# Exploring Kenya's Inequality

Pulling Apart or Pooling Together?



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# **Foreword**

Kenya, like all African countries, focused on poverty alleviation at independence, perhaps due to the level of vulnerability of its populations but also as a result of the 'trickle down' economic discourses of the time, which assumed that poverty rather than distribution mattered – in other words, that it was only necessary to concentrate on economic growth because, as the country grew richer, this wealth would trickle down to benefit the poorest sections of society. Inequality therefore had a very low profile in political, policy and scholarly discourses. In recent years though, social dimensions such as levels of access to education, clean water and sanitation are important in assessing people's quality of life. Being deprived of these essential services deepens poverty and reduces people's well-being. Stark differences in accessing these essential services among different groups make it difficult to reduce poverty even when economies are growing. According to the Economist (June 1, 2013), a 1% increase in incomes in the most unequal countries produces a mere 0.6 percent reduction in poverty. In the most equal countries, the same 1% growth yields a 4.3% reduction in poverty. Poverty and inequality are thus part of the same problem, and there is a strong case to be made for both economic growth and redistributive policies. From this perspective, Kenya's quest in vision 2030 to grow by 10% per annum must also ensure that inequality is reduced along the way and all people benefit equitably from development initiatives and resources allocated.

Since 2004, the Society for International Development (SID) and Kenya National Bureau of Statistics (KNBS) have collaborated to spearhead inequality research in Kenya. Through their initial publications such as 'Pulling Apart: Facts and Figures on Inequality in Kenya,' which sought to present simple facts about various manifestations of inequality in Kenya, the understanding of Kenyans of the subject was deepened and a national debate on the dynamics, causes and possible responses started. The report 'Geographic Dimensions of Well-Being in Kenya: Who and Where are the Poor?' elevated the poverty and inequality discourse further while the publication 'Readings on Inequality in Kenya: Sectoral Dynamics and Perspectives' presented the causality, dynamics and other technical aspects of inequality.

KNBS and SID in this publication go further to present monetary measures of inequality such as expenditure patterns of groups and non-money metric measures of inequality in important livelihood parameters like employment, education, energy, housing, water and sanitation to show the levels of vulnerability and patterns of unequal access to essential social services at the national, county, constituency and ward levels.

We envisage that this work will be particularly helpful to county leaders who are tasked with the responsibility of ensuring equitable social and economic development while addressing the needs of marginalized groups and regions. We also hope that it will help in informing public engagement with the devolution process and be instrumental in formulating strategies and actions to overcome exclusion of groups or individuals from the benefits of growth and development in Kenya.

It is therefore our great pleasure to present 'Exploring Kenya's inequality: Pulling apart or pooling together?'



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Stefano Prato Managing Director, SID



# Striking Features on Intra-County Inequality in Kenya

Inequalities within counties in all the variables are extreme. In many cases, Kenyans living within a single county have completely different lifestyles and access to services.

#### Income/expenditure inequalities

- 1. The five counties with the worst income inequality (measured as a ratio of the top to the bottom decile) are in Coast. The ratio of expenditure by the wealthiest to the poorest is 20 to one and above in Lamu, Tana River, Kwale, and Kilifi. This means that those in the top decile have 20 times as much expenditure as those in the bottom decile. This is compared to an average for the whole country of nine to one.
- 2. Another way to look at income inequality is to compare the mean expenditure per adult across wards within a county. In 44 of the 47 counties, the mean expenditure in the poorest wards is less than 40 percent the mean expenditure in the wealthiest wards within the county. In both Kilifi and Kwale, the mean expenditure in the poorest wards (Garashi and Ndavaya, respectively) is less than 13 percent of expenditure in the wealthiest ward in the county.
- 3. Of the five poorest counties in terms of mean expenditure, four are in the North (Mandera, Wajir, Turkana and Marsabit) and the last is in Coast (Tana River). However, of the five most unequal counties, only one (Marsabit County) is in the North (looking at ratio of mean expenditure in richest to poorest ward). The other four most unequal counties by this measure are: Kilifi, Kwale, Kajiado and Kitui.
- 4. If we look at Gini coefficients for the whole county, the most unequal counties are also in Coast: Tana River (.631), Kwale (.604), and Kilifi (.570).
- 5. The most equal counties by income measure (ratio of top decile to bottom) are: Narok, West Pokot, Bomet, Nandi and Nairobi. Using the ratio of average income in top to bottom ward, the five most equal counties are: Kirinyaga, Samburu, Siaya, Nyandarua, Narok.

#### **Access to Education**

- 6. Major urban areas in Kenya have high education levels but very large disparities. Mombasa, Nairobi and Kisumu all have gaps between highest and lowest wards of nearly 50 percentage points in share of residents with secondary school education or higher levels.
- 7. In the 5 most rural counties (Baringo, Siaya, Pokot, Narok and Tharaka Nithi), education levels are lower but the gap, while still large, is somewhat lower than that espoused in urban areas. On average, the gap in these 5 counties between wards with highest share of residents with secondary school or higher and those with the lowest share is about 26 percentage points.
- 8. The most extreme difference in secondary school education and above is in Kajiado County where the top ward (Ongata Rongai) has nearly 59 percent of the population with secondary education plus, while the bottom ward (Mosiro) has only 2 percent.
- 9. One way to think about inequality in education is to compare the number of people with no education



to those with some education. A more unequal county is one that has large numbers of both. Isiolo is the most unequal county in Kenya by this measure, with 51 percent of the population having no education, and 49 percent with some. This is followed by West Pokot at 55 percent with no education and 45 percent with some, and Tana River at 56 percent with no education and 44 with some.

# **Access to Improved Sanitation**

- 10. Kajiado County has the highest gap between wards with access to improved sanitation. The best performing ward (Ongata Rongai) has 89 percent of residents with access to improved sanitation while the worst performing ward (Mosiro) has 2 percent of residents with access to improved sanitation, a gap of nearly 87 percentage points.
- 11. There are 9 counties where the gap in access to improved sanitation between the best and worst performing wards is over 80 percentage points. These are Baringo, Garissa, Kajiado, Kericho, Kilifi, Machakos, Marsabit, Nyandarua and West Pokot.

#### **Access to Improved Sources of Water**

12. In all of the 47 counties, the highest gap in access to improved water sources between the county with the best access to improved water sources and the least is over 45 percentage points. The most severe gaps are in Mandera, Garissa, Marsabit, (over 99 percentage points), Kilifi (over 98 percentage points) and Wajir (over 97 percentage points).

# **Access to Improved Sources of Lighting**

13. The gaps within counties in access to electricity for lighting are also enormous. In most counties (29 out of 47), the gap between the ward with the most access to electricity and the least access is more than 40 percentage points. The most severe disparities between wards are in Mombasa (95 percentage point gap between highest and lowest ward), Garissa (92 percentage points), and Nakuru (89 percentage points).

# **Access to Improved Housing**

14. The highest extreme in this variable is found in Baringo County where all residents in Silale ward live in grass huts while no one in Ravine ward in the same county lives in grass huts.

# Overall ranking of the variables

15. Overall, the counties with the most income inequalities as measured by the gini coefficient are Tana River, Kwale, Kilifi, Lamu, Migori and Busia. However, the counties that are consistently mentioned among the most deprived hence have the lowest access to essential services compared to others across the following nine variables i.e. poverty, mean household expenditure, education, work for pay, water, sanitation, cooking fuel, access to electricity and improved housing are Mandera (8 variables), Wajir (8 variables), Turkana (7 variables) and Marsabit (7 variables).



# **Abbreviations**

**AMADPOC** African Migration and Development Policy Centre

CRA Commission on Revenue Allocation

**DANIDA** Danish International Development Agency

**DAP** Drivers of Accountability Programme

**EAS** Enumeration Areas

**HDI** Human Development Index

IBP International Budget Partnership

IEA Institute of Economic Affairs

IPAR Institute of Policy Analysis and Research

KIHBS Kenya Intergraded Household Budget Survey

**KIPPRA** Kenya Institute for Public Policy Research and Analysis

**KNBS** Kenya National Bureau of Statistics

**LPG** Liquefied Petroleum Gas

NCIC National Cohesion and Integration Commission

NTA National Taxpayers Association

**PCA** Principal Component Analysis

**SAES** Small Area Estimation

SID Society for International Development

TISA The Institute for Social Accountability

VIP latrine Ventilated-Improved Pit latrine

**VOCs** Volatile Organic Carbons

WDR World Development Report

# Introduction

# **Background**

For more than half a century many people in the development sector in Kenya have worked at alleviating extreme poverty so that the poorest people can access basic goods and services for survival like food, safe drinking water, sanitation, shelter and education. However when the current national averages are disaggregated there are individuals and groups that still lag too behind. As a result, the gap between the rich and the poor, urban and rural areas, among ethnic groups or between genders reveal huge disparities between those who are well endowed and those who are deprived.

According to the world inequality statistics, Kenya was ranked 103 out of 169 countries making it the 66th most unequal country in the world. Kenya's Inequality is rooted in its history, politics, economics and social organization and manifests itself in the lack of access to services, resources, power, voice and agency. Inequality continues to be driven by various factors such as: social norms, behaviours and practices that fuel discrimination and obstruct access at the local level and/ or at the larger societal level; the fact that services are not reaching those who are most in need of them due to intentional or unintentional barriers; the governance, accountability, policy or legislative issues that do not favor equal opportunities for the disadvantaged; and economic forces i.e. the unequal control of productive assets by the different socio-economic groups.

According to the 2005 report on the World Social Situation, sustained poverty reduction cannot be achieved unless equality of opportunity and access to basic services is ensured. Reducing inequality must therefore be explicitly incorporated in policies and programmes aimed at poverty reduction. In addition, specific interventions may be required, such as: affirmative action; targeted public investments in underserved areas and sectors; access to resources that are not conditional; and a conscious effort to ensure that policies and programmes implemented have to provide equitable opportunities for all.

This chapter presents the basic concepts on inequality and poverty, methods used for analysis, justification and choice of variables on inequality. The analysis is based on the 2009 Kenya housing and population census while the 2006 Kenya integrated household budget survey is combined with census to estimate poverty and inequality measures from the national to the ward level. Tabulation of both money metric measures of inequality such as mean expenditure and non-money metric measures of inequality in important livelihood parameters like, employment, education, energy, housing, water and sanitation are presented. These variables were selected from the census data and analyzed in detail and form the core of the inequality reports. Other variables such as migration or health indicators like mortality, fertility etc. are analyzed and presented in several monographs by Kenya National Bureau of Statistics and were therefore left out of this report.

# Methodology

#### Gini-coefficient of inequality

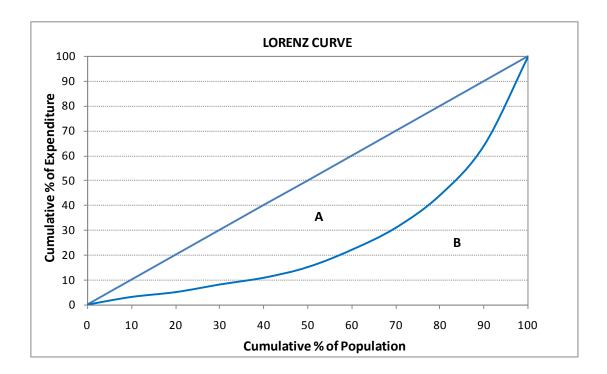
This is the most commonly used measure of inequality. The coefficient varies between '0', which reflects complete equality and '1' which indicates complete inequality. Graphically, the Gini coefficient can be



easily represented by the area between the Lorenz curve and the line of equality. On the figure below, the Lorenz curve maps the cumulative income share on the vertical axis against the distribution of the population on the horizontal axis. The Gini coefficient is calculated as the area (A) divided by the sum of areas (A and B) i.e. A/(A+B). If A=0 the Gini coefficient becomes 0 which means perfect equality, whereas if B=0 the Gini coefficient becomes 1 which means complete inequality. Let xi be a point on the X-axis, and yi a point on the Y-axis, the Gini coefficient formula is:

$$Gini = 1 \prod_{i=1}^{N} (x_i \prod x_{i \square 1}) (y_i + y_{i \square 1}).$$

An Illustration of the Lorenz Curve



#### Small Area Estimation (SAE)

The small area problem essentially concerns obtaining reliable estimates of quantities of interest — totals or means of study variables, for example — for geographical regions, when the regional sample sizes are small in the survey data set. In the context of small area estimation, an area or domain becomes small when its sample size is too small for direct estimation of adequate precision. If the regional estimates are to be obtained by the traditional direct survey estimators, based only on the sample data from the area of interest itself, small sample sizes lead to undesirably large standard errors for them. For instance, due to their low precision the estimates might not satisfy the generally accepted publishing criteria in official statistics. It may even happen that there are no sample members at all from some areas, making the direct estimation impossible. All this gives rise to the need of special small area estimation methodology.

Most of KNBS surveys were designed to provide statistically reliable, design-based estimates only at the national, provincial and district levels such as the Kenya Intergraded Household Budget Survey of 2005/06 (KIHBS). The sheer practical difficulties and cost of implementing and conducting sample surveys that would provide reliable estimates at levels finer than the district were generally prohibitive, both in terms of the increased sample size required and in terms of the added burden on providers of survey data (respondents). However through SAE and using the census and other survey datasets, accurate small area poverty estimates for 2009 for all the counties are obtainable.

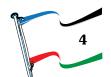
The sample in the 2005/06 KIHBS, which was a representative subset of the population, collected detailed information regarding consumption expenditures. The survey gives poverty estimate of urban and rural poverty at the national level, the provincial level and, albeit with less precision, at the district level. However, the sample sizes of such household surveys preclude estimation of meaningful poverty measures for smaller areas such as divisions, locations or wards. Data collected through censuses are sufficiently large to provide representative measurements below the district level such as divisions, locations and sub-locations. However, this data does not contain the detailed information on consumption expenditures required to estimate poverty indicators. In small area estimation methodology, the first step of the analysis involves exploring the relationship between a set of characteristics of households and the welfare level of the same households, which has detailed information about household expenditure and consumption. A regression equation is then estimated to explain daily per capita consumption and expenditure of a household using a number of socio-economic variables such as household size, education levels, housing characteristics and access to basic services.

While the census does not contain household expenditure data, it does contain these socio-economic variables. Therefore, it will be possible to statistically impute household expenditures for the census households by applying the socio-economic variables from the census data on the estimated relationship based on the survey data. This will give estimates of the welfare level of all households in the census, which in turn allows for estimation of the proportion of households that are poor and other poverty measures for relatively small geographic areas. To determine how many people are poor in each area, the study would then utilize the 2005/06 monetary poverty lines for rural and urban households respectively. In terms of actual process, the following steps were undertaken:

**Cluster Matching:** Matching of the KIHBS clusters, which were created using the 1999 Population and Housing Census Enumeration Areas (EA) to 2009 Population and Housing Census EAs. The purpose was to trace the KIBHS 2005/06 clusters to the 2009 Enumeration Areas.

**Zero Stage:** The first step of the analysis involved finding out comparable variables from the survey (Kenya Integrated Household Budget 2005/06) and the census (Kenya 2009 Population and Housing Census). This required the use of the survey and census questionnaires as well as their manuals.

**First Stage (Consumption Model):** This stage involved the use of regression analysis to explore the relationship between an agreed set of characteristics in the household and the consumption levels of the same households from the survey data. The regression equation was then used to estimate and explain daily per capita consumption and expenditure of households using socio-economic variables



such as household size, education levels, housing characteristics and access to basic services, and other auxiliary variables. While the census did not contain household expenditure data, it did contain these socio-economic variables.

**Second Stage (Simulation):** Analysis at this stage involved statistical imputation of household expenditures for the census households, by applying the socio-economic variables from the census data on the estimated relationship based on the survey data.

#### Identification of poor households Principal Component Analysis (PCA)

In order to attain the objective of the poverty targeting in this study, the household needed to be established. There are three principal indicators of welfare; household income; household consumption expenditures; and household wealth. Household income is the theoretical indicator of choice of welfare/economic status. However, it is extremely difficult to measure accurately due to the fact that many people do not remember all the sources of their income or better still would not want to divulge this information. Measuring consumption expenditures has many drawbacks such as the fact that household consumption expenditures typically are obtained from recall method usually for a period of not more than four weeks. In all cases a well planned and large scale survey is needed, which is time consuming and costly to collect. The estimation of wealth is a difficult concept due to both the quantitative as well as the qualitative aspects of it. It can also be difficult to compute especially when wealth is looked at as both tangible and intangible.

