



WOMEN'S LIVELIHOODS IN THARAKA NITHI COUNTY, KENYA

DESCRIPTIVE REPORT

A descriptive report based on data from the full household survey conducted in Tharaka Nithi County in May-June 2022. The study examines women's livelihoods, psychosocial wellbeing, childcare duties, and labour force participation. This is a sequel to the project's year-two report prepared in September 2021 on the basis of a pilot survey conducted in the same County. The quantitative and qualitative datasets underlying the report can be obtained from the Project PI and Co-PI on request.

Project PI and Co-PI

Lilian G. Kiruja (Principal Investigator), Email: liliankiruja@gmail.com.

Project contact person: Abraham Maruta Kirema (Co-Principal Investigator), Email: amaruta13@gmail.com / a.maruta@tharakanithi.go.ke).

Kenyatta University Women's Economic Empowerment (WEE) Hub

P.O. BOX 43844, Nairobi, Kenya

Email: hubleader-wee@ku.ac.ke

Phone (+254 20) 870 3840.

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HIGHLIGHTS OF STUDY FINDINGS AND POLICYIMPLICATIONS

- Crop farming is the main livelihood activity in Tharaka Nithi County. It is followed by animal keeping, casual labour and small businesses.
- Agriculture and casual labour, despite requiring substantial women's time and effort do not yield much income.
- Small businesses and formal employment give the few women engaging in them relatively good incomes and are less time intensive.
- Unpaid household chores and childcare take up the bulk of women's time, thereby restricting their engagement in the market economy and in public spheres.
- Women's human capital in the County is very low: nearly **70%** of adult women have no education or have only primary education but with limited literacy.
- Policy makers need to explore ways of expanding post-primary education to women, in Tharaka Nithi County and similarly disadvantaged counties, as better education and technical skills to handle everyday tasks are linked to higher incomes.
- Interventions to increase women's productivity in agriculture and small businesses are urgently needed because most women engaged in these activities practically have no alternative sources of livelihoods.
- The government needs to provide accessible and affordable childcare services in the County to relieve women of some childcare burden, especially during the day.
- The findings reveal that childcare is a barrier to women's economic empowerment in the County.
- Nearly 34% of women felt overly overburdened by their daily responsibilities. To mitigate this, community health volunteers (CHVs) should be trained to help women cope with stress associated with their daily tasks.
- A significant number of women (**31%**) in the County are very worried about the future of their livelihoods. More research is needed on how to address this worry.

INTRODUCTION

Background

Tharaka Nithi County has six sub-counties, namely Tharaka North, Tharaka South, Chuka, Igambang'ombe, Muthambi, and Maara, and a population estimate of 478,570 people as of 2021 (Kenya Bureau of Statistics, 2019). The County covers an area of 2,564 Km² and is considered one of the smallest among the 47 Counties in Kenya. Mt. Kenya forest takes up 360 Km² (or 14%) of the area, and, as a result, the County has higher than the national forest cover requirement of 10% per county. The County traverses all the Kenya's ecological zones, with its land elevation ranging from 355m a.s.l at the confluence of Ura River and Tana River, to 5064 meters at the peak of Mt. Kenya. Despite this rich forest cover, a large percentage of the County is semi-arid, particularly the localities of Tharaka North and Tharaka South, and experiences poor rainfall averaging 450mm per year.

The research study focus was to assess the economic livelihood activities of women in the County using data from a household survey designed to capture micro-data that has a strong bearing on women's wellbeing in all three of the agro-ecological zones of the County, i.e., the upper, middle and lower terrains.

In Tharaka Nithi County, women's livelihoods are defined by the above three agro-ecological zones. High and mid-altitude areas are inhabited by Chuka and Maara people who mainly cultivate bananas, coffee, yams, avocados, tea and also keep dairy livestock. The low altitude terrains are inhabited by the Tharaka and Igambang'ombe communities who plant crops such as green grams, beans, green peas, maize, millet, sorghum and cowpeas. Other sources of livelihoods in the low altitude areas include livestock and poultry farming, basketry, as well as small and micro-enterprises. In all of the three agro-ecological zones, farming is done in small scale due to impediments such as small sizes of land, lack of seeds and credit, and unaffordable farm technology.

Most women in Tharaka Nithi County are self-employed, with those living in the vicinity of market centers depending on small and micro enterprises, while those in the rural areas engage in crop farming and livestock keeping. The women within urban areas operate kitchen gardens and retail shops, while the vast majority depend on the open-air markets to sell farm produce obtained from adjoining rural areas. Many potential livelihood activities are yet to be tapped by women in Tharaka Nithi County. The recent establishment of women and youth fund in the County is an effort towards providing capital for women businesses, especially the small and micro enterprises (Tharaka Nithi County Integrated Development Plan, 2018-2022).

The study sought to determine the sustainable livelihood activities the women pursue in the County, with a focus on asset ownership, access and control of household assets, gender-based power relations, available income earning opportunities, and the daily challenges women face in pursuit of livelihoods. The report documents livelihood profiles in Tharaka Nithi County and assesses, to some extent, the sustainability of the livelihood activities pursued by women. As already noted,

focus is on women's asset ownership; access and control of household resources and power relations within household, and the extent to which the relations affect women's livelihoods. The findings contained in the report have the potential to inform government and other stakeholders on the kinds of targeted support that can be given to women to improve productivity in their varied livelihood undertakings. The findings can be used to explore ways to improve returns to the existing livelihood pursuits and to consider new livelihood activities that can be introduced in different ecological zones of the County.

The study evaluated the psychosocial wellbeing of women in Tharaka Nithi County using straightforward self-assessment questions- the responses to which provide insights as to the emotional, psychological, and socioeconomic situations of the women residing in the County. For example, the respondents were asked to assess, on a scale of 1-5, the extent to which they are anxious about the future of their livelihoods. The analysis of this item showed that a significant number of women (31%) gave a score of 5, indicating that they are very worried about securing decent livelihoods in the future. This seemingly straightforward assessment tool, shows that an evaluation of economic wellbeing, especially that of women residing in fragile agro-ecological zones should not be based only on current livelihoods, but also on future livelihoods, as perceived by women themselves. The report uses the same assessment device to understand women's sense of autonomy, self-confidence, innate ability to make decisions, and the extent to which their behaviors and actions are constrained by the people around them. The findings can be used to inform interventions that can be implemented in the County to realize women's rights and economic empowerment.

The study provides quantitative and quality information on key constraints on women's economic empowerment in Tharaka Nithi County for the very first time. For example, evidence is provided on the role childcare plays in women's engagement in domestic, market activities, schooling, entrepreneurship and leisure time, to name a few.

Research Objectives

The study sought to:

- i. Map out women's livelihood activities by ecological zones in Tharaka Nithi County.
- ii. Assess the contribution of different livelihood activities to women's economic empowerment.
- iii. Quantify the time spent on childcare and home production by women and girls.
- iv. Identify potential avenues for improving women's economic empowerment in the County.

Research Questions

- i. What are the different livelihood activities of women in the different ecological zones in Tharaka Nithi County?
- ii. Which livelihood activities have the greatest impacts on women's income?
- iii. How much time is spent by women and girls on childcare and home production?
- iv. What policies can be implemented to boost women's status in Tharaka Nithi County?

Data Collection Procedures

As in the pilot survey, before embarking on the livelihoods' full survey, the Tharaka Nithi County project research team held stakeholders' engagement meetings at the county and sub-county levels. The stakeholder meetings were also used to familiarize different partners with the project's research activities. Questionnaires were administered physically to women in the sampled households. The research teams used a geo-enabled Kobo Collect Mobile Application to fill in the responses. Qualitative data in the form of field notes was separately collected, and is provided in a separate report.



Figure 1 A researcher collecting data from a respondent using a mobile application

Methodology

Following the stakeholder meetings, the lead CHVs were tasked to draw a list of all the households in the wards. This list constituted the sampling frame from which a sample was drawn using simple sampling technique based on randomly generated numbers attached to the households. The researchers were accompanied by CHVs who played a critical role in helping the researchers access the respondents. After the identification of respondents, the research team used a geo-enabled Kobo Collect Mobile Application to fill in the responses. Kobo Collect App tool allowed the responses to be submitted online in real time. The survey also sought information from the key informants who were purposively selected. Also, focus group discussions were conducted.

The remainder of the report is structured as follows. Part 1 contains the main findings with brief discussions of patterns in livelihoods, plus demographic and other regularities that emerge from the data. Part 2 summarizes the report highlighting how its findings could be used by policy makers to enhance women's economic empowerment in Tharaka Nithi County. There are two appendices, the first being data sources and data quality, and the second detailing the composition of the research team.

PART I: RESULTS AND DISCUSSIONS

This part of the report presents the findings on women's livelihoods in Tharaka Nithi County. The results are presented in detail using tables, charts, graphs, figures and short clarification narratives. The findings based on qualitative data are presented in a separate report.

SECTION 1: RESPONDENTS' DEMOGRAPHICS

HOUSEHOLDSAMPLES BY WARDS AND ECOLOGICAL ZONES

The CHVs presented the list of households from their respective Community Units (CU). The list comprised the name of the household head and where possible the telephone contacts (these were subsequently removed from the dataset). The researchers, ward administrators, the chiefs and community health volunteers (CHVs) scrutinized the list to check for discrepancies and omissions in the list presented by the CHVs. Table 1 shows the 3 ecological zones of the County and the wards in each zone.

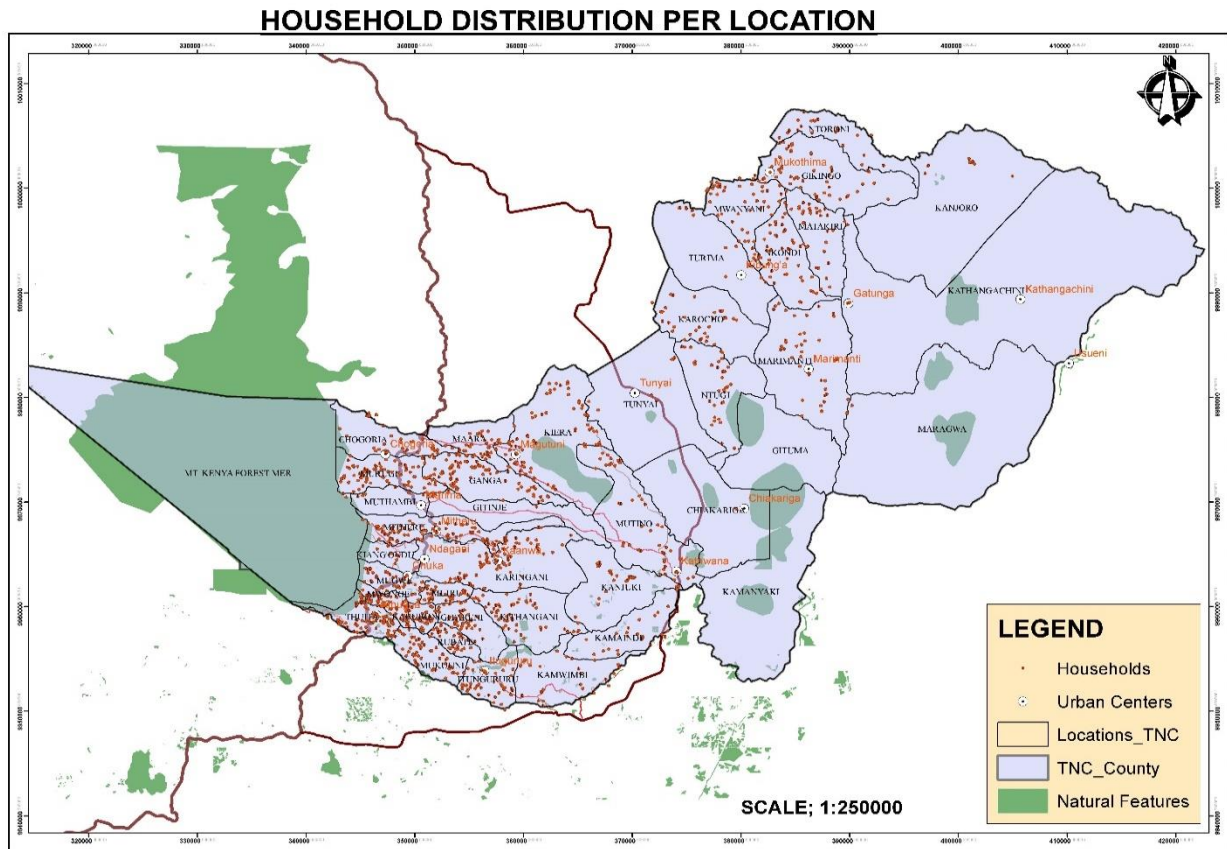
Table 1 Wards where the survey was conducted

Wards	Ecological Zone
<i>Chogoria, Magumoni, Mitheru, Mugwe, Mwimbi, Ganga</i>	Upper Zone
<i>Mariani, Igambang'ombe</i>	Middle Zone
<i>Nkondi, Mukothima, Marimanti</i>	Lower Zone

The table below tabulates the total number of households identified (with the assistance of County Community Health Volunteers) in each of the wards.

Table 2 Households in every ward per KNBS data and the CHV data (Data Source, KNBS)

#	Ward	2019 KNBS Census Households	Actual households (reported by CHVs)	Randomly Sampled
1	<i>Chogoria</i>	11528	7011	223
2	<i>Ganga</i>	5197	4873	149
3	<i>Mwimbi</i>	7324	5142	164
4	<i>Mitheru</i>	5079	4793	154
5	<i>Igambang'ombe</i>	9464	7890	189
6	<i>Marimanti</i>	7282	6860	170
7	<i>Magumoni</i>	6470	8296	297
8	<i>Nkondi</i>	3719	4682	147
9	<i>Mariani</i>	4934	4102	135
10	<i>Mukothima</i>	5329	6485	212
11	<i>Mugwe</i>	11513	4915	160
Total		77,839	65,039	2,000



SAMPLE SIZE DETERMINATION

$$n = \frac{Z^2 p q}{e^2}$$

where n = sample size

p = population proportion

$$q = 1 - p$$

e = marginal of error

The researchers agreed to use marginal of error as 2.5% and population proportion of 0.5

$$\text{Sample size } n = \frac{(2.24)^2 * 0.5 * 0.5}{(0.025)^2} = 2,007$$

Adjusted sample size according to Tharaka Nithi County population

$$= \frac{S}{1 + \left[\frac{S-1}{Population} \right]}$$

$$= \frac{2007}{1 + \left[\frac{2007-1}{109\,860} \right]}$$

= 1971

$\approx 2,000$

RESPONSE RATE

Among the **2,000** sampled households, a total number of **1,617** households were successfully interviewed and the responses recorded using the Kobo Collect application. This represents **80.85%** of the total sample. Of the **1,617** respondents, a total of **1,550** (95.86%) respondents consented to responding to the questionnaire while the other **67** (4.14%) declined consent.

Table 3 Consent tabulation

Consent	Total Number of Respondents	Percentage
Yes	1,550	95.86%
No	67	4.14%
TOTAL	1,617	100%

DEMOGRAPHICS

AGE

Age is a basic demographic characteristic of a population that has influence on demographic and socio-economic behavior. Age is an essential demographic variable because it strongly influences social relations including access to productive assets, power and decision making. Therefore, in studying women's livelihoods, analyzing the age of respondents helps in understanding the type of livelihoods performed by women.

The average age of the respondents was **48 years**; with the minimum age being **18 years** and maximum age **103 years**. The table below shows the frequencies of the various age categories of the respondents. The most dominant age group was **35-49 years**, accounting for **13.42%** of the **population**.

Table 4 Age of the population

Age Category	Frequency	Percentage
18-23	54	3.48%
24-29	144	9.29%
30-34	144	9.29%
35-39	208	13.42%
40-44	172	11.10%
45-49	192	12.39%
50-54	147	9.48%
55-59	94	6.06%
60-64	117	7.55%
65-69	76	4.90%
70-74	86	5.55%
75-79	48	3.10%
80-84	35	2.26%
85-89	12	0.77%
90-94	14	0.90%
95-99	4	0.26%
100-104	3	0.19%
TOTAL	1,550	100.00

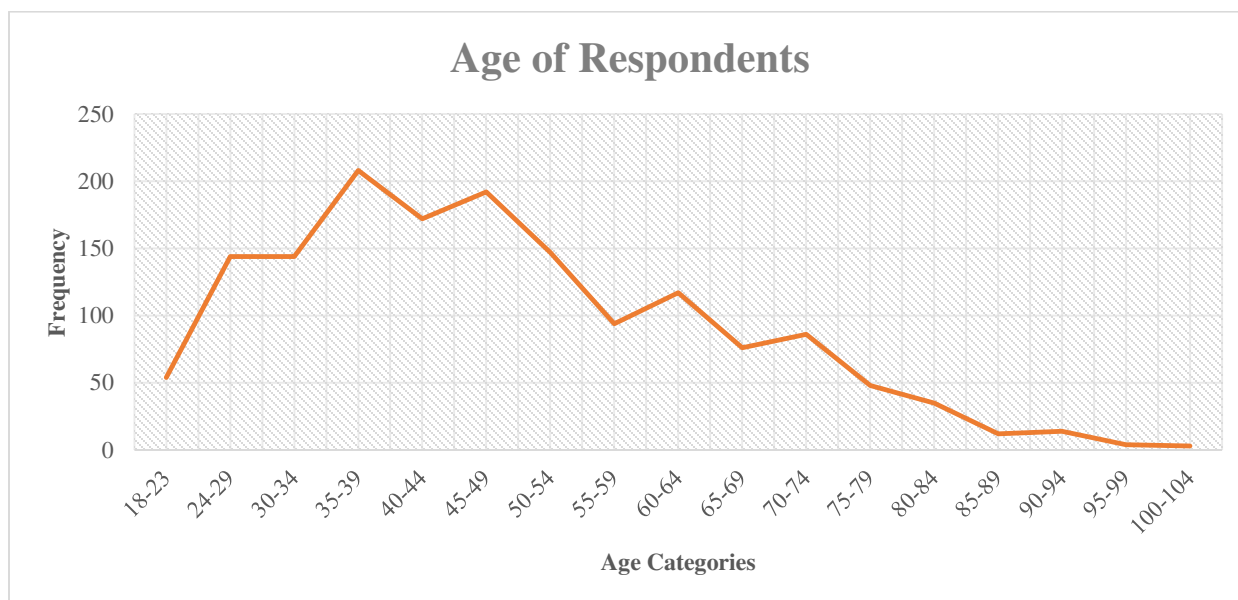


Figure 3 Graphical representation of the respondents' age

MARITAL STATUS

In many communities, women are at a disadvantaged position because of the existing institutional inefficiencies and cultural impediments that ensure women, unlike men, have limited access to and control over productive resources and other life enhancing assets. Marital status often influences access to and control of household resources (Stimpson, Fernando, & Kristen, 2012). Marriage has implications on patterns of livelihoods pursued by individual members within a household. For example, through marriage, a woman can have direct access to and control over family resources. With such understanding, the study sought to analyze the marital status of women in the study area.

Marriage seems to reinforce traditional gender roles, since women's employment, even to this day, is characterized by domestic and caregiving responsibilities in a way that men's is not.

According to the data collected from the 1,550 respondents, **72.19%** of the women are married, while the other **27.81%** are either widowed, single, divorced or separated from their husbands.

Table 5 Marital status of the respondents

Marital Status	Frequency	Percentage
Married	1,119	72.19%
Single	134	8.65%
Widowed	219	14.13%
Separated	61	3.94%
Divorced	17	1.10%
TOTAL	1,550	100.00%

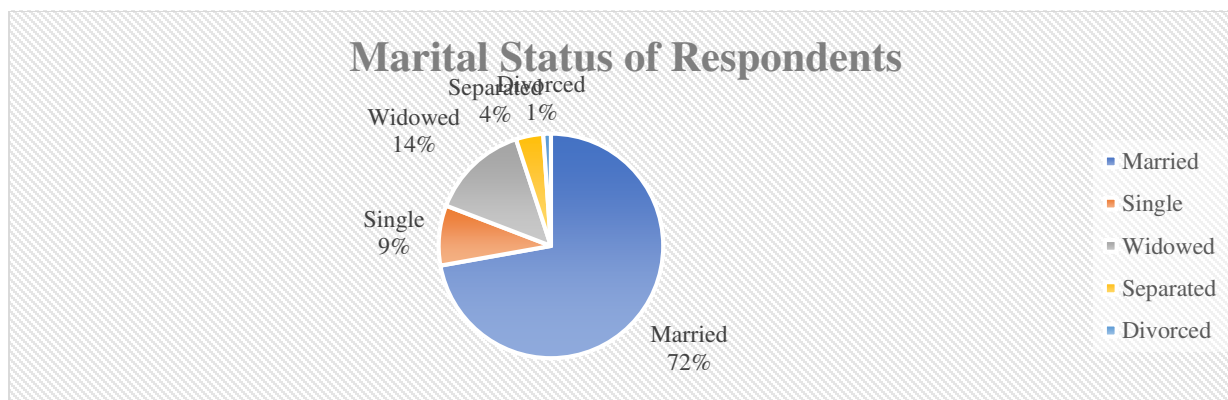


Figure 4 Respondents' marital status

The Table 6 below shows a tabulation of the marital status across the three ecological zones.

Table 6 Marital status across the three ecological zones

Ecological Zone	Married	Single	Widowed	Separated	Divorced	Total
Upper Zone	70.73%	8.54%	16.17%	3.87%	0.68%	100.00%
Middle Zone	68.28%	11.03%	15.52%	4.14%	1.03%	100.00%
Lower Zone	78.53%	7.07%	8.38%	3.93%	2.09%	100.00%

The marital status for the different age categories of the 1,550 respondents was observed as shown in Table 7 below:

Table 7 Marital status for the different age categories

Age Category	Married	Single	Widowed	Separated	Divorced
18-23	4.20%	5.22%	0.91%	0.00%	0.00%
24-29	11.71%	5.22%	1.83%	3.28%	0.00%
30-34	10.81%	11.94%	1.83%	1.64%	11.76%
35-39	15.37%	11.94%	2.74%	16.39%	23.53%
40-44	11.89%	11.19%	5.94%	16.39%	5.88%
45-49	13.14%	13.43%	4.57%	22.95%	17.65%
50-54	9.20%	11.19%	7.76%	11.48%	29.41%
55-59	5.63%	7.46%	9.13%	0.00%	5.88%
60-64	6.34%	9.70%	11.42%	13.11%	0.00%
65-69	3.40%	3.73%	12.79%	6.56%	5.88%
70-74	4.65%	1.49%	13.70%	3.28%	0.00%
75-79	2.14%	2.24%	8.68%	1.64%	0.00%
80-84	0.89%	2.24%	9.59%	1.64%	0.00%
85-89	0.18%	0.00%	4.11%	1.64%	0.00%
90-94	0.18%	1.49%	4.57%	0.00%	0.00%
95-99	0.18%	0.75%	0.46%	0.00%	0.00%
100-104	0.09%	0.00%	0.00%	0.00%	0.00%
TOTAL	100.00% (n=1,119)	100.00% (n=134)	100.00% (n=219)	100.00% (n=61)	100.00% (n=17)
N=1,550					

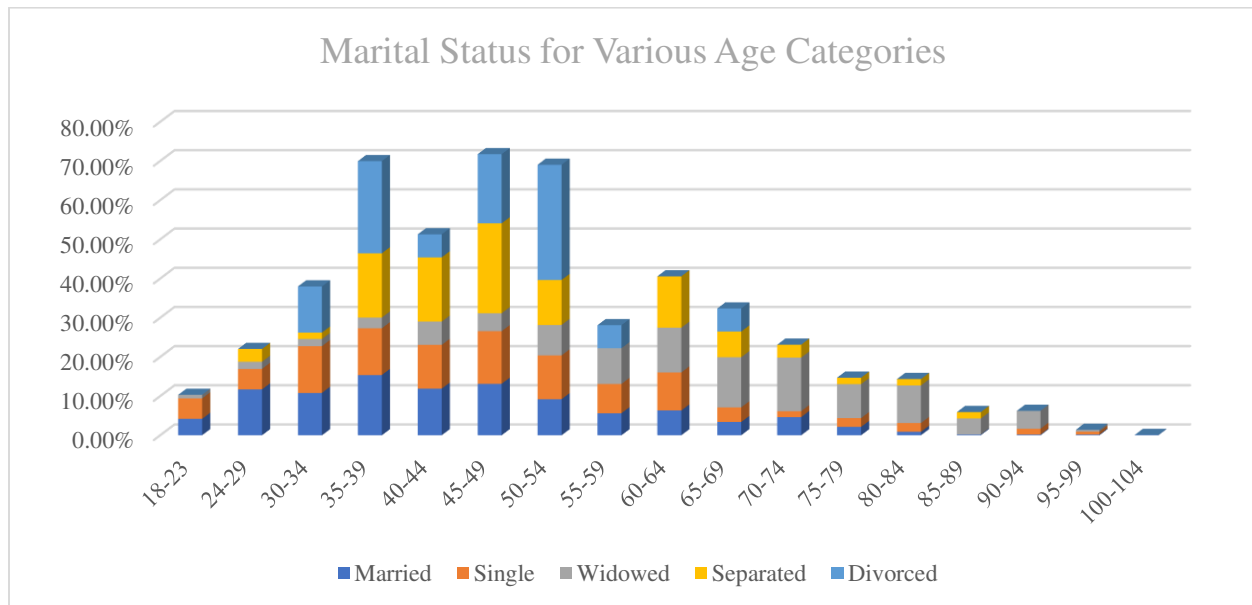


Figure 5 Graph showing the marital status of respondents by various age categories

EDUCATION LEVEL

Education equips people with information, knowledge and skills to analyze situations and earn a living. Education provides a competitive edge in dealing with complex issues. Education a tool for empowerment in socio economic and political sectors(Ozturk, 2001).

