INFLUENCE OF RURAL WOMEN'S TIME ALLOCATION ON THEIR WEALTH STATUSES IN BUSEGA DISTRICT, TANZANIA

DEBORAH ANDREW NGUSA

ABSTRACT

The study examined time allocation per day among household chores versus income generation activities that influence wealth statuses of rural women in Busega District, Tanzania. Cross-sectional research design was adopted to conduct the study. The methods applied for data collection include household survey, focus group discussions, non-participant observations and documentary reviews. Qualitative data were analysed through content analysis. Quantitative data were analysed through cross-tabulation and Principal Component Analysis (PCA). The results show that, the means of hours used by rural women in conducting each activity per day were lopsided on household chores. The average time shows that each rural woman used approximately 6 hours for conducting household chores and at least two hours for income generation activities per day. Furthermore, the wealth statuses were established by computing Principal Component Analysis as it was revealed that the majority 62.9% (132) of the rural women were poor having low incomes. The tercile classification took account for below TZS 200,000 indicating poor, TZS 200,001 to 600,000 for middle and TZS 600,001 and above for better-off as higher income. The study concludes that rural women's income growth has been hampered by the burden of household chores because they were limited to participate effectively in productive activities. The paper recommends that, the government through the Ministry of Community Development, Gender and Special Groups experts should foster interventions that are grounded on increasing rural women's participation in income generation activities.

KEYWORDS: rural women, household chores, income generation activities, time allocation and wealth status

INTRODUCTION

Rural women face a challenge to allocate time for both household chores versus income generation activities on a daily basis that determines their wealth statuses. This paper discusses one of the socio-economic issues that affect rural women's wealth statuses in sub-Saharan Africa. The burden of household chores consumes many hours and hinders rural women to participate effectively in income generation activities (Ochola et al., 2021; Dutta, 2022).

In sub-Saharan Africa rural women spend many hours for household chores as unpaid activities being their responsibilities (Nkengla-Asi, 2019; Dinkelman and Ngai, 2022). Statistics show that, in sub-Saharan Africa 71% of the task of collecting water as one of the household workloads falls on women and girls (Wanjala, 2021). However, women with higher wealth statuses are likely to adopt labour-saving technologies to reduce the workload of household chores and save time than the ones

Deborah Andrew Ngusa, University of Dodoma, Institute of Development Studies, P.O. Box 395, Dodoma, Tanzania.

with low incomes (Johnson et al., 2019; Tiruneh, 2020; Hertog et al., 2022). In addition, wealth statuses are influenced by the daily activities conducted by individuals and the number of hours spent on income generation activities.

In sub-Saharan Africa rural women are restricted to adopt labour-saving technologies as the means for simplifying the workload of household chores, as a result they fail to allocate time on income generation activities (Agesa and Agesa, 2019; Ojong 2021). The argument of the study is that, failure to reduce the workload of household chores forces rural women to consume many hours and keeps them disadvantaged to participate effectively in income generation activities to improve their wealth statuses. In Ghana, a critical assessment was done for female entrepreneurs and evidences revealed that the workload of household chores increased time pressure associated with high job responsibilities (Hodzi et al., 2021). In Tanzania, women are occupied with heavy workloads especially in rural areas as they work in farms and are also responsible to conduct household chores (Debela et al., 2021). Definitely, in Busega District like other places in the country, rural women experience the heavy workload of households chores that is attributed to traditional distribution of labour (Gibore and Bali, 2020). Other scholars analysed adoption of technologies in agriculture as an approach to reduce the workload to rural women and use few hours in farming activities (Adu-Baffour et al., 2019; Kanu and Imatari, 2019; Diiro et al., 2021; Vemireddy and Choudhary, 2021). However, this paper focuses on the influence of rural women's time allocation between household chores and income generation activities towards their wealth statuses.

The study builds in literature to discuss rural women's time allocation for both household chores and income generation activities as one of the contemporary debates around their role in development. According to Murphy and Parry (2021) household chores as daily activities consume many hours that could be allocated on income generation activities. The most time demanding household chores conducted by rural women include fetching water, fuel wood collection and cooking and transporting stuffs from different geographical locations (Liu, 2021; Simon et al., 2021). Rural women need to conduct these activities by maintaining a balance for household chores and income generation activities to enhance wealth generation (Noor and Hoque, 2021; Winter et al., 2021).

The study addresses the following research question: do rural women manage to accomplish household chores and participate effectively in income generation activities per day to create wealth? This question was addressed by examining the number of hours spent by rural women for conducting household chores versus income generation activities per day. The wealth statuses of rural women were also examined to determine whether they managed to participate effectively in income generation activities. The main idea was to find out the best alternative that could enable rural women to free their time that is skewed on household chores and participate effectively on paid work to improve their wealth statuses. The study is significant as it paves a concrete strategy to empower rural women in development to enhance improvements of their living standards.