Given that the three main indicators of welfare cannot be determined in a shorter time, an alternative method that is quick is needed. The alternative approach then in measuring welfare is generally through the asset index. In measuring the asset index, multivariate statistical procedures such the factor analysis, discriminate analysis, cluster analysis or the principal component analysis methods are used. Principal components analysis transforms the original set of variables into a smaller set of linear combinations that account for most of the variance in the original set. The purpose of PCA is to determine factors (i.e., principal components) in order to explain as much of the total variation in the data as possible.

In this project the principal component analysis was utilized in order to generate the asset (wealth) index for each household in the study area. The PCA can be used as an exploratory tool to investigate patterns in the data; in identify natural groupings of the population for further analysis and; to reduce several dimensionalities in the number of known dimensions. In generating this index information from the datasets such as the tenure status of main dwelling units; roof, wall, and floor materials of main dwelling; main source of water; means of human waste disposal; cooking and lighting fuels; household items such radio TV, fridge etc was required. The recent available dataset that contains this information for the project area is the Kenya Population and Housing Census 2009.

There are four main approaches to handling multivariate data for the construction of the asset index in surveys and censuses. The first three may be regarded as exploratory techniques leading to index construction. These are graphical procedures and summary measures. The two popular multivariate procedures - cluster analysis and principal component analysis (PCA) - are two of the key procedures that have a useful preliminary role to play in index construction and lastly regression modeling approach.

In the recent past there has been an increasing routine application of PCA to asset data in creating welfare indices (Gwatkin et al. 2000, Filmer and Pritchett 2001 and McKenzie 2003).

#### Concepts and definitions

#### Inequality

Inequality is characterized by the existence of unequal opportunities or life chances and unequal conditions such as incomes, goods and services. Inequality, usually structured and recurrent, results into an unfair or unjust gap between individuals, groups or households relative to others within a population. There are several methods of measuring inequality. In this study, we consider among other methods, the Gini-coefficient, the difference in expenditure shares and access to important basic services.

#### **Equality and Equity**

Although the two terms are sometimes used interchangeably, they are different concepts. Equality requires all to have same/ equal resources, while equity requires all to have the same opportunity to access same resources, survive, develop, and reach their full potential, without discrimination, bias, or favoritism. Equity also accepts differences that are earned fairly.

#### **Poverty**

The poverty line is a threshold below which people are deemed poor. Statistics summarizing the bottom of the consumption distribution (i.e. those that fall below the poverty line) are therefore provided. In 2005/06, the poverty line was estimated at Ksh1,562 and Ksh2,913 per adult equivalent per month for rural and urban households respectively. Nationally, 45.2 percent of the population lives below the poverty line (2009 estimates) down from 46 percent in 2005/06.

#### **Spatial Dimensions**

The reason poverty can be considered a spatial issue is two-fold. People of a similar socio-economic background tend to live in the same areas because the amount of money a person makes usually, but not always, influences their decision as to where to purchase or rent a home. At the same time, the area in which a person is born or lives can determine the level of access to opportunities like education and employment because income and education can influence settlement patterns and also be influenced by settlement patterns. They can therefore be considered causes and effects of spatial inequality and poverty.

#### **Employment**

Access to jobs is essential for overcoming inequality and reducing poverty. People who cannot access productive work are unable to generate an income sufficient to cover their basic needs and those of their families, or to accumulate savings to protect their households from the vicissitudes of the economy.

<sup>&</sup>lt;sup>1</sup> This is basically the idea that every person needs different levels of consumption because of their age, gender, height, weight, etc. and therefore we take this into account to create an adult equivalent based on the average needs of the different populations



The unemployed are therefore among the most vulnerable in society and are prone to poverty. Levels and patterns of employment and wages are also significant in determining degrees of poverty and inequality. Macroeconomic policy needs to emphasize the need for increasing regular good quality 'work for pay' that is covered by basic labour protection. The population and housing census 2009 included questions on labour and employment for the population aged 15-64.

The census, not being a labour survey, only had few categories of occupation which included work for pay, family business, family agricultural holdings, intern/volunteer, retired/home maker, full time student, incapacitated and no work. The tabulation was nested with education- for none, primary and secondary level.

#### Education

Education is typically seen as a means of improving people's welfare. Studies indicate that inequality declines as the average level of educational attainment increases, with secondary education producing the greatest payoff, especially for women (Cornia and Court, 2001). There is considerable evidence that even in settings where people are deprived of other essential services like sanitation or clean water, children of educated mothers have much better prospects of survival than do the children of uneducated mothers. Education is therefore typically viewed as a powerful factor in leveling the field of opportunity as it provides individuals with the capacity to obtain a higher income and standard of living. By learning to read and write and acquiring technical or professional skills, people increase their chances of obtaining decent, better-paying jobs. Education however can also represent a medium through which the worst forms of social stratification and segmentation are created. Inequalities in quality and access to education often translate into differentials in employment, occupation, income, residence and social class. These disparities are prevalent and tend to be determined by socio-economic and family background. Because such disparities are typically transmitted from generation to generation, access to educational and employment opportunities are to a certain degree inherited, with segments of the population systematically suffering exclusion. The importance of equal access to a well-functioning education system, particularly in relation to reducing inequalities, cannot be overemphasized.

#### Water

According to UNICEF (2008), over 1.1 billion people lack access to an improved water source and over three million people, mostly children, die annually from water-related diseases. Water quality refers to the basic and physical characteristics of water that determines its suitability for life or for human uses. The quality of water has tremendous effects on human health both in the short term and in the long term. As indicated in this report, slightly over half of Kenya's population has access to improved sources of water.

#### Sanitation

Sanitation refers to the principles and practices relating to the collection, removal or disposal of human excreta, household waste, water and refuse as they impact upon people and the environment. Decent sanitation includes appropriate hygiene awareness and behavior as well as acceptable, affordable and

sustainable sanitation services which is crucial for the health and wellbeing of people. Lack of access to safe human waste disposal facilities leads to higher costs to the community through pollution of rivers, ground water and higher incidence of air and water borne diseases. Other costs include reduced incomes as a result of disease and lower educational outcomes.

Nationally, 61 percent of the population has access to improved methods of waste disposal. A sizeable population i.e. 39 percent of the population is disadvantaged. Investments made in the provision of safe water supplies need to be commensurate with investments in safe waste disposal and hygiene promotion to have significant impact.

#### **Housing Conditions (Roof, Wall and Floor)**

Housing conditions are an indicator of the degree to which people live in humane conditions. Materials used in the construction of the floor, roof and wall materials of a dwelling unit are also indicative of the extent to which they protect occupants from the elements and other environmental hazards. Housing conditions have implications for provision of other services such as connections to water supply, electricity, and waste disposal. They also determine the safety, health and well being of the occupants. Low provision of these essential services leads to higher incidence of diseases, fewer opportunities for business services and lack of a conducive environment for learning. It is important to note that availability of materials, costs, weather and cultural conditions have a major influence on the type of materials used.

#### Energy fuel for cooking and lighting

Lack of access to clean sources of energy is a major impediment to development through health related complications such as increased respiratory infections and air pollution. The type of cooking fuel or lighting fuel used by households is related to the socio-economic status of households. High level energy sources are cleaner but cost more and are used by households with higher levels of income compared with primitive sources of fuel like firewood which are mainly used by households with a lower socio-economic profile. Globally about 2.5 billion people rely on biomass such as fuel-wood, charcoal, agricultural waste and animal dung to meet their energy needs for cooking.

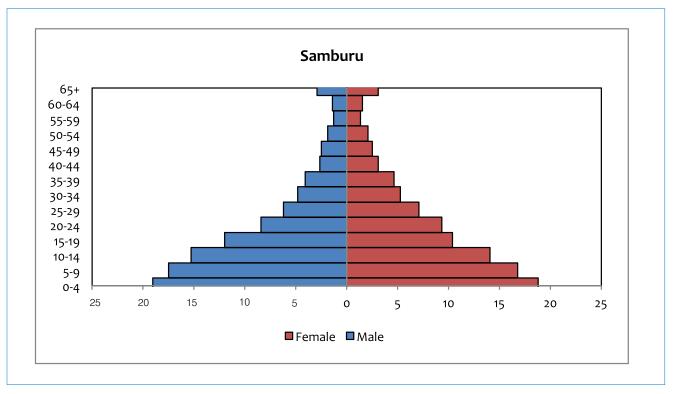


# Samburu County



#### SAMBURU COUNTY

Figure 37.1: Samburu Population Pyramid



#### **Population**

Samburu County has a child rich population, where 0-14 year olds constitute 51% of the total population. This is due to high fertility rates among women as shown by the highest percentage household size of 4-6 members at 44%.

# **Employment**

The 2009 population and housing census covered in brief the labour status as tabulated below. The main variable of interest for inequality discussed in the text is work for pay by level of education. The other variables, notably family business, family agricultural holdings, intern/volunteer, retired/homemaker, fulltime student, incapacitated and no work are tabulated and presented in the annex table 37.3 up to ward level.

Table 37: Overall Employment by Education Levels in Samburu County

Education Level	Work for pay	Family Business	Family Agricul- tural Holding	Intern/ Volunteer	Retired/ Home- maker	Fulltime Student	Incapacitated	No work	Number of Individuals
Total	10.4	16.2	43.4	1.1	11.5	5.9	0.4	11.1	102,415
None	4.6	17.1	53.2	1.1	12.9	0.1	0.5	10.5	69,336
Primary	13.9	14.4	28.7	1.0	10.2	18.7	0.3	12.8	20,999
Secondary+	37.2	14.2	12.8	1.8	5.6	16.6	0.1	11.6	12,080

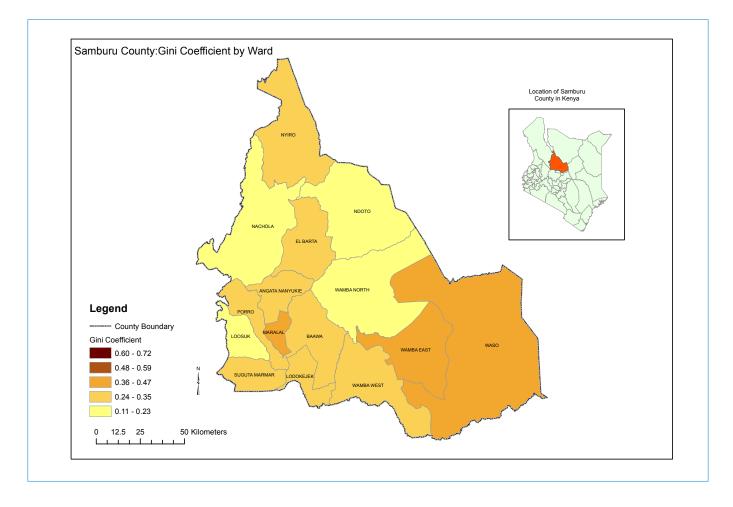
In Samburu County, 5% of the residents with no formal education, 14% of those with primary education and 37% of those with a secondary level of education or above are working for pay. Work for pay is highest in Nairobi at 49% and this is 12 percentage points above the level in Samburu for those with secondary or above level of education.



#### **Gini Coefficient**

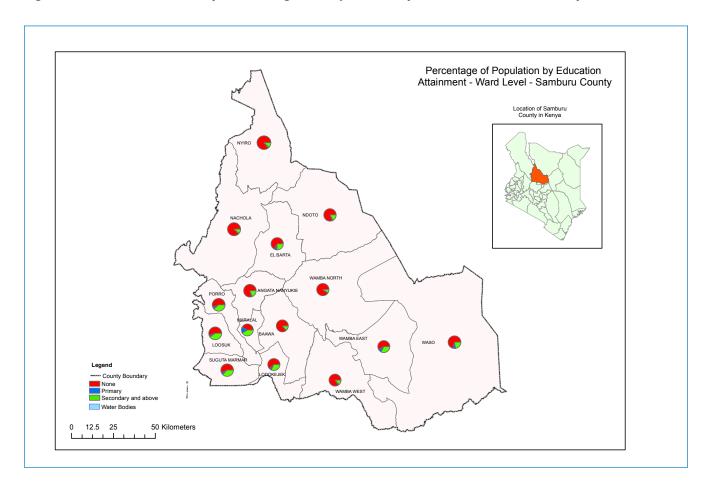
In this report, the Gini index measures the extent to which the distribution of consumption expenditure among individuals or households within an economy deviates from a perfectly equal distribution. A Gini index of '0' represents perfect equality, while an index of '1' implies perfect inequality. Samburu County's Gini index is 0.318 compared with Turkana County, which has the least inequality nationally (0.283).

Figure 37.2: Samburu County-Gini Coefficient by Ward



#### **Education**

Figure 37.3: Samburu County-Percentage of Population by Education Attainment by Ward



Only 6% of Samburu County residents have a secondary level of education or above. Samburu West constituency has the highest share of residents with a secondary level of education or above at 10%. This is 7 percentage points above Samburu North constituency, which has the lowest share of residents with a secondary level of education or above. Samburu West constituency is 4 percentage points above the county average. Maralal ward has the highest share of residents with a secondary level of education or above at 17%. This is 16 percentage points above Wamba North ward, which has the lowest share of residents with a secondary level of education or above. Maralal ward is 11 percentage points above the county average.

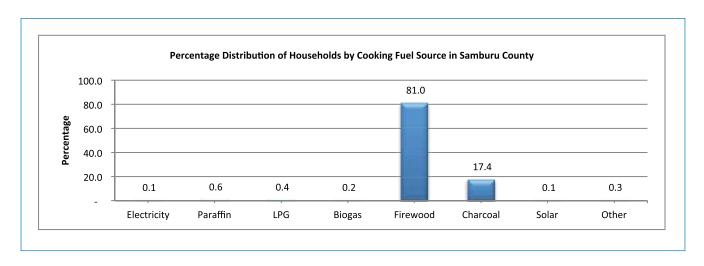
A total of 26% of Samburu County residents have a primary level of education only. Samburu West constituency has the highest share of residents with a primary level of education only at 39%. This is twice Samburu North constituency, which has the lowest share of residents with a primary level of education only. Samburu West constituency is 13 percentage points above the county average. Maralal ward has the highest share of residents with a primary level of education only at 41%. This is almost five times Wamba North ward, which has the lowest share of residents with a primary level of education only. Maralal ward is 15 percentage points above the county average.

A total of 68% of Samburu County residents have no formal education. Samburu North constituency has the highest share of residents with no formal education at 81%. This is 30 percentage points above Samburu West constituency, which has the lowest share of residents with no formal education. Samburu North constituency is 13 percentage points above the county average. Wamba North ward has the highest percentage of residents with no formal education at 90%. This is twice Maralal ward, which has the lowest percentage of residents with no formal education. Wamba North ward is 22 percentage points above the county average.

# **Energy**

#### **Cooking Fuel**

Figure 37.4: Percentage Distribution of Households by Source of Cooking Fuel in Samburu County



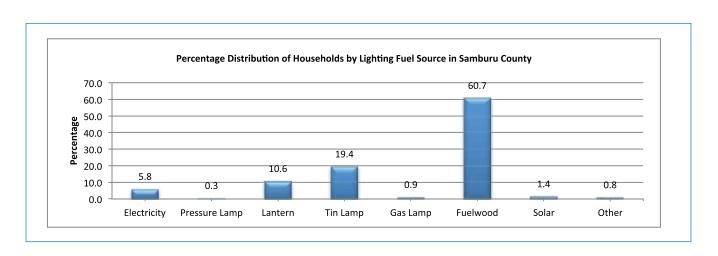
Less than 1% of residents in Samburu County use liquefied petroleum gas (LPG), and 1% use paraffin. 81% use firewood and 17% use charcoal. Firewood is the most common cooking fuel by gender with 77% of male headed households and 85% in female headed households using it.

Samburu North constituency has the highest level of firewood use in Samburu County at 92%. This is 24 percentage points above Samburu West constituency, which has the lowest share. Samburu North is 11 percentage points above the county average. Wamba North ward has the highest level of firewood use in Samburu County at 99%. This is 53 percentage points above Maralal ward at 46%. Wamba North ward is 18 percentage points above the county average.

