity sowing. It means females participated in this activity only at the time of sowing. For rest of the season, this activity was performed by the males.

It was found that insect and pest control through spraying was the activity carried out by men only. But in the tribal area, under this investigation, it was noticed that the women spent 5.15 days per year for this activity whereas no urban and rural woman was involved in this activity. Non-participation in application of pesticides and insecticides might be attributed to lack of skill in spraying techniques.

It can be portrayed that the traditional method of manure application i.e. application of dung manure was carried out by rural women for 1.22 days, by tribal women for 1.13 days and for urban women 0.20 days in both the seasons. As stated earlier, in Vidarbha zone this activity was performed only at the time of sowing by the females. Hence no special time utilized by them for this activity. It is included in the activity sowing. It

means females participated in this activity only at the time of sowing. For rest of the season, this activity was performed by the males.

Irrigation or water management was also the activity in which male members were found to be engaged. Hence women's participation in this activity was found to be less. It can be said from the Table that urban women utilized 4.36 days for this activity while rural and tribal women spent 2.05 and 1.11 days respectively on this activity. The low participation of women in this activity may be due to the reason that this activity is basically a heavy job.

Weeding is the activity in which major participation of the women can be noticed all over Maharashtra. A perusal of data furnished in the same Table indicate that weeding was the activity in which women from all the areas spent their maximum time. It can be inferred that rural (62.15 days) and tribal (61.70 days) women's time utilization for this activity was almost same. This finding is nearer to the finding of Singh et al. (1991). It was surprising to note that urban women spent 53.26 days per year on weeding because in other farming activities urban women's participation was comparatively less. The women's reply was because the labour cost is very high for this activity; women in the family carried out this activity themselves. Studies show that in Maharashtra after weeding, harvesting is an activity where majority women's participation is observed. Harvesting of produce is carried out jointly by women with other family members or by groups. Sugarcane crop involves extensive participation of women for harvesting. Result of this investigation also indicates that maximum time spent on harvesting activity was 17.08 days by tribal women followed by rural women (16.21 days) whereas urban women were spending comparatively less time (7.13 days) for harvesting.

In the activity engagement of labour, it was observed that majority of the women were found to be not involved, which is highly discouraging, indicating

that the managerial role of women was not strong. The data in Table indicates that involvement of urban women for engagement of labour was for 5.73 days per year in both the seasons while rural (1.98 days) and tribal (1.69 days) women found to be spending very less time on this activity.

It was dominantly noted that in handling financial matters women from all the three areas were spending negligible time. For the activity procurement of source for credit/loan, urban women utilized 3.33 days; rural women utilized 0.28 days followed by tribal women who spent only 0.06 days. In case of procurement of amount for credit/loan, it was observed that urban women spent 3.36 days; rural women spent 0.27 days while tribal women spent only 0.19 days. It is a historical truth that women have been neglected to their position in the family (Bajaj and Shaikh 1989). Women are deprived off from participation in decision-making and in handling financial matters but are forced to perform farm operations. Despite of legal and constitutional provisions for equal status, women have been traditionally put in a weak position in Indian society and have a subordinate role to play though women share most of the family responsibilities and perform wide range of duties on farm and in home (Thakare et al. 1991).

It is also clear from the Table that for the activity repaying of the amount, urban women utilized 3.63 days for both the seasons whereas rural (0.27 days) and tribal (0.16 days) women were found to be spending very less time. Incase of deciding the mode for repayment, urban women spent 3.63 days; rural women spent 0.28 days while tribal women spent only 0.06 days per year.

At a glance it can be inferred that tribal respondents under this study utilized more time i.e. 126.67 days per year for performing the farming activities followed by rural women who spent 123.05 days. Urban women spent comparatively less time i.e. 104.06 days for farming activities.