METHODOLOGY
Study Area and Selection Criteria
The study area was Busega District, which is among the six districts in Simiyu Region of Tanzania. The governmental centre of this district is Nyashimo town. At the northern hemisphere, this district boarders Lake Victoria with Bunda District, Bariadi District on the eastern part and Magu District in the southern part. Busega District had the population of 203,597 according to the country 2012 census (URT, 2016). Economic activities conducted in this district include farm and non-farm activities. Farming includes both crop cultivation and livestock keeping. Non-farm activities include fishing and petty trading. Petty trading comprises of shop keeping, food vending and handcrafting. Busega District was selected because patriarchal society is very dominant, demanding rural women to perform household chores (Damas, 2016; Lasway, 2019; Madoshi, 2022). As a result, this has kept the majority of rural women in poverty as it deprives them to run their petty trades to generate income.

Research Design
The study design as a cross-sectional created a blueprint to address the research problem. Through this design, the exposures of rural women to the task of allocating time between household chores versus income generation activities were examined. The independent variable for the study was time allocation that was expected to influence wealth statuses of rural women that was shaped through efficient participation in income generation activities when

the burden of household is reduced to save time. The study started by consulting the village executive officers in their offices to identify the number of households available in their territories. The design was applied by administering questionnaire to 210 rural women whose households were selected through simple random sampling. Cross-sectional design was used because it allowed administering of questionnaire to respondents at once to capture existence of the task of allocating time for household chores and income generation activities as a daily routine for rural women.

Sample Population and Size

The study population comprised of rural women who were mostly involved in conducting household chores. The sampling frame for drawing respondents targeted rural women in their households as entities who had the required information to answer the research question.

The unity of analysis was an individual rural woman who had information about what was happening in their households in allocating time for household chores versus income generation activities per day. A rural woman was selected because she is the one who struggle to manage activities daily in her household.

The study applied two main sampling techniques, which are simple random and purposive sampling that, were adopted interchangeably. Simple random sampling was applied to select 210 rural women to represent the population. International Fund for Agriculture Development (IFAD) formula was applied to calculate the actual number suitable to represent the population of rural women (IFAD, 2011). The formula was applied because it is rated as adequate for its adoption in determining the number of respondents based on the estimated percentage of prevalence of the problem in the study area.

IFAD Sampling Formula:

$$n = \frac{t^2 \times p(1-p)}{m^2}$$

Description:

n = required sample size
t = confidence level at 95% (standard value of 1.96)
p = estimated percentage of the problem (16.3%)
m = margin of error at 5% (standard value of 0.05)

Calculations:

$$n = \frac{1.96^2 \times 0.163(1-0.163)}{0.05^2}$$

$$n = \frac{3.8416 \times 0.026569}{0.0025}$$

$$n = \frac{0.52411333}{0.0025}$$

$$= 209.645332 \sim 210$$

Purposive sampling procedure was applied to select sixteen key informants and 60 participants for focus group discussions (FGDs). Six focus group discussions comprised of ten participants each were conducted to get in-depth information about rural women's time allocation on daily activities. Key informants included a district commissioner who explained women's statuses for allocating time between household chores versus income generation activities. The agricultural extension officer provided information about rural women's failure to participate effectively in agricultural activities as they spent much time fetching water daily, which is one of the repetitive household chores. The community

development officer, three development stakeholders from Social Network Venture (SNV) and social worker explained their observations on the nature of rural women's participation in conducting household chores versus income generation activities. Three ward and six village executive officers were interviewed to explain the statuses of women in their households. The essence of interviewing key informants is that, they are knowledgeable people who work and provide services to the community, and they understand the statuses of rural women livelihoods.

Data Collection Methods and Instruments

The household survey was conducted by administering questionnaire to rural women and capturing their responses for analysis. The household survey was used because it provides higher response obligations from rural women and allowed clarifications of information. During household survey, activity profiles as a gender analysis tool for each rural women was captured. Rural women were asked to identify all categories of activities they performed per day; time used for each and places for conducting them. The activity profile was used as a guide to explore how rural women allocated their time daily for conducting various activities. Non-participant observations were also conducted during household survey. Activities and facilities used for conducting daily tasks by rural women were captured through observations. Non-participant observations were useful to the study for collecting information based on the situation of time allocation that was done by rural women in the study area.

The information collected was expanded during focus group discussions (FGDs) from six groups with ten participants in each totalling 60. Participants for focus group discussions were selected purposively during household survey and asked to attend discussions to clarify information in a group. The rationale of conducting focus group discussions is to uncover ideas and issues that were not detailed to get in-depth information. Semi-structured interviews were also conducted to collect data from key informants. Each key informant was visited in his/her working place and asked to answer questions in the checklist. Key informant interviews were important to capture information from professionals who work in the community to get knowledge of the existed situation in relation to allocation of time for household chores versus income generation activities.

Processing and Analysing Data

Qualitative and quantitative data analysis were conducted in this study to get mixed information. Mixed methodology provided a more complete and comprehensive research to expand and strengthen the study findings.

Qualitative Data Analysis

Qualitative data were analysed through content analysis by structuring categories, codes, and texts to acquire a better understanding of experiences, ingenuous reports and quotations of the actual conversations. Qualitative data analysis involved content analysis through identification of responses, examination of given information and interpretation of textual patterns to answer the research question. Content analysis started by identifying and collecting in-depth information from the study area. The detailed information were recorded during interviews and organized to maintain coherence of the study report. Collected data were coded to organize the contents. Qualitative information were structured to replicate textual materials into systematic and logical set up. Content analysis was used in the study because it has the attributes of accommodating complex experiences of respondents in different ways that can be captured through open-ended questions. In addition, qualitative assertiveness were complemented by quantitative analysis that created a greater range of reporting numeric findings to enrich the study.