Samburu West constituency has the highest level of charcoal use in Samburu County at 30%. This is 22 percentage points above Samburu North constituency, which has the lowest share. Samburu West constituency is 13 percentage points above the county average. Maralal ward has the highest level of charcoal use in Samburu County at 51%. This is 50 percentage points more than Wamba North ward, which has the lowest share. Maralal ward is 34 percentage points above the county average.

#### Lighting

Figure 37.5: Percentage Distribution of Households by Source of Lighting Fuel in Samburu County



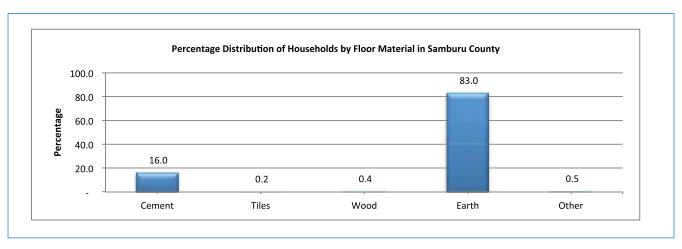
Only 6% of residents in Samburu County use electricity as their main source of lighting. A further 11% use lanterns, and 19% use tin lamps. 61% use fuel wood. Electricity use is mostly common in male headed households at 8% as compared with female headed households at 4%.

Samburu West constituency has the highest level of electricity use at 14%. That is 14 percentage points above Samburu North constituency, which has the lowest level of electricity use. Samburu West constituency is 8 percentage points above the county average. Maralal ward has the highest level of electricity use at 27%. That is 27 percentage points above Ndoto, Wamba West, and Wamba North wards, which have no level of electricity use. Maralal ward is 21 percentage points above the county average.

### Housing

#### **Flooring**

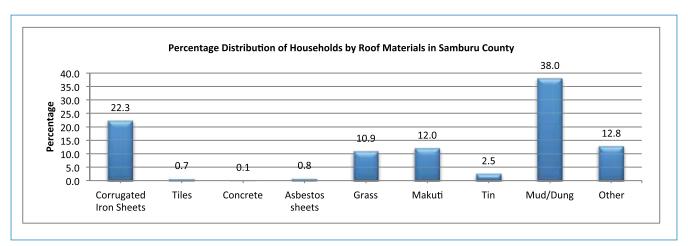
Figure 37.6: Percentage Distribution of Households by Floor Material in Samburu County



In Samburu County, 16% of residents have homes with cement floors, while 83% have earth floors. Less than 1% has wood or tile floors. Samburu West constituency has the highest share of cement floors are 27%. That is 20 percentage points above Samburu North constituency, which has the lowest share of cement floors. Samburu West constituency is 11 percentage points above the county average. Maralal ward has the highest share of cement floors at 43%. That is 42 percentage points above Wamba North ward, which has the lowest share of cement floors. Maralal ward is 27 percentage points above the county average.

#### Roofing

Figure 37.7: Percentage Distribution of Households by Roof Material in Samburu County





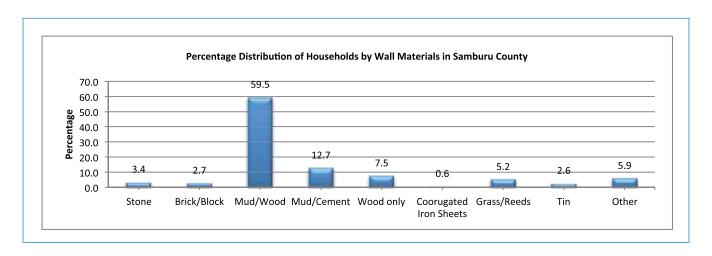
In Samburu County, less than 1% of residents have homes with concrete roofs, while 22% have corrugated iron sheet roofs. Grass and makuti roofs constitute 23% of homes, and 38% have mud/dung roofs.

Samburu West constituency has the highest share of corrugated iron sheet roofs at 38%. That is 28 percentage points above Samburu North constituency, which has the lowest share of corrugated iron sheet roofs. Samburu West constituency is 16 percentage points above the county average. Maralal ward has the highest share of corrugated iron sheet roofs at 60%. That is 30 times Wamba North ward, which has the lowest share of corrugated iron sheet roofs. Maralal ward is 38 percentage points above the county average.

Samburu North constituency has the highest share of grass/makuti roofs at 31%. That is twice Samburu West constituency, which has the lowest share of grass/makuti roofs. Samburu North constituency is 8 percentage points above the county average. Nachola ward has the highest share of grass/makuti roofs at 61%. This is 30 times Lodokejek ward, which has the lowest share. Nachola ward is 38 percentage points above the county average.

#### Walls

Figure 37.8: Percentage Distribution of Households by Wall Material in Samburu County



In Samburu County, 6% of homes have either brick or stone walls. 72% of homes have mud/wood or mud/cement walls. 8% have wood walls. 1% has corrugated iron walls. 5% have grass/thatched walls. 8% have tin or other walls.

Samburu East constituency has the highest share of brick/stone walls at 9%. That is twice Samburu North constituency, which has the lowest share of brick/stone walls. Samburu East constituency is 3 percentage points above the county average. Waso ward has the highest share of brick/stone walls at 19%. That is 18 percentage points above Baawa ward, which has the lowest share of brick/stone walls. Waso ward is 13 percentage points above the county average.

Samburu West has constituency has the highest share of mud with wood/cement walls at 90%. That is 29 percentage points above Samburu East constituency, which has the lowest share of mud with wood/cement walls. Samburu West constituency is 18 percentage points above the county average. Two wards, Porro and Lodokejek, have the highest share of mud with wood/cement walls at 96% each. That is almost thrice Nyiro ward, which has the lowest share of mud with wood/cement walls. Porro and Lodokejek are 24 percentage points above the county average.

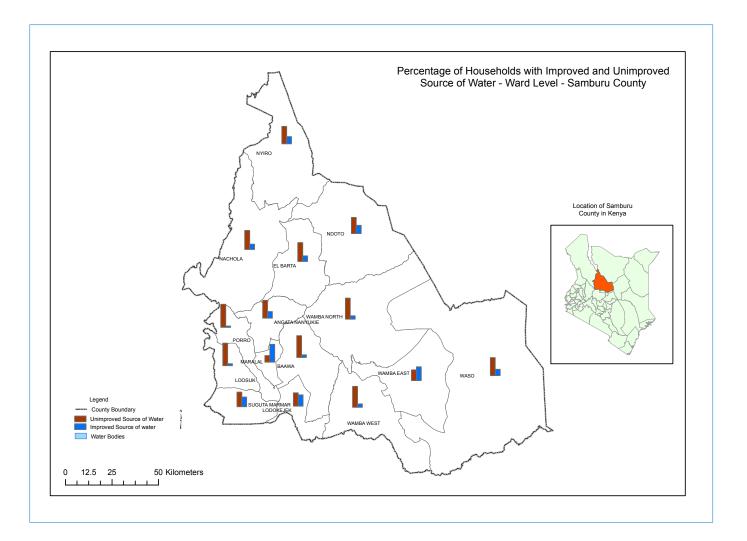
#### Water

Improved sources of water comprise protected spring, protected well, borehole, piped into dwelling, piped and rain water collection while unimproved sources include pond, dam, lake, stream/river, unprotected spring, unprotected well, jabia, water vendor and others.

In Samburu County, 34% of residents use improved sources of water, with the rest relying on unimproved sources. There is no significant gender differential in use of improved sources as 35% of male headed households and 33% in female headed households.

Samburu West constituency has the highest share of residents using improved sources of water at 46%. That is almost twice Samburu North constituency, which has the lowest share using improved sources of water. Samburu West constituency is 12 percentage points above the county average. Maralal ward has the highest share of residents using improved sources of water at 72%. That is 12 times Porro ward, which has the lowest share using improved sources of water. Maralal ward is 38 percentage points above the county average.

Figure 37.9: Samburu County-Percentage of Households with Improved and Unimproved Sources of Water by Ward

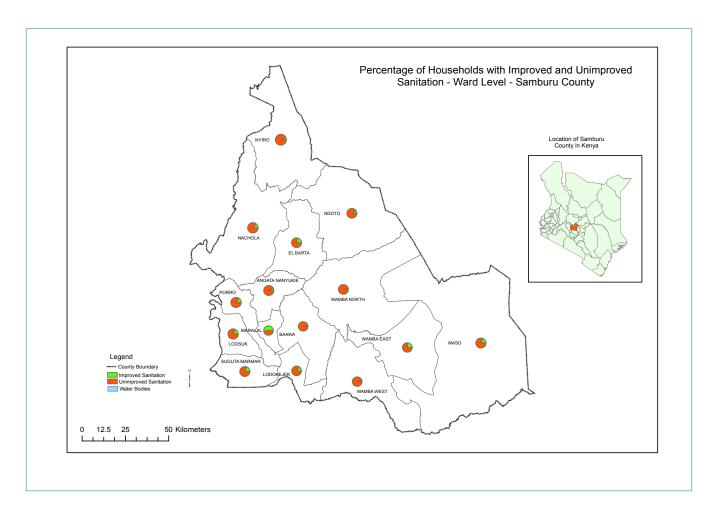


#### **Sanitation**

A total of 20% of residents in Samburu County use improved sanitation, while the rest use unimproved sanitation. Use of improved sanitation is slightly higher in male headed households at 21% as compared with female headed households at 18%.

Samburu West constituency has the highest share of residents using improved sanitation at 33%. That is three times Samburu North constituency, which has the lowest share using improved sanitation Samburu West constituency is 13 percentage points above the county average. Maralal ward has the highest share of residents using improved sanitation at 52%. That is 51 percentage points above Wamba North ward, which has the lowest share using improved sanitation. Maralal ward is 32 percentage points above the county average.

Figure 37.10: Samburu County –Percentage of Households with Improved and Unimproved Sanitation by Ward



# **Samburu County Annex Tables**

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Table 37.1: Gender, Age group, Demographic Indicators and Households Size by County Constituency and Wards

	Gender			Age group						Demodi	Demographic indicators	tors		Prortion of HH Members:	of HH Mer	nbers:	
County/Constituency/ Wards	Total Pop	Male	Female	0-5 yrs	0-14 yrs	10-18 yrs	15-34 yrs	15-64 yrs	65+ yrs	sex Ratio	Total de- pendancy Ratio	Child depen- dancy Ratio	aged depen- dancy ratio	0-3	4-6	+2	total
Kenya	37,919,647	18,787,698	19,131,949	7,035,670	16,346,414	8,293,207	13,329,717	20,249,800	1,323,433	0.982	0.873	0.807	0.065	41.5	38.4	20.1	8,493,380
Rural	26,075,195	12,869,034	13,206,161	5,059,515	12,024,773	6,134,730	8,303,007	12,984,788	1,065,634	0.974	1.008	0.926	0.082	33.2	41.3	25.4	5,239,879
Urban	11,844,452	5,918,664	5,925,788	1,976,155	4,321,641	2,158,477	5,026,710	7,265,012	257,799	0.999	0.630	0.595	0.035	54.8	33.7	11.5	3,253,501
Samburu County	221,285	110,080	111,205	50,490	112,230	52,923	70,272	102,415	6,640	0.990	1.161	1.096	0.065	32.7	44.3	23.0	45,363
Samburu West Constit- uency	82,112	909'68	42,506	19,587	41,786	18,625	25,708	37,751	2,575	0.932	1.175	1.107	0.068	33.7	43.2	23.1	16955
Lodokejek	13,961	6,323	7,638	3,757	7,578	2,990	3,880	5,849	534	0.828	1.387	1.296	0.091	33.8	44.6	21.6	2838
SugutaMarmar	11,662	5,688	5,974	2,758	6,177	2,827	3,501	5,145	340	0.952	1.267	1.201	990.0	28.7	45.8	25.5	2297
Maralal	35,701	17,319	18,382	7,915	17,151	7,986	11,965	17,520	1,030	0.942	1.038	0.979	0.059	38.4	40.2	21.4	7751
Loosuk	10,220	5,119	5,101	2,481	5,236	2,371	3,231	4,655	329	1.004	1.195	1.125	0.071	26.6	48.5	25.0	2006
Porro	10,568	5,157	5,411	2,676	5,644	2,451	3,131	4,582	342	0.953	1.306	1.232	0.075	28.3	44.9	26.9	2063
Samburu North Constit- uency	81,051	42,115	38,936	17,467	41,059	21,039	26,296	37,721	2,271	1.082	1.149	1.088	090.0	28.3	46.7	25.0	15824
El Barta	13,554	6,719	6,835	3,104	6,818	3,267	4,235	6,262	474	0.983	1.164	1.089	970.0	32.8	47.1	20.1	2862
Nachola	11,612	6,573	5,039	2,097	5,567	3,277	4,142	5,754	291	1.304	1.018	0.968	0.051	21.7	43.4	34.9	1970
Ndoto	14,901	7,407	7,494	3,430	7,708	3,509	4,644	6,755	438	0.988	1.206	1.141	0.065	31.3	49.0	19.7	3146
Nyiro	19,544	10,624	8,920	3,638	10,024	6,001	6,515	860'6	422	1.191	1.148	1.102	0.046	19.8	44.3	36.0	3354
AngataNanyukie	9,704	5,264	4,440	2,178	4,694	2,340	3,415	4,753	257	1.186	1.042	0.988	0.054	27.9	49.4	22.8	1928
Baawa	11,736	5,528	6,208	3,020	6,248	2,645	3,345	5,099	389	0.890	1.302	1.225	0.076	36.2	46.8	17.0	2564

Samburu East Constituency	58,122	28,359	29,763	13,436	29,385	13,259	18,268	26,943	1,794	0.953	1.157	1.091	0.067	36.8	42.8 20.4		12584
Waso	17,311	8,996	8,315	3,867	8,574	3,995	5,773	8,328	409	1.082	1.079	1.030	0.049	34.4	41.3	24.2	3566
Wamba West	13,648	6,114	7,534	3,401	7,179	2,958	3,892	5,965	504	0.812 1.288		1.204	0.084	38.8	41.4	19.8	2958
Wamba East	15,722	7,706	8,016	3,616	7,828	3,671	5,045	7,371	523	0.961	1.133	1.062	0.071	39.9	42.4 17.7		3612
Wamba North	11,441	5,543	5,898	2,552	5,804	2,635	3,558	5,279	358	0.940	1.167	1.099	0.068	33.2	47.3	19.6	2448

Table 37.2: Employment by County, Constituency and Wards

	Mork for	Family	Family Agri-	late m/	Retired/	F. Iltima	li		Number of
County/Constituency/Wards	Work for pay	Family Business	cultural Holding	Intern/ Volunteer	maker	Fulltime Student	Incapaci- tated	No work	Number of Individuals
Kenya	23.7	13.1	32.0	1.1	9.2	12.8	0.5	7.7	20,249,800
Rural	15.6	11.2	43.5	1.0	8.8	13.0	0.5	6.3	12,984,788
Urban	38.1	16.4	11.4	1.3	9.9	12.2	0.3	10.2	7,265,012
Samburu County	10.4	16.2	43.4	1.1	11.5	5.9	0.4	11.1	102,415
Samburu West Constituency	16.2	14.2	29.8	1.5	15.7	10.1	0.6	11.9	37,751
Lodokejek	10.7	13.5	31.7	1.4	21.7	8.2	0.6	12.3	5,849
SugutaMarmar	9.5	9.9	35.5	0.8	23.6	13.0	0.5	7.1	5,145
Maralal	23.7	16.9	19.8	1.9	12.6	9.9	0.7	14.5	17,520
Loosuk	11.0	9.3	39.8	0.9	16.5	11.1	0.5	10.8	4,655
Porro	7.5	14.8	48.6	1.7	10.1	8.9	0.5	7.9	4,582
Samburu North Constituency	5.3	18.7	57.8	0.8	8.3	2.9	0.3	6.0	37,721
El Barta	8.8	25.3	43.6	1.0	2.7	7.4	0.4	10.9	6,262
Nachola	6.3	15.7	72.5	0.2	1.5	1.8	0.2	1.8	5,754
Ndoto	2.7	24.5	54.5	0.3	10.0	0.9	0.4	6.6	6,755
Nyiro	3.5	17.4	58.9	0.3	11.9	1.6	0.2	6.2	9,098
AngataNanyukie	6.8	18.0	52.3	2.3	10.5	4.6	0.3	5.2	4,753
Baawa	4.8	9.0	66.0	1.4	12.5	1.6	0.3	4.3	5,099
Samburu East Constituency	9.3	15.6	42.4	1.0	10.0	4.1	0.4	17.2	26,943
Waso	11.6	7.9	45.6	1.3	7.7	4.2	0.3	21.4	8,328
Wamba West	5.0	21.5	41.7	1.1	11.9	2.1	0.6	16.1	5,965
Wamba East	15.3	17.0	29.9	1.0	12.8	8.0	0.3	15.7	7,371
Wamba North	2.2	18.8	55.6	0.6	7.8	1.0	0.4	13.6	5,279