**Table 2**  
**Time utilization of the respondents in post-harvest activities**  
**(Average time utilization of the respondents in rabi+kharif seasons)**

Sr. No.	Type of work	Time utilized (days)		
		Urban (n=30)	Rural (n=191)	Tribal (n=189)
1	Threshing	2.17 ± 1.98	4.11 ± 4.02	4.15 ± 4.11
2	Winnowing	1.31 ± 0.89	1.84 ± 1.49	1.68 ± 1.69
3	Cleaning	1.34 ± 1.00	2.3 ± 1.52	2.92 ± 1.71
4	Drying	5.86 ± 2.08	6.49 ± 4.38	7.58 ± 4.38
5	Post-harvest processing of produce-	8.93 ± 2.06	4.48 ± 4.19	4.25 ± 3.61
	i) Household level			
	ii) Commercial level	5.20 ± 2.67	3.43 ± 3.65	4.00 ± 3.31
6	Retention for – i) Consumption	8.27 ± 3.02	3.93 ± 3.56	3.69 ± 3.12
	ii) Seed	0.72 ± 1.38	0.73 ± 1.59	0.65 ± 1.49
	iii) Sale	4.82 ± 2.36	3.05 ± 3.12	3.69 ± 3.17
7	Mgt. of surplus produce –	9.55 ± 3.05	4.65 ± 4.16	4.05 ± 3.57
	i) Household level			
	ii) Commercial level	5.27 ± 3.04	3.37 ± 3.51	3.95 ± 3.30
8	Storage	10.41 ± 3.27	6.77 ± 5.59	6.54 ± 4.86
9	Marketing of produce	2.72 ± 3.28	0.07 ± 0.64	0 ± 0
10	Mgt. of revenue earned from sale of produce	5.17 ± 5.69	0.28 ± 1.59	0.17 ± 1.10
11	Engagement of labour for the activities	6.13 ± 2.61	0.79 ± 2.16	0.48 ± 1.38
	Total days	77.93 ± 18.15	46.37 ± 26.65	47.82 ± 25.55

**Time utilization of the respondents in post-harvest activities (Average time utilization of the respondents in rabi+kharif seasons)**

Table 2 gives information about time utilization of the respondents from urban, rural and tribal women in post-harvest activities. Average time utilization of total 410 respondents in rabi + kharif seasons was recorded in days per year as it was recorded for farming activities. It is evident from the Table, that in the post-harvest activity threshing, tribal (4.15 days) and rural (4.11 days) were spending almost same time while urban women were found to be utilizing half (2.17 days) of the time than tribal and rural women per year. During investigation, the respondents replied that now a days majority of the farmers use threshers for this activity, hence threshing of the harvested crop takes very less time. After threshing there is no need to winnow the grains. The threshed grains are clean. So it was found that in these activities women had to spend less time.

In case of time spending pattern of the women from three areas in winnowing activity, it was noted that there was not much difference among the three. In this activity rural women spent 1.84 days, followed by tribal women who spent 1.68 days whereas urban women spent 1.31 days.

As regards the activity cleaning, tribal women spent 2.92 days per year in rabi and kharif seasons followed by rural women (2.3 days) while urban women spent 1.34 days per year.

Drying of the grains takes comparatively more time. It is an important activity after harvesting the crop. The data about the activity drying indicated that tribal women utilized 7.58 days, rural spent 6.49 days and urban women were found to be spending 5.86 days.

Time utilized by rural and tribal women in the activities threshing, winnowing, drying and cleaning was observed more because majority of the respondents from these areas were farm labour and these activities are carried out mostly by the labour.

Once the produce reaches home, the women get fully occupied with processing of the produce. It was observed that men were not much involved in this activity. Post harvest processing of the produce is a major activity that is a wholesome responsibility of women. As regards the post-harvest activity, processing of produce at household level, it was seen that the urban women spent 8.93 days per year in both rabi and kharif seasons while it was also found that rural (4.48 days) and tribal (4.25 days) respondents spent almost same time for this activity. It was observed that for post-harvest processing of produce at commercial level, these women utilized comparatively less time. It can be noted that urban women spent 5.20 days; tribal women spent 4.00 days followed by the rural women who were found to be spending 3.43 days for this

activity.