Quantitative Data Analysis

Data were analysed quantitatively by calculating incidences in numbers to get statistical results that were interpreted to answer the research question. The means of hours collected by using activity profiles of rural women were calculated to determine time allocation on household chores versus income generation activities. Cross tabulation was used to calculate income levels, wealth categories and ownership of labour-saving technologies in households. Cross tabulation was used because it allows analysing data with multiple variables and identifying their patterns. The wealth statuses of rural women were established by computing Principal Component Analysis (PCA). Variables entered in the model were tested by running the Kaiser-Meyer-Olkin Measure (KMO) with Bartlett's Test value for factor analysis. The orthogonal transformation was converted to get the set of observations of correlated variables. The variables that were used to measure wealth statuses included household size, education level, main occupation, monthly income, and ownership of the proposed labour-saving devices. PCA was run to measure rural women's wealth statuses based on rural context. Mathematically, PCA is obtained by deducting the mean from the actual value and dividing by the standard deviation of each variable. For this study, the mean of income earned by rural women per month was used as a value for calculation.

The Principal Component Formula:

$$z = \frac{value - mean}{standard\ deviation}$$

Where;
z is the number for each value calculated in the formula

Furthermore, tercile classification was arranged to categorise rural women's wealth statuses into three categories such as poor, middle and rich based on Tanzania Human Development Report (HDR) of 2022. The categories were classified as follows: poor for those who earned the lowest income below TZS 200,000, middle for those who earned average income varying from TZS 200,001 to 600,000 and better-off for those who earned higher income from TZS 600,001 and above per month. This was computed to arrange rural women in their wealth status groups to determine their ability to purchase the proposed labour-saving technologies for simplifying the workload of household chores.

Research Findings
Rural Women's Time Allocation on a Variety of Activities
In order to capture time allocation on various activities conducted by rural women daily, activity profiles were used to get the details. Allocation of time on a regular day of work to rural women is presented in Figures 1 and 2. On a regular setup, rural woman requires more than 13 hours a day to undertake routine activities. The position of intra-household allocation of labour in Busega District, Tanzania is comparable to other sub-Saharan Africa countries. For instance, rural women in Uganda deliver approximately 70-80% of the labour required in household in the expanse of food production and they are limited to access and use labour-saving technologies to reduce the workload (Ackello-Ogutu et al., 2019; Takayindisa et al., 2019). In Southern Cameroon it is estimated that "women spent 12 hours on activities that fetch income and more than 50 hours" for conducting agricultural activities and household responsibilities per week (Agholor, 2019). Whilst, women in Mozambique put approximately 9 to 12 hours per day on conducting household chores (Vivuya et al., 2021).

Observations revealed that in Busega District an archetypal rural woman carry out the role of producing and processing food, homemaking, caring and sometimes working in the labour market. These responsibilities impose various demands with expectations to rural women. Through combining with inability to access labour-saving technologies in rural households, these tasks leave rural women with time scarcity for other productive activities. These rural women generate low while lacking control of the income from their petty trading. Moreover, the aspect of deprivation of income was narrated during an interview with a rural woman in Busega District who stated that;

"Unfortunately, we have no control over the income we generate through our labour. As such, we are unfortunately more likely to be resource constrained or income poor. Normally, we get low benefits from our small-scale income generation activities because we allocate much time per day on household chores. Desperately, no one in our community pays attention on unpaid work that consume our time" (Sundi, Busega District, 16/08/2017).

Rural women explained how the issue of unpaid work in households have not been addressed in the community. This denotes that the problem of unpaid responsibilities for rural women is among the constrains that need thoroughly considerations when formulating human development policies to address poverty for vulnerable groups. In socio-economic development, the status of time allocation for rural women might explain lack of clear instructions in policies. This reflects to the household's gender-based dynamics that imparts on human development. As such, women are over-represented completely in the economy of unpaid sector and they are omitted from the country's policy analysis.
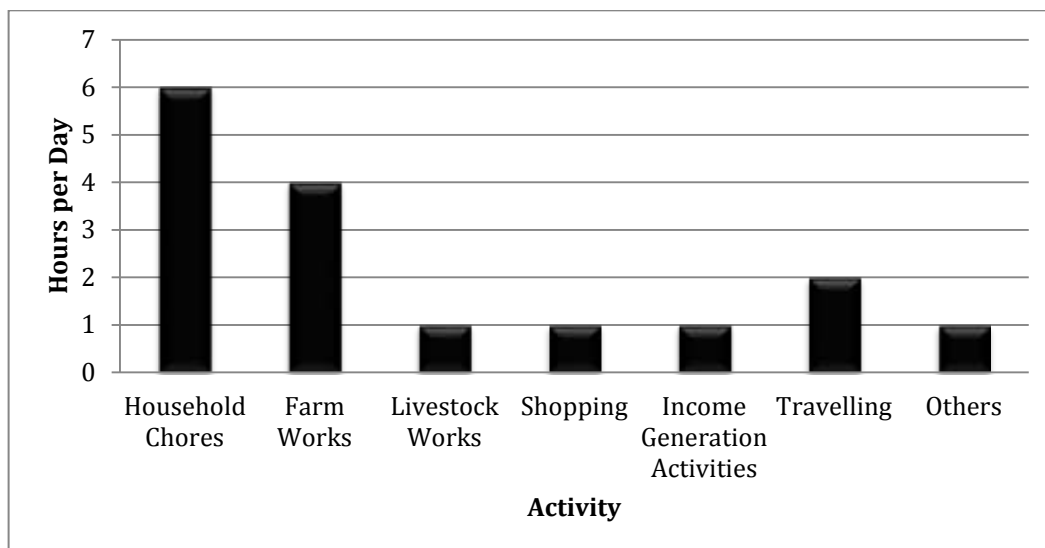
Figure 1: Hours Spent by a Woman on Different Activities per Day