Table 37.3: Employment and Education Levels by County, Constituency and Wards

County /constituency/Wards	Education Totallevel	Work for pay	Family Busi- ness	Family Agri- cultural Holding	Intern/ Volun- teer	Retired/ Home- maker	Fulltime Student	Incapac-	No work	Number of Individuals
Kenya	Total	23.7	13.1	32.0	1.1	9.2	12.8	0.5	7.7	20,249,800
Kenya	None	11.1	14.0	44.4	1.7	14.7	0.8	1.2	12.1	3,154,356
Kenya	Primary	20.7	12.6	37.3	0.8	9.6	12.1	0.4	6.5	9,528,270
Kenya	Secondary+	32.7	13.3	20.2	1.2	6.6	18.6	0.2	7.3	7,567,174



	1									
Rural	Total	15.6	11.2	43.5	1.0	8.8	13.0	0.5	6.3	12,984,788
Rural	None	8.5	13.6	50.0	1.4	13.9	0.7	1.2	10.7	2,614,951
Rural	Primary	15.5	10.8	45.9	0.8	8.4	13.2	0.5	5.0	6,785,745
Rural	Secondary+	21.0	10.1	34.3	1.0	5.9	21.9	0.3	5.5	3,584,092
Urban	Total	38.1	16.4	11.4	1.3	9.9	12.2	0.3	10.2	7,265,012
Urban	None	23.5	15.8	17.1	3.1	18.7	1.5	1.6	18.8	539,405
Urban	Primary	33.6	16.9	16.0	1.0	12.3	9.5	0.4	10.2	2,742,525
Urban	Secondary+	43.2	16.1	7.5	1.3	7.1	15.6	0.2	9.0	3,983,082
Samburu	Total	10.4	16.2	43.4	1.1	11.5	5.9	0.4	11.1	102,415
Samburu	None	4.6	17.1	53.2	1.1	12.9	0.1	0.5	10.5	69,336
Samburu	Primary	13.9	14.4	28.7	1.0	10.2	18.7	0.3	12.8	20,999
Samburu	Secondary+	37.2	14.2	12.8	1.8	5.6	16.6	0.1	11.6	12,080
Samburu West Constituency	Total	16.2	14.2	29.8	1.5	15.7	10.1	0.6	11.9	37,751
Samburu West Constituency	None	8.2	13.3	40.0	1.7	22.3	0.2	1.0	13.3	18,534
Samburu West Constituency	Primary	15.8	14.5	25.0	1.1	11.3	20.9	0.3	11.0	12,013
Samburu West Constituency	Secondary+	37.3	16.1	11.3	2.0	6.1	17.6	0.1	9.6	7,204
Lodokejek Wards	Total	10.7	13.5	31.7	1.4	21.7	8.2	0.6	12.3	5,849
Lodokejek Wards	None	5.6	14.0	39.5	1.5	27.7	0.2	0.8	10.7	3,659
Lodokejek Wards	Primary	12.7	12.3	22.1	0.7	14.8	22.7	0.5	14.3	1,530
Lodokejek Wards	Secondary+	34.1	13.3	10.6	2.1	3.9	19.2	0.2	16.5	660
SugutaMarmar Wards	Total	9.5	9.9	35.5	0.8	23.6	13.0	0.5	7.1	5,145
SugutaMarmar Wards	None	4.9	9.3	45.6	0.7	31.8	0.3	0.7	6.7	3,017
SugutaMarmar Wards	Primary	8.8	10.7	25.2	0.9	14.5	32.8	0.2	7.0	1,511
SugutaMarmar Wards	Secondary+	33.7	11.2	11.2	1.5	6.2	27.1	0.3	8.9	617
Maralal Wards	Total	23.7	16.9	19.8	1.9	12.6	9.9	0.7	14.5	17,520
Maralal Wards	None	12.7	14.9	29.4	2.4	19.4	0.1	1.5	19.6	6,719
Maralal Wards	Primary	22.8	18.1	18.2	1.3	10.3	15.9	0.3	13.2	5,700
Maralal Wards	Secondary+	39.2	18.0	9.1	2.0	6.5	16.1	0.1	9.1	5,101
Loosuk Wards	Total	11.0	9.3	39.8	0.9	16.5	11.1	0.5	10.8	4,655
Loosuk Wards	None	6.7	9.8	45.3	0.8	23.4	0.2	0.6	13.1	2,484
Loosuk Wards	Primary	10.8	8.9	36.7	0.9	9.5	24.5	0.5	8.3	1,784
Loosuk Wards	Secondary+	39.5	8.3	18.9	1.8	4.1	19.6	0.3	7.5	387
Porro Wards	Total	7.5	14.8	48.6	1.7	10.1	8.9	0.5	7.9	4,582
Porro Wards	None	5.8	16.2	56.1	1.8	10.6	0.3	0.7	8.6	2,655
Porro Wards	Primary	5.9	13.4	40.3	1.3	10.5	21.6	0.3	6.8	1,488

Porro Wards	Secondary+	23.2	11.2	31.4	2.7	6.2	17.8	0.2	7.3	439
Samburu North Constituency	Total	5.3	18.7	57.8	0.8	8.3	2.9	0.3	6.0	37,721
Samburu North Constituency	None	3.1	19.7	62.2	0.8	8.6	0.1	0.4	5.2	31,239
Samburu North Constituency	Primary	7.2	15.2	43.5	0.7	8.1	16.5	0.1	8.7	4,348
Samburu North Constituency	Secondary+	32.5	11.1	22.1	1.4	4.7	15.7	0.1	12.5	2,134
El Barta Wards	Total	8.8	25.3	43.6	1.0	2.7	7.4	0.4	10.9	6,262
El Barta Wards	None	3.8	29.3	52.6	0.9	3.3	0.2	0.5	9.4	4,359
El Barta Wards	Primary	8.6	18.8	29.3	1.0	1.4	27.2	-	13.7	1,059
El Barta Wards	Secondary+	34.6	12.3	15.1	1.5	1.2	20.1	0.1	15.1	844
Nachola Wards	Total	6.3	15.7	72.5	0.2	1.5	1.8	0.2	1.8	5,754
Nachola Wards	None	4.7	16.6	75.1	0.1	1.5	0.1	0.3	1.8	5,197
Nachola Wards	Primary	7.1	10.0	59.3	0.3	2.4	18.6	-	2.4	339
Nachola Wards	Secondary+	43.1	3.2	32.6	0.9	0.9	17.4	-	1.8	218
Ndoto Wards	Total	2.7	24.5	54.5	0.3	10.0	0.9	0.4	6.6	6,755
Ndoto Wards	None	1.3	24.6	56.7	0.3	10.5	0.0	0.4	6.2	5,607
Ndoto Wards	Primary	4.6	24.5	49.5	0.3	8.8	5.0	0.2	7.0	874
Ndoto Wards	Secondary+	25.2	22.6	26.3	1.8	3.7	5.5	-	15.0	274
Nyiro Wards	Total	3.5	17.4	58.9	0.3	11.9	1.6	0.2	6.2	9,098
Nyiro Wards	None	2.0	18.7	61.8	0.2	11.1	-	0.3	5.9	7,843
Nyiro Wards	Primary	6.8	10.6	46.1	0.4	16.8	12.0	0.2	7.0	839
Nyiro Wards	Secondary+	26.0	6.5	29.1	0.5	15.1	11.1	-	11.8	416
AngataNanyukie Wards	Total	6.8	18.0	52.3	2.3	10.5	4.6	0.3	5.2	4,753
AngataNanyukie Wards	None	5.0	20.0	55.4	2.6	11.9	0.2	0.4	4.5	3,790
AngataNanyukie Wards	Primary	9.4	10.7	46.1	0.4	5.4	22.5	0.1	5.4	723
AngataNanyukie Wards	Secondary+	28.3	8.8	22.5	2.5	3.8	19.2	-	15.0	240
Baawa Wards	Total	4.8	9.0	66.0	1.4	12.5	1.6	0.3	4.3	5,099
Baawa Wards	None	3.4	9.0	70.0	1.4	12.5	0.1	0.3	3.3	4,443
Baawa Wards	Primary	6.4	9.3	44.6	1.8	14.2	11.1	0.2	12.5	514
Baawa Wards	Secondary+	43.7	10.6	19.0	1.4	4.2	14.1	-	7.0	142
Samburu East Constituency	Total	9.3	15.6	42.4	1.0	10.0	4.1	0.4	17.2	26,943
Samburu East Constituency	None	3.5	16.5	51.3	1.0	10.9	0.1	0.4	16.3	19,563

Samburu East Constituency	Primary	15.2	13.6	24.1	0.9	9.3	15.2	0.3	21.5	4,638
Samburu East Constituency	Secondary+	40.8	11.9	9.6	1.8	5.2	14.7	0.1	16.0	2,742
Waso Wards	Total	11.6	7.9	45.6	1.3	7.7	4.2	0.3	21.4	8,328
Waso Wards	None	3.2	7.9	61.4	1.3	7.8	0.1	0.3	18.1	5,637
Waso Wards	Primary	17.6	7.2	17.5	1.0	9.8	13.6	0.3	33.1	1,525
Waso Wards	Secondary+	44.6	8.9	6.2	1.5	4.8	11.8	_	22.2	1,166
Wamba West Wards	Total	5.0	21.5	41.7	1.1	11.9	2.1	0.6	16.1	5,965
Wamba West Wards	None	2.9	22.3	42.8	1.2	12.9	0.0	0.7	17.2	5,059
Wamba West Wards	Primary	10.8	18.3	39.0	0.6	7.7	12.1	0.2	11.4	677
Wamba West Wards	Secondary+	33.6	13.5	26.2	0.4	1.8	17.5	-	7.0	229
Wamba East Wards	Total	15.3	17.0	29.9	1.0	12.8	8.0	0.3	15.7	7,371
Wamba East Wards	None	6.8	19.6	40.9	0.7	15.8	0.1	0.4	15.7	4,099
Wamba East Wards	Primary	17.0	13.7	21.0	1.0	10.5	18.4	0.3	18.1	2,030
Wamba East Wards	Secondary+	40.7	14.0	8.1	1.9	6.3	17.0	0.2	11.9	1.242
Wamba North Wards	Total	2.2	18.8	55.6	0.6	7.8	1.0	0.4	13.6	5,279
Wamba North Wards	None	1.7	18.0	57.5	0.5	8.1	0.0	0.4	13.8	4.768
Wamba North Wards	Primary	4.4	28.8	39.9	0.5	4.4	9.9	0.4	11.6	4,700
Wamba North Wards	Secondary+	15.2	17.1	30.5	5.7	3.8	12.4	-	15.2	105

Table 37.4: Employment and Education Levels in Male Headed Household by County, Constituency and Wards

County, Constituency and Wards	Education Level reached	Work for Pay	Family Business	Family Agri- cultural holding	Internal/ Volunteer	Retired/ Home- maker	Fulltime Student	Incapaci-	No work	Population (15-64)
W. M. C. I	<b>-</b>	05.5	40.5	04.0			44.4		7.5	14,757,992
Kenya National	Total	25.5	13.5	31.6	1.1	9.0	11.4	0.4	7.5	
Kenya National	None	11.4	14.3	44.2	1.6	13.9	0.9	1.0	12.6	2,183,284
Kenya National	Primary	22.2	12.9	37.3	0.8	9.4	10.6	0.4	6.4	6,939,667
Kenya National	Secondary+	35.0	13.8	19.8	1.1	6.5	16.5	0.2	7.0	5,635,041
Rural Rural	Total	16.8	11.6	43.9	1.0	8.3	11.7	0.5	6.3	9,262,744
Rural Rural	None	8.6	14.1	49.8	1.4	13.0	0.8	1.0	11.4	1,823,487
Rural Rural	Primary	16.5	11.2	46.7	0.8	8.0	11.6	0.4	4.9	4,862,291
Rural Rural	Secondary+	23.1	10.6	34.7	1.0	5.5	19.6	0.2	5.3	2,576,966
Urban Urban	Total	40.2	16.6	10.9	1.3	10.1	10.9	0.3	9.7	5,495,248

Urban Urban	None	25.8	15.5	16.1	3.0	18.2	1.4	1.3	18.7	359,797
Urban Urban	Primary	35.6	16.9	15.4	1.0	12.8	8.1	0.3	9.9	2,077,376
Urban Urban	Secondary+	45.1	16.6	7.3	1.2	7.4	13.8	0.1	8.5	3,058,075
Samburu	Total	12.4	18.1	43.3	1.1	9.4	5.0	0.3	10.4	62,033
Samburu	None	4.7	19.4	54.4	0.9	10.3	0.1	0.4	9.8	41,025
Samburu	Primary	16.9	15.9	28.6	1.0	9.7	15.3	0.2	12.4	12,695
Samburu	Secondary+	43.2	15.2	11.2	1.6	4.8	13.6	0.0	10.3	8,313
Samburu West Constituency	Total	19.8	15.7	28.9	1.5	13.0	8.9	0.4	11.8	22,354
Samburu West Constituency	None	9.2	14.7	41.2	1.5	18.5	0.1	0.7	13.9	10,012
Samburu West Constituency	Primary	18.8	16.0	25.1	1.3	10.8	16.6	0.3	11.1	7,319
Samburu West Constituency	Secondary+	42.3	17.3	10.0	1.8	5.3	14.9	0.1	8.4	5,023
Lodokejek Ward	Total	15.4	14.4	31.9	1.1	16.8	7.5	0.5	12.4	2,794
Lodokejek Ward	None	7.5	15.5	41.3	1.4	21.8	0.2	0.6	11.7	1,595
Lodokejek Ward	Primary	17.2	12.7	24.8	0.6	13.5	17.5	0.4	13.1	777
Lodokejek Ward	Secondary+	41.9	13.3	9.7	0.7	3.8	16.8	-	13.7	422
SugutaMarmar Ward	Total	13.7	12.7	39.7	0.8	16.3	9.7	0.4	6.9	2,773
SugutaMarmar Ward	None	4.7	12.6	53.3	0.7	21.0	0.1	0.6	7.0	1,556
SugutaMarmar Ward	Primary	11.3	13.6	29.1	0.8	12.8	24.9	0.1	7.3	794
SugutaMarmar Ward	Secondary+	51.3	11.1	9.2	1.4	5.2	16.3	-	5.4	423
Maralal Ward	Total	26.6	18.3	18.7	1.9	11.2	9.1	0.4	13.9	11,348
Maralal Ward	None	13.5	15.8	30.0	2.3	17.5	0.1	0.8	20.0	3,971
Maralal Ward	Primary	25.4	19.5	17.1	1.5	10.1	13.5	0.3	12.7	3,768
Maralal Ward	Secondary+	42.2	19.7	7.9	1.9	5.4	14.5	0.1	8.4	3,609
Loosuk Ward	Total	13.4	10.1	36.4	0.9	16.9	10.1	0.6	11.6	2,686
Loosuk Ward	None	7.3	10.7	41.2	0.6	24.6	0.2	0.8	14.5	1,341
Loosuk Ward	Primary	12.8	9.9	35.2	1.2	10.2	21.2	0.4	9.0	1,084
Loosuk Ward	Secondary+	47.1	8.0	16.5	1.1	4.6	14.9	-	7.7	261
Porro Ward	Total	8.7	15.0	50.1	1.6	9.7	7.0	0.5	7.4	2,753
Porro Ward	None	6.1	16.6	57.8	1.2	10.0	0.1	0.7	7.4	1,549
Porro Ward	Primary	6.5	13.6	43.4	1.7	10.5	16.2	0.1	8.0	896
Porro Ward	Secondary+	27.9	11.0	30.8	2.9	6.2	15.3	0.3	5.5	308