According to the data obtained from the respondents, only **29.61%** of the population has acquired post-primary education.

Table 8 Education level of respondents

Education Level	Frequency	Percentage
None	217	14.00%
Primary	874	56.39%
Secondary	344	22.19%
Diploma & Certificate	99	6.39%
University Degree	15	0.97%
Post-graduate	1	0.06%
TOTAL	1,550	100.00%

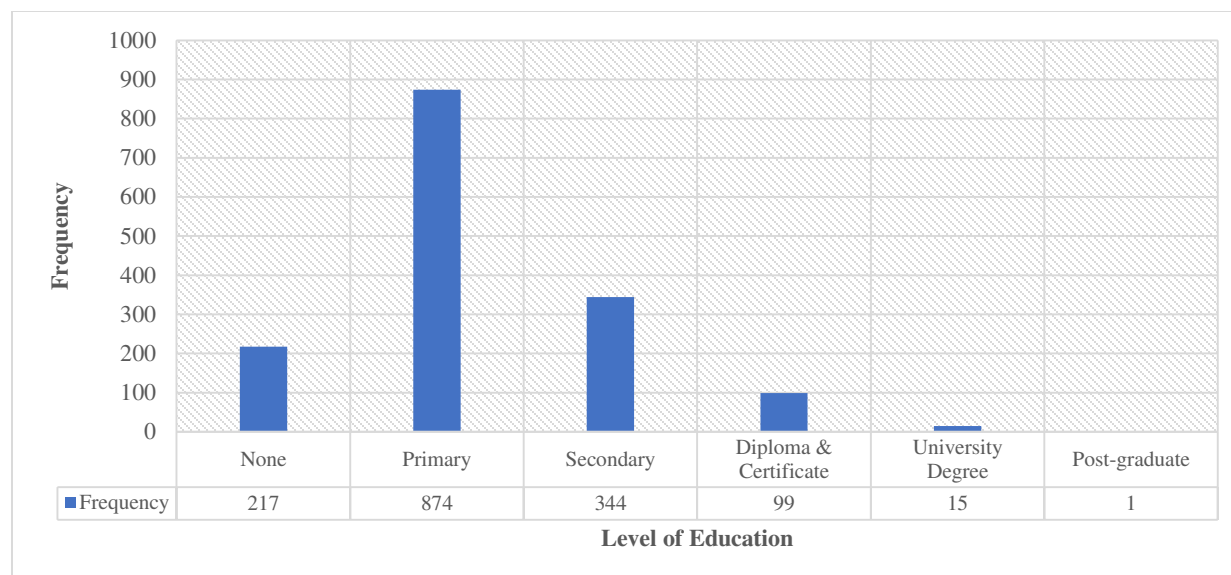


Figure 6 Bar graph depicting the level of education of the respondents

The level of education for respondents as per each ecological zone is as tabulated below. The upper ecological zone has the highest post-primary education achievements at **35.3%**, the middle zone is at **22.75%** and the lower zone at **21.73%**. More non-schooling was also observed in the lower ecological zones of the county with **22.51%** having not attended school at all.

Table 9 Level of education for respondents as per ecological zone

Ecological Zone	None	Primary	Secondary	Diploma & Certificate	University Degree	Post Graduate	Total
Upper Zone	9.11%	55.58%	26.31%	7.63%	1.25%	0.11%	100%
Middle Zone	17.59%	59.66%	19.31%	3.10%	0.34%	0%	100%
Lower Zone	22.51%	55.76%	14.92%	6.02%	0.79%	0%	100%

The table below shows the analysis of the levels of education against the corresponding marital status of respondents. An interesting observation is that **82.35%** of the divorced women have only reached the primary level of education.

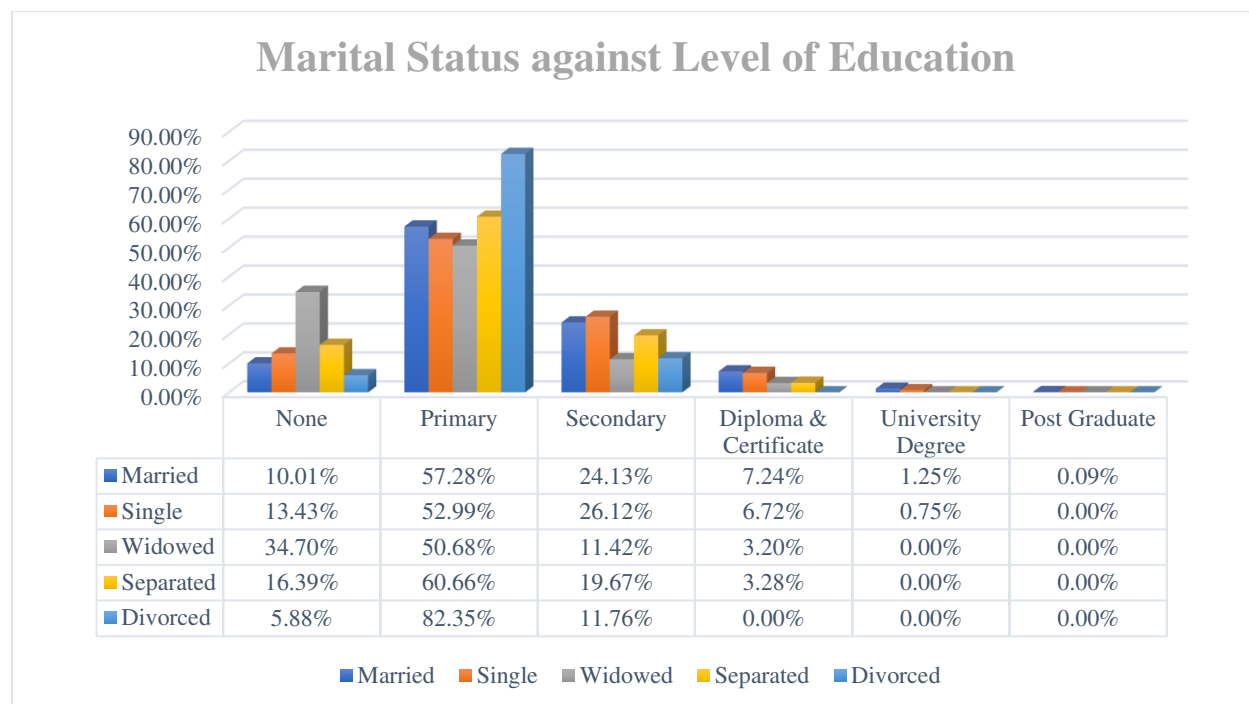


Figure 7 Marital status against the level of education

RELIGION

Religious affiliations could have an effect on an individual's choice of a livelihood activity. Religious beliefs varying in significance over time and place. Such beliefs can influence individual preferences in general, and individuals belonging to a religious group may behave in a particular way. Religious affiliation is linked to social capital developments; a factor that may determine networks that impact on livelihoods (Ayifaha, Tina, & Umakrishnan, 2021).

Of the 1,549 respondents, **98.38%** were Christians (Protestants and Catholics). Among these Christians, the protestants were observed to be significantly more than the Catholics, at **74.56%** against **23.82%**. The table below shows the distribution of the respondents' religious affiliations.

Table 10 Respondents' religious affiliations

Religion	Frequency	Percentage
None	11	0.71%
Protestants	1,155	74.56%
Catholics	369	23.82%
Muslims	2	0.13%
Others	12	0.77%
TOTAL	1,549	100.00%

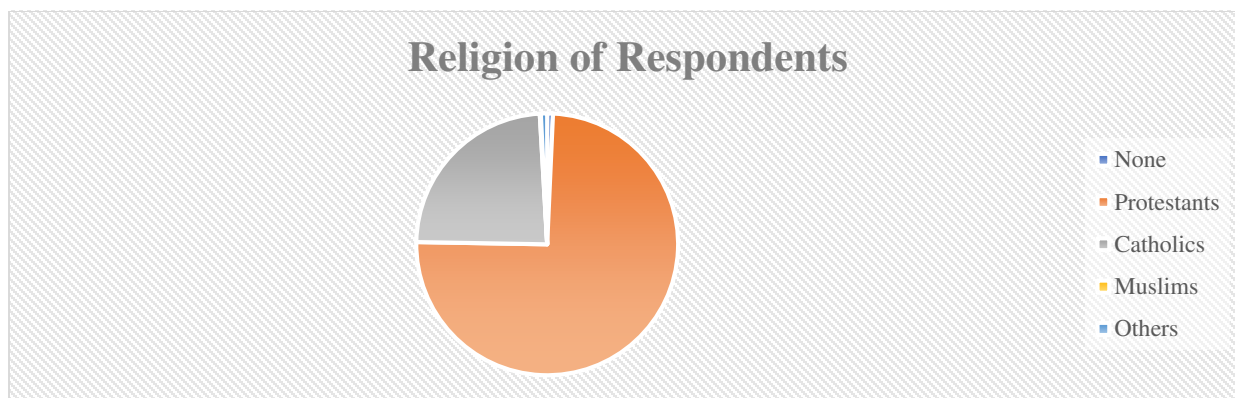


Figure 8 Chart showing the religion of the respondents

The distribution of the religion across the three ecological zones in the County is tabulated below.

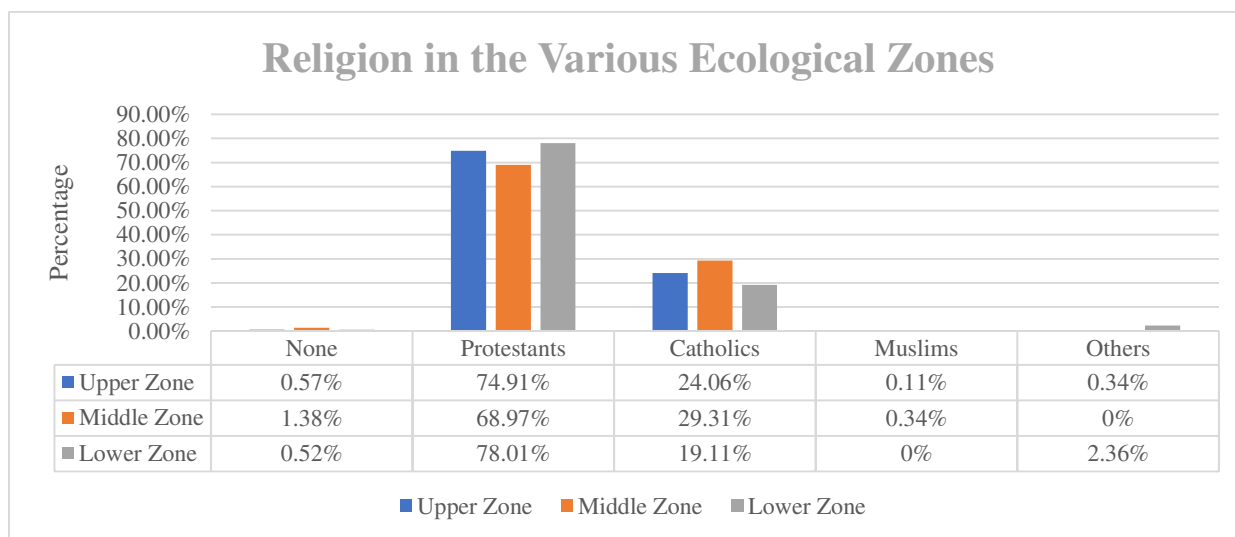


Figure 9 Bar graph showing religion distribution in the three ecological zones

An interesting observation is the high percentage (4.92%) of respondents who reported they are not affiliated to any religion and who are also separated from their spouses.

Table 11 Marital status for respondents for respondents of various religious affiliations

Marital Status	No Religion	Protestants	Catholics	Muslims	Others	Total
Married (N=1,118)	0.45%	74.96%	23.70%	0.18%	0.72%	100%
Single (N=134)	0.75%	76.12%	22.39%	0.00%	0.75%	100%
Widowed (N=219)	0.91%	72.15%	25.57%	0.00%	1.37%	100%
Separated (N=61)	4.92%	72.13%	22.95%	0.00%	0.00%	100%
Divorced (N=17)	0.00%	76.47%	23.53%	0.00%	0.00%	100%

INCOME SOURCES

In Tharaka Nithi County, women's casual labour activities are defined by the three ecological zones. As already noted in the introduction, the high and mid altitude areas are inhabited by Chuka and Maara people who mainly plant tea, coffee, maize, avocados and also keep dairy livestock among others. Low altitude ecological zones are inhabited by Tharaka community who plant green grams, peas, millet, sorghums, cow peas among others. This zone is characterized by long spells of dry season and hot sun. The livestock in this zone comprises goats, sheep, traditional cows, donkeys and chicken.

The income sources for the respondents can be summarized as in the Table 12 below. The results show that the main source of income for the respondents is agriculture, with crop farming leading at **85.10%** and animal husbandry following at **53.68%**. It is also worth noting that **51.10%** of the respondents practice **mixed farming**, where they keep both animals and plant crops.

Table 12 Income sources

Economic Activity	Frequency	Percentage
Crop Farming	1,319	85.10%
Animal Keeping	832	53.68%
Casual Labour/Wage employment	654	42.19%
Business/Retail Market/Selling Foods	253	16.32%
Formal Employment	68	4.39%
Remittances	70	4.52%
Handicrafts	23	1.48%
None	17	1.10%
Others	49	3.16%

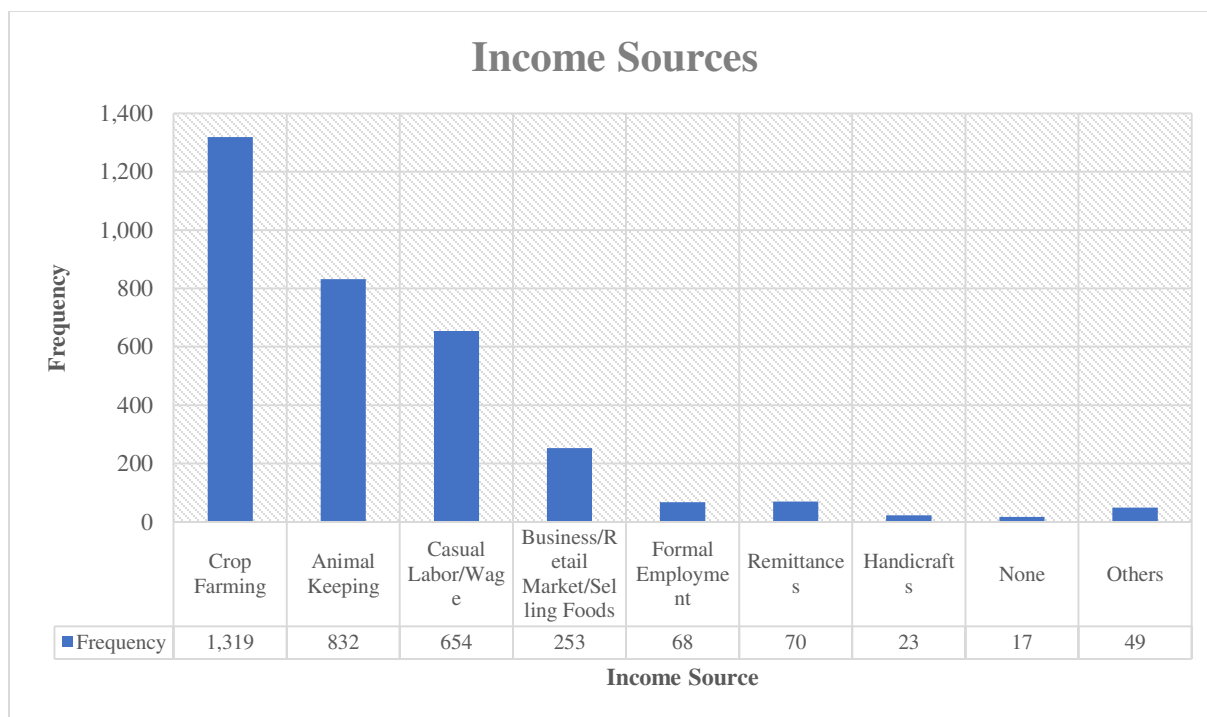


Figure 10 Graph showing the income source analysis

The frequencies and corresponding percentages in the study sample for the economic activities in the three ecological zones is tabulated below.

Table 13 Economic activities per ecological zone

Economic Activity	Upper Ecological Zone	Middle Ecological Zone	Lower Ecological Zone
Crop Farming	699 (79.61%)	252 (86.90%)	368 (96.34%)
Animal Keeping	497 (56.61%)	132 (45.52%)	203 (53.14%)
Casual Labour/Wage	349 (39.75%)	141 (48.62%)	164 (42.93%)
Business/Retail Market/Selling Foods	131 (14.92%)	66 (22.76%)	56 (14.66%)
Formal Employment	45 (5.13%)	9 (3.10%)	14 (3.66%)
Remittances	38 (4.33%)	28 (9.66%)	4 (1.05%)
Handicrafts	6 (0.68%)	6 (2.07%)	11 (2.88%)
None	15 (1.71%)	1 (0.34%)	1 (0.26%)

Globally, women are concerned with meeting the needs of their families. These needs include health, food, shelter, education among others. To support their livelihoods and those of their families, women mainly engage in agricultural production (Junianita & August, 2018). However, sustaining agricultural livelihoods is a challenge mainly due to agro-climatic variability such as low rainfall.

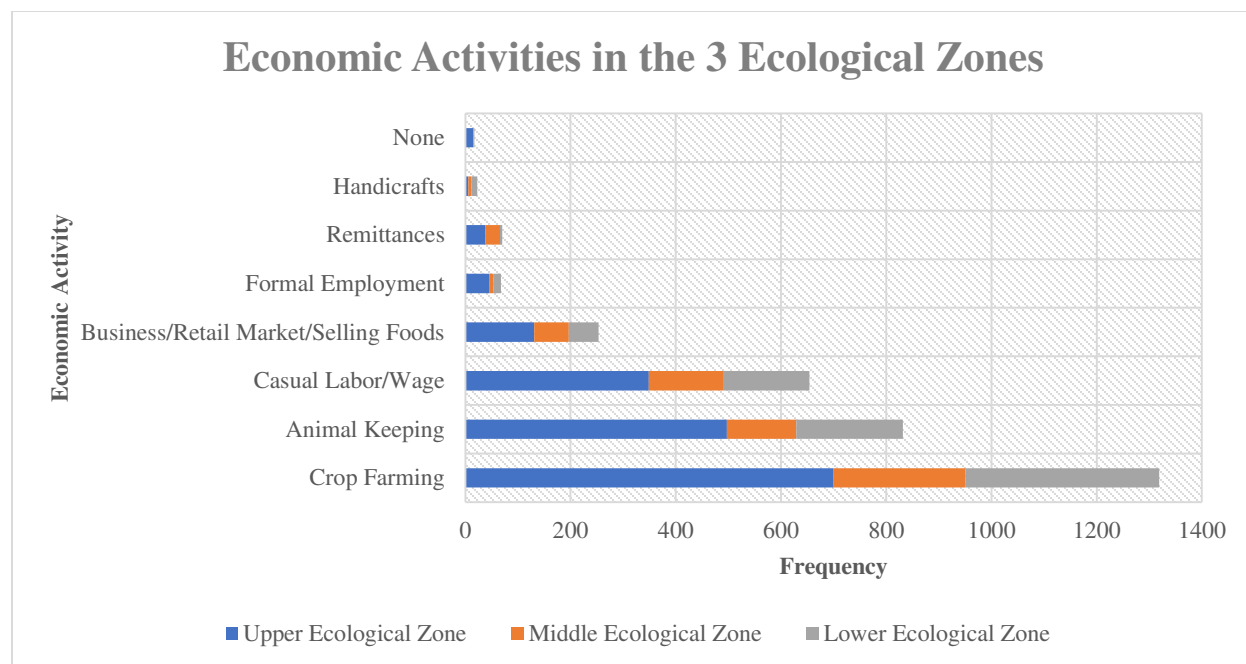


Figure 11 Economic activities in the three ecological zones

An analysis of the economic activities according to amount of income generated for the households is tabulated as below for the 1,513 respondents. It is worth noting that the majority of the respondents get most income from agriculture, with crop farming contributing to **54.66%** of the household income and animal husbandry contributing **13.95%** of the income.