Labour division within and outside the household seems to be unfair as both dimensions required comparable allocation of time. Rural women's responsibilities are heavy as they cut across the daily activities and demand labour intensity in farming, livestock keeping and other petty trades at household level. The problem emerges when it is a mandate to conduct them daily and they fail to make a balance on the number of hours to spend on each. More priority is dedicated on household chores because it entails survival of household members such as cooking, fetching water for various consumptions, fetching firewood for cooking and travelling to search for needed items. Therefore, allocating many hours approximately six on household chores deteriorates rural women's efforts to participate in income generation activities. Household chores dominate on women activity profiles every day.

In addition, the study scrutinized the number of hours used by rural women for other activities such as personal care and leisure for resting. So far, observations showed that other activities were performed interchangeably for instance travelling and shopping items for household consumptions. In a combination rural woman utilized the total amount of twelve hours on conducting various activities within household and outside. In most cases, these activities were skewed to unpaid work with household chores occupying almost six hours. The Village Executive Officer verified the situation by commenting that:

"I have witnessed rural women struggling with various activities in their households. During the evening, they end up complaining about failing to accomplish planned activities per day. They become absolutely exhausted during the evening time and commonly go to bed at 10:00 p.m. and wake up at 05:00 a.m. to commence their daily activities" (Rhoda, Busega District, 22/08/2017).

The similar circumstance was observed in the study area revealing that rural women were very disadvantaged in performing their daily responsibilities, being occupied with multiple tasks per day. However, personal care and leisure were secondary with few hours approximately two were dedicated for these welfares to rural women (Figure 2). This infers that the daytime for rural women was dominated by several activities while few hours for other personal welfare. Rural women worked very hard and lacked assistances to accomplish household chores including their petty trades that exceled with very low profits. Development interventions are highly required to target rural women who are struggling with income poverty lacking the opportunities to participate fully in productive activities.
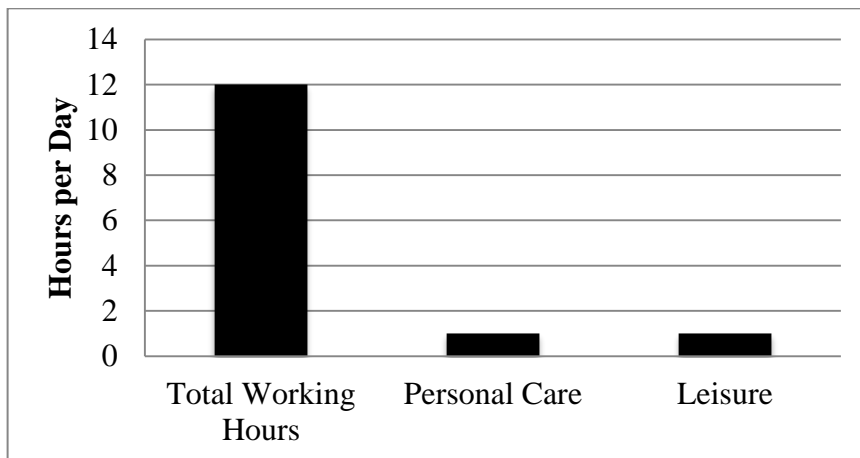
Figure 2: Work and Leisure Time for a Woman (Hours per day)

Rural Women's Burden in Households

The burden of household chores was assessed qualitatively to determine rural women's experience on these tasks. Rural women explained that household chores were often rooted on tedious, repetitive and heavy duties that took a lot of time to be accomplished and they could not be avoided. Similarly, it was also reported that household chores were among constrains that hindered rural women to participate effectively in income generation activities which had been a serious gendered-poverty dimension in sub-Saharan Africa (Prügl and Joshi, 2021; Omotoso et al., 2022). A rural woman explained during the household survey that:

"For the most part, what describes women's roles in discrepancy to those of men's is that we have to perform our responsibilities simultaneously. This is not revealed in the daily burden of household chores only and our very long working hours, but also in the choices of income generation activities that we necessarily have to make due to the immediate competing claims on our time" (Susana, Busega District, 20/08/2017).

This was also noted by the Village Executive Officer as he reported:

"In the case of households that have poor incomes, fewer assets and less available labour time, poverty dominates for individuals in our community. Rural women are more disadvantaged as they are duty-bound to conduct household chores as unpaid work. As a Village Executive Officer, I always encourage these rural women to work hard to create petty trades that could be conducted simultaneously with their

daily activities. In addition, in our culture men maintains patriarchal headships expecting to be served by their wives and other women living in their households (Susana, Busega District, 20/08/2017).