Samburu North Constituency	Total	5.6	21.6	57.2	0.7	6.9	2.3	0.2	5.5	24,344
Samburu North Constituency	None	2.8	22.9	61.5	0.6	7.1	0.1	0.2	4.8	20,292
Samburu North Constituency	Primary	9.0	17.5	43.7	0.5	7.5	13.9	0.1	7.8	2,624
Samburu North Constituency	Secondary+	39.3	11.8	20.3	1.7	3.6	12.5	-	10.9	1,428
El Barta Ward	Total	9.9	28.7	40.6	1.1	3.1	6.3	0.3	10.0	3,688
El Barta Ward	None	3.3	33.2	49.2	0.9	3.8	0.2	0.4	9.0	2,582
El Barta Ward	Primary	10.6	22.9	26.2	0.9	1.7	25.8	-	12.0	577
El Barta Ward	Secondary+	41.8	13.0	14.4	2.1	1.5	14.9	-	12.3	529
Nachola Ward	Total	6.0	19.6	70.1	0.1	1.1	1.1	0.1	1.9	4,100
Nachola Ward	None	4.0	20.6	72.2	0.1	1.2	-	0.2	1.9	3,767
Nachola Ward	Primary	9.9	11.5	61.8	-	1.0	14.1	-	1.6	191
Nachola Ward	Secondary+	52.8	3.5	26.8	0.7	-	14.1	-	2.1	142
Ndoto Ward	Total	3.4	26.4	53.0	0.4	8.8	0.7	0.3	7.1	4,168
Ndoto Ward	None	1.3	26.4	55.5	0.3	9.2	0.0	0.4	6.9	3,427
Ndoto Ward	Primary	6.4	26.5	47.7	0.4	9.0	3.7	-	6.4	547
Ndoto Ward	Secondary+	31.4	24.7	23.2	2.6	1.5	3.6	-	12.9	194
Nyiro Ward	Total	3.7	20.0	60.3	0.3	9.0	1.6	0.1	5.0	6,594
Nyiro Ward	None	1.9	21.6	63.3	0.3	8.3	-	0.1	4.5	5,720
Nyiro Ward	Primary	8.6	11.7	46.4	0.3	13.7	12.2	0.2	6.9	591
Nyiro Ward	Secondary+	29.7	5.7	27.6	0.7	12.0	11.7	-	12.7	283
AngataNanyukie Ward	Total	6.9	24.1	50.2	1.7	8.4	3.8	0.2	4.9	3,120
AngataNanyukie Ward	None	4.3	26.9	52.7	1.9	9.6	0.2	0.2	4.2	2,477
AngataNanyukie Ward	Primary	10.1	13.9	47.4	0.4	3.9	17.8	0.2	6.2	466
AngataNanyukie Ward	Secondary+	34.5	11.3	22.0	2.3	2.8	16.4	-	10.7	177
Baawa Ward	Total	5.8	8.9	67.6	1.1	11.5	1.0	0.2	4.0	2,674
Baawa Ward	None	3.1	8.7	72.1	1.2	11.6	0.0	0.2	3.1	2,319
Baawa Ward	Primary	9.5	9.9	48.4	0.8	14.3	6.0	-	11.1	252
Baawa Ward	Secondary+	57.3	9.7	13.6	1.0	1.0	10.7	-	6.8	103
Samburu East Constituency	Total	12.3	16.0	42.3	1.0	8.2	3.7	0.3	16.2	15,335
Samburu East Constituency	None	4.2	17.2	53.3	1.0	8.7	0.0	0.4	15.2	10,721
Samburu East Constituency	Primary	19.4	14.1	23.3	0.8	8.9	12.9	0.3	20.4	2,752

Combine Foot Constituence	Casardanii	40.7	44.0	7.0	4.0	4.5	44.4		45.0	4.000
Samburu East Constituency	Secondary+	48.7	11.9	7.3	1.2	4.5	11.1	-	15.3	1,862
Waso Ward	Total	15.3	8.8	45.4	1.2	5.8	3.5	0.3	19.7	5,352
Waso Ward	None	3.6	8.8	63.7	1.4	5.5	0.0	0.3	16.7	3,493
Waso Ward	Primary	23.4	8.6	17.1	0.9	8.8	10.9	0.2	30.1	989
Waso Ward	Secondary+	52.9	9.0	4.4	0.9	3.6	9.2	-	20.1	870
Wamba West Ward	Total	7.0	21.2	39.5	1.1	10.1	2.2	0.6	18.3	2,813
Wamba West Ward	None	3.7	22.6	40.3	1.3	11.4	-	0.7	19.9	2,311
Wamba West Ward	Primary	14.8	15.8	40.7	-	5.2	11.5	-	12.0	366
Wamba West Ward	Secondary+	42.6	11.0	21.3	0.7	0.7	14.7	-	8.8	136
Wamba East Ward	Total	18.1	19.0	28.8	1.0	11.6	6.9	0.3	14.4	4,351
Wamba East Ward	None	7.5	22.3	40.8	0.9	13.7	0.1	0.3	14.5	2,366
Wamba East Ward	Primary	19.6	15.0	19.7	1.1	11.1	16.6	0.4	16.5	1,180
Wamba East Ward	Secondary+	47.1	15.0	6.7	1.1	6.1	12.8	-	11.2	805
Wamba North Ward	Total	3.0	19.9	60.1	0.6	5.6	0.5	0.3	10.0	2,819
Wamba North Ward	None	2.3	19.0	62.3	0.5	5.8	0.0	0.3	9.8	2,551
Wamba North Ward	Primary	7.8	30.9	41.9	-	4.1	3.7	0.5	11.1	217
Wamba North Ward	Secondary+	19.6	15.7	29.4	9.8	3.9	7.8	-	13.7	51

Table 37.5: Employment and Education Levels in Female Headed Households by County, Constituency and Wards

County, Constituency and Wards	Education Level reached	Work for Pay	Family Busi- ness	Family Agri- cultural holding	Internal/ Volunteer	Retired/ Home- maker	Fulltime Student	Incapac-	No work	Population (15-64)
Kenya National	Total	18.87	11.91	32.74	1.20	9.85	16.66	0.69	8.08	5,518,645
Kenya National	None	10.34	13.04	44.55	1.90	16.45	0.80	1.76	11.17	974,824
Kenya National	Primary	16.74	11.75	37.10	0.89	9.82	16.23	0.59	6.89	2,589,877
Kenya National	Secondary+	25.95	11.57	21.07	1.27	6.59	25.16	0.28	8.11	1,953,944
Rural Rural	Total	31.53	15.66	12.80	1.54	9.33	16.99	0.54	11.60	1,781,078
Rural Rural	None	8.36	12.26	50.31	1.60	15.77	0.59	1.67	9.44	794,993
Rural Rural	Primary	13.02	9.90	43.79	0.81	9.49	17.03	0.60	5.36	1,924,111
Rural Rural	Secondary+	15.97	8.87	33.03	1.06	6.80	27.95	0.34	5.98	1,018,463
Urban Urban	Total	12.83	10.12	42.24	1.04	10.09	16.51	0.76	6.40	3,737,567
Urban Urban	None	19.09	16.50	19.04	3.22	19.45	1.70	2.18	18.83	179,831

Urban Urban	Primary	27.49	17.07	17.79	1.13	10.76	13.93	0.55	11.29	665,766
Urban Urban	Secondary+	36.81	14.50	8.06	1.51	6.36	22.11	0.22	10.43	935,481
Samburu	Total	7.4	13.2	43.3	1.2	14.6	7.4	.6	12.2	40562
Samburu	None	4.4	13.7	51.4	1.2	16.7	.2	.8	11.6	28311
Samburu	Primary	9.3	12.2	28.7	.9	10.9	24.3	.4	13.4	8348
Samburu	Secondary+	25.1	11.8	15.9	2.2	7.2	23.9	.2	13.7	3903
Samburu West Constituency	Total	11.4	11.9	30.6	1.6	19.4	12.2	.9	11.9	15538
Samburu West Constituency	None	7.1	11.7	38.5	1.8	26.7	.3	1.3	12.6	8520
Samburu West Constituency	Primary	11.2	12.1	24.9	.8	12.0	27.5	.4	11.0	4701
Samburu West Constituency	Secondary+	27.5	12.4	13.4	2.4	7.4	25.1	.2	11.6	2317
Lodokejek Ward	Total	6.4	12.6	31.4	1.6	26.1	8.9	.8	12.1	3055
Lodokejek Ward	None	4.2	12.8	38.1	1.6	32.3	.2	.9	9.9	2064
Lodokejek Ward	Primary	8.0	11.8	19.3	.7	16.2	28.0	.7	15.4	753
Lodokejek Ward	Secondary+	20.2	13.4	12.2	4.6	4.2	23.5	.4	21.4	238
SugutaMarmar Ward	Total	7.6	6.5	29.7	.8	31.3	16.5	.7	7.1	2448
SugutaMarmar Ward	None	5.1	5.7	37.4	.6	43.3	.5	.9	6.4	1461
SugutaMarmar Ward	Primary	6.0	7.4	20.9	1.0	16.3	41.4	.3	6.7	717
SugutaMarmar Ward	Secondary+	24.8	8.1	11.1	1.1	5.9	36.3	.7	11.9	270
Maralal Ward	Total	18.2	14.2	21.7	2.0	15.1	12.3	1.2	15.4	6239
Maralal Ward	None	11.5	13.7	28.6	2.5	22.0	.2	2.4	19.1	2747
Maralal Ward	Primary	17.7	15.4	20.2	1.0	10.6	20.7	.3	14.1	1939
Maralal Ward	Secondary+	30.7	13.3	11.5	2.2	8.7	23.2	.1	10.4	1553
Loosuk Ward	Total	7.7	8.2	44.5	1.0	15.9	12.5	.5	9.7	1969
Loosuk Ward	None	6.0	8.7	50.1	1.0	22.0	.2	.3	11.5	1143
Loosuk Ward	Primary	7.6	7.3	39.0	.4	8.4	29.6	.6	7.1	700
Loosuk Ward	Secondary+	23.8	8.7	23.8	3.2	3.2	29.4	.8	7.1	126
Porro Ward	Total	5.7	14.6	46.3	2.0	10.6	11.7	.6	8.6	1827
Porro Ward	None	5.4	15.7	53.6	2.6	11.2	.5	.7	10.3	1105
Porro Ward	Primary	4.9	13.2	35.5	.7	10.5	29.9	.5	4.9	592
Porro Ward	Secondary+	12.3	11.5	33.1	2.3	5.4	23.8	0.0	11.5	130
Samburu North Constituency	Total	4.6	13.2	58.7	1.0	10.8	4.1	.5	7.0	13415
Samburu North Constituency	None	3.8	13.7	63.4	1.1	11.4	.1	.6	6.0	10949
Samburu North Constituency	Primary	4.3	11.5	42.4	1.0	8.9	21.8	.2	9.8	1760
Samburu North Constituency	Secondary+	18.7	9.6	25.8	.8	6.9	22.1	.1	15.9	706
El Barta Ward	Total	7.1	20.2	47.7	.9	2.0	9.4	.5	12.2	2587
El Barta Ward	None	4.6	23.6	57.5	.8	2.5	.2	.7	9.9	1779
El Barta Ward	Primary	6.1	13.6	32.5	1.2	1.0	30.0	0.0	15.6	493
El Barta Ward	Secondary+	22.5	11.1	16.2	.6	.6	28.9	.3	19.7	315
Nachola Ward	Total	7.0	6.1	78.5	.3	2.5	3.4	.5	1.7	1654
Nachola Ward	None	6.4	6.1	82.7	.2	2.3	.2	.6	1.5	1430
Nachola Ward	Primary	3.4	8.1	56.1	.7	4.1	24.3	0.0	3.4	148
Nachola Ward	Secondary+	25.0	2.6	43.4	1.3	2.6	23.7	0.0	1.3	76
Ndoto Ward	Total	1.6	21.6	57.1	.2	12.0	1.3	.4	5.8	2587
Ndoto Ward	None	1.3	21.8	58.6	.2	12.6	.0	.4	5.0	2180
Ndoto Ward	Primary	1.5	21.1	52.6	.3	8.6	7.3	.6	8.0	327
Ndoto Ward	Secondary+	10.0	17.5	33.8	0.0	8.8	10.0	0.0	20.0	80
Nyiro Ward	Total	3.1	10.5	55.2	.2	19.4	1.7	.6	9.4	2504
Nyiro Ward	None	2.3	10.9	57.7	.1	18.7	0.0	.6	9.7	2123

Nyiro Ward	Primary	2.4	8.1	45.6	.4	24.2	11.7	.4	7.3	248
Nyiro Ward	Secondary+	18.0	8.3	32.3	0.0	21.8	9.8	0.0	9.8	133
AngataNanyukie Ward	Total	6.7	6.3	55.5	3.4	14.3	7.6	.5	5.7	1658
AngataNanyukie Ward	None	6.3	6.9	60.4	4.1	16.1	.3	.7	5.1	1313
AngataNanyukie Ward	Primary	7.4	4.3	39.7	.4	7.4	37.2	0.0	3.5	282
AngataNanyukie Ward	Secondary+	11.1	1.6	23.8	3.2	6.3	27.0	0.0	27.0	63
Baawa Ward	Total	3.8	9.2	64.3	1.8	13.5	2.2	.5	4.7	2425
Baawa Ward	None	3.7	9.2	67.8	1.6	13.5	.1	.5	3.6	2124
Baawa Ward	Primary	3.4	8.8	40.8	2.7	14.1	16.0	.4	13.7	262
Baawa Ward	Secondary+	7.7	12.8	33.3	2.6	12.8	23.1	0.0	7.7	39
Samburu East Constituency	Total	5.3	15.0	42.5	1.0	12.5	4.7	.5	18.5	11609
Samburu East Constituency	None	2.7	15.7	49.0	.8	13.6	.1	.5	17.6	8842
Samburu East Constituency	Primary	9.1	12.9	25.3	1.1	9.9	18.5	.3	23.0	1887
Samburu East Constituency	Secondary+	24.0	11.9	14.5	2.8	6.7	22.2	.2	17.6	880
Waso Ward	Total	5.0	6.4	45.9	1.3	11.2	5.4	.3	24.5	2976
Waso Ward	None	2.4	6.5	57.6	1.1	11.5	.1	.3	20.5	2144
Waso Ward	Primary	7.1	4.5	18.3	1.1	11.6	18.7	.4	38.4	536
Waso Ward	Secondary+	20.3	8.8	11.5	3.0	8.4	19.6	0.0	28.4	296
Wamba West Ward	Total	3.1	21.8	43.8	1.1	13.5	1.9	.6	14.1	3153
Wamba West Ward	None	2.2	22.0	44.9	1.2	14.2	.0	.7	14.8	2748
Wamba West Ward	Primary	6.1	21.5	36.9	1.3	10.6	12.8	.3	10.6	312
Wamba West Ward	Secondary+	20.4	17.2	33.3	0.0	3.2	21.5	0.0	4.3	93
Wamba East Ward	Total	11.3	14.2	31.5	1.1	14.5	9.4	.5	17.6	3020
Wamba East Ward	None	5.8	15.8	41.0	.5	18.8	0.0	.6	17.4	1733
Wamba East Ward	Primary	13.3	12.0	22.8	.9	9.6	20.8	.2	20.2	850
Wamba East Ward	Secondary+	28.8	12.1	10.5	3.4	6.6	24.7	.5	13.3	437
Wamba North Ward	Total	1.2	17.6	50.4	.6	10.2	1.7	.4	17.8	2460
Wamba North Ward	None	1.0	16.9	52.0	.5	10.8	.0	.5	18.4	2217
Wamba North Ward	Primary	.5	26.5	37.6	1.1	4.8	16.9	.5	12.2	189
Wamba North Ward	Secondary+	11.1	18.5	31.5	1.9	3.7	16.7	0.0	16.7	54

Table 37.6: Gini Coefficient by County, Constituency and Ward

County/Constituency/Wards	Pop. Share	Mean	Consump. Share	Gini
Kenya	1	3,440	1	0.445
Rural	0.688	2,270	0.454	0.361
Urban	0.312	6,010	0.546	0.368
Samburu County	0.006	1,920	0.003	0.332
Samburu West Constituency	0.002	2,010	0.0013	0.344
Lodokejek	0.000	1,610	0.0002	0.255
SugutaMarmar	0.000	1,690	0.0002	0.304
Maralal	0.001	2,550	0.0007	0.372
Loosuk	0.000	1,360	0.0001	0.222
Porro	0.000	1,670	0.0001	0.258
Samburu North Constituency	0.002	1,740	0.0011	0.276
El Barta	0.000	2,600	0.0003	0.336
Nachola	0.000	1,380	0.0001	0.200
Ndoto	0.000	1,360	0.0002	0.198

