

## **Time Use by Unemployed Female Heads of Households in Urban Tanzania**

*Rosalia S. Katapa\**

### **Abstract**

A time-use study was conducted on unemployed female heads of households in two urban centres in Tanzania in 1992. Diary keeping was the main data collection method, complemented by the observation method. Each urban female head of a household in the sample was given a watch and provided with a diary. The watch facilitated in recording the correct times in the diary. The times recorded in the diary were that of waking up, going to sleep in the night, the beginning and ending of every activity she performed during the day. A research assistant visited her daily, in addition to assisting her with diary keeping, the assistant made observations on the activity being performed and tools used in performing it. Data was collected for fourteen consecutive days. The study revealed that the female heads of households were awake for an average of sixteen hours daily, and that they generally spent more time in informal economic activities than in domestic ones. They spent very little time on personal hygiene and hardly any on recreation. Widows spent the longest time in informal economic activities. The women did not use appropriate tools to save time, for example, to brew local beer, cook food, make cakes and prepare meals—they used firewood and charcoal.

### **1. Introduction**

Time use data is necessary for measuring the real work burden and leisure of different groups of people in a population. Noting the difficulties of collecting time-use data, Acharya (1982) warns that the data should be taken as the best approximation.

Time use is an important factor in studying problems of female heads of households and understanding the state of their welfare. Time use studies enable us to understand the amount of time female heads of households spend on various

---

\*Associate Professor, Department of Statistics, University of Dar es Salaam

activities such as economic, domestic, child-care, recreation, sleep, etc. Such studies consider the question of whether each activity is worth the time spent on it, and if not, what should be done to reduce the time. The introduction of ways of time saving is important for increasing productivity, and hence improving the female-headed households' welfare.

Globally, it has been recognised that female heads of households are on the increase (Folbre, 1991; Bruce and Dwyer, 1988; Buvinic *et. al.*, 1978). Some of the reasons that attribute to the increase in female headship are frequent marriage break-ups, out of wedlock pregnancies, and widowhood. A review compiled by Gupta (1989) from 45 studies conducted in various countries indicated that more often than not, female-headed households were concentrated in the poorest socio-economic strata. A study conducted in 1995 and 1996 in Njombe district, Tanzania, showed that female-headed households were among the disadvantaged small holder farmers (Temu and Due, 2000).

Female heads of households have a burden of being economically and socially responsible for their households. Their access to income earning opportunities in the formal sector is highly limited, partially due to the low educational level of the majority of them (Bureau of Statistics, 1989, 1991). Thus most of the women who find themselves heading households in urban areas find no option of economic survival except joining the informal sector where they face stiff competition and problems such as lack of capital, education, technical skill, and appropriate technology.

Involvement of urban residents (particularly women) in the informal sector is considered as a survival strategy (Tripp, 1988). For the unemployed urban female heads of households, it is the only survival strategy. Realizing the importance of the informal economic sector in Tanzania, Malyamkono and Bagachwa (1990) called it "the second economy in Tanzania". So far, two big surveys have been conducted on the informal sector in Tanzania. The nationally representative one was conducted in 1991 and in 1995. Another one was conducted in Dar es Salaam city. The percentage of women in the informal sector was 36% in 1991 (URT, 1991) and 42% in Dar es Salaam in 1995 (URT, 1995).

Theoretically, the activities of unemployed female heads of households should be: participation in the informal sector for survival, child care, household chores, leisure, recreation, social and cultural activities. On the contrary, male heads of households in urban areas are involved in economic activities, socialization, leisure and recreation. Child care and household chores are performed by their wives.

### *Time Use by Unemployed Female Heads of Households in Tanzania*

Female heads of households in urban areas have double disadvantages, i.e., most of them do not have adult men in their households to share the economic burden; and they do not have "wives" to perform the child care and household chores. Hence, the female heads of households' time-use is a crucial factor to the welfare of their households.