The Village Executive Officer as one of the key informants had experiences on how rural women were struggling to allocate their time for household chores versus income generation activities on daily basis. Evidences show that there was a varied range of factors that influenced women's performance in income generation activities with gender-differentiated patterns on time-use. The paper argues that this rural women's constraint to participate in income generation activities have significant effects in terms of their potential and definite influence to collective development. This is due to the fact that it affected their capabilities to acquire assets such as labour-saving technologies to free their time used on household chores. Likewise, when women workload could be simplified, they could have managed to allocate the freed time in various activities as it was detailed in one of the focus group discussions by a woman who stated that:

"The saved time is not always visible as we are always occupied with additional work such as responsibilities in the kitchen, farming, gardens at home, collecting more fuel wood for storage, fetching water, cleaning items and amending mattresses" (Elizabeth, Busega District, 27/08/2017).

Nzama and Ntini (2022) described related results, where time assigned by rural women for looking after their households, working in

gardens, collecting items, and food production for their members seriously impeded their capability to generate income. The series of household chores that have to be done by rural women promote survivals of their cohort members. Leaving these household chores unmanaged compelled these rural women into endless poverty as they failed to allocate time on income generation activities.

Evidence shows that, the burden of household chores placed very heavy responsibilities to rural women. The main argument in this scenario is that, despite of spending many hours to accomplish these activities, they were tedious to rural women. When they got tired after doing these household chores, they could not manage to embark effectively in income generation activities. They opted for convenient petty trades such as selling some fried groundnuts, tomatoes, vegetables, sweet potatoes, cassava and corns either mobile or setting a local table for display close to their households. They could not travel to the cities or towns to purchase valuable commodities and launch small shops that could enabled them to generate higher incomes. Commonly, men or married women who were supported by their counterparts conducted shop-keeping trades.

Rural Women's Ability to Generate Income
The Human Development Report (HDR) of 2022 was applied to determine rural women's income levels in Busega District to apprehend their ability to generate wealth. The amounts of income that rural women earned per month were used to group them into three levels of wealth categories. Table 1 indicate that 62.9% of rural women earned the lowest amount of income which is below TZS 200,000, 27.1% earned middle income from 200,001 to 600,000 and 10% earned the highest income varied from TZS 600,001 and above. For rural women who managed to earn middle and higher income levels were employed by the government and NGOs with positions as nurses and teachers. In addition, some of the government and NGOs

employees managed to combine farming and petty trading to get surplus income.

According to HDR of 2022, rural women's income levels in Busega District belonged at the lowest rank and they differed significantly. Income inequality increases in the community due to various opportunities in labour market and liberal trades that not all individuals can manage to access them. Scholars reported similar results as statistics indicated that in rural Tanzania income inequality occurs among women (Bintabara, 2021; Dickson et al., 2021; Ngilangwa et al., 2022). Unfortunately, rural women earned low incomes, as most of them were limited to access high sources of production.

The amounts of income earned by rural women in different levels revealed their weaknesses in generating income. The argument of the study builds on the number of hours spent on income generation activities. Rural women's mind-sets were more focused on household chores; as such they could not manage to switch their efforts simultaneously on income generation as well. In addition, the opportunity of using collateral to secure credits from financial institutions so that they could get capitals to launch small trades to get benefits has been limited. They lacked creativity and entrepreneurship skills because they were confined with household chores including other unpaid activities throughout the day. In addition, they lacked financial capabilities to launch more profitable trades conducive in their local surroundings. Financial scarcity to rural women was rooted on their pattern of activities conducted daily. Therefore, the major approach to rescue these rural women is rooted on paving the way of enabling them to launch petty trading and spend a large number of hours on income generation activities. There are no tangible alternatives to reduce poverty to rural women rather than enabling them to engage in income generation activities because they are hard workers. Their hardworking habit is the strong initial human capital for generating wealth for them including their households.

Table1: Rural Women Income Levels

Level of Income	Frequency	Percentage	Valid Percentage	Cumulative Percentage
< TZS 200,000	132	62.9	62.9	62.9
TZS 200,001 - 600,000	57	27.1	17.1	80.0
TZS 600,001 and above	21	10.0	10.0	90.0
Total	210	100.0	100.0	

Reducing the Burden of Household Chores through Wealth Statuses

The study proposes the use of basic labour-saving technologies for saving time used on household chores that are repetitive and conducted every day. These include water taps in or close to the households' approximately 400 metres for reducing the workload of fetching water (URT, 2002). Electric and gas cookers are also required for reducing the burden of collecting firewood and cooking in households. Bicycles, motorcycles and wheelbarrows are proposed to reduce the workload of walking for a long time to different locations for collecting items for household needs. However, the study discovered that adoption of labour-saving technologies determines their wealth statuses that stimulate their purchasing power. Therefore, rural women's wealth statuses were examined to determine their ability to purchase labour-saving technologies for reducing the burden of household chores.