Nyiro	0.001	1,490	0.0002	0.206
AngataNanyukie	0.000	1,960	0.0002	0.269
Baawa	0.000	1,790	0.0002	0.236
Samburu East Constituency	0.002	2,070	0.0009	0.376
Waso	0.000	2,150	0.0003	0.385
Wamba West	0.000	1,560	0.0002	0.244
Wamba East	0.000	2,970	0.0004	0.417
Wamba North	0.000	1,330	0.0001	0.200

Table 37.7: Education by County, Constituency and Wards

County/Constituency/Wards	None	Primary	Secondary+	Total Pop
Kenya	25.2	52.0	22.8	34,024,396
Rural	29.5	54.7	15.9	23,314,262
Urban	15.8	46.2	38.0	10,710,134
Samburu County	68.1	25.6	6.3	195,312
Samburu West Constituency	51.0	38.8	10.3	71,811
Lodokejek	62.1	32.3	5.6	11,984
SugutaMarmar	56.6	37.4	6.1	10,284
Maralal	42.1	41.3	16.5	31,575
Loosuk	55.4	40.3	4.4	8,916
Porro	56.3	38.7	4.9	9,052
Samburu North Constituency	80.9	16.0	3.0	72,287
El Barta	66.8	26.0	7.2	11,972
Nachola	86.7	11.2	2.1	10,645
Ndoto	81.2	16.7	2.1	13,153
Nyiro	85.4	12.2	2.4	17,813
AngataNanyukie	78.5	18.7	2.8	8,565
Baawa	85.6	13.0	1.4	10,139
Samburu East Constituency	74.1	20.5	5.5	51,214
Waso	70.3	22.0	7.7	15,358
Wamba West	84.5	13.6	2.0	11,828
Wamba East	57.9	32.9	9.2	13,904
Wamba North	89.9	9.0	1.0	10,124

Table 37.8: Education for Male and Female Headed Households by County, Constituency and Ward

County/Constituency/Wards	None	Primary	Secondary+	Total Pop	None	Primary	Secondary+	Total Pop
Kenya	23.5	51.8	24.7	16,819,031	26.8	52.2	21.0	17,205,365
Rural	27.7	54.9	17.4	11,472,394	31.2	54.4	14.4	11,841,868
Urban	14.4	45.2	40.4	5,346,637	17.2	47.2	35.6	5,363,497
Samburu County	63.4	28.4	8.2	96,953	72.8	22.8	4.4	98,359
Samburu West Constituency	43.7	43.2	13.1	34,393	57.6	34.7	7.7	37,418
Lodokejek	54.0	37.8	8.2	5,329	68.5	27.9	3.6	6,655

SugutaMarmar	48.6	42.8	8.7	4,970	64.0	32.3	3.7	5,314
Maralal	36.1	44.2	19.7	15,224	47.7	38.6	13.6	16,351
Loosuk	47.3	46.1	6.6	4,465	63.4	34.4	2.2	4,451
Porro	48.4	44.0	7.6	4,405	63.9	33.7	2.4	4,647
Samburu North Constituency	77.6	18.2	4.2	37,678	84.6	13.8	1.7	34,609
El Barta	62.1	28.2	9.8	5,904	71.4	23.9	4.7	6,068
Nachola	86.3	10.8	2.9	6,065	87.1	11.8	1.1	4,580
Ndoto	75.3	21.3	3.4	6,517	87.0	12.1	0.9	6,636
Nyiro	82.7	14.0	3.3	9,757	88.6	10.1	1.3	8,056
AngataNanyukie	75.1	21.0	3.9	4,716	82.6	15.9	1.5	3,849
Baawa	81.1	16.4	2.5	4,719	89.5	10.0	0.5	5,420
Samburu East Constituency	68.9	23.5	7.6	24,882	79.0	17.6	3.4	26,332
Waso	66.5	23.3	10.2	7,999	74.5	20.6	4.9	7,359
Wamba West	77.9	18.9	3.2	5,228	89.7	9.4	1.0	6,600
Wamba East	52.6	35.2	12.2	6,767	62.9	30.7	6.4	7,137
Wamba North	85.8	12.5	1.7	4,888	93.8	5.8	0.4	5,236

Table 37.9: Cooking Fuel by County, Constituency and Wards

County/Constituency/ Wards	Electricity	Paraffin	LPG	Biogas	Firewood	Charcoal	Solar	Other	Households
Kenya	0.8	11.7	5.1	0.7	64.4	17.0	0.1	0.3	8,493,380
Rural	0.2	1.4	0.6	0.3	90.3	7.1	0.1	0.1	5,239,879
Urban	1.8	28.3	12.3	1.4	22.7	32.8	0.0	0.6	3,253,501
Samburu County	0.1	0.6	0.4	0.2	81.0	17.4	0.1	0.3	45,363
Samburu West Constit- uency	0.2	1.1	0.6	0.2	67.6	30.0	0.1	0.2	16,955
Lodokejek	0.4	0.7	0.1	0.2	87.0	11.6	0.1	0.0	2,838
SugutaMarmar	0.0	0.5	0.3	0.1	81.5	17.5	0.0	0.1	2,297
Maralal	0.3	1.8	1.2	0.2	45.6	50.5	0.1	0.3	7,751
Loosuk	-	0.6	-	0.1	87.2	11.9	-	0.1	2,006
Porro	0.1	0.4	0.1	0.1	88.9	9.7	0.3	0.2	2,063
Samburu North Constit- uency	0.1	0.1	0.1	0.1	91.9	7.6	0.0	0.2	15,824
El Barta	0.1	0.3	0.1	0.1	77.1	22.1	0.0	0.2	2,862
Nachola	0.1	-	-	0.1	91.7	8.1	-	0.1	1,970
Ndoto	0.0	-	0.2	0.0	97.1	2.4	0.2	0.2	3,146
Nyiro	0.1	0.1	0.1	0.0	95.1	4.5	-	0.1	3,354
AngataNanyukie	0.1	0.1	-	0.1	92.4	7.3	0.1	0.1	1,928
Baawa	-	0.0	0.0	0.0	97.5	1.6	-	0.7	2,564

Samburu East Constit- uency	0.1	0.4	0.6	0.4	85.4	12.6	0.0	0.4	12,584
Waso	0.4	0.8	1.4	1.0	79.5	16.5	0.1	0.2	3,566
Wamba West	-	0.1	0.1	0.1	95.9	3.5	-	0.3	2,958
Wamba East	0.1	0.5	0.7	0.2	73.8	24.0	-	0.7	3,612
Wamba North	-	-	-	0.0	98.7	1.1	-	0.2	2,448

Table 37.10: Cooking Fuel for Male Headed Households by County, Constituency and Wards

County/Constituency/ Wards	Electricity	Paraffin	LPG	Biogas	Firewood	Charcoal	Solar	Other	Households
Kenya	0.9	13.5	5.3	0.8	61.4	17.7	0.1	0.4	5,762,320
Rural	0.2	1.6	0.6	0.3	89.6	7.5	0.1	0.1	3,413,616
Urban	1.9	30.9	12.0	1.4	20.4	32.5	0.0	0.7	2,348,704
Samburu County	0.2	0.9	0.7	0.2	77.2	20.5	0.1	0.3	23,787
Samburu West Constituency	0.3	1.7	1.0	0.2	60.9	35.4	0.1	0.3	8,837
Lodokejek	0.4	0.8	0.2	0.2	83.6	14.7	0.2	0.0	1,109
SugutaMarmar	0.1	0.8	0.6	0.1	77.7	20.5	0.0	0.2	1,027
Maralal	0.5	2.7	1.8	0.2	40.4	54.0	0.1	0.4	4,563
Loosuk	0.0	0.9	0.0	0.1	83.6	15.4	0.0	0.0	1,061
Porro	0.2	0.6	0.1	0.1	86.4	12.0	0.5	0.2	1,077
Samburu North Constituency	0.1	0.1	0.1	0.1	90.8	8.6	0.0	0.2	8,848
El Barta	0.1	0.5	0.1	0.1	74.7	24.3	0.0	0.1	1,467
Nachola	0.1	0.0	0.0	0.1	90.5	9.2	0.0	0.2	1,297
Ndoto	0.0	0.0	0.3	0.1	96.2	3.0	0.2	0.2	1,651
Nyiro	0.1	0.1	0.0	0.0	94.9	4.9	0.0	0.0	2,182
AngataNanyukie	0.2	0.1	0.0	0.1	90.2	9.4	0.0	0.1	1,111
Baawa	0.0	0.1	0.1	0.1	96.9	2.2	0.0	0.6	1,140
Samburu East Constituency	0.2	0.7	1.0	0.6	80.9	16.2	0.1	0.4	6,102
Waso	0.5	1.2	2.1	1.5	75.1	18.9	0.2	0.3	2,010
Wamba West	0.0	0.3	0.2	0.2	92.7	6.5	0.0	0.3	1,131
Wamba East	0.1	0.8	1.0	0.2	69.7	27.8	0.0	0.5	1,876
Wamba North	0.0	0.0	0.0	0.0	98.7	1.1	0.0	0.2	1,085

Table 37.11: Cooking Fuel for Female Headed Households by County, Constituency and Wards

County/Constituency/ Wards	Electricity	Paraffin	LPG	Biogas	Firewood	Charcoal	Solar	Other	Households
Kenya	0.6	7.9	4.6	0.7	70.6	15.5	0.0	0.1	2,731,060
Rural	0.1	1.0	0.5	0.3	91.5	6.5	0.0	0.1	1,826,263
Urban	1.6	21.7	13.0	1.5	28.5	33.6	0.0	0.3	904,797
Samburu County	0.1	0.2	0.2	0.1	85.2	13.9	0.0	0.3	21,576
Samburu West Constit- uency	0.1	0.4	0.2	0.2	74.8	24.1	0.0	0.1	8,118
Lodokejek	0.3	0.6	0.1	0.2	89.2	9.5	-	0.1	1,729
SugutaMarmar	-	0.2	-	0.1	84.5	15.1	0.1	-	1,270
Maralal	0.2	0.5	0.4	0.2	53.1	45.5	-	0.1	3,188
Loosuk	-	0.2	-	0.2	91.3	8.0	-	0.2	945

Porro	-	0.3	0.2	0.2	91.7	7.3	0.1	0.2	986
Samburu North Constit- uency	0.0	0.0	0.0	0.0	93.2	6.3	0.1	0.3	6,976
El Barta	-	0.1	0.1	0.1	79.6	19.8	0.1	0.3	1,395
Nachola	-	-	-	-	93.9	6.1	-	-	673
Ndoto	0.1	-	-	-	98.0	1.7	0.1	0.1	1,495
Nyiro	-	0.1	0.2	0.1	95.5	3.9	-	0.3	1,172
AngataNanyukie	-	-	-	-	95.3	4.4	0.1	0.1	817
Baawa	-	-	-	-	98.0	1.2	-	0.8	1,424
Samburu East Constit- uency	0.1	0.1	0.2	0.2	89.7	9.2	-	0.4	6,482
Waso	0.3	0.3	0.5	0.4	85.2	13.3	-	0.1	1,556
Wamba West	-	0.1	-	-	97.9	1.7	-	0.3	1,827
Wamba East	0.1	0.2	0.5	0.2	78.2	20.0	-	0.8	1,736
Wamba North	-	-	-	0.1	98.6	1.0	-	0.3	1,363

Table 37.12: Lighting Fuel by County, Constituency and Wards

County/Constituency/Wards	Electricity	Pressure Lamp	Lantern	Tin Lamp	Gas Lamp	Fuelwood	Solar	Other	Households
Kenya	22.9	0.6	30.6	38.5	0.9	4.3	1.6	0.6	5,762,320
Rural	5.2	0.4	34.7	49.0	1.0	6.7	2.2	0.7	3,413,616
Urban	51.4	0.8	23.9	21.6	0.6	0.4	0.7	0.6	2,348,704
Samburu County	5.8	0.3	10.6	19.4	0.9	60.7	1.4	0.8	23,787
Samburu West Constituency	14.2	0.2	14.8	34.9	1.0	32.9	1.4	0.5	8,837
Lodokejek	3.7	0.2	10.4	52.4	0.3	31.0	1.7	0.4	1,109
SugutaMarmar	7.7	0.2	11.1	29.6	0.4	50.1	0.4	0.6	1,027
Maralal	27.0	0.3	18.9	31.5	1.5	18.8	1.6	0.4	4,563
Loosuk	1.3	0.3	11.2	26.4	1.2	58.7	0.8	0.1	1,061
Porro	0.6	0.1	13.3	37.9	0.9	43.9	1.8	1.6	1,077
Samburu North Constituency	0.4	0.1	6.1	10.7	1.1	80.2	0.9	0.6	8,848
El Barta	1.4	0.1	14.6	35.3	3.4	43.9	1.3	0.1	1,467
Nachola	0.1	0.1	5.5	13.5	0.7	79.8	0.2	0.2	1,297
Ndoto	0.0	0.0	3.8	3.2	0.5	91.3	0.9	0.2	1,651
Nyiro	0.1	0.1	5.3	1.3	0.7	90.1	1.0	1.5	2,182
AngataNanyukie	0.3	0.0	6.3	3.4	0.5	87.6	1.8	0.2	1,111
Baawa	0.2	0.1	1.1	8.0	0.5	88.6	0.4	1.1	1,140
Samburu East Constituency	1.4	0.9	10.5	9.4	0.6	73.8	2.0	1.5	6,102
Waso	3.8	0.1	16.9	6.5	0.6	69.0	1.8	1.3	2,010
Wamba West	0.0	0.1	2.9	2.9	0.3	91.1	0.5	2.2	1,131
Wamba East	1.3	2.8	17.0	22.9	0.8	49.1	4.4	1.7	1,876
Wamba North	0.0	0.0	0.8	1.4	0.6	96.3	0.3	0.5	1,085

Table 37.13: Lighting Fuel for Male Headed Households by County, Constituency and Wards

County/Constituency/ Wards	Electricity	Pressure Lamp	Lantern	Tin Lamp	Gas Lamp	Fuelwood	Solar	Other	Households
Kenya	24.6	0.6	30.4	36.8	0.9	4.2	1.7	0.7	5,762,320
Rural	5.6	0.5	35.3	47.5	1.1	6.8	2.4	0.7	3,413,616



Urban	52.4	0.9	23.3	21.2	0.6	0.4	0.7	0.7	2,348,704
Samburu County	7.8	0.3	11.9	17.9	1.0	58.6	1.7	0.8	23,787
Samburu West Constituency	19.0	0.2	15.9	31.5	1.1	30.3	1.5	0.6	8,837
Lodokejek	4.9	0.3	12.6	52.8	0.5	26.6	1.9	0.5	1,109
SugutaMarmar	10.7	0.2	11.6	27.8	0.3	48.1	0.7	0.7	1,027
Maralal	32.7	0.3	18.5	28.3	1.4	17.1	1.5	0.4	4,563
Loosuk	1.4	0.1	13.9	25.1	1.4	56.9	0.9	0.2	1,061
Porro	0.6	0.1	14.1	33.1	1.0	47.3	2.1	1.7	1,077
Samburu North Constituency	0.5	0.1	7.0	9.5	1.2	80.0	1.1	0.7	8,848
El Barta	1.8	0.1	15.1	33.7	3.8	43.6	1.8	0.1	1,467
Nachola	0.2	0.0	7.0	10.9	0.7	80.9	0.2	0.2	1,297
Ndoto	0.0	0.1	5.0	2.8	0.6	90.1	1.2	0.2	1,651
Nyiro	0.1	0.0	5.5	1.5	0.7	89.5	0.8	1.8	2,182
AngataNanyukie	0.5	0.0	8.2	3.7	0.6	84.5	2.3	0.2	1,111
Baawa	0.4	0.2	1.2	7.8	0.8	88.3	0.4	0.8	1,140
Samburu East Constituency	2.2	0.6	13.4	10.5	0.5	68.5	2.7	1.5	6,102
Waso	5.7	0.0	18.4	6.7	0.6	64.9	2.5	1.1	2,010
Wamba West	0.1	0.1	5.3	3.5	0.1	87.7	0.9	2.3	1,131
Wamba East	1.1	2.0	20.1	23.8	0.9	45.0	5.4	1.7	1,876
Wamba North	0.0	0.0	1.2	1.8	0.4	95.4	0.5	0.8	1,085