Acharya (1982) and Andorka (1987) state that time-use data may be collected by recall, observation or diary keeping. Studies on time-use by men and women have been conducted in several countries. Using members of 192 households in 8 villages in Nepal, Acharya and Bennet (1981) found out that women worked for longer hours than men (10.8 vs 7.5 hours), and that female children worked for longer hours than male children (7.3 vs 4.8 hours). Farouk (1980) had similar findings when he studied time-use of men and women in 700 households in Bangladesh. He found out that male heads of households worked for about 10 hours a day while their wives worked for 10 to 11 hours. Similarly, using data from the Ghana Living Standards Survey, Lloyd and Brandon (1991) found out that women worked on average for longer hours than men. This was true for both male and female-headed households. It can be concluded that in rural areas of developing countries, women work for longer hours than men.

Appropriate technology is important in reducing time to be spent on an activity. A research conducted in Venezuela by Hill and Hurtado (1989) showed that when Machiguenga women used wooden tools to dig and peel sweet maniac, they spent two to three times as much time as they spent when they used machetes and knives.

The Canadian general social survey on time-use conducted in 1992 showed that in "dual career" families, women's time on housework increased when their husbands spent more time in paid work, but the same was not true for men (McFarlane et al, 2000). Nationally representative time-use diary data collected in Britain in 1975, 1987, and 1997 revealed that although over that interval of time the participation of men in domestic work increased, women still performed the bulk of domestic work (Sullivan, 2000).

In Tanzania, the Danish Development Agency (DANIDA) conducted a survey on time-use of women in four villages in Iringa region in connection with undertaking a project for supplying piped water in the villages. DANIDA and the United Republic of Tanzania (URT) government wanted to see how bringing water to the villages would reduce time spent on fetching it. They concluded that on average, women in those villages were awake for 14 hours each day (URT and DANIDA, 1983). Omari (1991) states that his studies have indicated that women in the rural setting work for 14 hours daily.

This paper presents findings of a study conducted in 1992 on time-use by a sample of unemployed female heads of households in Dar es Salaam city and Mbeya municipal town. The main objective of the study was to find out how unemployed female heads of households in urban Tanzania spend their time. It was hypothesized that by not having adult men in the households to assist with economic maintenance, female heads of households spent more time in informal economic activities at the expense of other activities such as leisure, personal hygiene, and recreation. Hence another objective of this research was to find out how time spent on informal economic activities relates to times spent on other activities.

The significance of the study is that it provides information on time-use by female heads of households in urban Tanzania. The information can be used by planners, health officials, community-based and non-government organisations. This includes coming up with programmes on appropriate time-use for urban female heads of households. Such programmes are bound to encompass all important activities, including rest and leisure. It is recalled that these women are decision makers, bread winners, and main actors in domestic work in their households.

## **2. Methods**

Time use data was collected in Manzese and Kinondoni areas in Dar es Salaam city and in Mwanjelwa and Majengo/Ghana areas in Mbeya town. Manzese in Dar es Salaam and Mwanjelwa in Mbeya are low class areas which have a lot of similarities. The similarities include their origins. Manzese started as a slum area near the main road linking Dar es Salaam and all major towns in mainland Tanzania. Mwanjelwa started as a slum area near the main road linking Mbeya and Dar es Salaam city, as well as neighbouring countries of Malawi and Zambia. On the other hand, Kinondoni in Dar es Salaam and Majengo/Ghana in Mbeya are middle class areas.

### **2.1 Sample size**

Nine unemployed female heads of households in each of the four study areas were selected for this study. Such a sample size was used because of financial constraints. Time use studies require a substantial amount of money because households in the sample have to be visited by the researcher quite frequently. Moreover, each household needs to have a watch or clock and a diary so as to be able to record accurately the activities and times taken to perform them.

Identification of the respondents was made possible with the assistance of ward secretaries and ten-cell leaders. Each of the four study areas belongs to a specific ward. Within each ward, ten neighbouring houses make up a cell that is headed by a

## *Time Use by Unemployed Female Heads of Households in Tanzania*

ten-cell leader. In Manzese area, nine ten-cells were randomly selected, and in each of these an unemployed female head of a household was selected. If a ten-cell had more than one unemployed female heads of households, one of them was selected randomly. Selection of nine unemployed female heads of households in Kinondoni, Mwanjelwa and Majengo/Ghana areas followed the same procedure as that of Manzese.

### **2.2 Fieldwork**

Fieldwork was conducted between July and August 1992. After the respondents had been identified, each was provided with a digital watch, a pen, a pencil, and a notebook.