Wealth Categories of Rural Women in Busega District

Principal Component Analysis (PCA) was used to compute rural women's wealth statuses by using selected labour-saving technologies that were likely to minimize the number of hours spent on household chores. Socio-economic variables undertaken by rural women were used as input data sets to calculate PCA. These socio-economic variables were tested to assess their applicability in the model. Table 2 indicate that the Kaiser-Meyer-Olkin Measure (KMO) value as 0.608, which is considered as average. According to the indicated figure, the factor analysis for some socio-economic characteristics were useful for explaining the influence of wealth statuses on adopting selected labour-saving technologies to rural women. However, the fewer cases, which had zero variances, were discarded through computation of the model.

Table 2: Kaiser-Mayer-Olkin and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.608
	Approx. Chi-Square	428.843
Bartlett's Test of Sphericity	df	6
	Sig.	0.000

The factor analysis was adopted to compute rural women's wealth categories based on the amount of income earned monthly by each of them. The categories were organised in three quantiles to arrange tercile classification ranking. Three categories include 1 = $\leq$ TZS 200,000 representing poor; 2 = TZS 200,001 – 600,000 indicating middle and 3 = $\geq$ TZS 600,001 for better-off that were classified by adopting the Human Development Index (HDI) (URT, 2022). The results in Figure 3 show that overall 62.9% (132) of the rural women were poor, 27.1% (57) were in the middle and only 9.99% (21) were in better-off category possessing higher income. The results indicate that, the majority of rural women were poor survived with low incomes in their households.

Rural women's capability to purchase labour-saving technologies for household chores was interpreted through their wealth statuses. The wealth categories classified in rural context reveals poverty to these women. This was shaped by the position of allocating many hours per day on household chores with the limitation to adopt labour-saving technologies to reduce the workload escalated income poverty to rural women. Spending many hours on household chores to rural women should be addressed effectively as it reduces the chances of generating wealth. This diminishes rural women's efforts to fight against poverty in their households. Leaving the problem unsolved, the efforts formulated to reduce poverty to rural women remain unsuccessful.
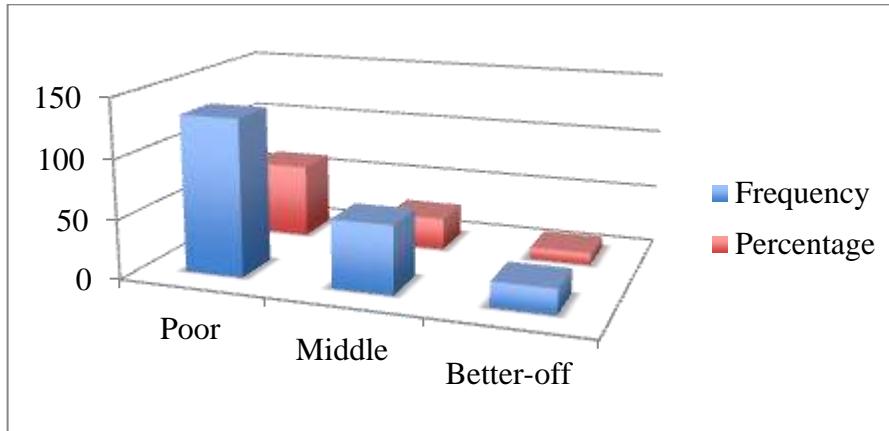
Figure 3: Wealth Categories of Rural Women in Busega District

Furthermore, the process of computing the PCA was preceded by the orthogonal design for conjoining analysis that was run to detect uncorrelated factors. Kaiser-Varimax rotation method was run to clarify whether the probed variables had relationship and suited for factor analysis. Varimax rotation synchronized to identify variables that associate with wealth statuses of rural women. The rotated component matrix for PCA produced technical propagates to select six variables to explain wealth statuses grounded on rural context. The factors reflected wealth statuses within diverse indicators, which included the level of education, main occupation, household size, monthly income, and labour-saving devices ownership. The wealth status components were clearly decoded by examining the signs and sizes of identified indicators relative to the study variables and respondents' status.

Table 3 results indicate that education level is 0.8, main occupation 0.7, monthly income 0.9 and ownership of labour-saving technologies 0.8 revealing the strong correlation. Whilst, household size indicates 0.4 revealing that there is a weak correlation with other identified variables. Thus, rural women's wealth statuses correlate strongly with their education level, main occupation, monthly income and ability to own labour-saving technologies. Interpretation of rural women's ability to procure labour-saving devices determines on their daily activities as they create enabling environment to afford the prices.

The alternative of adopting labour-saving technologies to simplify the workload of household chores to rural women is influenced by education level, their main occupation and monthly income that create their wealth categories. This means that educated rural women are likely to generate higher incomes and afford the expenses of purchasing labour-saving technologies than those who are illiterate. The aspect of occupation determines the amount of income earned by rural women. When rural women earn higher income per month, they get the capability to purchase the basic labour-saving technologies needed in their households. The failure for women to earn higher incomes per month limits their ability to purchase labour-saving devices. Instead of concentrating on empowerment, there is a need to transform rural women's patterns of living. Improving their wealth depends on the number of hours spent on income generation activities. The efforts to reduce poverty to rural women have to start with formulation of strategies to reduce their workload of household chores.