Table 37.14: Lighting Fuel for Female Headed Households by County, Constituency and Wards

County/Constituency/Wards	Electricity	Pressure Lamp	Lantern	Tin Lamp	Gas Lamp	Fuelwood	Solar	Other	House- holds
Kenya	19.2	0.5	31.0	42.1	0.8	4.5	1.4	0.5	2,731,060
Rural	4.5	0.4	33.7	51.8	0.8	6.5	1.8	0.5	1,826,263
Urban	48.8	0.8	25.4	22.6	0.7	0.6	0.6	0.5	904,797
Samburu County	3.7	0.4	9.1	21.0	0.9	63.1	1.1	0.8	21,576
Samburu West Constituency	9.1	0.3	13.7	38.6	1.0	35.6	1.3	0.5	8,118
Lodokejek	2.9	0.2	9.0	52.1	0.2	33.8	1.5	0.3	1,729
SugutaMarmar	5.2	0.2	10.7	31.1	0.6	51.7	0.2	0.5	1,270
Maralal	18.9	0.3	19.6	36.2	1.7	21.4	1.7	0.3	3,188
Loosuk	1.3	0.5	8.0	27.8	1.0	60.6	0.6	0.1	945
Porro	0.6	0.1	12.5	43.0	0.7	40.2	1.4	1.5	986
Samburu North Constituency	0.2	0.0	5.1	12.1	0.9	80.4	0.7	0.5	6,976
El Barta	1.1	-	14.1	36.9	2.9	44.2	0.8	0.1	1,395
Nachola	-	0.1	2.7	18.6	0.6	77.9	0.1	-	673
Ndoto	0.1	-	2.5	3.7	0.5	92.6	0.6	0.1	1,495
Nyiro	-	0.2	4.9	0.9	0.5	91.3	1.2	0.9	1,172
AngataNanyukie	-	-	3.8	3.1	0.4	91.7	1.0	0.1	817
Baawa	0.1	-	0.9	8.1	0.4	88.8	0.4	1.4	1,424
Samburu East Constituency	0.7	1.0	7.7	8.3	0.6	78.8	1.2	1.5	6,482
Waso	1.3	0.1	14.8	6.4	0.7	74.4	0.8	1.5	1,556
Wamba West	-	0.1	1.4	2.5	0.4	93.2	0.3	2.1	1,827
Wamba East	1.4	3.7	13.7	21.8	0.7	53.6	3.4	1.7	1,736
Wamba North	-	0.1	0.5	1.2	0.7	97.0	0.2	0.3	1,363

Table 37.15: Main material of the Floor by County, Constituency and Wards

County/Constituency/ wards	Cement	Tiles	Wood	Earth	Other	Households
Kenya	41.2	1.6	0.7	56.0	0.5	8,493,380
Rural	22.1	0.3	0.7	76.5	0.4	5,239,879
Urban	71.8	3.5	0.9	23.0	0.8	3,253,501
Samburu County	16.0	0.2	0.4	83.0	0.5	45,363
Samburu West Constituency	26.5	0.4	0.3	72.7	0.1	16,955
Lodokejek	13.7	0.1	0.4	85.6	0.2	2,838
SugutaMarmar	16.8	-	0.5	82.6	0.2	2,297
Maralal	42.6	0.7	0.2	56.4	0.1	7,751
Loosuk	10.8	0.0	0.2	88.9	0.0	2,006
Porro	9.9	0.0	0.8	89.1	0.1	2,063
Samburu North Constituency	7.0	0.1	0.3	92.3	0.4	15,824
El Barta	18.2	0.1	0.3	80.3	1.1	2,862
Nachola	3.1	0.1	0.2	96.4	0.2	1,970
Ndoto	3.5	0.0	0.2	96.2	0.1	3,146
Nyiro	6.3	0.1	0.4	92.6	0.6	3,354
AngataNanyukie	7.8	-	0.3	92.0	-	1,928
Baawa	2.0	0.0	0.4	97.4	0.2	2,564
Samburu East Constituency	13.2	0.1	0.5	85.1	1.1	12,584
Waso	19.7	0.1	0.6	78.9	0.7	3,566
Wamba West	2.9	0.0	0.3	95.9	0.8	2,958
Wamba East	23.6	0.1	0.3	73.7	2.3	3,612
Wamba North	0.8	0.0	0.8	98.0	0.3	2,448

Table 37.16: Main Material of the Floor in Male and Female Headed Households by County, Constituency and Ward

County/Constituency/ wards	Cement	Tiles	Wood	Earth	Other	Households	Cement	Tiles	Wood	Earth	Other	Households
Kenya	42.8	1.6	0.8	54.2	0.6	5,762,320	37.7	1.4	0.7	59.8	0.5	2,731,060
Rural	22.1	0.3	0.7	76.4	0.4	3,413,616	22.2	0.3	0.6	76.6	0.3	1,826,263
Urban	72.9	3.5	0.9	21.9	0.8	2,348,704	69.0	3.6	0.9	25.8	0.8	904,797
Samburu County	19.4	0.3	0.3	79.4	0.6	23,787	12.2	0.1	0.4	87.0	0.3	21,576
Samburu West Constituency	32.2	0.5	0.2	67.0	0.1	8,837	20.4	0.2	0.4	78.9	0.1	8,118
Lodokejek	17.7	0.2	0.3	81.8	0.1	1,109	11.2	0.1	0.5	88.0	0.2	1,729
SugutaMarmar	20.8	-	0.2	78.7	0.3	1,027	13.5	-	0.7	85.7	0.1	1,270
Maralal	48.0	0.9	0.1	50.9	0.1	4,563	35.0	0.4	0.2	64.3	0.1	3,188
Loosuk	12.3	0.1	0.4	87.2	-	1,061	9.0	-	-	90.9	0.1	945
Porro	10.7	0.1	0.5	88.6	0.2	1,077	9.0	-	1.1	89.8	0.1	986
Samburu North Constituency	8.1	0.1	0.3	91.1	0.4	8,848	5.5	0.0	0.2	93.8	0.4	6,976
El Barta	21.1	0.1	0.3	77.6	0.8	1,467	15.3	-	0.2	83.2	1.4	1,395

Nachola	2.9	-	0.2	96.6	0.3	1,297	3.7	0.1	-	96.1	-	673
Ndoto	5.0	0.1	0.2	94.6	0.1	1,651	1.9	-	0.2	97.9	-	1,495
Nyiro	6.7	0.1	0.6	92.1	0.5	2,182	5.5	0.1	0.1	93.6	0.7	1,172
AngataNanyukie	10.1	-	0.4	89.6	-	1,111	4.7	-	0.1	95.2	-	817
Baawa	2.8	0.1	0.1	96.7	0.4	1,140	1.3	-	0.6	98.0	0.1	1,424
Samburu East Constituency	17.4	0.1	0.5	80.3	1.7	6,102	9.2	0.0	0.5	89.7	0.5	6,482
Waso	24.2	0.2	0.6	74.0	1.0	2,010	13.9	0.1	0.6	85.2	0.3	1,556
Wamba West	5.8	-	0.4	91.9	1.9	1,131	1.0	0.1	0.3	98.5	0.2	1,827
Wamba East	26.3	0.1	0.2	70.4	3.0	1,876	20.6	0.1	0.5	77.4	1.5	1,736
Wamba North	1.4	0.1	0.8	97.1	0.6	1,085	0.4	-	0.8	98.8	-	1,363

Table 37.17: Main Roofing Material by County Constituency and Wards

County/Constituency/Wards	Corrugated Iron Sheets	Tiles	Concrete	Asbestos sheets	Grass	Makuti	Tin	Mud/ Dung	Other	Households
Kenya	73.5	2.2	3.6	2.2	13.3	3.2	0.3	0.8	1.0	8,493,380
Rural	70.3	0.7	0.2	1.8	20.2	4.2	0.2	1.2	1.1	5,239,879
Urban	78.5	4.6	9.1	2.9	2.1	1.5	0.3	0.1	0.9	3,253,501
Samburu County	22.3	0.7	0.1	0.8	10.9	12.0	2.5	38.0	12.8	45,363
Samburu West Constituency	37.9	0.6	0.0	1.3	9.2	6.0	0.3	39.8	4.8	16,955
Lodokejek	15.9	0.4	0.1	1.0	0.6	1.8	0.0	80.0	0.2	2,838
SugutaMarmar	21.9	0.2	0.0	0.5	7.6	0.0	0.4	66.6	2.8	2,297
Maralal	59.7	0.9	0.0	1.9	6.7	5.6	0.6	21.9	2.7	7,751
Loosuk	22.3	0.1	0.0	0.9	16.7	14.4	0.0	27.9	17.6	2,006
Porro	19.8	0.5	0.1	0.8	24.7	11.9	0.0	33.9	8.3	2,063
Samburu North Constituency	9.6	0.1	0.1	0.3	15.7	15.3	2.9	35.7	20.3	15,824
El Barta	24.9	0.1	0.1	0.5	6.3	18.7	4.5	33.6	11.3	2,862
Nachola	7.8	0.1	0.1	0.0	55.2	5.6	8.0	8.3	15.0	1,970
Ndoto	4.1	0.1	0.0	0.2	7.1	30.0	0.3	29.7	28.6	3,146
Nyiro	7.1	0.3	0.0	0.5	13.8	17.1	5.1	13.4	42.7	3,354
AngataNanyukie	9.0	0.1	0.5	0.2	22.5	0.2	0.1	57.8	9.8	1,928
Baawa	4.1	0.2	0.0	0.1	3.9	10.1	0.0	79.0	2.7	2,564
Samburu East Constituency	17.2	1.6	0.1	0.8	7.1	16.0	4.8	38.3	14.1	12,584
Waso	23.4	0.4	0.1	2.4	9.7	13.7	10.9	23.4	16.0	3,566
Wamba West	3.2	1.9	0.0	0.2	7.0	20.9	4.1	52.0	10.7	2,958
Wamba East	33.0	0.3	0.2	0.2	4.4	16.1	1.7	25.6	18.5	3,612
Wamba North	1.6	4.9	0.0	0.0	7.5	13.4	1.5	62.2	8.9	2,448

Table 37.18: Main Roofing Material in Male Headed Households by County, Constituency and Wards

County/Constituency/Wards	Corrugat- ed Iron Sheets	Tiles	Concrete	Asbestos sheets	Grass	Makuti	Tin	Mud/ Dung	Other	Households
Kenya	73.0	2.3	3.9	2.3	13.5	3.2	0.3	0.5	1.0	5,762,320
Rural	69.2	0.8	0.2	1.8	21.5	4.4	0.2	0.9	1.1	3,413,616
Urban	78.5	4.6	9.3	2.9	2.0	1.4	0.3	0.1	0.9	2,348,704
Samburu County	25.9	0.7	0.1	1.0	11.5	11.7	2.1	31.7	15.2	23,787
Samburu West Constituency	44.0	0.8	0.1	1.6	9.7	6.7	0.3	31.4	5.5	8,837
Lodokejek	19.7	0.6	0.3	0.8	0.5	2.3	-	75.2	0.5	1,109
SugutaMarmar	26.2	0.3	-	0.8	9.1	-	0.4	58.7	4.6	1,027
Maralal	63.9	1.1	0.0	2.2	6.3	5.6	0.4	17.9	2.6	4,563
Loosuk	24.1	0.3	-	1.6	17.9	15.8	0.1	20.0	20.2	1,061
Porro	21.6	0.2	0.1	0.7	26.4	13.1	0.1	28.1	9.7	1,077
Samburu North Constituency	10.7	0.1	0.1	0.3	15.8	14.6	2.6	30.9	24.8	8,848
El Barta	26.9	0.2	0.1	0.5	6.6	18.7	3.6	28.6	14.8	1,467
Nachola	8.3	0.1	0.1	-	53.1	8.2	6.2	7.6	16.4	1,297
Ndoto	5.7	-	-	0.4	6.1	29.0	0.4	26.9	31.6	1,651
Nyiro	7.6	0.3	-	0.5	11.4	15.0	4.2	14.3	46.8	2,182
AngataNanyukie	11.3	-	0.8	0.4	19.8	0.2	0.2	51.2	16.1	1,111
Baawa	5.1	-	-	0.1	3.4	9.5	-	78.5	3.4	1,140
Samburu East Constituency	21.9	1.5	0.1	1.0	8.1	14.7	4.1	33.4	15.3	6,102
Waso	27.1	0.3	0.1	2.5	11.5	14.3	8.4	19.3	16.5	2,010
Wamba West	6.0	1.6	-	0.3	9.6	20.2	4.4	49.2	8.8	1,131
Wamba East	37.2	0.3	0.2	0.2	3.1	14.1	1.3	22.7	20.9	1,876
Wamba North	2.2	5.4	-	-	8.6	10.8	0.6	61.9	10.4	1,085

Table 37.19: Main Roofing Material in Female Headed Households by County, Constituency and Wards

County/Constituency/Wards	Corrugat- ed Iron Sheets	Tiles	Concrete	As- bestos sheets	Grass	Makuti	Tin	Mud/ Dung	Other	tHouseholds
Kenya	74.5	2.0	3.0	2.2	12.7	3.2	0.3	1.2	1.0	2,731,060
Rural	72.5	0.7	0.1	1.8	17.8	3.9	0.3	1.8	1.1	1,826,263
Urban	78.6	4.5	8.7	2.9	2.3	1.6	0.3	0.1	0.9	904,797



Samburu County	18.2	0.7	0.0	0.6	10.2	12.4	2.9	44.8	10.1	21,576
Samburu West Constituency	31.3	0.4	0.0	1.0	8.6	5.3	0.4	49.0	3.9	8,118
·									3.3	,
Lodokejek	13.4	0.3	0.1	1.2	0.6	1.4	0.1	83.0	-	1,729
SugutaMarmar	18.5	0.1	-	0.3	6.4	-	0.4	72.9	1.4	1,270
Maralal	53.6	0.6	-	1.6	7.4	5.6	0.8	27.4	2.9	3,188
Loosuk	20.3	-	-	0.1	15.3	12.8	-	36.7	14.7	945
Porro	17.7	0.8	0.1	0.9	22.9	10.5	-	40.2	6.8	986
Samburu North Constituency	8.1	0.2	0.0	0.2	15.6	16.2	3.3	41.8	14.6	6,976
El Barta	22.9	0.1	0.1	0.4	5.9	18.8	5.4	38.9	7.7	1,395
Nachola	6.8	0.1	-	-	59.1	0.6	11.3	9.8	12.2	673
Ndoto	2.3	0.1	-	-	8.2	31.1	0.1	32.8	25.4	1,495
Nyiro	6.2	0.3	-	0.6	18.3	21.0	6.7	11.9	35.0	1,172
AngataNanyukie	5.9	0.1	-	-	26.1	0.1	-	66.7	1.1	817
Baawa	3.2	0.4	-	0.1	4.3	10.5	-	79.4	2.0	1,424
Samburu East Constituency	12.8	1.7	0.0	0.6	6.2	17.3	5.6	42.9	12.9	6,482
Waso	18.6	0.4	-	2.3	7.4	13.0	14.2	28.7	15.4	1,556
Wamba West	1.5	2.0	-	0.1	5.4	21.3	3.9	53.8	11.9	1,827
Wamba East	28.4	0.3	0.2	0.2	5.8	18.3	2.2	28.7	16.0	1,736
Wamba North	1.2	4.5	-	-	6.6	15.5	2.2	62.4	7.6	1,363