Time-use data was collected from the unemployed female heads of households during fourteen consecutive days. Each was requested to keep a diary of the activities (including rest) she performed from the time she woke up in the morning till the time she went to sleep in the night. Recording of activities included the time she started an activity, and the time she finished it. In each study area, a research assistant visited every respondent daily. During each visit, the research assistant observed the activity being performed, the type of tools or equipments being used, and looked at the respondent's diary to check the consistency of the records since the previous day's visit. The research assistant also recorded the respondents' activities in her/his own notebook. This was done to avoid losing information in case any one of the respondents was to lose her diary. Thus the method employed in data collection was a combination of the diary and the observation methods (Acharya, 1982).

Data on socio-economic characteristics of the unemployed female heads of households were collected by the research assistants towards the end of their daily visits to the respondents. At the end of fieldwork, watches, pens and pencils which had been used in data collection, were left with the unemployed female heads of households as incentives for having participated in the study.

### **2.3 Data analysis**

Andorka (1987) mentions three indices that are calculated from time-use data: the average duration of each type of activity during the day, the percentage of all persons who participated in the given activity on the selected day, and the average duration of each type of activity for those who actually participated in it on the given day.

In this study, we adopted an index similar to the third index stated by Andorka (1987), i.e., we calculated the average duration of each type of activity for those who actually participated in it during the fourteen days' period. The formula employed in this index was:

Let  $i = i^{\text{th}}$  data collection day,  
 $i = 1, 2, 3, \dots, 14$ .  
 $y_{ijk}$  = time spent on activity  $k$  by the  $j^{\text{th}}$  woman on the  $i^{\text{th}}$  day;  
 $j = 1, 2, 3, \dots, 36$ .

**Note:** if on the  $i^{\text{th}}$  day, the  $j^{\text{th}}$  unemployed female head of household did not perform activity  $k$ ,  $y_{ijk} = 0$ .

$$\sum_{j=1}^{36} y_{ijk} = \text{total time spent on activity } k \text{ by all the unemployed female heads of households on the } i^{\text{th}} \text{ day.}$$

Then

$$y_{\cdot k} = \sum_{i=1}^{14} \sum_{j=1}^{36} y_{ijk} = \text{total time spent on activity } k \text{ by all the women during th 14 data collection days.}$$

Let  $n_{ik}$  = number of unemployed female heads of households who participated in activity  $k$  on the  $i^{\text{th}}$  day.

$$N_{\cdot k} = \sum_{i=1}^{14} n_{ik} = \text{total number of incidences when activity } k \text{ was performed.}$$

Then

$$\bar{y}_k = \frac{y_{\cdot k}}{N_{\cdot k}} = \text{is the average duration of activity } k \text{ for those who participated in it. The standard deviation and error are found accordingly.}$$

Finally, we calculated the average duration of each activity for those who participated in it during the 14 days period according to major economic activities of the unemployed female heads of households and their marital statuses. In these cases, the formula for calculating the average duration of each activity was adjusted accordingly.

## *Time Use by Unemployed Female Heads of Households in Tanzania*

For example, in the analysis of the widows,  $j = 1, 2, 3, \dots, 12$ ; because in the sample there were 12 unemployed female heads of households who were widows. Thus  $y_{ijk}$  will represent the total time spent on activity  $k$  by all the widowed unemployed female heads of households during the 14 data collection days.  $N_k$  will be the total number of incidences of widows performing activity  $k$ . Hence  $\bar{y}_k$  will be the average duration of activity  $k$  for the widows who participated in it.

Similarly, in the analysis by major economic activities or the other marital statuses, the maximum value of  $j$  is the number of the unemployed female heads of households whose major economic activity is the one being discussed or those in the marital status being addressed, respectively.

### 3. Results

The analysis showed that the unemployed female heads of households engaged themselves in informal economic activities, house cleaning, cooking, fetching water, shopping and other domestic activities. They also had time to eat, rest and perform personal hygiene such as having a bath and dressing up.