Table 3: Component Matrix for Explaining Wealth in Busega District

Indicator	Component
Education level	0.8
Main occupation	0.7
Household size	0.4
Monthly income	0.9
Wealth Category	0.9
Ownership of Labour-saving Technologies	0.8

Rural Women Labour-Saving Devices Ownership by Wealth Categories

Table 4 indicate the cross-tabulation results on ownership of labour-saving devices based on their wealth categories. Rural women who belonged in the poor category only 4.5% owned water taps, 0.9 electric cookers, 4.29% gas cookers, 2.3 bicycles, 0.95 motorcycles and 1.43% wheelbarrows. Those who were in the middle category 9.52% owned water taps, 4.76% electric cookers, 11.43% gas cookers, 14.29% bicycles, 2.86% motorcycles and 2.86%% wheelbarrows. Rural women in a better-off category 42.1% owned water taps, 29.05% electric cookers, 62.7% gas cookers, 42.8% bicycles, 5.92% motorcycles and 38.2%% wheelbarrows.

The results indicate that rural women's wealth categories influence their ownership of labour-saving devices in their households. As majority of rural women belonged in the poor category, as such minority managed to purchase labour-saving devices for reducing the burden of household chores. While rural women who belonged in the middle wealth category, owned few labour-saving devices with the minimum averages. As far as a small number of rural women were in the better-off category, they managed to afford the payments of purchasing labour-saving devices. The capabilities to own labour-saving devices increased in relation to wealth categories of these rural women.

Table 4.8: Labour-Saving Devices Ownership by Rural Women's Wealth Category

Owned Labour-Saving Device	Wealth Categories		
	Poor	Moderate	Better-off
Water tap	4.5%	9.52%	42.1%
Electric cooker	0.9%	4.76%	29.05%
Gas cooker	4.29%	11.43%	62.7%
Bicycle	2.38%	14.29%	42.8%
Motorcycle	0.95%	2.86%	5.92.5%
Wheelbarrow	1.43%	2.86%	38.2%

CONCLUSION

The results indicate that time allocation for household chores versus income generation activities shaped the wealth statuses of rural women. The regular set up for household indicate that rural women needed more than 13 hours per day for conducting various activities. The division of labour seems to be skewed to rural women and they were required to carry out various responsibilities within and outside the household. Their duties cut across farming, petty trading and household chores. Rural women failed to reduce the workload of household chores to serve time for other productive activities. As a result, they experienced income poverty because they spent few hours on income generation activities. They were also limited to access and use labour-saving technologies to reduce the workload of household chores and save time for income generation activities. Therefore, it is evident that 62.9% of rural women earned the lowest amount of income which is below TZS 200,000, 27.1% earned middle income from 200,001 to 600,000 and 10% earned the highest income varied from

TZS 600,001 and above. The study conclude that, overall 62.9% (132) of the rural women were poor. In addition, it was discovered that rural women's wealth statuses correlated strongly with their education level, main occupation, monthly income and ability to own labour-saving technologies. The study revealed that rural women in a better-off category 42.1% owned water taps, 29.05% electric cookers, 62.7% gas cookers, 42.8% bicycles, 5.92% motorcycles and 38.2%% wheelbarrows. The results indicate that rural women's wealth categories influenced their ownership of labour-saving devices in their households.

RECOMMENDATIONS
The problem facing rural women in managing household chores versus income generation activities need to be addressed by the Ministry of Community Development, Gender and Special Groups through encouraging development experts to train them on how to allocate time for various daily activities.

In order to reduce income poverty to rural women, the government development interventions should focus on reducing the workload of household chores to rural women by improving access to water services, fuels and means of transport.

Development policies, programmes and projects should prioritize the issue of facilitating initiatives to increase access to and use of labour-saving technologies that are capable to save rural women's time which is lost in performing unpaid work.

REFERENCES

Ackello-Ogutu, C., Okoruwa, V., and Bahal, G. N., 2019. Long term challenges to food security and rural livelihood in Sub-Saharan Africa. Gates Open Res, 3(139), 139.

Adu-Baffour, F., Daum, T., and Birner, R., 2019. Can small farms benefit from big companies' initiatives to promote mechanization in Africa? A case study from Zambia. Food Policy, 84, 133-145.

Agesa, R. U., and Agesa, J., 2019. Time spent on household chores (fetching water) and the alternatives forgone for women in sub-Saharan Africa: evidence from Kenya. The Journal of Developing Areas, 53(2).

Agholor, A. I., 2019. Gender gap in Sub-Saharan Africa, reminiscence of rural extension and advisory services: delineation, challenges and strategies. South African Journal of Agricultural Extension, 47(3), 46-60.

Bintabara, D., 2021. Addressing the huge poor–rich gap of inequalities in accessing safe childbirth care: A first step to achieving universal maternal health coverage in Tanzania. Plos one, 16(2), e0246995.

Debela, B. L., Gehrke, E., and Qaim, M., 2021. Links between maternal employment and child nutrition in rural Tanzania. American Journal of Agricultural Economics, 103(3), 812-830.

Dickson, K. S., Adde, K. S., and Ameyaw, E. K., 2021. Women empowerment and skilled birth attendance in sub-Saharan Africa: a multi-country analysis. Plos one, 16(7), e0254281.