After the grain reaches home the women either independently or jointly with other female members or with the help of hired women attend to store the grains for household consumption. A perusal of data furnished in the Table indicates that retention for consumption was the activity in which urban women spent 8.27 days whereas rural (3.93 days) and tribal women (3.69 days) utilized comparatively less time for this post-harvest activity. It is due to the fact that most of urban women were land owners. They were retaining the produce for their families whereas most of the rural and tribal women were farm labours; hence no question of retaining the produce at household level.

It was noted that majority of the farmers were buying the seed from market. Hence the data regarding retention for seed indicates that time spent by all the women from three areas was negligible. It can be stated from the Table that rural women spent 0.73, urban 0.72 and tribal 0.65 days for this activity.

The data pertaining to the activity retention of the produce for sale indicates that there was not much difference among the women from three areas for utilization of the time. It was noticed that urban women spent 4.82 days while tribal and rural women spent 3.69 and 3.05 days respectively for this activity.

After retention of the produce for various purposes, management of the surplus produce is needed. It is evident from the same Table that for the post-harvest activity management of surplus produce at household level, urban respondents found to be utilizing 9.55 days per year in both the seasons. It was also observed that rural (4.65 days) and tribal women (4.05 days) were utilizing less than half of the time of the urban women for this activity. The reason was the same as stated earlier for retention of produce for consumption.

Management of the surplus produce at household and also at commercial level is a critical job. It was observed that for the activity, management of surplus produce at commercial level, urban women spent 5.27 days; tribal women spent 3.95 days followed by rural women who were found to be utilizing 3.37 days.

Storage is an activity which is done at household level; hence women's participation is major. It is a main activity in which women have to participate completely. They have to check the stored grains from time to time and see if there is any damage. The women reported that they have to spend time for whole year on this activity. Hence they had to spend more time for this activity. The respondents replied that from time to time they had to take care of the stored grains. It was seen that urban women utilized 10.41 days a year for this activity. Rural (6.77 days) and tribal women (6.54 days) were spending almost same time for this activity.

In the activity marketing, women's participation

was found to be less. Hence their time utilization in this activity was also less. It was noted that urban women were spending 2.72 days while time utilization of rural women (0.07 days) was negligible. It was also found that no tribal woman was utilizing time for this activity. Less participation of the women in marketing is due to the fact that women are not allowed to go to the market. Their less confidence and social customs do not allow them from doing this activity.

The data in the same table indicates that for the activity management of revenue earned from sale of produce, urban women spent 5.17 days per year whereas time utilization for rural (0.28 days) and tribal women (0.17 days) was negligible.

It can be portrayed that for the activity engagement of labour, urban women were spending 6.13 days for rabi and kharif seasons. Rural (0.79 days) and tribal women (0.48 days) were found to be utilizing very less time for this activity

### CONCLUSIONS

It can be concluded that tribal respondents under this study utilized more time i.e. 126.67 days per year for performing the farming activities followed by rural women who spent 123.05 days. Urban women spent comparatively less time i.e. 104.06 days for farming activities. For the post-harvest activities, urban women spent 77.93 days per year whereas tribal women spent

47.82 days followed by rural women who spent 46.37 days for both the seasons per year. It was surprising to note that urban women spent 53.26 days per year on weeding because in other farming activities urban women's participation was comparatively less. It is due to fact that the labour cost is very high for this activity hence women in the family carried out this activity themselves.

Time utilization of urban women in the post-harvest activities which was related to the household level was found to be more because the women from urban area were farm owners not the labours. Hence in the activities like, post-harvest processing of produce at household level, retention of the produce for consumption and sale, management of surplus produce at household and commercial level and storage, time spent by urban women was more. Time utilization of urban women in the activities like, marketing of produce, management of revenue earned from the sale of produce and engagement of labour etc. was also found to be more than rural or tribal women because educational level of these respondents was more so their decision making capacity was also more and above all they were farm owners. So in the decision making their participation was important.

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