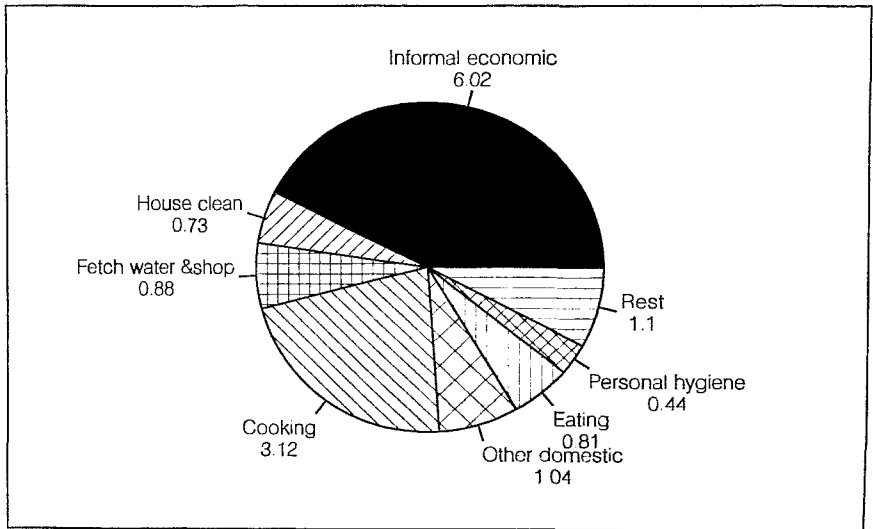
Table 1 presents a time-use pattern of the unemployed female heads of households.

**Table 1: Time use pattern of the female heads of households**

Type of activity	Time (hours) spent on the activity:			N <sub>k</sub>
	Mean	std dev	std Error	
Informal economic	6.02	2.77	0.14	410
Domestic:				
House cleaning	0.73	0.30	0.02	311
Cooking	3.12	0.83	0.05	229
Fetching water &				
Shopping	0.88	0.39	0.02	361
Other domestic				
Activities	1.04	0.60	0.40	187
Subtotal: work burden	11.79	1.52	0.04	
Eating	0.81	0.34	0.02	157
Personal hygiene	0.44	0.21	0.02	180
Rest	1.10	0.62	0.05	231

*Source:* Katapa (1993)

Durations of activities stated in Table 1 are also presented as a pie chart in Figure 1.



**Figure 1: Time use pattern of the female heads of Households (Hours per**

From Table 1 and Figure 1 we see that informal economic activities occupy more time than any other activity. The mean wake up time of the female heads of households was 5.45 a.m., and the mean time of going to sleep was 9.45 p.m. Thus in general, the unemployed female heads of households were awake for an average of 16 hours.

### **3.1 Economic and domestic activities**

The major informal economic activities in which the unemployed female heads of households were engaged in were: brewing and selling local beer, buying goods on wholesale basis and selling them in retail, cooking and selling food in open space or make-shift houses, preparing and selling rice cakes, pan-cakes and doughnuts.

The number of unemployed female heads of households in the sample is also presented for each major informal economic activity. Seven were local beer brewers and sellers; six were wholesale and retail sellers; six were doughnuts, rice and pan-cakes makers and sellers and four were engaged in cooking and selling food in open space or make-shift houses. In Tanzania women who cook and sell food in open spaces or make-shift houses are called *Mama mtilie*. The remaining thirteen unemployed female heads of households were scattered in different activities such



## *Time Use by Unemployed Female Heads of Households in Tanzania*

as weaving and selling mats, selling charcoal, processing and selling fish, selling soup of bones (*makongoro*) at drinking places, selling ice cream, embroidery and other petty businesses. In the analysis, activities of these thirteen women were grouped together and called "other economic activities".

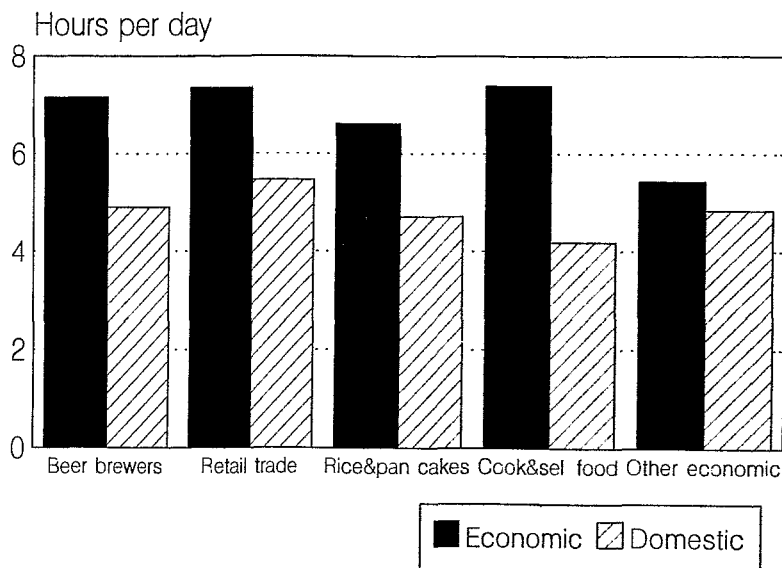
Durations of activities by major economic activities of the unemployed female heads of households are presented in Table 2.