Diiro, G. M., Fisher, M., Kassie, M., Muriithi, B. W., and Muricho, G., 2021. How does adoption of labor saving agricultural technologies affect intrahousehold resource allocations? The case of push-pull technology in Western Kenya. Food Policy, 102, 102114.

Dinkelman, T., and Ngai, L. R., 2022. Time use and gender in Africa in times of structural transformation. Journal of Economic Perspectives, 36(1), 57-80.

Dutta, D., 2022. Women's burden of unpaid care work and the power of public services. In Gender, Unpaid Work and Care in India (pp. 103-120). Routledge India.

Gibore, N. S., and Bali, T. A., 2020. Community perspectives: An exploration of potential barriers to men's involvement in maternity care in a central Tanzanian community. PloS one, 15(5), e0232939.

Hertog, E., Fukuda, S., Matsukura, R., Nagase, N., and Lehdonvirta, V., 2022. The future of unpaid work: Estimating the effects of automation on time spent on housework and care work in Japan and the UK. Available at SSRN 4031667.

Hodzi, M. B., Annor, F., and Darkwah, E., 2021. An exploration of work-related experiences of domestic workers in Accra, Ghana. Journal of Workplace Behavioral Health, 36(4), 309-334.

International Fund for Agricultural Development

Johnson, O. W., Gerber, V., and Muhoza, C., 2019. Gender, culture and energy transitions in rural Africa. Energy Research & Social Science, 49, 169-179.

Kanu, I. A., and Imatari, E. P. O., 2019. Gender rights, climate change and food security in Africa. Nnadiebube Journal of Religion, Culture and Society, 1(2).

Liu, C., 2021. Rethinking the timescape of home: Domestic practices in time and space. Progress in Human Geography, 45(2), 343-361.

Makene, F. S., Ngilangwa, R., Santos, C., Cross, C., Ngoma, T., Mujinja, P. G., ... and Mackintosh, M. 2022. Patients' pathways to cancer care in Tanzania: documenting and addressing social inequalities in reaching a cancer diagnosis. BMC health services research, 22(1), 1-13.

Murphy, J., and Parry, S., 2021. Gender, households and sustainability: Disentangling and re-entangling with the help of 'work' and 'care'. Environment and Planning E: Nature and Space, 4(3), 1099-1120.

Nkengla-Asi, L., Olaosebikan, O. D., Che, V. S., Ngatat, S., Zandjanakou-Tachin, M., Hanna, R., and Kumar, P. L., 2019. Gender norms and their implications for banana production and recovery in West Africa. In Gender and Practice: Knowledge, Policy, Organizations. Emerald Publishing Limited.

Noor, S., and Hoque, M., 2021. Access to mobile phones and women's socio-economic empowerment in rural areas of Bangladesh: Understanding gender relation transformation. Indonesian Journal of Social Research (IJSR), 3(1), 1-16.

Nzama, N. P., and Ntini, E., 2022. Challenges facing women's community vegetable gardening in the Echobeni area of KwaZulu Natal Province, South Africa. African Journal of Gender, Society and Development, 11(1), 97.

(IFAD) 2011. Calculating

Ochola, E. A., Elliott, S. J., and Karanja, D. M., 2021. The impact of neglected tropical diseases (NTDs) on women's health and wellbeing in sub-Saharan Africa (SSA): a case study of Kenya. International journal of environmental research and public health, 18(4), 2180.

Ojong, N., 2021. The rise of solar home systems in sub-Saharan Africa: Examining gender, class, and sustainability. Energy Research and Social Science, 75, 102011.

Omotoso, K. O., Adesina, J., and Adewole, O. G., 2022. Profiling gendered multidimensional poverty and inequality in post-apartheid South Africa. African Journal of Science, Technology, Innovation and Development, 14(2), 564-576.

Prügl, E., and Joshi, S., 2021. Productive farmers and vulnerable food securers: contradictions of gender expertise in international food security discourse. The Journal of Peasant Studies, 48(7), 1439-1458.

Simon, G. L., Peterson, C., Anderson, E., Berve, B., Caturia, M., and Rivera, I., 2021. Multiple temporalities of household labour: The challenge of assessing women's empowerment. Development and Change, 52(2), 289-315.

Takayindisa, F. M., Thobejane, T. D., Mukwevho, M. H., and Nyathi, L., 2019. Economic effects of drought within family settings: the case of Masvingo, Zimbabwe (from 2000 to 2016). Journal of Gender, Information and Development in Africa JGIDA, 8(Special Issue 2), 131-149.

Tiruneh, A. Z., 2020. Assessment of performance and adoption of improved enset processing technologies: A case study in Enemorena Ener District, Guragie Zone, Southern Nations, Nationalities and Peoples Regional State, Ethiopia. IOSR Journal of Humanities and Social Science, 25(2), 1-20.

United Republic of Tanzania URT, 2022. Tanzania Human Development Index. [https://hdr.undp.org/sites/all/themes/hdr _theme/country-notes/TZA.pdf], site visited on 21/06/2022.

Vemireddy, V., and Choudhary, A., 2021. A systematic review of labor-saving technologies: Implications for women in agriculture. Global Food Security, 29, 100541.

Winter, J. C., Darmstadt, G. L., and Davis, J., 2021. The role of piped water supplies in advancing health, economic development, and gender equality in rural communities. Social Science and Medicine, 270, 113599.