Table 14 Livelihood Activities generating the most income

Source of Income generating most income	Frequency	Percentage
Crop Farming	827	54.66%
Animal Keeping	211	13.95%
Casual Labour/Wage employment	230	15.20%
Business/Retail market/Selling Foods	137	9.05%
Formal Employment	55	3.64%
Remittances	46	3.04%
Handicrafts	7	0.46%
TOTAL	1,513	100.00%

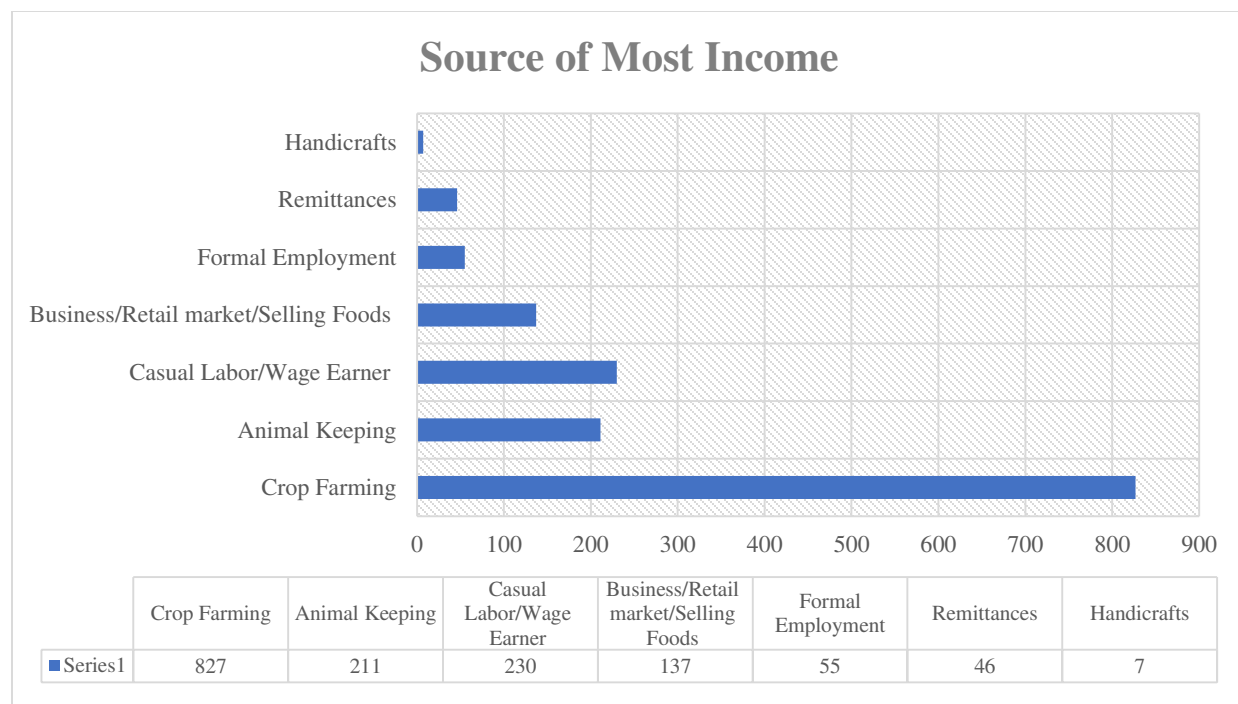


Figure 12 Graph showing an analysis of the livelihoods based on which brings most income

The main source of livelihood in most the rural Africa is subsistence agriculture mostly done by women. Hardly do women engage in meaningful large-scale production, and once they do, mostly as labourers. Women also engage in small scale trade where mostly they exchange farm produce. The nature of one's livelihood quite often determines the sources of income, which in turn defines one's socio-economic status. Besides, a higher income for women translates into better families and their voices can be recognized (Kantor, 2003). This study sought to find out the sources of income women engage in within the study area.

Table 15 below further analyses the main source of income for the various households in the three ecological zones:

Table 15 Main source of income per ecological zone

Main Source of Income	Upper Ecological Zone	Middle Ecological Zone	Lower Ecological Zone
Crop Farming	44.73%	56.60%	75.26%
Animal Keeping	19.05%	6.25%	8.42%
Casual Labour/Wage Employment	17.87%	17.01%	7.89%
Business/Retail market/Selling Foods	10.06%	11.81%	4.74%
Formal Employment	4.26%	3.13%	2.63%
Remittances	3.55%	4.51%	0.79%
Handicrafts	0.47%	0.69%	0.26%
TOTAL	100.00%	100.00%	100.00%

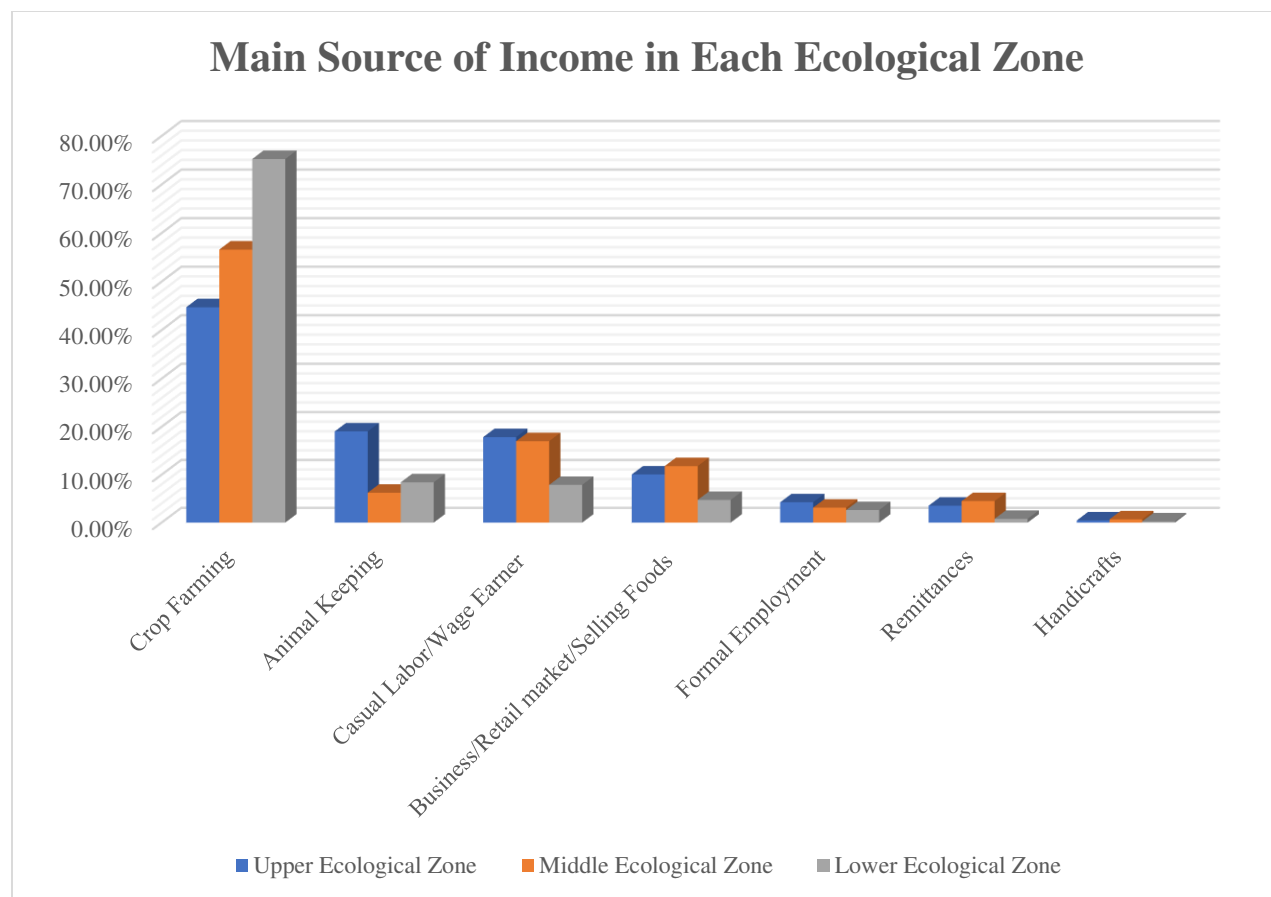


Figure 13 Main source of income in each ecological zone

The average monthly income for all the respondents is KES.7,275.19 with the income ranging from KES.0-100,000.

The table below further analyses the frequencies of the various monthly income categories for the respondents. It is worth noting that the majority of respondents are in the **0-6,250** monthly income category.

Table 16 Monthly income categories for the respondents

Income Category Per Month	Frequency	Percentage
0-6,250	1,037	71.32%
6,251-12,500	232	15.96%
12,501-18,750	68	4.68%
18,751-25,000	51	3.51%
25,001-31,250	23	1.58%
31,251-37,500	2	0.14%
37,501-43,750	8	0.55%
43,751-50,000	15	1.03%
50,001-56,250	2	0.14%
56,251-62,500	6	0.41%
62,501-68,750	2	0.14%

68,751-75,000	1	0.07%
75,001-81,250	1	0.07%
81,251-87,500	0	0.00%
87,501-93,750	1	0.07%
93,751-100,000	5	0.34%
TOTAL	1,454	100.00%

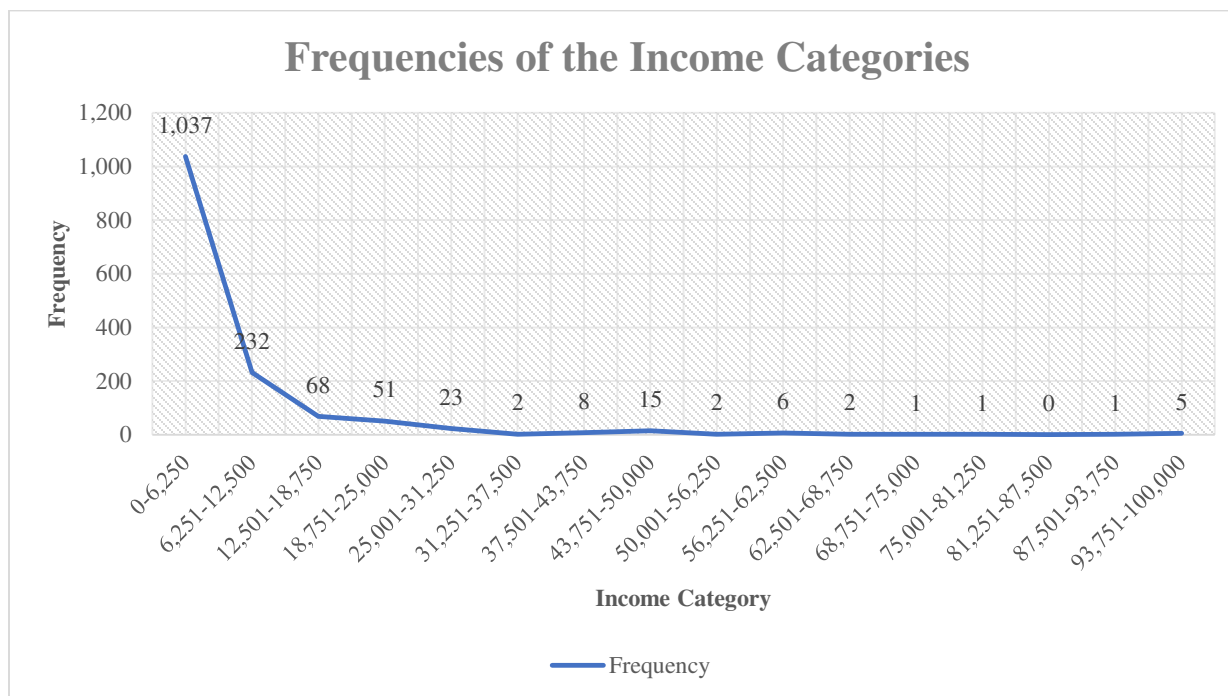


Figure 14 Line graph showing the frequencies of the income categories

The table below analyses the monthly income for each ecological zone.

Table 17 Monthly income by ecological zone

Ecological Zone	Minimum Income	Monthly Maximum Income	Average Monthly Income
Upper Ecological Zone	0	100,000	6,887.70
Middle Ecological Zone	0	100,000	7,116.10
Lower Ecological Zone	0	100,000	8,286.60

A further analysis of the monthly income based on the marital status depicts that on average, married respondents earn KES 7,982.35 which is slightly more than single respondents who on average earn **KES. 7,352.99**.

Another striking finding is that widowed, separated, and divorced respondents get significantly lower average monthly income. The three marital statuses (widowed, separated, and divorced) are also noted to earn a relatively lower **maximum monthly income**.

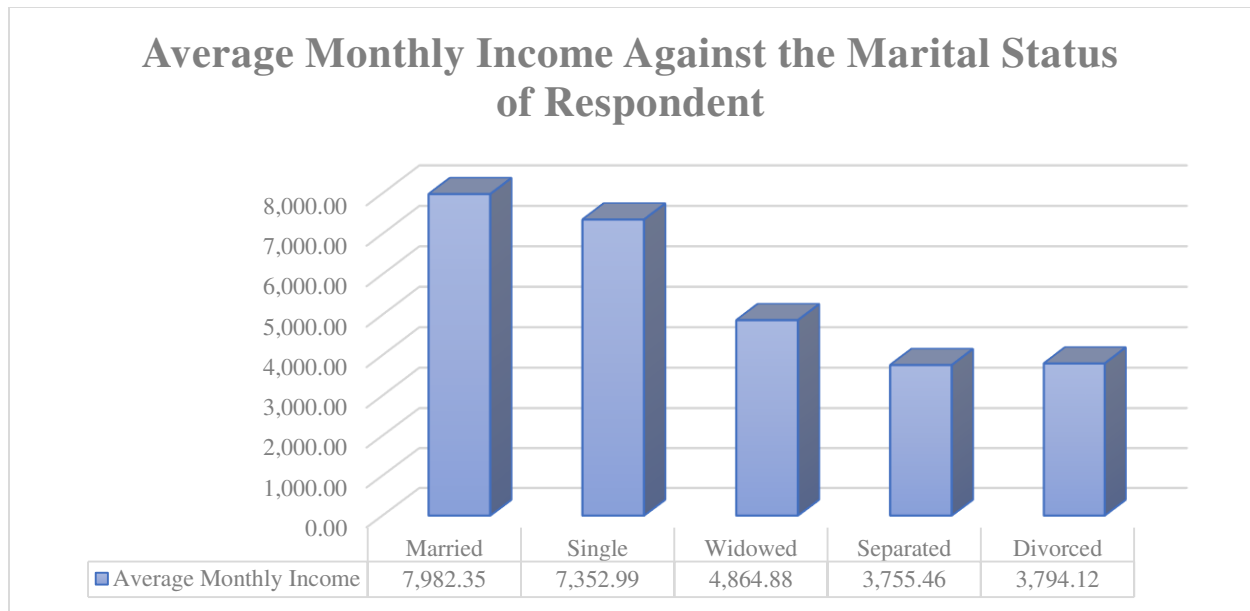


Figure 15 Bar chart showing the average monthly income against the marital status of the respondent

An analysis of the monthly income against the level of education is depicted as below. It is clear that respondents with higher levels of education get more average monthly income. This means the more human capital investments an individual makes the higher his or her earnings.

Table 18 Average monthly Income against the level of education

Education Level	Obs.	Minimum Monthly Income	Maximum Monthly Income	Average Monthly Income
No Education	217	0	50,000	4,959.59
Primary	874	0	60,000	5,473.66
Secondary	344	0	74,000	9,331.64
Diploma & Certificate	99	0	100,000	20,960.26
University Degree	15	1,000	100,000	26,400.00
Post-Graduate	1	50,000	50,000	50,000.00

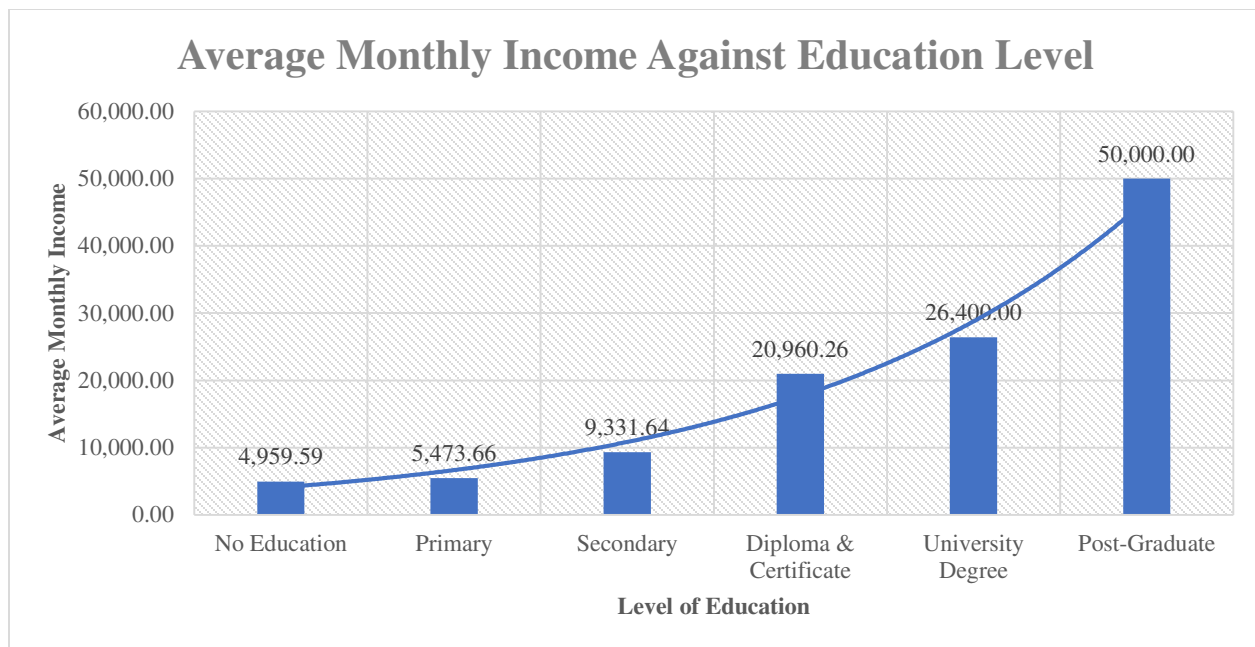


Figure 16 The monthly income of respondents against their level of education

The graph as shown in Figure 16 above is in tandem with the **Mincer earnings equation**, which is used to provide estimates of the average monetary returns of one additional year of education for the respondents. Understanding how to assess returns to schooling and being able to appropriately apply those results to policy decisions is a critical skill for policymakers to have at their disposal (Patrinos, 2016).

Next to education, **work experience** is another important (explanatory) variable that accounts for the post schooling accumulation of human capital and therefore affects earnings. **Age** is commonly used to approximate experience, though one must account for each individual's number of years spent in school when doing so as this has an impact on the individual's starting qualifications. If work experience is continuous and starts immediately after completion of schooling, the work experience is equal to current age minus age at completion of schooling.

In any society, there is a close correlation between age and labour participation. Younger people are unlikely to participate due to schooling involvement. Older people are less likely to participate in the labour force due to the process of aging. Respondents in the different **age** categories were also observed to have different monthly income as depicted in the table below. An interesting observation is how the average monthly income increases with age, up to a certain point (about the age of **45-49 years**) after which the income begins to decrease.

Table 19 Average monthly income by various age categories

Age Category	Obs.	Minimum Monthly Income	Maximum Monthly Income	Average Income	Monthly
18-23	54	0	90,000	6,738.89	
24-29	144	0	60,000	7,113.99	

30-34	144	0	50,000	8,087.62
35-39	208	0	100,000	8,097.27
40-44	172	200	100,000	11,574.42
45-49	192	0	100,000	8,387.83
50-54	147	0	80,000	7,797.34
55-59	94	0	100,000	8,329.07
60-64	117	0	100,000	8,708.94
65-69	76	0	60,000	6,738.16
70-74	86	0	50,000	4,956.52
75-79	48	0	15,000	3,509.38
80-84	35	0	20,000	3,450.00
85-89	12	0	6,000	2,008.33
90-94	14	0	20,000	471.43
95-99	4	1,500	8,500	375.00
100-104	0	-	-	-

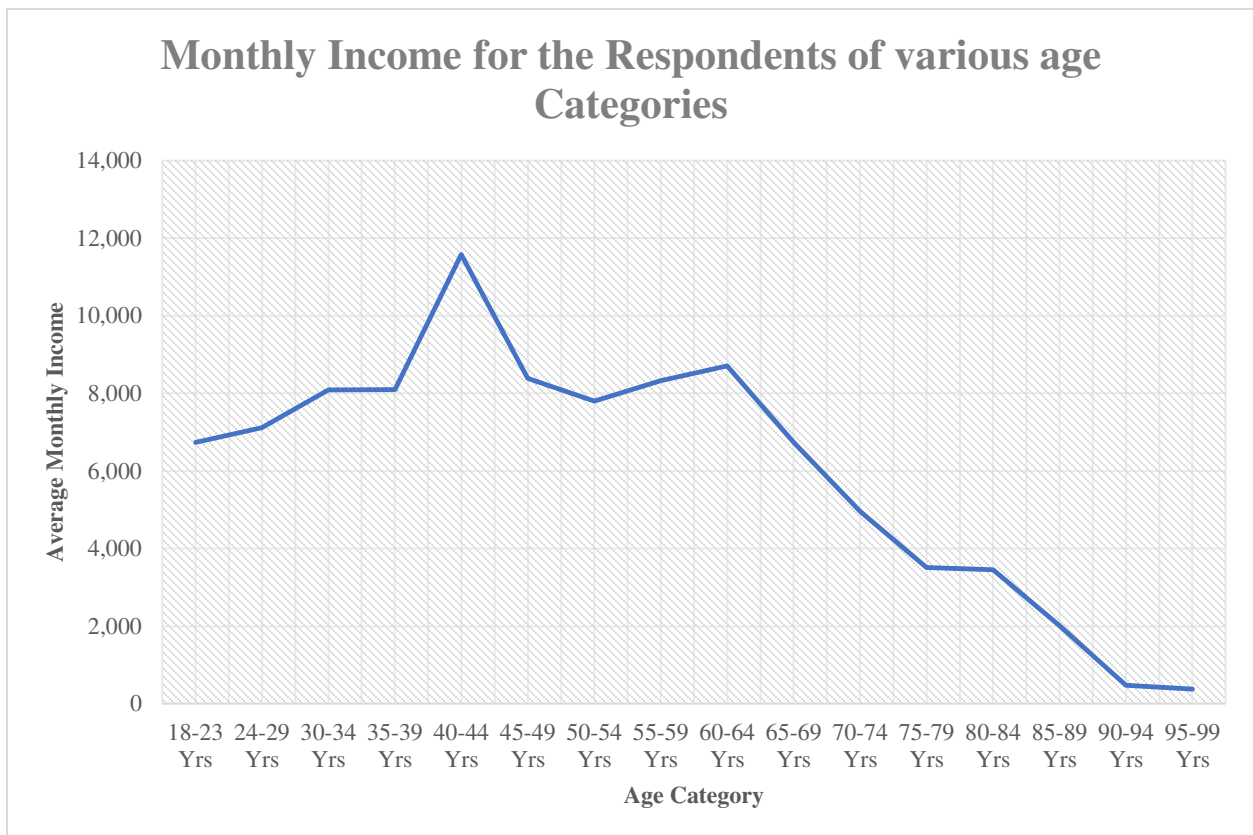


Figure 17 Line graph showing the monthly income of the respondents for various age categories

From the graph above, it is clear that the earnings function is concave. This is because the earnings rise more quickly for the young, then their growth tapers off midcareer.

The young earn less than the old so that over the lifecycle an individual's earnings rise at a diminishing rate.

Hence, the earnings of the respondents can be expressed as a function of the years of schooling and the years of experience as in the equation below.

$$\ln \omega = f(s, x) \text{ (Mincer earnings function, 1958)}$$

Where;

ω = earnings,

s = years of schooling

x = years of potential labour market experience

The table below establishes the relationship between the average monthly income, against the main economic activities the respondents engage in.

According to the data, the respondents in formal employment get the most average monthly income (KES. 29,018.18), while those in casual labour get the least average monthly income (KES. 5,135.00).