**Table 2: Time use patterns by major economic activities**

Activity	Major economic activities of the female heads of households:				
	Brew & sell Beer	Wholesale & retail	Rice & pan cakes	Cook & sell food	Other
	Mean	Mean	Mean	Mean	Mean
Informal economic					
Brew & sell beer	6.31				
Wholesale & retail		6.74			
Rice & pan-cakes			6.30		
Cook & sell food				7.38	
Other economic	0.85	0.61	0.31		5.43
Domestic:					
Cooking	3.15	3.66	3.16	2.08	3.18
Fetch water & shop	0.85	0.90	0.85	1.16	0.87
Other domestic	0.91	0.90	0.70	0.95	0.79
Subtotal:					
Work burden	12.06	12.81	11.32	11.57	10.27
Eating	0.80	0.83	0.80	0.73	0.67
Personal hygiene	0.44	0.40	0.50	0.47	0.40
Rest	0.86	0.74	1.56	1.11	1.08
Mean wake up time	5:50am	6:00am	4:45am	5:45am	6:00am
Mean bed time	9:50pm	9:10pm	9:36pm	9:52pm	9:45pm
Mean time awake	16hrs	15hrs & 10min	16hrs & 51min	16hrs & 7min	15hrs & 45 min

*Source:* Katapa (1993)

In the bar chart in Figure 2, for each major economic activity, a comparison is made on time spent on economic and domestic activities. Included in domestic activities are: house cleaning, cooking, fetching water, and shopping.



**Figure 2: Time use pattern by major economic activities: A comparison of time spent on economic and domestic activities**

It can be seen from Figure 2 that they spent more time in economic activities than in the domestic ones.

Finally, time-use analysis was performed according to marital status of the unemployed female heads of households. In the sample, there were 12 widows, 11 divorced/separated, and 8 never-married unemployed female heads of households. The marital statuses of the remaining 5 unemployed female heads of households were not stated, hence they were excluded from this analysis.

Durations of activities of the female heads of households according to marital status are presented in Table 3.

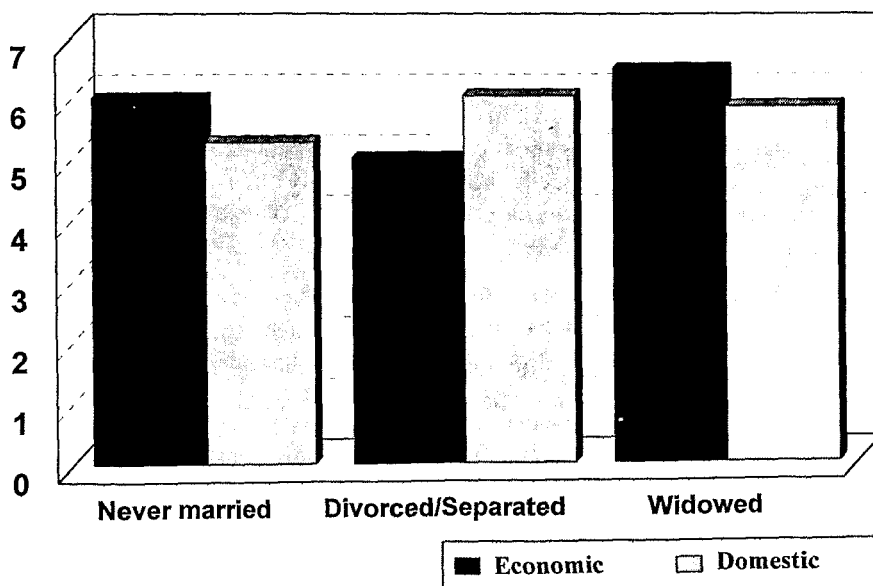
A comparison of time spent on economic and domestic activities in the three marital statuses is presented in a bar chart in Figure 3. Figure 3 clearly shows that widows spent the longest time in informal economic activities.

# *Time Use by Unemployed Female Heads of Households in Tanzania*

**Table 3: Time-use patterns by marital status**

Activity	Never married		Divorced/separated		Widowed	
	Mean	std-dev	Mean	std-dev	Mean	std-dev
Informal economic	6.0	2.16	5.01	2.37	6.48	2.60
Domestic:						
House cleaning	0.61	0.26	0.76	0.30	0.81	0.27
Cooking	2.77	0.82	3.29	0.80	3.27	0.67
Fetching water & Shopping	0.83	0.38	0.96	0.39	0.77	0.37
Other domestic	1.07	0.78	1.04	0.51	1.02	0.44
Total work burden	11.28		11.06		12.35	
Eating	0.87	0.33	0.66	0.25	0.84	0.32
Personal hygiene	0.44	0.24	0.41	0.12	0.44	0.19
Rest	1.19	0.69	1.01	0.51	1.13	0.49

*Source:* Katapa (1993)



**Figure 3: Time use patterns by marital status A comparison of time spent on economic and domestic activities**

### **3.2 Child care and social services**

It was not easy to get times spent on child care. Only one female head of a household had an infant. She performed many activities while carrying the baby on her back. This might have slowed her speed of performing other activities. There were others with young children/grand-children who stated that while they were performing informal economic or domestic activities, the children were cared for by their older siblings (or nieces). This may be a good arrangement but there might be negative effects on the older children such as school absenteeism, or poor performance in school. We were informed that in terms of illnesses on the children, the women left everything they were doing and took the children to hospitals. At the time of this study public hospitals were offering free services.

Once social obligations occurred, female heads of households attended them. The social obligations included attending funeral services and mourning sessions, visiting the sick in hospitals or at their homes, and attending weddings in their neighbourhoods or at their relatives' homes. These social obligations occurred once in a while, and they did not occur to every female head of a household.

Participation of the female heads of households in general social activities such as visiting friends or being visited by friends for a chat, or in order to pass time, was quite rare. None of the female heads of households reported having attended a development meeting in her locality. Also not reported in the female heads of households diaries were times spent on reading newspapers or listening to radios or attending any sort of a literacy/educational class. Only one woman reported having attended a meeting at her childrens' school. She did this because she was summoned by the headteacher of the school.

## **4. Discussion**

This study has shed some light on activities of unemployed female heads of households in urban Tanzania. It has also provided ideas on how they use their time.

It has been found out that unemployed female heads of households in urban Tanzania are awake for about 16 hours everyday. Analysis has shown that informal economic activities occupy slightly more of their time than the domestic ones. It should, however, be pointed out that there is a big variation (large standard deviation) in times spent on different informal economic activities. Out of all the activities they perform, personal hygiene takes the least time; and they hardly spend any time on other forms of recreation.

## *Time Use by Unemployed Female Heads of Households in Tanzania*

Most of the female heads of households go to markets daily to buy grocery, firewood and charcoal. One could save time by going to the market once in a week to buy enough grocery, firewood and charcoal to last for the whole week. When we discussed this possibility with some of the female heads of households, we were informed that they bought those necessities on a daily basis because they got money on a daily basis. The money they used to buy the basic daily necessities was the profit they realized from their informal economic activities.

The hazards of the economic activities the unemployed female heads of households are involved in are numerous. As this study was primarily concerned with time-use, it is enough to point out that the hazards and risks discussed in Omari (1991) also apply to the female heads of households who participated in this study.

### *4.1 Sequence of activities*

The sequence in which activities are done by one woman differs from that of another. Hence the activities as presented in Tables 1 to 3 are not in a sequence of performance.

Analysis of data according to major informal economic activities of the unemployed female heads of households showed that the female heads of households whose major activities were to make and sell rice cakes and/or pan-cakes, were the earliest to wake up. This is because rice cakes and pan-cakes are usually eaten at breakfast in most urban households. It was also observed that female heads of households who were engaged in cooking and selling food in open spaces or make-shift houses (*Mama ntilie*) did not have secondary economic activities.