Table 20 Average monthly income by economic activity

Main Economic Activity	Obs.	Average Monthly Income
Crop Farming	827	5,786.53
Animal Keeping	211	9,221.80
Casual Labour/Wage Employment	230	5,135.00
Business/Retail market/Selling Foods	137	9,763.02
Formal Employment	55	29,018.18

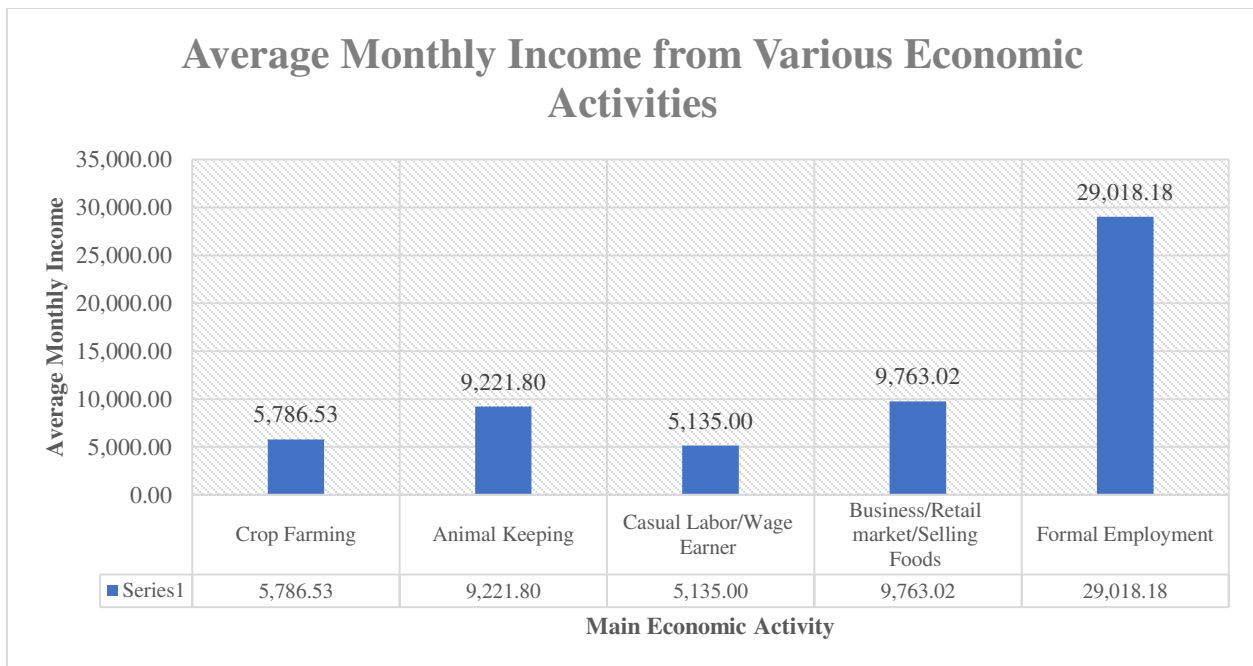


Figure 18 Average monthly income from the various economic activities

HOUSEHOLD HEADSHIP

Households are characterized by hierarchies of power where the household head is accorded very high status. This is also linked to access to and control of resources, both which have a locus on one's economic outcomes. Due to patriarchy, the household head in many communities is usually a man. In the absence of a male head, either a woman or her male child may serve as the head of the household.

The majority of all the households interviewed (**72.78%**) are headed by the husband. A smaller number of **26.23%** of the households were headed by a woman.

However, the households headed by the husbands increases from **72.78%** to **91.60%** when the marital status is restricted to those respondents that are **married**.

Table 21 Household headship

Household Head	Frequency	Percentage
Husband	1,035	72.78%
Wife	373	26.23%
Other	14	0.98%
TOTAL	1,422	100.00%

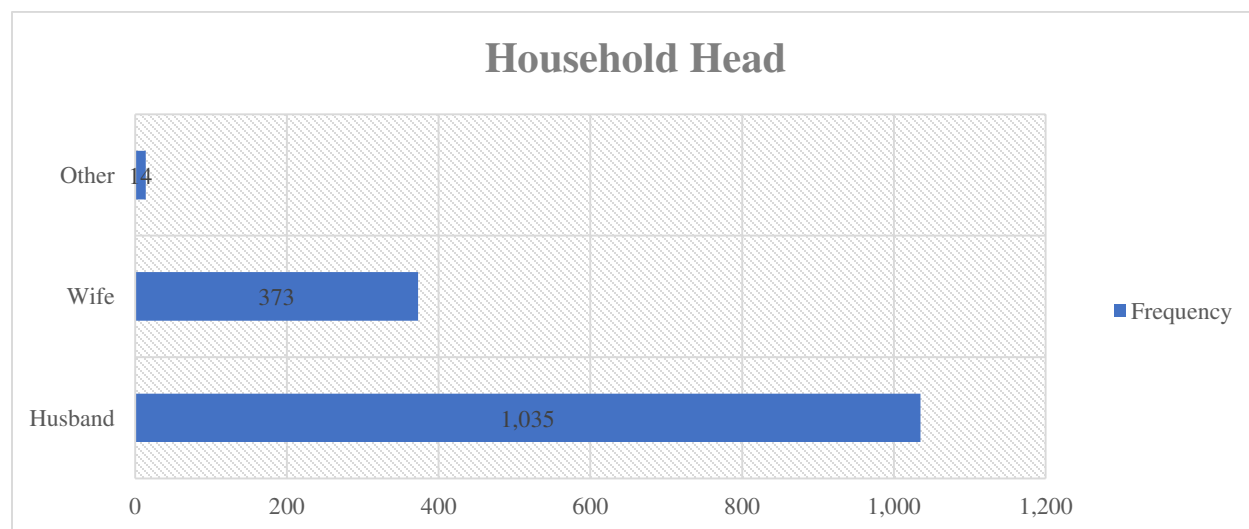


Figure 19 Bar chart depicting the household heads

BURDEN OF CHILDCARE, THE ELDERLY AND PLWD CARE

It is often believed that there is a natural distribution of gender roles, with women being better suited to domestic and child-rearing responsibility and men to working outside of the home. Such assertions lack compelling evidence and more importantly, perpetuate a status quo that limits the choices available to both men and women. Female participation in labour markets tends to increase when the time-spent on unpaid care work is reduced (Ortiz-Ospina & Sandra, 2017).

Interestingly, **69.16%** of the respondents (**1,550**) confirmed that they have **at least one** child who is below the age of 18 years.

From the **1,027** respondents who responded to the question on having children below the age of 5 years, it was noted that the majority of respondents have only **1** child (**35.25%** of the respondents). Closely, **7.98%** of the respondents have **2** children who are below the age of 5 years.

Table 22 Number of children below the age of five in a household

Number of Children	Count of Children with 4 yrs.& Below
0	568 (55.31%)
1	362 (35.25%)
2	82 (7.98%)
3	10 (0.97%)
4	3 (0.29%)
5	2 (0.19%)
TOTAL	1,027 (100.00%)

It was also noted that from the **1,500** responded who answered whether they take care of any elderly persons in their household or not, **29.27%** take care of **at least one** elderly persons.

Table 23 Number of elderly persons in households

Number of Elderly Persons	Count of Elderly Persons
0	1,061 (70.73%)
1	341 (22.73%)
2	89 (5.93%)
3	6 (0.40%)
4	2 (0.13%)
5	1 (0.07%)
TOTAL	1,500 (100.00%)

Also, worth noting is that **454 (29.39%)** respondents also reported that they take care of persons with health challenges in their households. Further **232 (15.04%)** respondents reported that they take care of persons living with disability (people with special needs) in their households. An analysis of the people 232 people with special needs reveals that the majority (**48.28%**) have physical disability, and an alarming **21.98%** with mental disability.

Table 24 Number of persons with disabilities in households

Disability Type (Special Need Type)	Frequency	Percentage
Mental	51	21.98%
Physical	112	48.28%
Visual	22	9.48%
Speech	28	12.07%
Hearing	11	4.74%
Chronic Diseases e.g., Stroke	8	3.45%
TOTAL	232	100.00%

Further analysis of the **average monthly income** interestingly reveals that respondents without children who are below the age of 5 years earn more income monthly, than those with at least one child of below 4 years.

Table 25 Relationship between average monthly income and having a child below the age of five

Description	Obs.	Average Monthly Income
Respondents without any Child below the Age of 5 Years	568	7,865.00
Respondents with at least one Child below the Age of 5 Years	982	6,934.03

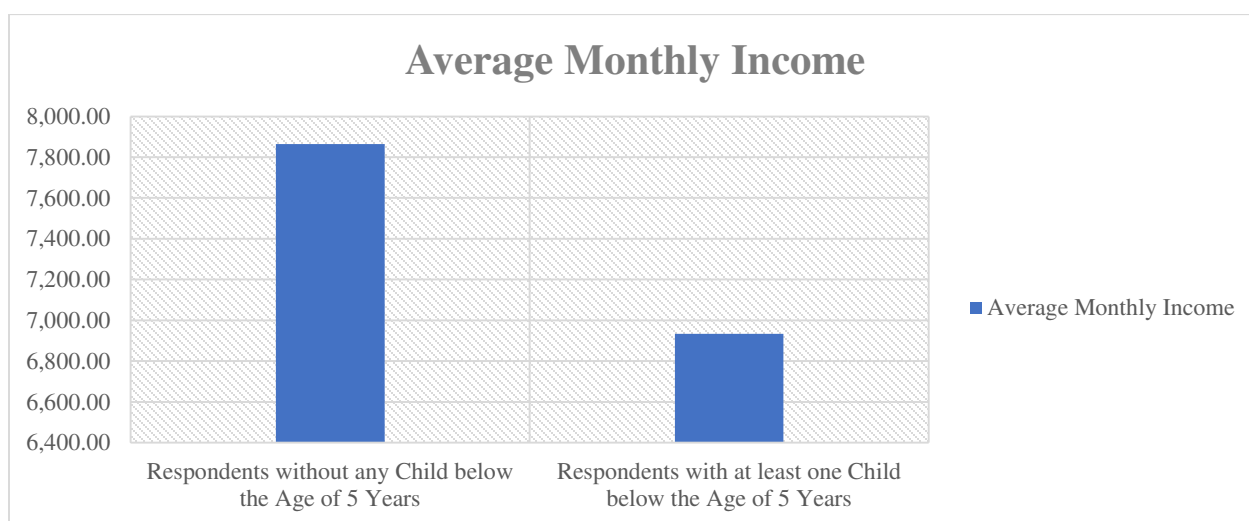


Figure 20 Average monthly income

Interestingly, the maximum monthly income for the respondents with at least one child below the age of 5 years is lower than that of those without any child below the age of 5 years, reducing significantly with the increase in the count of the number of children. Worth noting also, is that average monthly income of the respondents significantly **reduces** with the **increase** in the number of children below the age of 5 years.

Table 26 How the number of children below the age of five affects the monthly average income

Number of Children Below 5 Years	Obs.	Minimum Monthly Income	Maximum Monthly Income	Average Monthly Income
0	568	0	100,000	7,865.00
1	362	0	65,000	6,901.15
2	82	0	60,000	7,296.95
3	10	0	7,500	2,260.00
4	3	650	3,000	1,616.67
5	2	500	2,000	1,250.00

It is evident that more women would increase their earnings and seek new paid job opportunities if they were relieved the burden of childcare. Today, many families with young children must make a choice between spending a significant portion of their income on childcare, finding a cheaper, but potentially lower-quality care option, or leaving the workforce altogether to become a full-time caregiver.

Childcare challenges have become a barrier to work, especially for mothers, who disproportionately take on unpaid caregiving responsibilities when their family cannot find or afford childcare.

NUMBER OF YEARS LIVED IN AN AREA

It is interesting that on average, the respondents have stayed in the place where they were interviewed for an average of 22.79 years, (≈ 23 years). Further analysis depicts that older respondents have lived longer in those areas they were interviewed at, as illustrated below (i.e., the more the age of the respondent, the more the years they have lived in the area).

Table 27 Number of the years that respondents have lived in an area

Age Category	Obs.	Average No. Of years Lived in the Area
18-23	54	7yrs
24-29	144	6yrs
30-34	144	10yrs
35-39	208	14yrs
40-44	172	16yrs
45-49	192	20yrs
50-54	147	25yrs
55-59	94	29yrs
60-64	117	34yrs
65-69	76	41yrs
70-74	86	44yrs
75-79	48	46yrs
80-84	35	47yrs
85-89	12	57yrs
90-94	14	54yrs
95-99	4	45yrs
100-104	3	78yrs

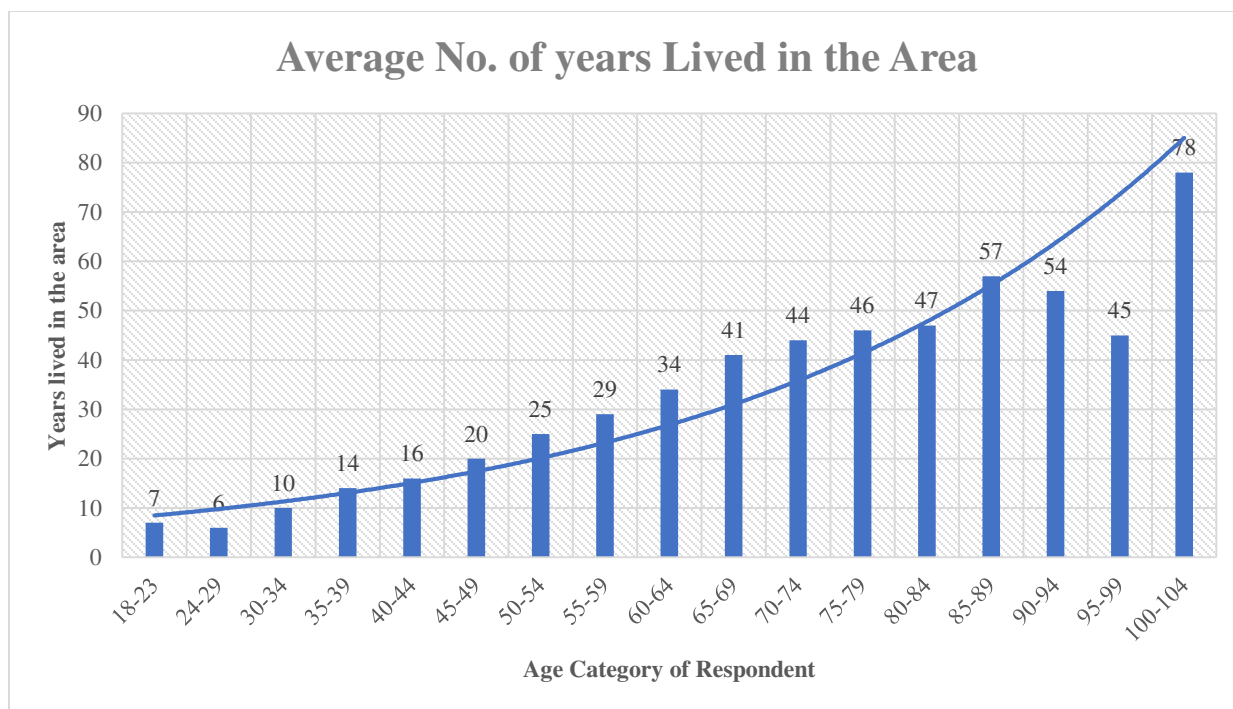


Figure 21 Graphical representation of the average number of years lived in the area

SECTION 2: HOUSEHOLDS ASSETS

Data on asset ownership is important in estimating women's economic empowerment. Ownership and control over assets such as land and housing provide direct and indirect benefits to individuals and households, including a secure place to live, a means of livelihood, protection during emergencies, and collateral for credit that can be used for investment or consumption (Cheryl, Grown, & Deere, 2008). Based on this understanding, the survey was interested in understanding the assets owned by households. Such information is helpful in analyzing gender gaps and livelihood outcomes.

LAND OWNERSHIP

In total, **88.84%** of the respondents indicated that their households own a parcel of land. The average acreage of land owned by each household is **1.79** Acres.

Table 28 Land ownership for the respondents

Land Ownership	Frequency	Percentage
Households that own at least one parcel of Land	1,377	88.84%
Households that DO NOT own any parcel of land	173	11.16%
TOTAL	1,550	100.00%

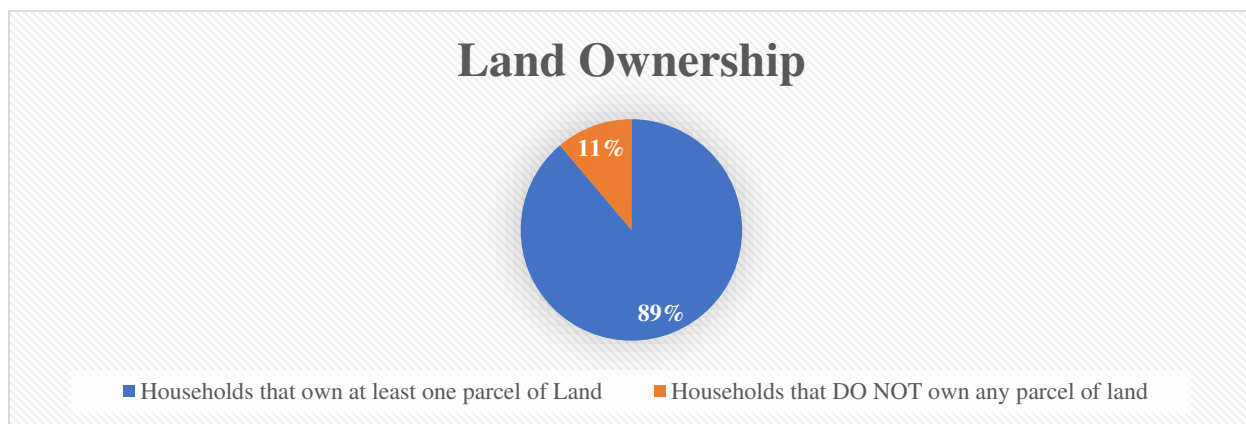


Figure 22 Land ownership chart

Most of the land owned by households (**96.58%**) is located in the rural areas, with only **3.42%** located in the urban or shopping centers.

Table 29 Location of the land parcels

Location of the Parcel of Land	Frequency	Percentage
Rural Area	1,497	96.58%
Urban (In a Shopping Center)	53	3.42%
TOTAL	1,550	100.00%

The majority (**76.45%**) of the respondents reported that their household acquired their parcel of land through inheritance.

Table 30 Land acquisition

How the land was acquired	Frequency	Percentage
Gift	22	1.42%
Inheritance	1,185	76.45%
Purchased	301	19.42%
Other means	42	2.71%
TOTAL	1,550	100.00%

Further analysis shows that respondents who are either married, widowed or divorced have a higher chance of being in a household that owns land compared to the single or separated respondents.

Table 31 Land ownership for different marital statuses

Land Ownership	Respondent is Married	Respondent is Single	Respondent is Widowed	Respondent is Separated	Respondent is Divorced
Households that own at least one parcel of Land	92.05%	69.40%	93.15%	59.02%	82.35%
Households that DO NOT own any parcel of land	7.95%	30.60%	6.85%	40.98%	17.65%
TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%

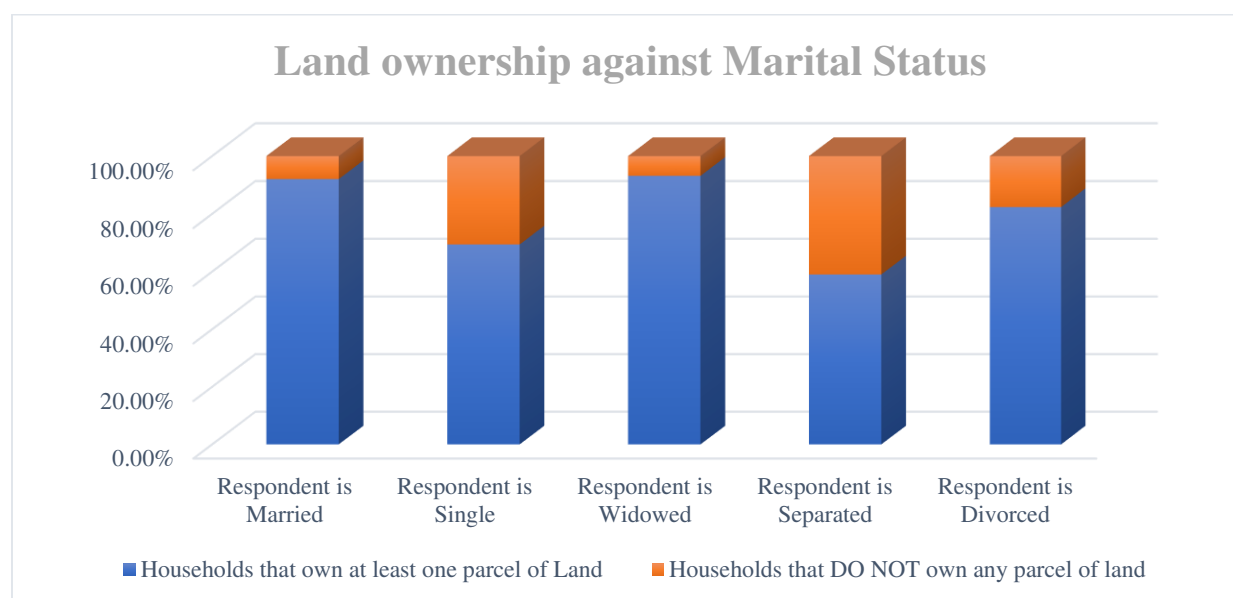


Figure 23 Bar chart showing land ownership against marital status

Of the 1,377 households that reported they own at least one parcel of land, 895(65%) have ownership documents for the land. The majority (63.80% of the 895 with land ownership documents) reported that the land is in the husband's name.

Table 32 Whose name is on the land ownership documents

Whose name is on the land ownership Document	Obs.	Percentage
Both the Husband and Wife	10	1.12%
Husband	571	63.80%
Wife	134	14.97%
Other People	180	20.11%
TOTAL	895	100.00%

The respondents reported that they utilize their parcels of land in different ways with 1,439 (93.02%) using land for agricultural activities.

Table 33 Land usage

Land Usage	Frequency	Percentage
Residential	965	62.38%
Commercial	33	2.13%
Agriculture	1,439	93.02%

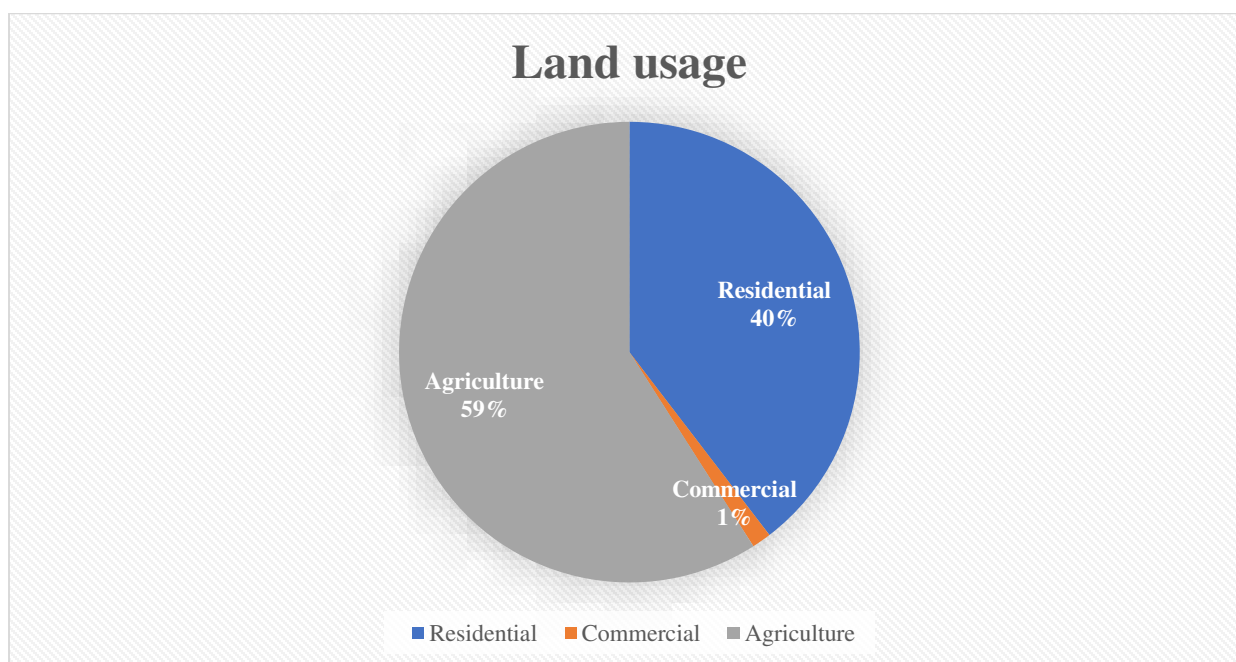


Figure 24 Chart depicting the land usage

Table 34 below depicts who makes decisions on the utilization of land, as reported by the 1,550 households.

Table 34 Decision making

Who makes decisions on how the land is utilized	Frequency	Percentage
Husband	747	48.19%
Wife	522	33.68%
Other People	281	18.13%
TOTAL	1,550	100.00%

Table 35 below shows that more husbands (**44.88%**) still make decisions on how the proceeds from the land is used.