Finally, analysis of time-use data according to marital status of the female heads of households showed that widows spent the longest time in informal economic activities, while the divorced/separated spent the least time. Cross-classification of age and marital status showed that most of the oldest unemployed female heads of households were widows. Hence, it can be conveniently stated that the widows, who make up the largest proportion of the oldest female heads of households, spend the longest time in informal economic activities. However, spending the longest time in informal economic activities does not necessarily mean having the maximum output. May be, due to their old age, their speed is lower than that of younger women. Another explanation could be due to differences in types of tools used. In this study, it was found out that female heads of households performing a specific informal economic activity used similar tools.

Judging from the presented Tables 1-3, it is my opinion that female heads of

households do not have enough time to include many forms of socialization in their time budgets. It is also suspected that female heads of households do not have enough "free" time to spend with their children.

#### ***4.2 Tools used in informal economic activities***

The effect of tools on durations of activities is important. In Venezuela, Hill and Hurtado (1989) showed that when Machiguenga women used wooden tools to dig and peel sweet maniac, they spent two to three times as much time as they spent when they used machetes and knives. In this study, we found that female heads of households engaged in a specific informal economic activity used the same tools. For example, the tools used by a local beer brewer in Mbeya town were the same as the ones used by a local beer brewer in Dar es Salaam city. In many cases, the female heads of households engaged in wholesale-retail trade in Mbeya town hired carts to transfer their goods from the wholesale place to their retail markets, their Dar es Salaam city counterparts did exactly the same thing.

In many cases, tools used in informal economic activities were not appropriate. For example, brewing beer requires a lot of water. Women involved in beer brewing carried plastic or tin buckets of water on their heads. They had to make at least ten trips in order to have enough water for brewing beer. They would have saved a lot of time if they had used carts. Carts are available for hiring in all the four research areas. Maybe the women cannot afford the cost of hiring carts.

Women involved in brewing and selling beer, cooking and selling food, processing and selling fish, used a lot of firewood and charcoal in processing or cooking their goods. Most of these preparations took place in open space. When necessary, they used large charcoal stoves in order to hasten processing/cooking, also adding firewood to the charcoal stoves. Introduction of improved large charcoal stoves would save some processing/cooking time. It would also assist in environmental conservation because less firewood and charcoal would be needed.

In order to make rice flour for preparing rice cakes, female heads of households in Dar es Salaam pounded rice in a mortar. When advised to take the rice to the grinding/milling machine in order to save processing time, they showed concern for the cost of grinding, and the distance they would have to walk to and from the grinding/ milling machine.

#### ***4.3 Limitations***

It has been pointed out in the discussion that in this study, it was quite difficult to quantify time spent on child care.

## *Time Use by Unemployed Female Heads of Households in Tanzania*

This study considered time-use patterns only. Labour intensity and work efficiency are other aspects worth looking at. For example, in brewing and selling local beer, time spent on the activity was taken to be the sum of the times spent on preparing raw materials, brewing beer, selling it and cleaning the tools. It is common knowledge that actual beer brewing is labour intensive and sweating (even during the coldest day in the mountainous town of Mbeya) is always an outcome. On the other hand selling beer does not require much labour.

The sample size of 36 female heads of households is quite small for a quantitative research: this was due to limited funding. However, random sampling was a useful tool in overcoming part of this shortcoming. Also, Acharya (1982) acknowledges the difficulties involved in collecting time-use data, and recommends that the results should be taken as the best approximation.

### **5. Conclusion**

This study was concerned with exploring time-use patterns of unemployed female heads of households in urban Tanzania.

The study found out that urban female heads of households were awake for an average of sixteen hours a day, they spent very little time on personal hygiene, and hardly any on recreation. Most of their time was spent on informal economic activities and household chores. Economic activities took more of their time than household chores. The times spent on economic activities and household chores could be reduced by use of appropriate technology. An example is that of using a cart for carrying water for beer brewing and domestic use: a cart carries six buckets of water at once. Also, women who cook and sell food in the open can use large improved charcoal stoves instead of firewood. This has a double advantage of time saving and environmental conservation.

The objectives of the study were met since we were able to find out the time-use of urban female heads of households. Also, the relationship between time spent on economic activities and other activities was established.