Table 35 Decision making on how proceeds from the land are utilized

Who makes decisions on how proceeds from the land are used	Frequency	Percentage
Husband	692	44.88%
Wife	534	34.63%
Other People	316	20.49%
TOTAL	1,542	100.00%

HOUSING AND DECISION-MAKING

Majority of the respondents (**62.85%**), live in semi-permanent house structure that are constructed using wood, bricks or *mabati*.

Table 36 House types

House Type	Frequency	Percentage
Permanent (Stone House)	323	20.91%
Semi-permanent (Wood, Bricks, <i>Mabati</i>)	971	62.85%
Temporary (E.g., Grass etc.)	251	16.25%
TOTAL	1,545	100.00%

Temporary house structure can be observed to be fewer (**10.30%**) in the upper ecological zone as compare to the other two zones. There is also a lower percentage of permanent house structures in the lower and middle ecological zones, as compared to the upper zone. This is probably due to the many town centers in the upper ecological zone.

Table 37 Household structures by ecological zones

House Type	Upper Ecological Zone	Middle Ecological Zone	Lower Ecological Zone
Permanent (Stone House)	26.09%	18.28%	11.02%
Semi-permanent (Wood, Bricks, Mabati)	63.62%	58.62%	64.30%
Temporary (E.g., Grass etc.)	10.30%	23.10%	24.67%
TOTAL	100.00%	100.00%	100.00%

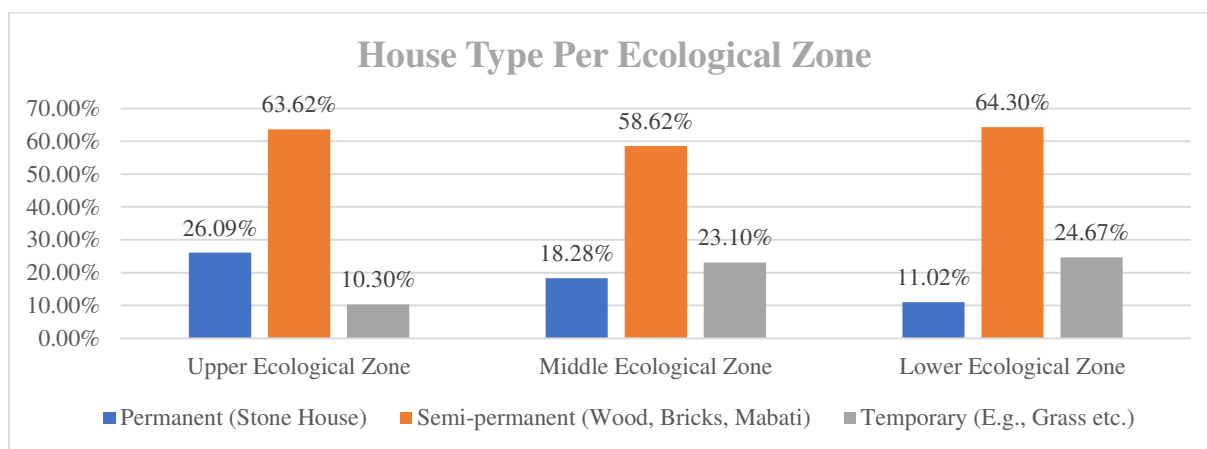


Figure 25 House types per ecological zone

Further analysis depicts the higher percentage of divorced respondents who are living in temporary house structures.

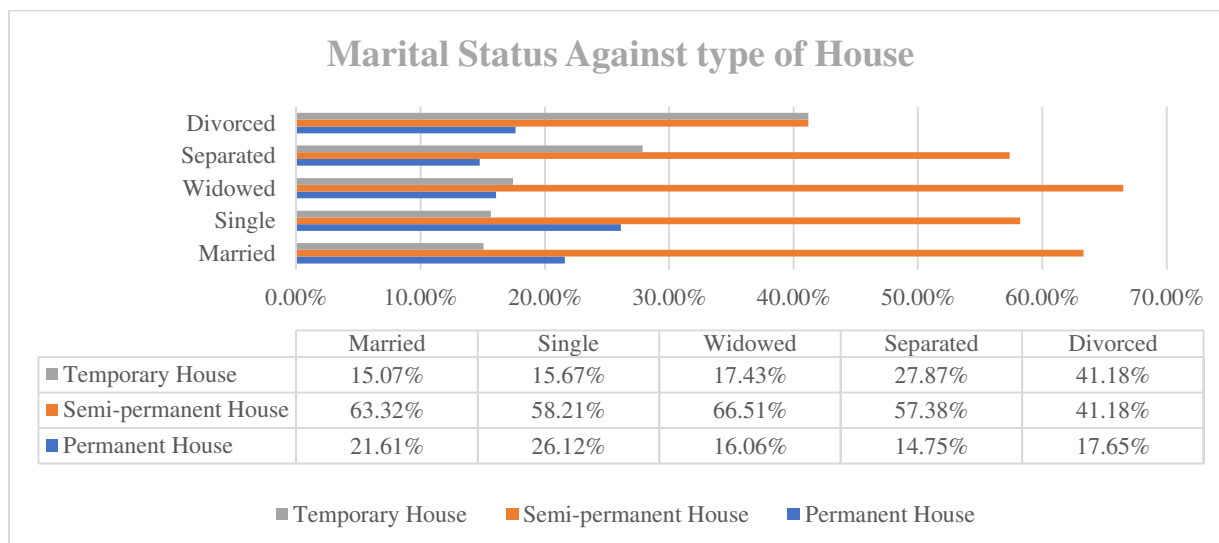


Figure 26 Marital status against type of house

A further analysis was done to establish any relationship between the **average monthly income** of the respondent, and the type of the house observed. Clearly, respondents with higher average monthly income are less likely to be living in temporary house structures. As a matter of fact, respondents earning the **37,501-100,000** income category per month were observed to have **0.00%** chance of being in a temporary house structure.

Table 38 Monthly Income Categories against the type of house structures

Monthly Income Category	Permanent House	Semi-permanent House	Temporary House	Total %	Obs.
0-6,250	20.17%	63.42%	16.41%	100.00%	1,036
6,251-12,500	19.57%	66.52%	13.91%	100.00%	230
12,501-18,750	32.35%	54.41%	13.24%	100.00%	68
18,751-25,000	27.45%	62.75%	9.80%	100.00%	51
25,001-31,250	13.64%	72.73%	13.64%	100.00%	22
31,251-37,500	-	-	-	-	
37,501-43,750	12.50%	87.50%	0.00%	100.00%	8
43,751-50,000	26.67%	73.33%	0.00%	100.00%	15
50,001-56,250	50.00%	50.00%	0.00%	100.00%	2
56,251-62,500	16.67%	83.33%	0.00%	100.00%	6
62,501-68,750	0.00%	100.00%	0.00%	100.00%	2
68,751-75,000	100.00%	0.00%	0.00%	100.00%	1
75,001-81,250	100.00%	0.00%	0.00%	100.00%	1
81,251-87,500	-	-	-	-	
87,501-93,750	0.00%	100.00%	0.00%	100.00%	1
93,751-100,000	20.00%	80.00%	0.00%	100.00%	5
N					1,448

70.28% of respondents replied that they participated in the construction of the house in which they live in. However, the percentage is comparatively higher in the lower ecological zone at **76.32%**, probably due to cultural reasons.

Table 39 Participation in the house construction

Participation in the construction of the house	Obs.	Percentage
Respondent participated in the construction of the house	1,088	70.28%
Respondent did NOT participate in the construction of the house	460	29.72%
TOTAL	1,548	100.00%

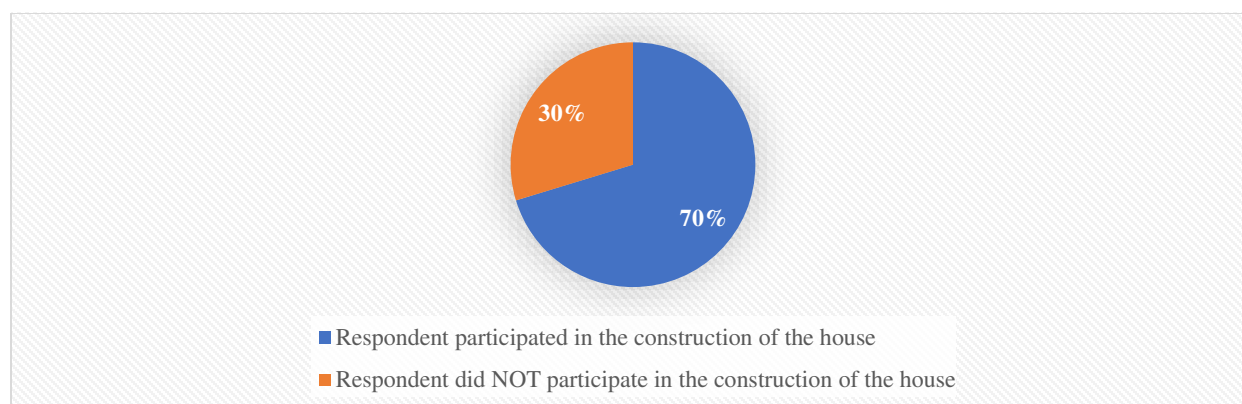


Figure 27 Chart showing the participation in house construction

Table 40 Participation in the house construction per ecological zone

Participation in the construction of the house	Upper Zone	Middle Zone	Lower Zone
Respondent participated in the construction of the house	68.00%	69.31%	76.32%
Respondent did NOT participate in the construction of the house	32.00%	30.69%	23.68%
TOTAL	100.00%	100.00%	100.00%

76.54% of 1,547 respondents also noted that they can make decisions concerning the house in which they live in.

Table 41 Decision making about the house

Ability to make decisions concerning the house	Obs.	Percentage
Respondent can make decisions concerning the house, e.g., renovations, renting out etc.	1,184	76.54%
Respondent can NOT make decisions concerning the house	363	23.46%
TOTAL	1,547	100.00%

The reasons cited by the **76.54%** who cannot make decisions concerning the house are tabulated as below, with the most common reason being that the husband makes the decisions.

Table 42 Reasons for not being able to make decisions

Reason for NOT being able to make decision concerning the house	Obs.	Percentage
House is rented	57	16.19%
Husband makes the decisions	218	61.93%

Lack of income/Finances	33	9.38%
Old Age, Sickness & Poor Health Status 	14	3.98%
Others (E.g., House owned by relative)	30	8.52%
TOTAL	352	100.00%

97.89% noted that the kind of decision they can make concerning the house is renovation and equipping of the house, while a mere **2.11%** cited that they can make a decision to sell or rent out the house. Interestingly, respondents who participated in the construction of the house have better chances (**87.95%**) of being able to make decisions concerning the house, as illustrated in the table below:

Table 43 Decision making about the house against participation in the construction

Participation in the Construction of the house	Respondent can make decisions concerning the house, e.g., renovations, renting out etc.	Respondent can NOT make decisions concerning the house	Total
Respondent participated in the construction of the house	87.95%	12.05%	100.00%
Respondent did NOT participate in the construction of the house	49.46%	50.54%	100.00%

OTHER HOUSEHOLD ASSETS

The ownership of various assets in the households can be tabulated as below. It is clear that most owned assets own by the households are **non-productive** household assets. Relatively fewer (**23.74%**) of households are observed to engage in investments.

Table 44 Assets in the households

Asset Name	Obs.	Percentage of Households with the Asset
Electronics	1,014	65.41%
Farm Tools	1,079	69.61%
House Hold Items	1,239	79.94%
Domestic Animals	955	61.61%
Investments	368	23.74%

OWNERSHIP OF OTHER ASSETS

Table 45 Asset ownership in the households

Asset Name	Owned by the Husband	Owned by the Wife	Owned by Other People	Owned by Both Husband & Wife	Total
Electronics	10.33%	49.44%	0.41%	39.82%	100.00%
Farm Tools	14.66%	43.42%	0.47%	41.44%	100.00%

Household Items	5.44%	55.32%	0.58%	38.66%	100.00%
Domestic Animals	13.54%	39.77%	1.28%	45.42%	100.00%
Investments	8.17%	62.82%	1.13%	27.89%	100.00%

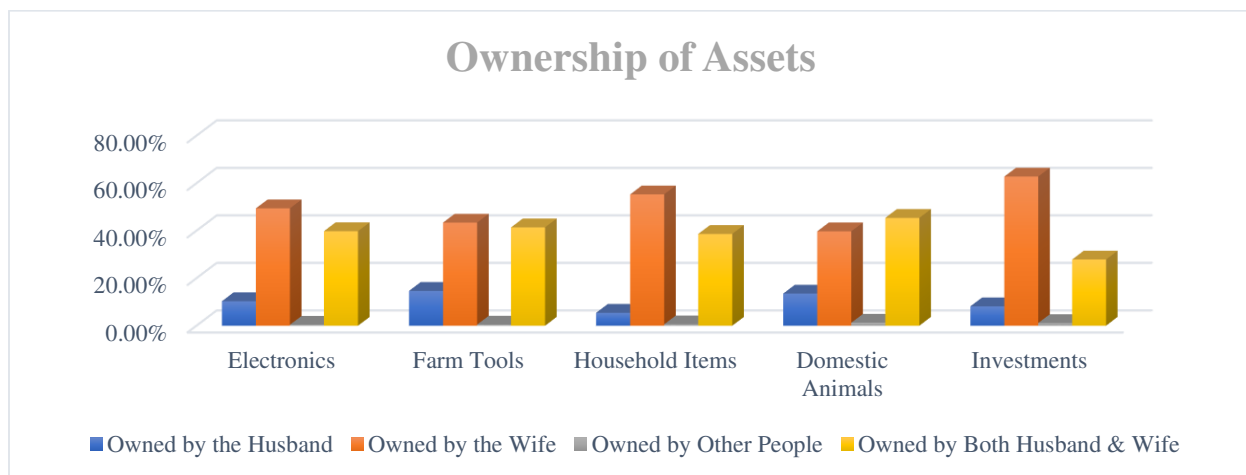


Figure 28 Graph showing the ownership of assets

DECISION MAKING REGARDING ASSETS

Table 46 Decision making regarding the assets

Asset Name	Husband	Wife	Other People	Both Husband & Wife	Total
Electronics	13.14%	45.40%	0.20%	41.25%	100.00%
Farm Tools	16.12%	42.19%	0.30%	41.39%	100.00%
House Hold Items	7.66%	52.57%	0.26%	39.51%	100.00%
Domestic Animals	14.91%	37.78%	1.01%	46.30%	100.00%
Investments	8.88%	55.62%	0.30%	35.21%	100.00%

Ownership of the Assets in case of Dissolution or Separation of the Partners

Table 47 Ownership of the Assets in case of dissolution or separation of the partnership

Asset Name	Husband	Wife	Other People	Both Husband & Wife	Total
Electronics	29.21%	33.33%	3.88%	33.58%	100.00%
Farm Tools	35.06%	26.58%	4.18%	34.18%	100.00%
House Hold Items	26.96%	34.90%	3.80%	34.34%	100.00%
Domestic Animals	35.33%	24.76%	4.03%	35.88%	100.00%
Investments	11.81%	47.60%	7.75%	32.84%	100.00%

SECTION 3. HOUSEHOLD EXPENDITURE

Table 48 Expenditure of respondents

Expense	Average amount in KES in last one month	Person Responsible for this expense in the Household	Percentage
Food	4,974.04 (1,455 Obs.)	Husband	250 (16.23%)
		Wife	692 (44.94%)
		Other People	70 (4.55%)
		Both Husband & Wife	527 (34.22%)
		Not Applicable	
Rent on Shelter	1,730.36 (112 Obs.)	Husband	20 (1.29%)
		Wife	79 (5.10%)
		Other People	12 (0.77%)
		Both Husband & Wife	25 (1.61%)
		Not Applicable	1,414 (91.23)
Education	10,464.58 (1,038 Obs.)	Husband	297 (19.16%)
		Wife	354 (22.84%)
		Other People	26 (1.68%)
		Both Husband & Wife	431 (27.81%)
		Not Applicable	442 (28.52%)
Clothing	1,866.25 (1,272 Obs.)	Husband	162 (10.45%)
		Wife	684 (44.13%)
		Other People	54 (3.48%)
		Both Husband & Wife	499 (32.19%)
		Not Applicable	151 (9.74%)
Healthcare	2,155.73 (1,299 Obs.)	Husband	303 (19.55%)
		Wife	573 (36.97%)
		Other People	102 (6.58%)
		Both Husband & Wife	457 (29.48%)
			Not Applicable
Security	778.90 (500 Obs.)	Husband	263 (16.97%)
		Wife	178 (11.48%)
		Other People	28 (1.81%)
		Both Husband & Wife	105 (6.77%)
		Not Applicable	976 (62.97%)
Entertainment	2,653.22 (314 Obs.)	Husband	111 (7.16%)
		Wife	105 (6.77%)
		Other People	15 (0.97%)
		Both Husband & Wife	107 (6.90%)
		Not Applicable	1,212 (78.19%)
Fuel	1,481.67	Husband	192 (12.39%)
		Wife	716 (46.19%)

	(1,126 Obs.)	Other People	47 (3.03%)
		Both Husband & Wife	257 (16.58%)
		Not Applicable	338 (21.81%)
Water	418.74	Husband	267 (17.23%)
	(1,169 Obs.)	Wife	623 (40.19%)
		Other People	83 (5.35%)
		Both Husband & Wife	275 (17.74%)
		Not Applicable	302 (19.48%)
Telephone	575.08	Husband	72 (4.65%)
	(1,228 Obs.)	Wife	977 (63.03%)
		Other People	18 (1.16%)
		Both Husband & Wife	207 (13.35%)
		Not Applicable	276 (17.81%)
Travel	1,422.41	Husband	210 (13.55%)
	(1,065 Obs.)	Wife	619 (39.94%)
		Other People	28 (1.81%)
		Both Husband & Wife	265 (17.10%)
		Not Applicable	428 (27.61%)
Childcare	3,324.60	Husband	91 (5.87%)
	(607 Obs.)	Wife	283 (18.26%)
		Other People	18 (1.16%)
		Both Husband & Wife	273 (17.61%)
		Not Applicable	885 (57.10%)
Remittance to Relatives	2,251.09	Husband	73 (4.71%)
	(549 Obs.)	Wife	229 (14.77%)
		Other People	14 (0.90%)
		Both Husband & Wife	266 (17.16%)
		Not Applicable	968 (62.45%)
Repairs and maintenance	1,528.08	Husband	425 (27.42%)
	(911 Obs.)	Wife	322 (20.77%)
		Other People	58 (3.74%)
		Both Husband & Wife	199 (12.84%)
		Not Applicable	546 (35.23%)
Social welfare	1,589.48	Husband	123 (7.94%)
	(1,002 Obs.)	Wife	602 (38.84%)
		Other People	20 (1.29%)
		Both Husband & Wife	319 (20.58%)
		Not Applicable	486 (31.35%)

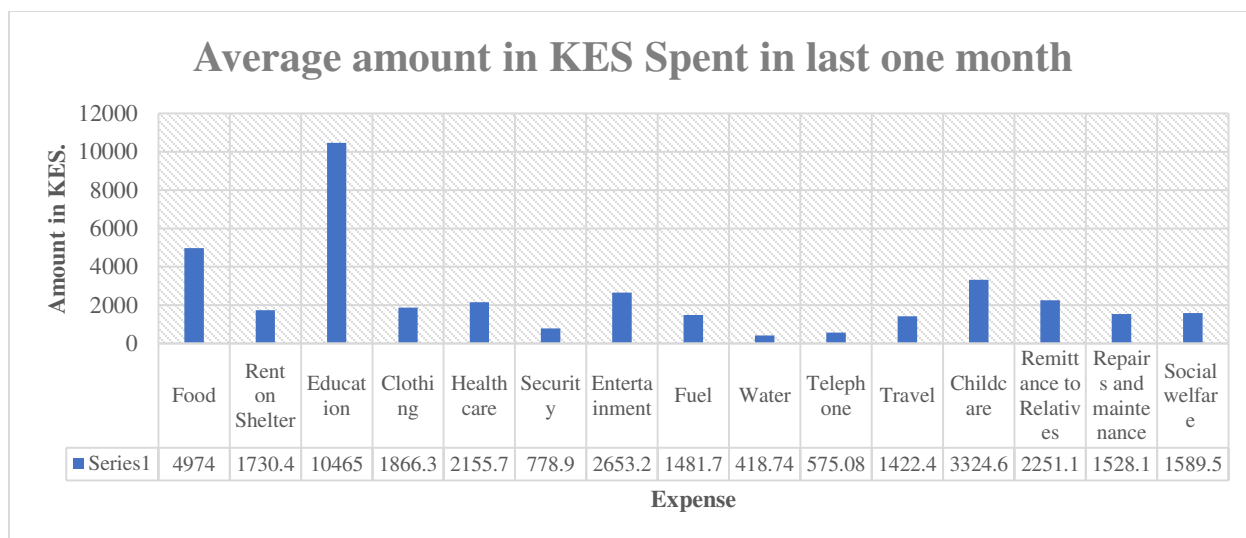


Figure 29 Bar chart showing the average amount spent in last one month

On average, the biggest expense burden as per the analysis done is **education**. From the 1038 respondents who incur this expense, it is clear that the average monthly expenditure on education is KES.10,464.58. **Food** and **childcare** expenses follow closely, at KES.4,974.04 and KES.3,324.60 respectively.

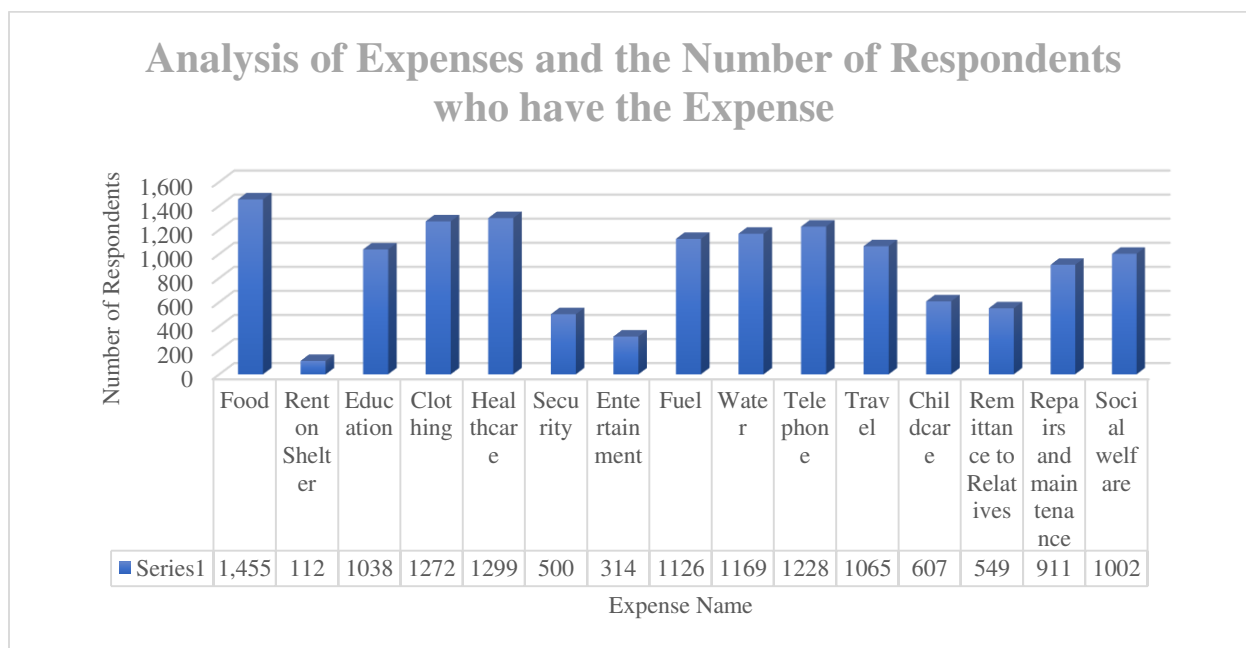


Figure 30 Analysis of expenses and the number of respondents who have the expense

It can be observed that few households incur the expense on **rent on shelter**, since most of the respondents live in their own houses. Actually, only **112** of the respondents confirmed to be paying rent.

Are there times when any of these expense responsibilities are interchanged?

From the **1,508** respondents who answered this question, a great number of **70.49%** confirm that responsibilities on the expenses are not interchanged.

Table 49 Whether there are times that responsibilities on expenses are interchanged

Are there times when any of these expense responsibilities are interchanged?	Obs.	Percentage
Yes	445	29.51%
No	1,063	70.49%
TOTAL	1,508	100.00%

Are there times when any of these expense responsibilities are interchanged?

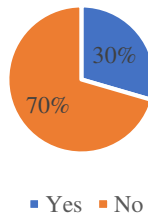


Figure 31 Chart to show how responsibilities on expenses are interchanged

An interesting observation is how responsibilities for expenses are shared or interchanged across respondents of various **age brackets**. It is clear that younger respondents are more likely to share expense responsibilities in the households. This is illustrated in the table below:

Table 50 Probability of interchanging responsibilities for respondents of various age categories

Age Category	Probability that responsibilities are interchanged in the Households
18-23	31.48%
24-29	39.29%
30-34	37.41%
35-39	40.00%
40-44	33.93%
45-49	32.09%
50-54	22.54%
55-59	30.43%
60-64	21.24%
65-69	16.44%
70-74	12.94%
75-79	17.02%
80-84	15.63%
85-89	16.67%
90-94	0.00%

95-99	0.00%
100-104	0.00%

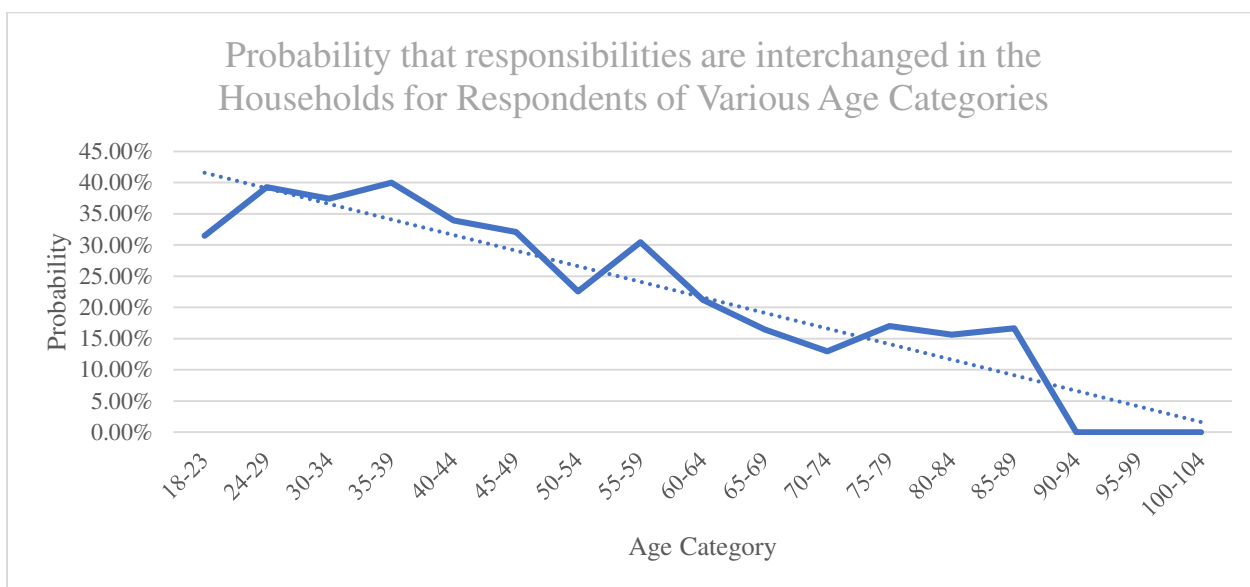


Figure 32 Probability that responsibilities are interchanged in the households by age categories

Deeper analysis on how the **education level** affects the interchanging/sharing of responsibilities in the households can be illustrated as below. This depicts that respondents who have had more years of schooling are **more likely to share responsibilities** with their spouses, as compared to those who have spent lesser time in school.

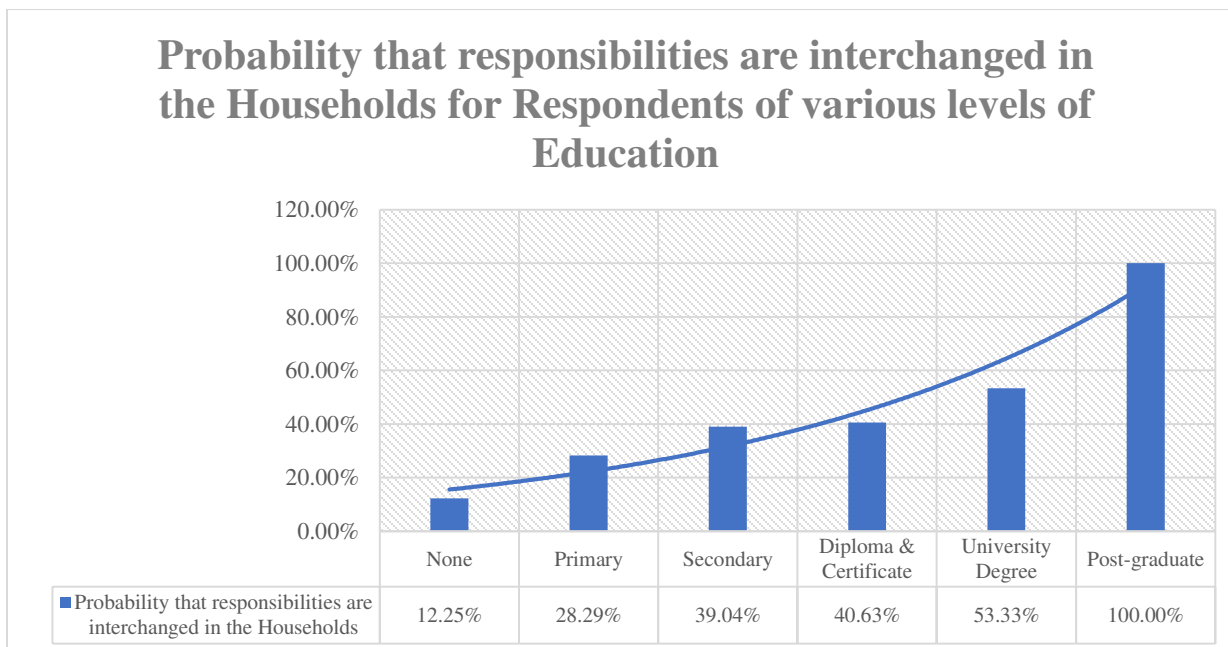


Figure 33 Probability that responsibilities are interchanged in the households by levels of education

According to the 439 of the 445 respondents who confirmed that they interchange responsibilities, majority of them (89.07%) said that the main reason they interchange responsibilities is when their husbands do not have money.

Table 51 Reasons for interchanging responsibilities

Reasons for Interchanging Responsibilities	Freq	Percentage
Partner Not Around Home	6	1.37%
Sickness of Spouse	42	9.57%
When the husband/Spouse has no money	391	89.07%
TOTAL	439	100.00%

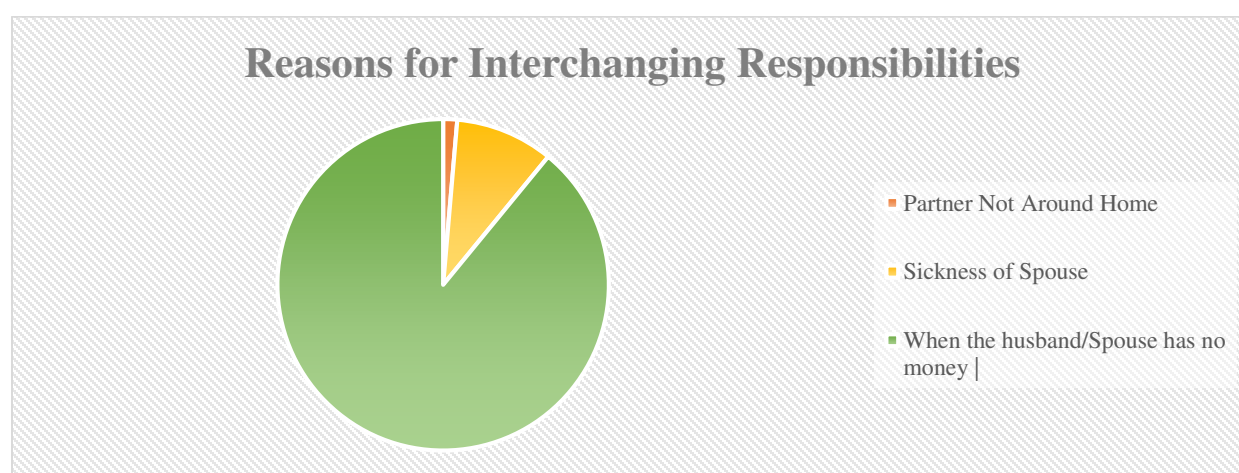


Figure 34 Chart showing reasons for interchanging responsibilities

An analysis to establish the relationship between household income and food expenditures for the respondents reveals that as household income increases, the percentage of income spent on food decreases. This confirms the **Engel's Law**, that declares that the percentage of money going toward food decreases as a person or group of people increases their income (Perthel, 1975).

Table 52 Average proportion of income spent on food per month

Monthly Income Category	Average Proportion of income Spent on Food per month
0-6,250	212.12
6,251-12,500	105.31
12,501-18,750	51.78
18,751-25,000	143.89
25,001-31,250	93.81
31,251-37,500	119.17
37,501-43,750	40.74
43,751-50,000	286.39
50,001-56,250	18.87
56,251-62,500	136.89

62,501-68,750	31.25
68,751-75,000	40
75,001-81,250	33.38
81,251-87,500	58.59
87,501-93,750	-
93,751-100,000	-

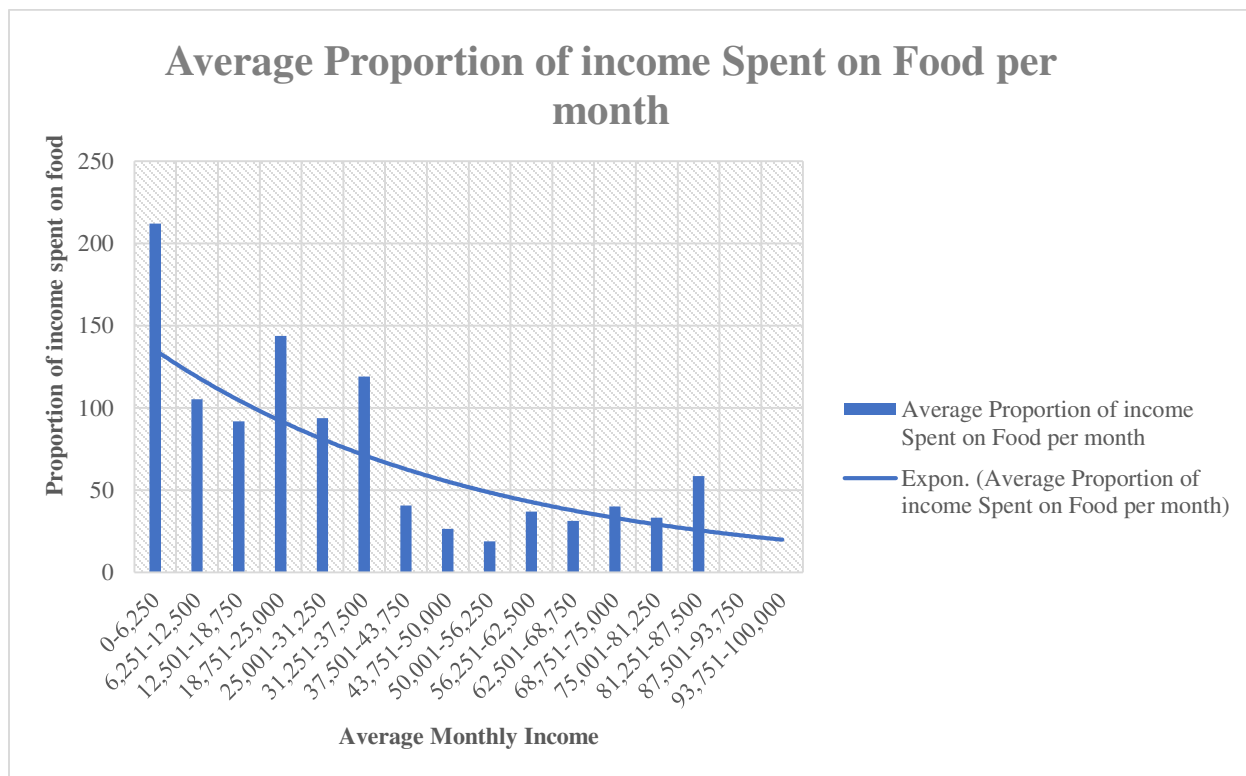


Figure 35 Average proportion of income spent on food expenses

SECTION 4. PROFILE OF WOMEN'S LIVELIHOOD

INCOME BASED RATING OF LIVELIHOOD ACTIVITIES

Rating the sources of the respondents' livelihood in order of their income priority in the household, the weights shown below (average ratings) can be depicted. This means that respondents who chose agriculture, for instance as one of their income sources, on average placed a weight on agriculture of **(3.81 out of 5)**, and that on average, they earn **KES.39,454.27** every year from agriculture.

It is worth noting that even though most of the people are suggesting that their main income comes from agriculture, agriculture is not the highest income generating activity annually; instead, business is.

It is also clear that, although very few respondents marked **formal employment** as their main source of annual income, it has a relatively high annual return. On average, those who are in formal employment get an average of **KES.62,036.93** annually, which nearly twice the amount derived from agriculture.

Table 53 Annual income source

Income Source	Average Weightage (1-5)	Average Annual Contribution in KES.
Agriculture	3.81	39,454.27
Casual Labour	3.22	20,940.17
Employment	2.13	62,036.93
Business	3.10	65,507.38

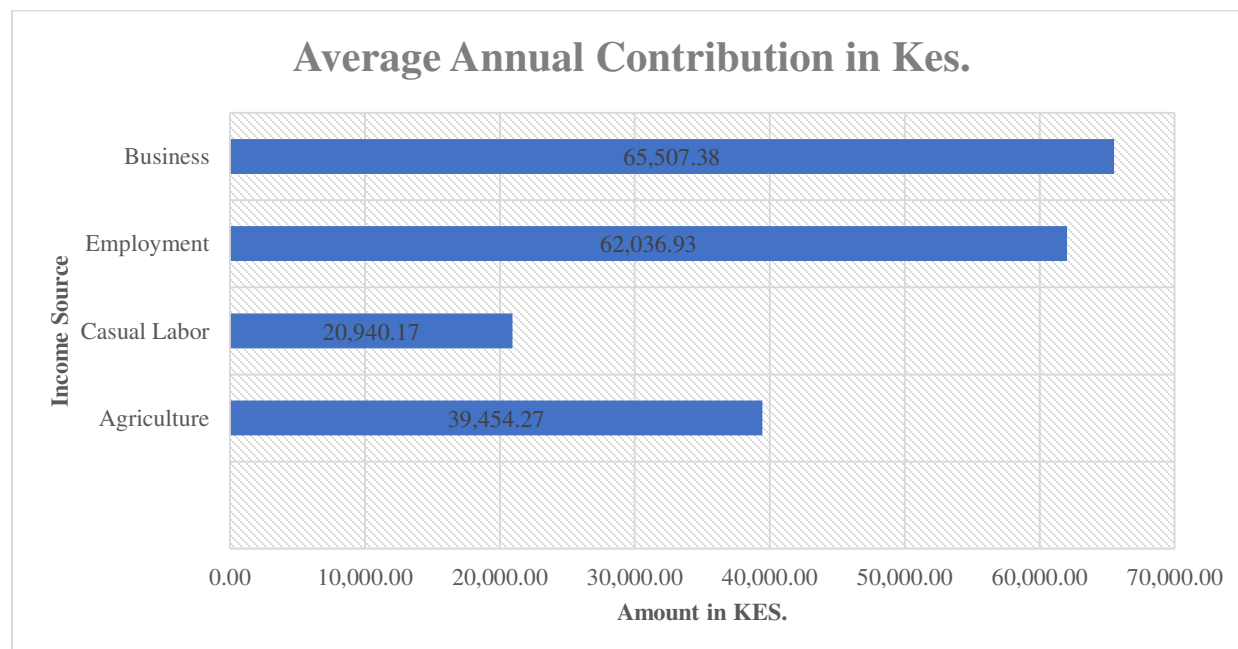


Figure 36 Income sources and their average annual contribution in Kes

IN WHAT ACTIVITIES DO YOU SPEND MOST OF YOUR TIME?

Clearly, the livelihood activity in which respondents spend most time of their day in is casual labour, where on average, they spend **6.78 hrs.** However, as depicted in Table 54, the many hours spent on **casual labour** do not translate to more annual income as compared to the other sources of livelihoods.

Table 54 Livelihoods in which respondents spend most time in

Livelihood Name	Obs.	Average No. of Hours Spent on this Livelihood
Agriculture	1,323	5.50Hrs.
Casual Labour	733	6.78Hrs
Formal Employment	110	5.00Hrs
Business	302	6.03Hrs

A further analysis on the influence that the level of education has on the livelihood activity that respondents spend most of their times on reveals that respondents with post primary education spend relatively less time on agricultural work.

No respondent who had no education whatsoever was recorded to be in formal employment. Another observation is that there was no university graduate that was noted to have engaged in business as a livelihood. As a matter of fact, the graduates are noted to spend most of their time in formal employment.

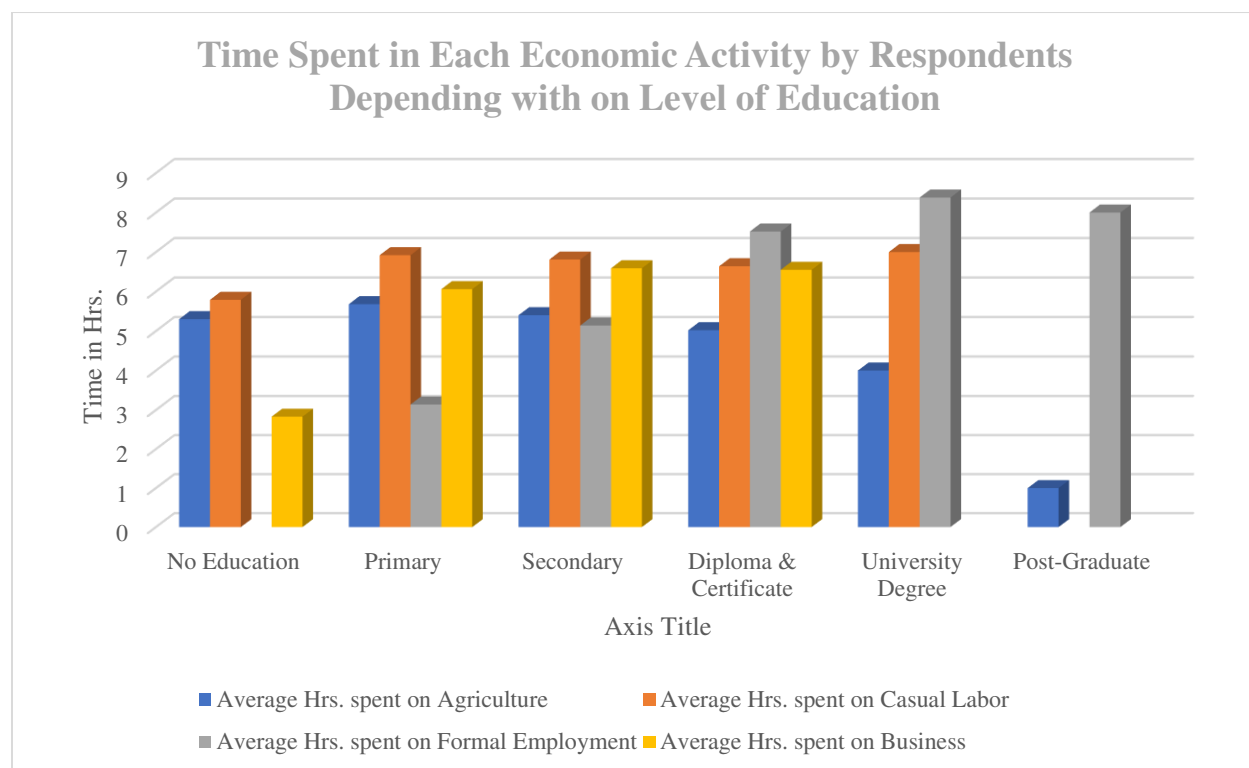


Figure 37 Time spent in each economic activity by level of education

Table 55 Hours spent on various livelihoods per day against level of education

Level of Education	Average Hrs. spent on Agriculture	Average Hrs. spent on Casual Labour	Average Hrs. spent on Formal Employment	Average Hrs. spent on Business
No Education	5.30Hrs	5.79Hrs	-	2.83Hrs
Primary	5.68Hrs	6.92Hrs	3.14Hrs	6.06Hrs
Secondary	5.40Hrs	6.81Hrs	5.14Hrs	6.59Hrs
Diploma & Certificate	5.02Hrs	6.64Hrs	7.52Hrs	6.55Hrs
University Degree	4.00Hrs	7Hrs	8.38Hrs	-
Post-Graduate	1.00Hrs	-	8.00Hrs	-

An analysis of the influence that **age** has on the time respondents spend on various livelihood activities is captured in Table 56. It can be noted that beyond a certain age, respondents do not spend any significant time in the various livelihood activities. For instance, we do not have any respondents between the age of 65-100 who is in formal employment (possibly due to retirement).

Also, it is key to note that there was no respondent in the age bracket of **18-23** who was in formal employment.

Table 56 Average hours spent on various livelihoods against the age category of respondents

Age Category of the Respondents	Average Hrs. spent on Agriculture	Average Hrs. spent on Casual Labour	Average Hrs. spent on Formal Employment	Average Hrs. spent on Business
18-23	5.45Hrs	5.79Hrs	-	5.82Hrs
24-29	5.62Hrs	7.14Hrs	4.31Hrs	5.38Hrs
30-34	5.05Hrs	6.94Hrs	3.80Hrs	6.50Hrs
35-39	5.33Hrs	7.12Hrs	3.88Hrs	6.49Hrs
40-44	5.92Hrs	6.82Hrs	4.58Hrs	6.66Hrs
45-49	5.73Hrs	6.84Hrs	3.81Hrs	7.55Hrs
50-54	6.22Hrs	7.04Hrs	4.21Hrs	5.20Hrs
55-59	5.59Hrs	6.28Hrs	3.91Hrs	5.15Hrs
60-64	5.67Hrs	6.89Hrs	3.46Hrs	3.73Hrs
65-69	5.18Hrs	6.84Hrs	-	8.43Hrs
70-74	4.70Hrs	4.67Hrs	-	-
75-79	4.86Hrs	-	-	-
80-84	4.38Hrs	-	-	-
85-89	-	-	-	-
90-94	-	-	-	-
95-99	-	-	-	-
100-104	-	-	-	-

DISTANCES TO PLACE OF WORK AND THE TIME SPENT TO TRAVEL

On average, respondents take **24.72** minutes to travel for **1.95**kilometers to their places of work.

Table 57 Distance to place of work

Description	Measure
Average Distance traveled to reach the work place (KMs)	1.95Kilometers
Average time in Minutes used to travel to the work place	24.72 Minutes

The distance travelled and time spent by respondents carrying out **various economic activities** can be tabulated as below.

Those respondents engaging in formal employment are observed to travel to work at a faster speed for longer distances, probably because most of them use **motorized means of transport** to travel to work. The low speeds and distance for the respondents carrying out agriculture, casual labour and business would mean that a majority of them walk to the place of work, with only a few using motorized means of transport.