Data for this study was collected during the dry season. It would be ideal to conduct the same study during the rainy season so as to find out whether time-use patterns change with seasons.

One possible extension to this study is to compare time-use patterns of unemployed female and male heads of households in urban Tanzania. In this way, it will be possible to see the gender effect on time-use patterns of unemployed heads of households in urban Tanzania.

Another possible extension to this study is that of comparing time-use patterns of unemployed female heads of households in urban and rural Tanzania. In this way, it will be possible to see differences in time-use patterns between urban and rural female heads of households.

The other possible extension to this study is that of comparing time-use patterns of unemployed female heads of households to that of unemployed women in male headed households.

### **Acknowledgements**

I am grateful to the Organization for Social Science Research in Eastern Africa (OSSREA) for funding the study. My appreciation is also due to the four University of Dar es Salaam former students who acted as research assistants.

### **References**

- Acharya, M. 1982. Time use data and the living standards measurement study. Washington, D.C.: World Bank.
- Acharya, M & L. Bennett. 1981. The rural women of Nepal: An aggregate analysis and summary of eight village studies. *The status of women in Nepal*, Vol. 2, part 9. Kathmandu: Tribhuban University, Centre for Economic Development And Administration.
- Andorka, R. 1987. Time budgets and their uses. *Annual Review of Sociology*, Vol. 13.
- Bruce, J & D. Dwyer. 1988. *A Home Divided: Women and Income in the Third World*. Stanford: Stanford University Press.
- Bureau of Statistics. 1989. National social and economic profile of Tanzania. Dar es Salaam: Bureau of Statistics.
- . 1991. Women and men in Tanzania, a comparative study. Dar es Salaam: Bureau of Statistics.
- Buvinic, M., N Youssef, & B. Von Elm. 1978. Women headed households: The ignored factor in development planning. *International Centre for Research on Women*, Washington D.C.
- Farouk, A. 1980. Use of time by individuals: A survey in Bangladesh. In H.P. Binswanger *et. al.* eds. *Rural Households Studies in Asia*. Singapore University Press.
- Folbre, N. 1991. Women on their own: Global patterns of female headship. Joint working paper, *Population Council and International Centre for Research on Women*.



## *Time Use by Unemployed Female Heads of Households in Tanzania*

- Gupta, G.R. 1989. Female-headed households, poverty and child welfare. In *Notes from the seminar series: The determinants and consequences of female headed households*. New York: The Population Council.
- Hill, K. & A.M. Hurtado. 1989. "Experimental studies of tool efficiency among Machiguenga women and implications for root-digging foragers". *Journal of Anthropological Research*, Vol. 45.
- Katapa, R.S. 1993. Time-use by female heads of Households in urban Tanzania. Research report submitted to OSSREA.
- Lloyd, C.B & A.J. Brandon. 1991. Women's role in maintaining households: Poverty and gender inequality in Ghana. *The Population Council*, Working paper no 25.
- Maliyamkono, T.L. & M.S.D. Bagachwa. 1990. *The second economy in Tanzania*. London: J.Currey; Athens: Ohio University Press.
- Mcfarlane, S., R. Beaujot, & I. Haddat. 2000. Time constraints and relative resources as determinants of sexual division of domestic work. *Canadian Journal of Sociology*. Vol 25.
- Omari, C.K. 1991. The social dimensions of women in the informal sector. Professorial inaugural lecture. University of Dar es Salaam.
- Temu, A. E. & J.M. Due. 2001. Participatory appraisal approaches versus sample survey data collection: A case of small holder farmers well-being ranking in Njombe district, Tanzania. *Journal of African Economics*. Vol. 9.
- Tripp, A.M. 1988. Defending the right to subsist: The state versus the urban informal economy in Tanzania. Paper presented at The African Studies Association annual meeting, Chicago.
- United Republic of Tanzania (URT). 1995. The Dar es Salaam informal sector 1995. Planning commission and Ministry of Labour and Youth Development.
- . 1991. Tanzania: The informal sector 1991. Planning commission and Ministry of Labour and Youth Development.
- URT and DANIDA. 1983. Water plan for Iringa, Ruvuma and Mbeya regions. *Social Economic Studies, Village Participation on Water and Health*, Vol.13.