Table 58 Time taken to travel to place of work

Main Economic Activity	Obs.	Average Distance Travelled	Average Time Taken to reach place of work	Speed in (KM/h)
Agriculture	1,275	1.94 Kilometers	24.14 Minutes (0.40hrs)	4.85km/h
Casual Labour	724	1.71 Kilometers	19.65 Minutes (0.33hrs)	5.18km/h
Formal Employment	107	3.45 Kilometers	5.66 Minutes (0.094hrs)	36.70km/h
Business	292	2.44 Kilometers	24.00 Minutes (0.40hrs)	6.1km/h

The mode of transport used to travel to work, for most respondents (**90.66%**) is walking. There is a significantly smaller percentage (**2.26%**) that uses motor vehicles (mostly public *Matatus* and *Sientas*) to go to work.

Table 59 Mode of transport to place of work

Mode of Transport Used	Frequency	Percentage
Walking	1,282	90.66%
Motorbike or Cycling	100	7.07%
Motor vehicle	32	2.26%
TOTAL	1,414	100.00%

WHO INFLUENCED YOUR CHOICE OF LIVELIHOOD ACTIVITY?

According to the data, majority (**83.75%**) of the respondents said that the choice of their livelihood activities, but was rather a personal decision.

Table 60 Influence on choice of livelihood

Who influenced your choice on this livelihood	Frequency	Percentage
Husband	148	9.70%
Self	1,278	83.75%
Other People	100	6.55%
TOTAL	1,526	100.00%

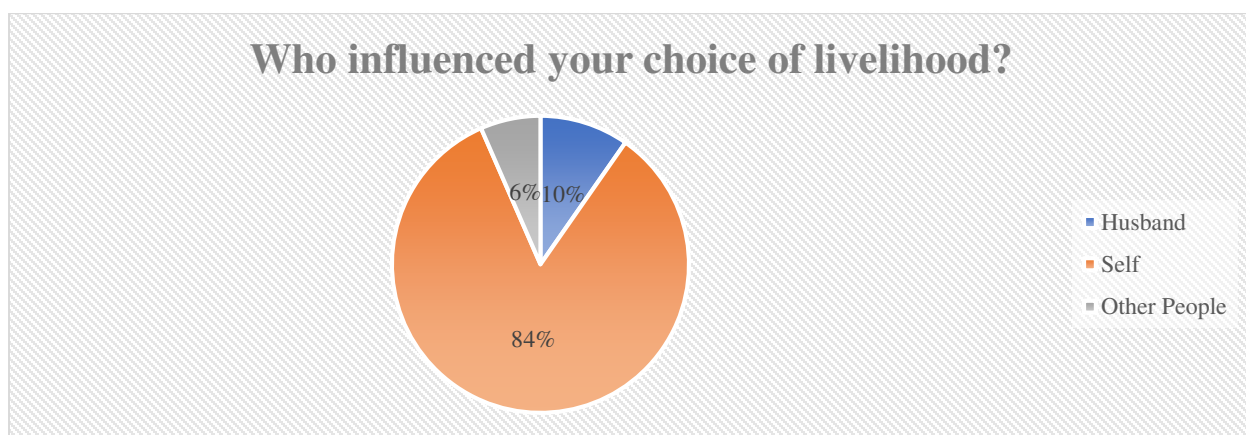


Figure 38 Chart depicting influence on livelihoods

WHAT OTHER BENEFITS APART FROM MONEY DO YOU DERIVE FROM YOUR LIVELIHOOD?

74.84% of all the respondents highlighted that food is the most common non-monetary benefit that they get from their livelihoods. This can of course be confirmed by the fact that majority of the respondents are in agriculture.

Table 61 Non-Monetary benefits from the livelihood

Non-Monetary Benefits from the livelihood	Obs.	Percentage
Food	1,160	74.84%
Manure & Other Farm Inputs	509	32.84%
Social Satisfaction	301	19.42%
Firewood	38	2.45%
Networking	184	11.87%

TIME SPENT ON CHILDCARE AND UNPAID HOUSEHOLD CHORES

Women are productive agents who possess at least equal potential productivity as men. That is why several economic gains can be made from the productivity of women by increasing their participation in the labour force. Generally, high female participation in the labour market implies two things; advancement in the economic and social position and empowerment of women and hence promoting equity and increased utilization of human potential, which can help in building a

higher capacity for economic growth and poverty reduction. It is however noted that women spend lots of their time on unpaid labour as shown below.

22.51% of the 1,524 respondents confirmed that they spend between 1-4 hrs. daily on unpaid house chores, while another 65.35% spend 5-8 hrs. on the same.

Table 62 Hours spent on unpaid house chores

Hours Spent on Unpaid House Chores	Frequency	Percentage
1 - 4 Hrs.	343	22.51%
5 - 8 Hrs.	996	65.35%
9 - 12 Hrs.	110	7.22%
13 - 16 Hrs.	18	1.18%
17 - 20 Hrs.	36	2.36%
21 - 24 Hrs.	21	1.38%
TOTAL	1,524	100.00%

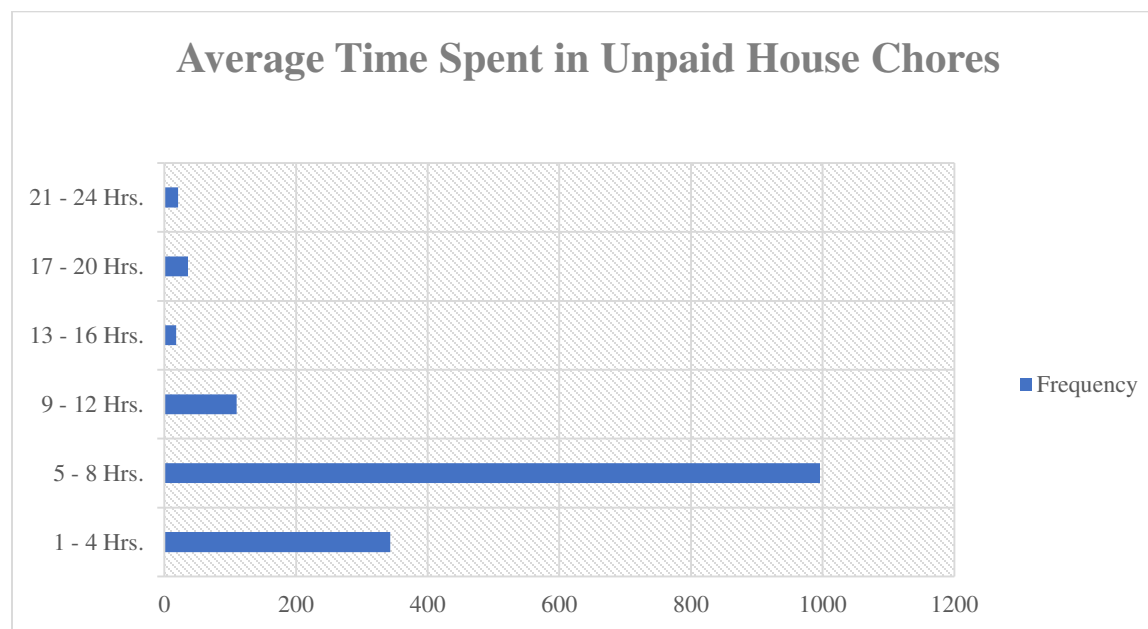


Figure 39 Average time spent in unpaid house chores

It is often believed that there is a natural distribution of gender roles, with women being better suited to domestic and child-rearing responsibility and men to working outside of the home. Such assertions lack compelling evidence and more importantly, perpetuate a status quo that limits the choices available to both men and women. Female participation in labour markets tends to increase when the time-spent on unpaid care work is reduced.

Of the 634 respondents that spend time in childcare activities and have at least one child below the age of 5 years, 41.17% spend 1-4 hrs., while 34.70% of them spend 5-8 hrs.

Table 63 Hours spent on childcare

Hours Spent on Childcare	Frequency	Percentage
1 - 4 Hrs.	261	41.17%
5 - 8 Hrs.	220	34.70%
9 - 12 Hrs.	76	11.99%
13 - 16 Hrs.	17	2.68%
17 - 20 Hrs.	23	3.63%
21 - 24 Hrs.	37	5.84%
TOTAL	634	100.00%

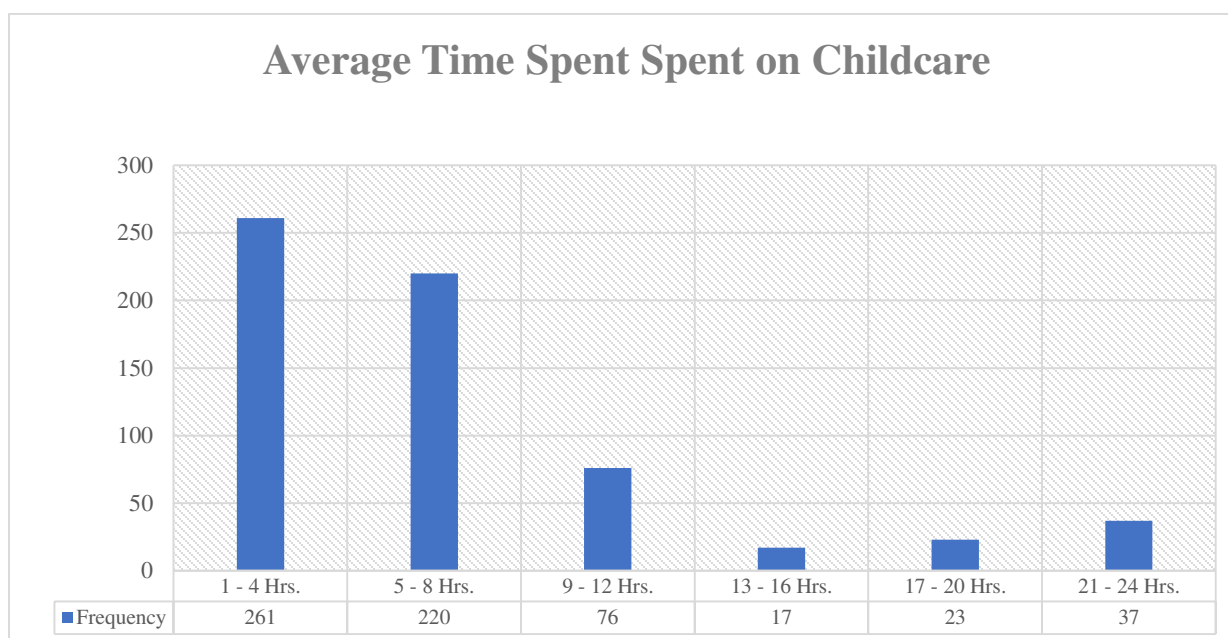


Figure 40 Average time spent on childcare

77.33% of the 1,524 respondents confirmed that they use 1-4 hrs. to rest and engage in leisure activities, while **12.77%** use 5-8hrs.

Table 64 Hours Spent in Leisure/Resting

Hours Spent in Leisure/Resting	Frequency	Percentage
1 - 4 Hrs.	969	77.33%
5 - 8 Hrs.	160	12.77%
9 - 12 Hrs.	114	9.10%
13 - 16 Hrs.	1	0.008%
17 - 20 Hrs.	3	0.24%
21 - 24 Hrs.	6	0.48%
TOTAL	1,524	100.00%

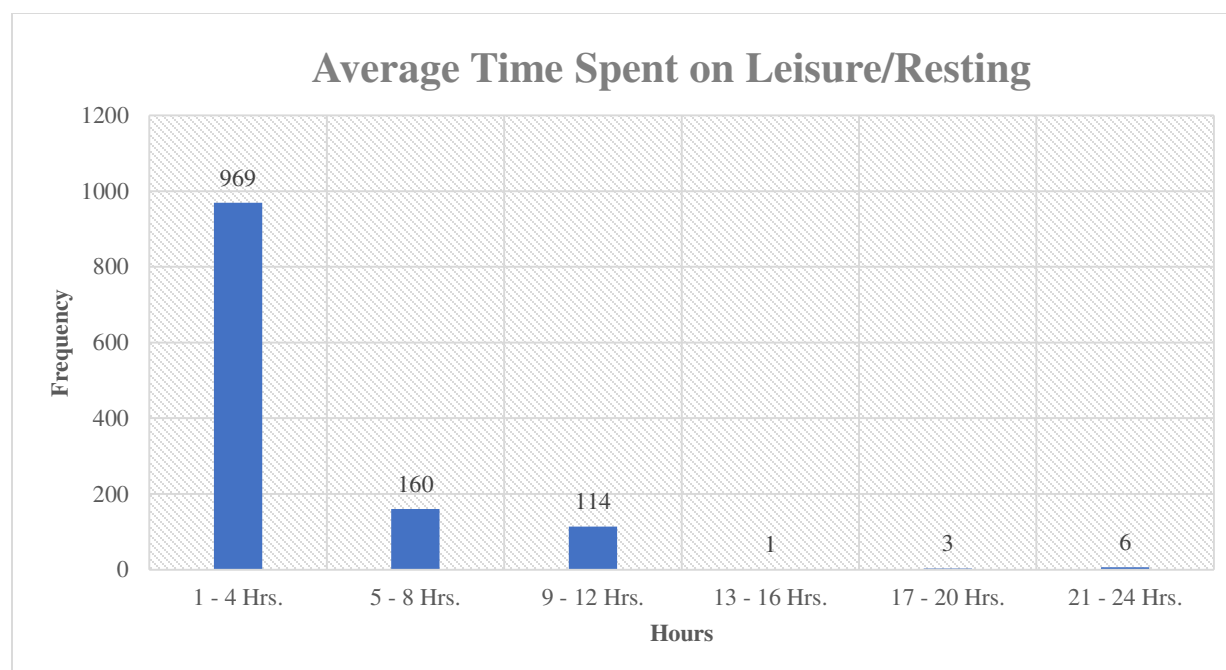


Figure 41 Average time spent on leisure/resting

It is also interesting to note that the average time spent in leisure and rest is observed to increase with the age of the respondent.

CHALLENGES FACE WHILE UNDERTAKING LIVELIHOOD ACTIVITIES

Challenges in Agriculture

Of the **1,448** respondents who indicated that they face agriculture related challenges, a majority of them (**50.69%**) noted insufficient or unreliable rainfall as the greatest challenge. According to **37.24%** of the respondents with agriculture challenges, they believe the challenges can be resolved through Climate-resilient Agriculture (CRA).

Table 65 Challenges in agriculture

Challenges in Agriculture	Obs.	Percentage	Ways of Addressing this Challenge
Insufficient/Unreliable Rainfall/Climate Change/drought	734	50.69%	Climate-resilient agriculture (CRA) (37.24%)
Lack of affordable farm inputs/High Cost of farm input	576	39.78%	Subsidized Farm Inputs (13.16%)
Insufficient Funds	296	20.50%	Low interest loans/Grants (13.16%)
Lack of suitable market for produce/Poor pay/Low Income/low prices/exploitation by brokers	260	17.96%	Better Markets & Price Control (For Farm Produce) (10.70%)
Pests, weeds and Diseases	285	19.68%	Capacity Building, Training & Provision of Extension Services (7.01%)

Child care burden	45	3.11%	Women Empowerment Programs & Childcare Support (7.81%)
Distance	26	1.80%	
Small Piece of Land/Inadequate Land	76	5.25%	-
Others (Old age, poor storage, natural calamities, husband control of income, theft of produce/animals, poor health/sickness/disability, household chores, traditional farming, methods)	339	23.53%	-

Challenges in Casual Labour

Of the 807 who noted challenges in casual labour, majority of them (38.91%) cited poor or delayed remuneration as their biggest challenge. 12.91% of the respondents proposed that increasing the minimum wage will assist in addressing the challenge of poor remuneration.

Table 66 Challenges in casual labour

Challenges in Casual Labour	Obs.	Percentage	Ways of Addressing this Challenge
Poor or Delayed Remuneration	314	38.91%	Increase/Standardize minimum Wage (12.91%)
Childcare Burden	25	3.10%	Relieve Childcare Burden (2.37%)
Health, Age & Disability Challenges	30	3.72%	-
Long Distances & Poor Infrastructure	86	10.66%	Improving Infrastructure & Transport Systems (6.19%)
Unavailability of the jobs	172	21.31%	Alternative Income Sources (14.76%) Empowerment & Capacity Development (12.91%)
Long Working Hours & Harsh Working Conditions	60	7.72%	Policies to Protect Casual Labourers (6.06%)
Sexual Abuse & Harassment	47	5.82%	Policies to Protect Casual Labourers (6.06%)

Challenges Formal Employment

Of the 329 respondents reported challenges in formal employment, majority of them (9.42%) cited poor or delayed remuneration as their biggest challenge.

Table 67 Challenges formal employment

Challenges in Formal Employment	Obs.	Percentage	Ways of Addressing this Challenge
Childcare and House Chore Burden	17	5.17%	Women Empowerment (5.56%) Childcare Support (0.98%)
Lack of formal Education	6	1.82%	Education, Skills Development & Capacity Building (4.90%)
Stiff Competition or Unavailability of Job slots	24	7.29%	Better Working Terms & Social Protection (4.25%)
Age, Health and Physical Disability	5	1.52%	-
Poor or Delayed Remuneration	31	9.42%	Increase Salaries & Timely Pay (1.63%)
Poor Infrastructure & Transport Systems	22	6.69%	-

Challenges in Business

Of the 381 respondents who enumerated business challenges, the majority of them constituting to 33.86% cited financial challenges as their greatest challenge.

Table 68 Challenges in business

Challenges in Business	Obs.	Percentage	Ways of Addressing this Challenge
Lack of Capital/Finances & High Taxation	129	33.86%	Financial Support & Lower Taxation (26.57%)
Poor Infrastructure	25	6.56%	Improvement of Transport & Infrastructure (7.14%)
Childcare & House Chore Burden	8	2.10%	Women Empowerment & Childcare Support (6.00%)
Lack of Sustainable Markets & Competition	119	31.23%	Improving Markets & Regulating Market Prices (13.14%) Government intervention to protect Traders & Providing an Enabling Environment (16.81%)

Are there any interventions that have been put in place by government or others stakeholders to address women livelihood in this county?

Are there any interventions?	Freq	Percentage
Respondents AGREE that there are interventions put in place by government or others stakeholders to address women livelihood in the county	675	43.80%
Respondents DO NOT AGREE THERE ARE /DO NOT KNOW OF ANY interventions put in place by government or others stakeholders to address women livelihood in this county	866	56.20%
TOTAL	1,541	100.00 %

The **675** who admitted that the government and other stakeholders have put in place interventions to address women livelihoods in the county, **633** of them cited the following interventions:

Table 69 Interventions that have been put in place by government or others stakeholders to address women livelihood

Intervention	Freq	Percentage
Provision of Water tanks by county government, NGAAF; drilling of boreholes; piped irrigation water	68	10.73%
Issuance of certified seeds, farm inputs by County government and Safaricom /goat, chicken and cattle, piglets by Upper Tana	230	36.33%
Loans by Women Enterprise Fund; Grants/ Loans to women groups /bursary by government/KCSAP/NGAAF/Mugana funds	187	29.54%
Capacity building by county executive offices and FAO	15	2.37%
KCSAP Program and KCEP/AI services	38	5.99%
Improved Health services through maternal care and <i>Linda mama</i> / health facilities	98	15.48%
Daycare and credit facilities	6	0.95%
Improved Infrastructure e.g., roads, market centers, electricity	90	14.20%
Relief food	15	2.37%
Protection of girls from FGM by plan int., protection from teenage pregnancies	4	0.63%

SECTION 5: WOMEN'S ECONOMIC EMPOWERMENT

An analysis of the various indicators of women's economic empowerment depicts that **access to productive assets** and the **access and control of loans** are the greatest limitations to the achievement of Women Economic Empowerment (WEE).

Table 70 Average weighting of the indicators of WEE

Indicator of Empowerment	Obs.	Average Weighting (on a scale of 1-5)
Control over income	1,550	4.1
Freedom to engage in any livelihood activity of wish	1,550	4.0
Control over decisions concerning my livelihood	1,550	4.0
Access to productive assets e.g., Land, farm machines, vehicles	1,550	3.2
Access to non-productive assets e.g., Furniture, utensils, cutlery	1,550	3.9
Access to loans	1,550	2.3
Control over loans	1,550	2.3

INDICATORS OF WEE AND HOW THEY COMPARE BASED ON LEVEL OF EDUCATION, MARITAL STATUS AND AGE

Control over income

The greatest percentage of the 1,550 respondents (**52.97%**) of the respondents confirmed that they have full control over their income.

Table 71 Control over income

Rating on a scale of 1-5	Frequency	Percentage
1	86	5.55%
2	120	7.74%
3	135	8.71%
4	388	25.03%
5	821	52.97%
TOTAL	1,550	100.00%

An analysis of how **marital status** affected the control of income for respondents reveals that **married** respondents have lower chances of having control over their income, as compared to the other marital status.

Table 72 How marital status affects control over income

Marital Status	Obs.	Average Weighting of this indicator (Scale of 1-5)
Married	1,119	3.97
Single	134	4.49
Widowed	219	4.43
Separated	61	4.74
Divorced	17	4.59

Another finding is on how the level of **education** of the respondents affected their ability to control their income, as tabulated below. Respondents without any years of schooling have a relatively lower chance of being able to control their income. On average, respondents without any year of schooling rated their control over income at **3.94** on a scale of 1-5

Table 73 Education level and the control over income

Level of Education	Obs.	Average Weighting of this indicator (Scale of 1-5)
None	217	3.94
Primary	874	4.15
Secondary	344	4.07
Diploma & Certificate	99	4.40
University Degree	15	4.2
Post-graduate	1	5

A deeper analysis on how the **age** of the respondents affected their ability to control their incomes can be illustrated in the Table 74 below. Respondents of the age bracket **18-23** have relatively low chances of controlling their income. Also, **after the age of 69**, it is observed that the chances of a respondent being in a position to control their income start to reduce linearly.

Table 74 Age and control over income

Age Category of the Respondents	Obs.	Average Weighting of this indicator (Scale of 1-5)
18-23	54	3.63
24-29	144	4.06
30-34	144	4.07
35-39	208	4.16
40-44	172	4.09
45-49	192	4.18
50-54	147	4.22
55-59	94	4.18
60-64	117	4.32
65-69	76	4.45
70-74	86	4.06
75-79	48	3.96
80-84	35	3.80
85-89	12	3.72
90-94	14	3.57
95-99	4	2.75
100-104	3	1.33

Freedom to engage in any livelihood activity

The majority of the respondents (**48.58% of the 1,1550 respondents**) strongly agree that they have freedom to engage in any livelihood of their wish.

Table 75 Freedom to engage in any livelihood activity

Rating on a scale of 1-5	Frequency	Percentage
1	101	6.52%
2	146	9.42%
3	158	10.19%
4	392	25.29%
5	753	48.58%
TOTAL	1,550	100.00%

Interestingly, married respondents exhibited lower ability to having freedom to engage in any livelihood activity they wish.

Table 76 Marital status and freedom to engage in any livelihood activity

Marital Status	Obs.	Average Weighting of this indicator (Scale of 1-5)
Married	1,119	3.88
Single	134	4.30
Widowed	219	4.20
Separated	61	4.66
Divorced	17	4.47

Clearly, the freedom to engage in livelihood activities that the respondents wish to engage in, is lower for the respondents with no year of schooling.

Table 77 Education level and freedom to engage in any livelihood activity

Level of Education	Obs.	Average Weighting of this indicator (Scale of 1-5)
None	217	3.80
Primary	874	4.07
Secondary	344	3.90
Diploma & Certificate	99	4.15
University Degree	15	4.2
Post-graduate	1	5

A deeper analysis on how the **age** of the respondents affected their ability engage in any livelihood the respondent wishes can be illustrated in the table below. Respondents of the age bracket 18-23 have relatively low chances of having freedom to engage in what livelihood activity they wish. **After the age of 69**, it is observed that the chances of a respondent being in a position to control their income start to reduce linearly.

Table 78 Age and the freedom to engage in any livelihood activity

Age Category of the Respondents	Obs.	Average Weighting of this indicator (Scale of 1-5)
18-23	54	3.52
24-29	144	4.03
30-34	144	4.01
35-39	208	4.07
40-44	172	3.97
45-49	192	4.09
50-54	147	4.16
55-59	94	4.07
60-64	117	4.15
65-69	76	4.25
70-74	86	3.95
75-79	48	3.5
80-84	35	3.09
85-89	12	3.92
90-94	14	3.71
95-99	4	3
100-104	3	2.33

Control over decisions concerning my livelihood

Of the 1,550 respondents, majority of them, representing **45.87%**, strongly agree that they have control over decisions concerning their livelihoods.

Table 79 Control over decisions concerning livelihood

Rating on a scale of 1-5	Frequency	Percentage
1	67	4.32%
2	154	9.94%
3	167	10.77%
4	451	29.10%
5	711	45.87%
TOTAL	1,550	100.00%

It is observed that **married** respondents have relatively lower chances of being able to have control over decisions concerning their livelihood.

Table 80 Marital status and the control over decisions concerning livelihoods

Marital Status	Obs.	Average Weighting of this indicator (Scale of 1-5)
Married	1,119	3.90
Single	134	4.34
Widowed	219	4.22
Separated	61	4.62
Divorced	17	4.59

It is also observed that respondents **without any year of schooling have lowest control over decisions** concerning their livelihood.

Table 81 Education Level and the control over decisions concerning livelihoods

Level of Education	Obs.	Average Weighting of this indicator (Scale of 1-5)
None	217	3.85
Primary	874	4.07
Secondary	344	3.96
Diploma & Certificate	99	4.21
University Degree	15	4.2
Post-graduate	1	5

Further analysis shows that respondents between the age of **18-34**, and **above the age of 64**, have relatively lower control over decisions concerning their livelihoods.

Table 82 Age and the control over decisions concerning livelihoods

Age Category of the Respondents	Obs.	Average Weighting of this indicator (Scale of 1-5)
18-23	54	3.5
24-29	144	3.85
30-34	144	3.97
35-39	208	4.17
40-44	172	4.03
45-49	192	4.16
50-54	147	4.18
55-59	94	4.07
60-64	117	4.19
65-69	76	4.25
70-74	86	3.94
75-79	48	3.65
80-84	35	3.37
85-89	12	4
90-94	14	3.5
95-99	4	2.5
100-104	3	2.67

Access to productive assets

A relatively low percentage of **25.42%** the 1,550 respondents strongly agree that they have access to productive assets. It is worth noting that among all the indicators of empowerment, Access to productive assets has depicted the **lowest** rating for the respondents.

Table 83 Access to productive assets

Rating on a scale of 1-5	Frequency	Percentage
1	252	16.26%
2	272	17.55%
3	275	17.74%

4	357	23.03%
5	394	25.42%
TOTAL	1,550	100.00

It is interesting to note that divorced respondents have the highest access to productive assets, followed closely by the widowed.

Table 84 Marital status and access to productive assets

Marital Status	Obs.	Average Weighting of this indicator (Scale of 1-5)
Married	1,119	3.19
Single	134	3.08
Widowed	219	3.50
Separated	61	3.25
Divorced	17	4.06

Clearly, the respondents with no years of schooling have been noted to have lowest chances of being accessing productive assets such as land.

Table 85 Education and access to productive assets

Level of Education	Obs.	Average Weighting of this indicator (Scale of 1-5)
None	217	2.67
Primary	874	3.29
Secondary	344	3.28
Diploma & Certificate	99	3.73
University Degree	15	4.27
Post-graduate	1	5

The average weighting of the indicator can be observed to be significantly low across all the age categories of the respondents.

Table 86 Age and access to productive assets

Age Category of the Respondents	Obs.	Average Weighting of this indicator (Scale of 1-5)
18-23	54	2.70
24-29	144	3.16
30-34	144	3.18
35-39	208	3.27
40-44	172	3.16
45-49	192	3.28
50-54	147	3.39
55-59	94	3.07
60-64	117	3.54
65-69	76	3.58

70-74	86	3.33
75-79	48	3.04
80-84	35	3.74
85-89	12	3.17
90-94	14	3.57
95-99	4	2.25
100-104	3	2.67

Access to non-productive assets

A majority of the respondents representing **40.13%** of the respondents, strongly agreed that they have access to non-productive assets.

It is worth noting that more respondents have access to non-productive assets than the productive assets.

Table 87 Access to non-productive assets

Rating on a scale of 1-5	Frequency	Percentage
1	96	6.19%
2	147	9.48%
3	157	10.13%
4	528	34.06%
5	622	40.13%
TOTAL	1,550	100.00%

It is observed that **divorced** respondents have higher chances of accessing non-productive assets. **Single** respondents displayed the lowest chances of being in a position to access non-productive assets.

Table 88 Marital status and access to non-productive assets

Marital Status	Obs.	Average Weighting of this indicator (Scale of 1-5)
Married	1,119	3.91
Single	134	3.87
Widowed	219	3.96
Separated	61	4.03
Divorced	17	4.47

It is observed that respondents with **post primary education** have better chances of accessing non-productive assets. Respondents with no year of schooling depicted the lowest chances of having access to non-productive assets.

Table 89 Education level and access to non-productive assets

Level of Education	Obs.	Average Weighting of this indicator (Scale of 1-5)
None	217	3.35
Primary	874	3.99
Secondary	344	3.95
Diploma & Certificate	99	4.37
University Degree	15	4.67
Post-graduate	1	4

A general view of the dataset depicts that chances of access to non-productive assets is highest in the age set between **50 - 64** years.

Table 90 Age and access to non-productive assets

Age Category of the Respondents	Obs.	Average Weighting of this indicator (Scale of 1-5)
18-23	54	3.46
24-29	144	3.81
30-34	144	3.90
35-39	208	3.98
40-44	172	3.91
45-49	192	3.95
50-54	147	4.02
55-59	94	4.06
60-64	117	4.15
65-69	76	3.83
70-74	86	3.89
75-79	48	3.46
80-84	35	3.46
85-89	12	3.92
90-94	14	3.79
95-99	4	2
100-104	3	2.67

Access to loans

The majority of the respondents representing 40.71% strongly agreed that they have no access to loan facilities from various financial institutions.

Table 91 Access to loans

Rating on a scale of 1-5	Frequency	Percentage
1	631	40.71%
2	407	26.26%
3	86	5.55%
4	221	14.26%
5	205	13.23%
TOTAL	1,550	100.00%

Across all the marital status, it is clear that the chances to access loan facilities are generally very poor, regardless of the marital status.

Table 92 Marital status and access to loans

Marital Status	Obs.	Average Weighting of this indicator (Scale of 1-5)
Married	1,119	2.41
Single	134	2.24
Widowed	219	2
Separated	61	1.89
Divorced	17	2.65

Although the general access to loan facilities across respondents of all the levels of education is low, it can be depicted that the chances to access loans **increase linearly** with the increase in years of schooling.

Table 93 Education level and access to loans

Level of Education	Obs.	Average Weighting of this indicator (Scale of 1-5)
None	217	1.95
Primary	874	2.25
Secondary	344	2.26
Diploma & Certificate	99	2.87
University Degree	15	3
Post-graduate	1	4

Chances to access loan facilities are generally very low across all the age sets. However, it is seen that respondents between **18-23** and those **above the age of 69** have lowest chances of having access to credit facilities.

Table 94 Age and access to loans

Age Category of the Respondents	Obs.	Average Weighting of this indicator (Scale of 1-5)
18-23	54	1.83
24-29	144	2.09
30-34	144	2.32
35-39	208	2.40
40-44	172	2.37
45-49	192	2.71
50-54	147	2.51
55-59	94	2.51
60-64	117	2.37
65-69	76	2.54
70-74	86	1.87
75-79	48	1.96

80-84	35	1.71
85-89	12	1.67
90-94	14	1.29
95-99	4	1.25
100-104	3	1

Control over loans

It is evident that most of the respondents have no control over loans. Only a very small percentage of **12.90%** strongly agreed that they have control over loans.

Table 95 Control over loans

Rating on a scale of 1-5	Frequency	Percentage
1	599	38.65%
2	464	29.58%
3	92	5.94%
4	195	12.58%
5	200	12.90%
TOTAL	1,550	100.00%

A comparative analysis of the access against control of loans can be illustrated as below. Of the 205 respondents who strongly agreed that they have access to loan facilities, only 161 (**78.53%**) of them have full control over these loans. This means that **21.47%** strongly agree that they **have no access to loans which they strongly agree they have access to.**

Table 96 Access to loans against control of the acquired loans

Access level to Loans	Level of Control over loans					TOTAL
	1	2	3	4	5	
1	561	41	5	14	10	631
2	24	364	9	5	5	407
3	4	17	50	10	5	86
4	4	29	20	149	19	221
5	6	13	8	17	161	205
TOTAL	599	464	92	195	200	1,550

The table below depicts that control of loans across all the marital statuses is generally low.

Table 97 Control of loans against marital status

Marital Status	Obs.	Average Weighting of this indicator (Scale of 1-5)
Married	1,119	2.36
Single	134	2.39
Widowed	219	2.12
Separated	61	1.92
Divorced	17	2.65

The control of loan facilities is generally low for all the levels of education, but can be seen to increase linearly with every unit of year of schooling.

Table 98 Control of loans against level of education

Level of Education	Obs.	Average Weighting of this indicator (Scale of 1-5)
None	217	2.06
Primary	874	2.21
Secondary	344	2.57
Diploma & Certificate	99	2.74
University Degree	15	3
Post-graduate	1	4

Control of loan facilities is generally low, despite the age set of the respondent.

Table 99 Control of loans against age of the respondent

Age Category of the Respondents	Obs.	Average Weighting of this indicator (Scale of 1-5)
18-23	54	1.96
24-29	144	2.08
30-34	144	2.33
35-39	208	2.35
40-44	172	2.26
45-49	192	2.61
50-54	147	2.52
55-59	94	2.41
60-64	117	2.40
65-69	76	2.43
70-74	86	2.01
75-79	48	2.02
80-84	35	1.77
85-89	12	2
90-94	14	2.57
95-99	4	1
100-104	3	1

SECTION 6: WOMEN'S PSYCHOSOCIAL WELL-BEING

Psychological well-being is a multidimensional construct comprised of six areas of positive functioning: *Autonomy, Positive Social Relations with Others, Purpose in Life, Personal Growth, Environmental Mastery, and Self-Acceptance*.

In our study, 4 of the 6 indicators were measured to establish the psychosocial wellbeing of the respondents.

Table 100 Constructs of psychosocial wellbeing and their weighting

Constructs of Positive Functioning / Indicators	Obs.	Average Weighting (on a scale of 1-5)
Autonomy (Respondent is self-determining and independent; able to resist social pressures to think and act in certain ways, regulate behavior from within; and evaluate self by personal standards)		
I am not afraid to voice my opinions, even when they are contrary to the opinions of others	1,550	4.01
My decisions are influenced by others	1,550	2.56
I worry about what other people think of me	1,550	2.54
Personal Growth (Respondent has a feeling of continued development; sees self as growing and expanding; is open to new experiences)		
I have developed as a person over time	1,550	4.01
I have direction and purpose in life	1,550	4.09
I am confident and positive about myself	1,550	4.11
I am experienced in my work	1,550	4.07
Positive Social Relations (Respondent has warm, satisfying, trusting relationships with others, is concerned about the welfare of others; is capable of strong empathy, affection, and intimacy)		
I trust my friends and they trust me too	1,550	3.55
I enjoy personal and mutual conversations with family members and friends	1,550	4.12
Maintaining close relationships is difficult and frustrating for me.	1,550	2.60
Purpose in Life (Respondent has goals in life and a sense of directedness, feels there is meaning to present and past life; holds beliefs that give life purpose; and has aims and objectives for living")		
My daily livelihood activities are important	1,550	4.35
I am good at managing my daily responsibilities	1,550	4.19
Performing my daily activities is difficult and frustrating	1,550	3.10
The future of my livelihood worries me	1,550	3.46
I am overwhelmed by my responsibilities	1,550	3.60

CONSTRUCTS OF PSYCHOSOCIAL WELL-BEING

Autonomy

I am not afraid to voice my opinions, even when they are contrary to the opinions of others.

Table 101 Autonomy in voicing opinions

How respondents rated this indicator on a scale of 1-5 (5 is the most favorable)	Frequency	Percentage
1	68	4.39%
2	171	11.03%
3	167	10.77%
4	423	27.29%
5	721	46.52%
TOTAL	1,550	100.00%

My decisions are influenced by others

Table 102 Autonomy in decision making

How respondents rated this indicator on a scale of 1-5 (5 is the least favorable)	Frequency	Percentage
1	440	28.39%
2	413	26.65%
3	254	16.39%
4	279	18.00%
5	164	10.58%
TOTAL	1,550	100.00%

I worry about what other people think of me

Table 103 Autonomy in what people think of me

How respondents rated this indicator on a scale of 1-5 (5 is the least favorable)	Frequency	Percentage
1	503	32.45%
2	369	23.81%
3	217	14.00%
4	257	16.58%
5	204	13.16%
TOTAL	1,550	100.00%

Personal Growth

I have developed as a person over time

Table 104 Personal development

How respondents rated this indicator on a scale of 1-5 (5 is the most favorable)	Frequency	Percentage
1	56	3.61%
2	153	9.87%
3	163	10.52%
4	524	33.81%
5	654	42.19%

TOTAL	1,550	100.00%
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I have direction and purpose in life

Table 105 Direction and purpose in life

How respondents rated this indicator on a scale of 1-5 (5 is the most favorable)	Frequency	Percentage
1	38	2.45%
2	105	6.77%
3	201	12.97%
4	540	34.84%
5	666	42.97%
TOTAL	1,550	100.00%

I am confident and positive about myself

Table 106 Confidence level in oneself

How respondents rated this indicator on a scale of 1-5 (5 is the most favorable)	Frequency	Percentage
1	33	2.13%
2	123	7.94%
3	190	12.26%
4	506	32.65%
5	698	45.03%
TOTAL	1,550	100.00%

I am experienced in my work

Table 107 Experience at work

How respondents rated this indicator on a scale of 1-5 (5 is most favorable)	Frequency	Percentage
1	62	4.00%
2	95	6.13%
3	194	12.52%
4	521	33.61%
5	678	43.74%
TOTAL	1,550	100.00%

Positive Social Relations

I trust my friends and they trust me too

Table 108 Trust among friends

How respondents rated this indicator on a scale of 1-5 (5 is the most favorable)	Frequency	Percentage
1	120	7.74%
2	256	16.52%
3	290	18.71%
4	414	26.71%
5	470	30.32%

TOTAL	1,550	100.00%
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I enjoy personal and mutual conversations with family members and friends

Table 109 Enjoying personal and mutual conversations

How respondents rated this indicator on a scale of 1-5	Frequency	Percentage
1	27	1.74%
2	111	7.16%
3	195	12.58%
4	530	34.19%
5	687	44.32%
TOTAL	1,550	100.00%

Maintaining close relationships is difficult and frustrating for me.

Table 110 Maintenance of close relationship

How respondents rated this indicator on a scale of 1-5 (5 is the least favorable)	Frequency	Percentage
1	348	22.45%
2	509	32.84%
3	283	18.26%
4	242	15.61%
5	168	10.84%
TOTAL	1,550	100.00%

Purpose in Life

My daily livelihood activities are important

Table 111 Importance of the daily activities

How respondents rated this indicator on a scale of 1-5 (5 is the most favorable)	Frequency	Percentage
1	23	1.48%
2	89	5.74%
3	103	6.65%
4	441	28.45%
5	894	57.68%
TOTAL	1,550	100.00%

I am good at managing my daily responsibilities

Table 112 Management of daily responsibilities

How respondents rated this indicator on a scale of 1-5 (5 is most favorable)	Frequency	Percentage
1	29	1.87%
2	116	7.48%
3	154	9.94%
4	490	31.61%
5	761	49.10%

TOTAL	1,550	100.00%
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Performing my daily activities is difficult and frustrating

Table 113 Performance of daily activities

How respondents rated this indicator on a scale of 1-5 (5 is least favorable)	Frequency	Percentage
1	291	18.77%
2	285	18.39%
3	273	17.61%
4	379	24.45%
5	322	20.77%
TOTAL	1,550	100.00%

The future of my livelihood worries me

Table 114 Feelings about the future

How respondents rated this indicator on a scale of 1-5 (5 is the least favorable)	Frequency	Percentage
1	192	12.39%
2	249	16.06%
3	240	15.48%
4	391	25.23%
5	478	30.84%
TOTAL	1,550	100.00%

I am overwhelmed by my responsibilities

Table 115 How overwhelmed the respondent is by their responsibilities

How respondents rated this indicator on a scale of 1-5 (5 is the least favorable)	Frequency	Percentage
1	189	12.19%
2	219	14.13%
3	152	9.81%
4	459	29.61%
5	531	34.26%
TOTAL	1,550	100.00%

PART II: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY OF KEY FINDINGS

The report makes the following summaries.

- i. 70% of the women who participated in the survey have either no education or have primary education. In addition, post -secondary education was quite low at 4.72%.
- ii. The main livelihood activities in the County are crop farming (85%), livestock keeping (53.4%), casual labour (42%) and business (16%). Formal employment stands at 4%.
- iii. The findings reveal that 54.7% of women said that crop farming is the livelihood activity that gives them most income in the three ecological zones. This is followed closely by casual labour (15.2%), animal keeping (13.95%) and business at 9%. It is interesting to note 3.6% of women are in formal employment and this is quite low, though it could possibly be due to their low level of education.
- iv. From the study, 71% of the women earn an average income of KES 0 - 6250 in a month from the livelihood activities that give them most income. This is quite low and it means that majority could be living below the international poverty line. Further, 91.96% of the women earn between KES 0- 18,750.
- v. On one hand, women in business and formal employment earn an average of KES 65,507.38 and KES 62,036.93 respectively per year. On the other hand, women in agriculture and casual labour earn KES 39,454.27 and KES 20,940.17 respectively per year.
- vi. The most common disability in Tharaka Nithi County is physical accounting 48.28% disability case and is followed by mental disability which stands at 21.98%.
- vii. The average household expenditure on education in the county is KES 10,465, this is followed by food expense which stands at KES 4,974 on per month and then childcare at KES 3325.
- viii. 87.86% of the women spend between 1- 8 hours on unpaid household chores.
- ix. 68.69% of the women who had children below 4 years spend between 1 -8 hours on child care activities.
- x. There is only moderate social capital among women in the County: nearly 30% of the respondents said they do not trust others and that others might not be trusting them.
- xi. About 30% of women said they are very worried about the future of their livelihoods (the highest in the rating of 1-5, where 5 signifies the highest feeling of worry). The ever-increasing scarcity of water and firewood in the Country is probably one reason for this worry (fieldnotes evidence).

CONCLUSIONS

Based on the study objectives the report makes the following conclusions

- i. Crop farming is the main livelihood activity in the three ecological zones and this followed by animal keeping, casual labour and business. However, most women in the three zones are not in formal employment.
- ii. Crop farming and animal keeping (agriculture) and casual labour do not give women much income despite most of them engaging in these livelihood activities. But business and formal employment give the few women in them a lot of income though majority of the women are not in their economic activities.
- iii. Unpaid household chores and childcare take considerable time of the women's time.
- iv. Majority of women are in agriculture where they get low income. This is due to unreliable rainfall experienced in the county coupled with pests and disease which keep on invading the crops and attacking animals and also due to poor markets for agriculture products in the county.

POLICY RECOMMENDATIONS

The report recommends that:

- i. The county government invests in post-primary education for women in Tharaka Nithi County to enable them get skills to work in formal employment and even start their own businesses.
- ii. The county government establishes a fund that will finance women in agriculture and also those in business. This will enable them be in a position to buy pesticides and herbicides, install irrigation water and have capital to run their businesses.
- iii. The county government provides day care services in the county so as to relieve women extra child care burden during the day. This will enable women get extra hours to engage in their livelihood activities and thus earn more income to improve their living standards.

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APPENDIX 1: A NOTE ON DATA SOURCES AND QUALITY

- Household surveys on women's livelihoods in Tharaka Nithi County, were collected by the **KU WEE Hub** in partnership with **Tharaka Nithi County Government** in May-June 2022 after extensive stakeholder consultations throughout the County, following several brainstorming sessions among researchers on survey design, survey instruments, sampling methods, and a trial run on fieldwork logistics.
- Additional secondary data for the Report was obtained from government documents published by the **Kenya National Bureau of Statistics (KNBS)** based on nationally representative household surveys (Welfare Monitoring Surveys for 1994, 1997) and the Kenya Integrated Household Budget Surveys for 2005/6, and 2015/16.
- The **KNBS** provided technical support for the fieldwork design, especially in the application of various sampling methods and in the determination of sample sizes across County zones and wards.
- Before the survey data was used to prepare this report, it was checked for accuracy and consistency by the project's statisticians and also to ensure that (i) the observations were anonymized; (ii) the data variables are properly labeled; (iii) the raw data is available in machine readable formats, especially capable of being recognizable by commonly available software, such as STATA and SPSS to facilitate its analysis by other researchers.

APPENDIX 2: THE RESEARCH TEAM

#	Name	Institution	Designation/Grade
1.	Abraham Maruta	Tharaka Nithi -CEC (Co-PI)	(Team Leader)
2.	Lilian Kiruja	Tharaka Nithi - Legal Officer (PI)	Researcher
3.	Sheila Mwendu Kiganka	Tharaka Nithi – CEC	Researcher
4.	Stephen Mitugo	Tharaka Nithi - Chief Officer	Researcher
5.	Peter Kimathi Njeru	Tharaka Nithi - Chief Officer	Researcher
6.	Christine Njuguna	Kenyatta University, Lecturer	Researcher
7.	Domisiano Mwabu	Tharaka Nithi – Consultant and Social Analyst	Researcher
8.	Christipher Kiboro	Chuka University - Senior Lecturer	Researcher
9.	Grace Okong'o	Kenyatta University - Senior Lecturer	Researcher
10	Rufo Munene	Chuka University - Assistant Lecturer	Researcher
11	Philip Wambua	Kenyatta University - Senior Lecturer	Researcher

12	Simon Onywere	Kenyatta University	Researcher
13	Grace Wamue-Ngare	Kenyatta University	Researcher
14	Germano Mwabu	University of University & Kenyatta University	Researcher
15	Faith Karimi	Tharaka Nithi -Technical Team	Secretariat
16	Lawrence Njeru	Tharaka Nithi -Technical Team	Secretariat
17	Emily Kangai	Tharaka Nithi -Technical Team	Secretariat
18	Aileen Njoki	Tharaka Nithi -Technical Team	Secretariat
19	Aggrey Karani Riungu	Tharaka Nithi -Technical Team	Co Education
20	Wilberforce Muriungi	Tharaka Nithi -Technical Team	Economic Advisor
21	Monica Wangari	Tharaka Nithi -Technical Team	Clerk County Assembly
22	Ann Nkonge	Tharaka Nithi -Technical Team	Economist
23	Gillian Kagwiria Micheni	Tharaka Nithi -Technical Team	Nutritionist
24	Jackline Kanana	Tharaka Nithi -Technical Team	ECDE Specialist
25	George Kaburu	Tharaka Nithi -Technical Team	ECDE Specialist
26	Faith Ndanu	Tharaka Nithi -Technical Team	Statistics
27	Teresa Mwoma	Kenyatta University- Senior Lecturer	Child Specialist
28	Paul Samoei	KNBS – Technical Support	Data Management & Analysis
29	Elizabeth Njiru*	Chuka University - Assistant Lecturer	Researcher & Data Analysis
30	Samuel Muigai*	Tharaka Nithi – ICT Director	Researcher & Data Analysis

***Corresponding authors.**