Table 37.20: Main material of the wall by County, Constituency and Wards

County/Constituency/Wards	Stone	Brick/ Block	Mud/ Wood	Mud/ Cement	Wood only	Corrugated Iron Sheets	Grass/ Reeds	Tin	Other	Households
Kenya	16.7	16.9	36.5	7.7	11.1	6.7	3.0	0.3	1.2	8,493,380
Rural	5.7	13.8	50.0	7.6	14.4	2.5	4.4	0.3	1.4	5,239,879
Urban	34.5	21.9	14.8	7.8	5.8	13.3	0.8	0.3	0.9	3,253,501
Samburu County	3.4	2.7	59.5	12.7	7.5	0.6	5.2	2.6	5.9	45,363
Samburu West Constituency	2.7	2.9	69.3	20.5	1.9	0.3	0.3	0.1	2.0	16,955
Lodokejek	0.6	1.5	80.2	15.8	1.3	0.1	0.0	0.1	0.5	2,838
SugutaMarmar	1.7	1.3	76.4	14.6	3.1	0.3	1.0	0.3	1.2	2,297
Maralal	5.1	4.9	55.4	28.6	2.2	0.6	0.2	0.1	2.9	7,751
Loosuk	0.0	1.0	81.8	13.4	1.4	0.0	0.3	0.0	2.0	2,006
Porro	0.4	0.6	86.3	10.0	0.7	0.1	0.1	0.0	1.7	2,063
Samburu North Constituency	2.9	1.3	55.2	7.5	11.7	0.5	9.7	1.8	9.5	15,824
El Barta	2.0	3.6	54.8	19.6	7.5	0.2	6.3	1.2	4.8	2,862
Nachola	8.7	0.9	52.5	3.1	20.5	2.6	10.3	0.3	1.2	1,970
Ndoto	1.4	0.6	48.5	3.7	15.6	0.3	15.7	3.7	10.5	3,146

Nyiro	4.8	0.9	31.0	2.1	16.0	0.1	12.4	3.2	29.5	3,354
AngataNanyukie	1.0	1.3	81.1	5.4	2.9	0.1	7.4	0.3	0.5	1,928
Baawa	0.1	0.2	77.7	10.9	6.0	0.2	3.9	0.5	0.6	2,564
Samburu East Constituency	5.0	4.3	51.7	8.8	9.9	1.0	6.0	6.9	6.5	12,584
Waso	10.8	8.6	33.4	4.3	7.0	1.1	12.8	14.5	7.6	3,566
Wamba West	0.6	0.8	66.2	6.3	7.7	1.2	4.2	7.3	5.8	2,958
Wamba East	6.1	5.8	44.9	17.9	13.5	1.1	1.7	2.7	6.3	3,612
Wamba North	0.2	0.2	70.8	5.0	11.4	0.3	4.5	1.6	5.9	2,448

Table 37.21: Main Material of the Wall in Male Headed Households by County, Constituency and Ward

County/ Constituency/ Wards	Stone	Brick/ Block	Mud/ Wood	Mud/ Cement	Wood only	Corrugat- ed Iron Sheets	Grass/ Reeds	Tin	Other	Households
Kenya	17.5	16.6	34.7	7.6	11.4	7.4	3.4	0.3	1.2	5,762,320
Rural	5.8	13.1	48.9	7.3	15.4	2.6	5.2	0.3	1.4	3,413,616
Urban	34.6	21.6	14.0	7.9	5.6	14.4	0.7	0.3	0.9	2,348,704
Samburu County	4.5	3.6	54.4	13.5	8.5	0.8	5.8	2.0	7.0	23,787
Samburu West Constituency	3.7	3.8	64.6	22.7	1.9	0.5	0.4	0.1	2.4	8,837
Lodokejek	1.1	2.2	76.8	17.8	1.2	0.2	-	0.2	0.6	1,109
SugutaMarmar	1.9	1.8	71.2	17.5	2.9	0.6	2.0	0.4	1.8	1,027
Maralal	6.3	6.0	51.8	30.0	2.2	0.7	0.2	0.0	2.8	4,563
Loosuk	0.1	1.3	79.5	14.0	1.4	-	0.2	0.1	3.3	1,061
Porro	0.4	0.6	85.7	10.3	0.7	0.1	0.1	-	2.0	1,077
Samburu North Constituency	4.2	1.5	49.2	7.5	13.6	0.8	10.6	1.4	11.3	8,848
El Barta	2.5	4.3	47.2	20.7	8.7	0.3	7.8	1.1	7.4	1,467
Nachola	13.0	0.8	46.6	2.4	19.7	3.9	12.6	0.3	0.8	1,297
Ndoto	1.7	1.0	45.9	3.9	20.0	0.3	14.4	3.1	9.8	1,651
Nyiro	5.3	1.0	29.6	2.2	16.5	0.0	10.9	2.1	32.4	2,182
AngataNanyukie	1.6	1.9	72.0	6.8	4.2	0.2	12.8	0.1	0.5	1,111
Baawa	0.3	0.3	74.8	12.5	7.3	0.4	3.5	0.3	0.7	1,140
Samburu East Constituency	6.1	6.2	47.0	8.8	10.8	1.2	6.9	5.6	7.5	6,102
Waso	11.8	11.3	28.7	4.0	8.6	1.6	14.8	10.6	8.5	2,010
Wamba West	1.3	1.7	65.3	5.4	8.8	1.1	4.1	6.3	6.1	1,131
Wamba East	6.3	6.8	43.1	18.6	13.3	1.2	1.4	2.1	7.1	1,876
Wamba North	0.1	0.4	68.5	4.5	12.8	0.5	4.3	1.4	7.6	1,085

Table 37.22: Main Material of the Wall in Female Headed Households by County, Constituency and Ward

County/ Constituency	Stone	Brick/ Block	Mud/ Wood	Mud/ Cement	Wood only	Corrugat- ed Iron Sheets	Grass/ Reeds	Tin	Other	Households
Kenya	15.0	17.5	40.4	7.9	10.5	5.1	2.1	0.3	1.2	2,731,060
Rural	5.4	14.9	52.1	8.0	12.6	2.4	2.8	0.4	1.4	1,826,263
Urban	34.2	22.6	16.9	7.6	6.2	10.5	0.8	0.3	0.9	904,797
Samburu County	2.2	1.8	65.1	11.9	6.4	0.3	4.4	3.2	4.6	21,576
Samburu West Constituency	1.7	1.9	74.3	18.1	1.9	0.2	0.2	0.1	1.6	8,118
Lodokejek	0.2	1.0	82.3	14.5	1.3	0.1	0.1	0.1	0.4	1,729
SugutaMarmar	1.7	0.9	80.6	12.3	3.3	-	0.2	0.2	0.8	1,270
Maralal	3.3	3.4	60.7	26.7	2.1	0.4	0.3	0.1	2.9	3,188
Loosuk	-	0.6	84.3	12.6	1.5	-	0.4	-	0.5	945
Porro	0.5	0.6	87.0	9.6	0.6	0.1	0.1	-	1.4	986
Samburu North Constituency	1.2	0.9	62.7	7.6	9.4	0.1	8.6	2.3	7.2	6,976
El Barta	1.5	2.9	62.9	18.4	6.2	0.1	4.7	1.3	1.9	1,395
Nachola	0.4	1.0	63.9	4.6	22.0	0.1	5.8	0.3	1.8	673
Ndoto	1.1	0.1	51.5	3.5	10.8	0.2	17.2	4.3	11.2	1,495
Nyiro	3.8	0.7	33.7	2.0	15.1	0.1	15.2	5.3	24.1	1,172
AngataNanyukie	0.1	0.6	93.5	3.5	1.1	-	0.1	0.5	0.5	817
Baawa	-	0.1	79.9	9.6	4.9	-	4.3	0.6	0.6	1,424
Samburu East Constituency	4.0	2.5	56.1	8.8	9.0	0.8	5.2	8.2	5.5	6,482
Waso	9.5	4.9	39.5	4.6	4.8	0.6	10.2	19.5	6.4	1,556
Wamba West	0.1	0.3	66.7	6.8	7.1	1.2	4.2	8.0	5.6	1,827
Wamba East	5.9	4.6	46.8	17.2	13.7	1.1	2.0	3.3	5.4	1,736
Wamba North	0.4	0.1	72.7	5.4	10.3	0.1	4.6	1.7	4.6	1,363

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Table 3

County/Constituency/ Wards	Pond	Dam	Lake	Stream/ River	Unprotect- ed Spring	Unprotect- ed Well	Jabia	Water	Other	Unim- proved Sources	Protected Spring	Protected Well	Borehole	Piped into Dwelling	Piped	Rain Water Collection	Im- proved Sources	Number of Individuals
Kenya	2.7	2.4	1.2	23.2	5.0	6.9	0.3	5.2	0.4	47.4	7.6	7.7	11.6	5.9	19.2	0.7	52.6	37,919,647
Rural	3.6	3.2	1.5	29.6	6.4	8.7	0.4	2.2	0.5	56.0	9.2	8.1	12.0	1.8	12.1	8.0	44.0	26,075,195
Urban	6.0	0.7	0.5	9.2	1.9	2.9	0.2	11.8	0.1	28.3	4.0	6.8	10.7	14.7	34.9	0.5	71.7	11,844,452
Samburu County	1.4	4.6	6:0	25.0	2.1	30.8	0.1	1.3	0.1	66.2	1.0	4.0	15.7	6.0	11.9	0.2	33.8	221,285
Samburu West Constituency	2.4	8.7	0.1	25.8	2.7	11.8	0:0	2.6	0.1	54.2	1.2	3.0	19.5	1.6	20.1	0.3	45.8	82,112
Lodokejek	8.0	6.7	0.0	23.8	4.3	19.2	0:0	1.3	0.0	56.2	6.9	1.4	31.7	0.3	5.4	0.1	43.8	13,961
SugutaMarmar	2.5	12.8	0.1	13.7	9.0	24.4	0.1	0.2	0.0	62.8	9.0	10.4	15.7	0.5	10.0	0.0	37.2	11,662
Maralal	9.1	6.3	0.1	8.0	9.0	6.1	0:0	5.3	0.3	28.2	0.5	1.3	25.3	3.3	40.8	0.5	71.8	35,701
Loosuk	5.6	15.5	0.7	62.4	1.1	9.4	0:0	0.1	0.0	91.7	0.5	5.5	1.5	0.0	0.3	0.4	8.3	10,220
Porro	8.9	8.0	0.1	0.79	2.1	9.6	0.0	0.1	0.0	93.6	0.2	0.4	5.4	0.0	0.0	0.3	6.4	10,568
Samburu North Constituency	0.8	2.7	2.3	19.1	1.9	46.2	0:0	0.7	0.0	73.8	9.0	5.4	13.0	0.5	9.9	0.1	26.2	81,051
El Barta	0.5	12.5	0.1	24.7	2.1	37.5	0:0	1.0	0.0	78.6	0.5	16.9	3.9	0.0	0.0	0.1	21.4	13,554
Nachola	0.0	0.1	0.0	12.3	0.1	61.6	0:0	2.9	0.0	77.1	0.0	4.3	18.5	0.1	0.0	0.0	22.9	11,612
Ndoto	0.2	0.0	0.0	6.0	0.4	60.3	0.0	0.0	0.0	67.0	6:0	4.1	22.4	0.1	5.3	0.1	33.0	14,901
Nyiro	0.5	0.1	9.5	20.6	1.5	34.3	0.1	0.3	0:0	8.99	0.4	2.3	8.1	9.0	21.7	0.0	33.2	19,544
AngataNanyukie	4.4	2.5	0.0	20.0	5.9	37.2	0:0	0.1	0:0	70.1	1.3	4.0	21.4	0.0	3.2	0.0	29.9	9,704
Baawa	0.0	2.1	0.0	32.8	3.0	9.09	0:0	0.5	0.0	88.5	0.2	1.3	7.5	2.4	0.1	0.0	11.5	11,736
Samburu East Constituency	8.0	1.4	0.0	32.2	1.5	36.4	0.2	0.2	0.1	72.6	1.3	3.6	14.1	0.4	9.7	0.3	27.4	58,122

Waso	0.0	0.0 0.1 0.0 38.2	0.0	38.2	2.9	32.5	0.0	0.5	0:0	0.0 74.3 3.9	3.9 6.5	12.0 0.0 3.3 0.0	0.0	3.3		25.7 17,311	17,311
Wamba West	0.2	2.7	0.0	0.0 37.1 0.8		48.1	0:0	0.0 0.1 0.0 89.1	0.0		0.2 3.2	5.9	0.1	0.1 1.4		10.9	13,648
Wamba East	6.0	0.0	0.0	0.0 18.3 0.9		23.3	7.0	0.3	0.2	0.7 0.3 0.2 44.4 0.1 0.4	0.1	29.3	1.5	24.4 0.0	0.0	55.6	15,722
Wamba North	2.4	3.6	0.0 36.2		6.0	46.2	0.0	0.0	0.0 89.4		0.5	6.4	0.0	0.0 0.0	0.0	10.6 11,441	11,441

Table 37.24: Source of Water of Male headed Household by County Constituency and Ward

County/Constituency/ Wards	Pond	Dam	Lake	Stream/ River	Unpro- tected Spring	Unpro- tected Well	Jabia	Water	Other	Unim- proved Sources	Pro- tected Spring	Protect- ed Well	Borehole	Piped into Dwelling	Piped	Rain Water Collection	Improved Sources	Number of Individuals
Kenya	2.7	2.3	1.1	22.4	4.8	6.7	0.4	5.6	0.4	46.4	7.4	7.7	11.7	6.2	19.9	0.7	53.6	26,755,066
Rural	3.7	3.1	4:	29.1	6.3	9.6	9.4	2.4	0.5	55.6	9.2	8.2	12.1	1.9	12.2	8.0	44.4	18,016,471
Urban	8.0	9.0	0.5	8.5	1.8	2.8	0.2	12.1	0.1	27.5	3.8	6.7	10.8	14.9	35.8	0.5	72.5	8,738,595
Samburu County	1.4	4.2	1.4	23.7	2.0	30.9	0.1	1.5	0.1	65.3	7:	3.7	15.6	1.0	13.0	0.2	34.7	124,552
Samburu West Constituency	2.6	8.7	0.1	24.9	2.2	10.7	0.0	2.8	0.1	52.0	1.4	2.7	18.4	1.9	23.2	0.4	48.0	45,017
Lodokejek	9.0	7.4	0.0	20.5	4.3	19.8	1	1.6		54.2	6.3	4.1	31.7	9.0	5.5	0.3	45.8	6,276
SugutaMarmar	3.1	15.9	0.1	12.6	7.4	20.6	0.2	0.3		60.2	6.0	10.6	17.7	0.4	10.3	,	39.8	5,646
Maralal	1.4	5.4	0.1	7.5	0.7	6.5	0.0	5.2	0.3	26.9	9.0	1.2	23.0	3.7	44.2	0.5	73.1	21,473
Loosuk	2.7	14.2	0.5	65.3	1.1	8.1		0.1		92.1	0.7	4.4	1.7	0.0	0.5	9.0	7.9	5,645
Porro	8.3	9.6	0.1	65.4	1.8	9.5		0.2		94.5	0.3	0.2	4.6			0.3	5.5	5,977
Samburu North Constituency	8.0	2.2	3.3	18.4	1.9	46.7	0.0	1.1		74.5	9.0	5.0	13.0	0.4	6.4	0.1	25.5	48,964
El Barta	0.4	11.4	0.1	24.0	1.9	37.6	0.0	1.7		77.2	0.5	17.2	5.0			0.2	22.8	7,413
Nachola	,	0.1		14.8	0.2	58.8	,	4.3		78.1	1	3.1	18.7	0.1			21.9	7,779

Ndoto	0.2	,		5.0	0.5	60.3		1	1	0.99	1.3	3.3	23.0	0.1	6.1	0.2	34.0	8,619
Nyiro	9.0	0.1	12.1	18.1	1.8	37.9	0.1	0.1	1	6.07	0.4	2.5	7.9	0.5	17.9	0.0	29.1	13,378
AngataNanyukie	4.8	1.7	1	24.1	5.6	36.9		0.0	1	73.1	1.4	3.6	18.1	0.0	3.7	0.0	26.9	6,015
Baawa	1	1.9		30.9	3.1	52.4		1.0	ı	89.2	ı	1.3	7.2	2.2	1	0.1	10.8	5,760
Samburu East Constituency	8.0	6.0		30.5	1.9	35.3	0.2	0.3	0.1	70.1	1.7	3.4	15.7	0.5	8.5	0.3	29.9	30,571
Waso	•	0.1	-	37.0	3.8	32.5		0.7	0.0	74.1	4.4	4.5	13.1	-	3.8	•	25.9	10,264
Wamba West	0.5	2.4	-	35.4	6.0	46.5	0.1	1	•	85.8	0.3	3.6	8.5	0.2	0.3	1.3	14.2	5,940
Wamba East	8.0	0.1	-	16.4	1.1	24.1	8.0	0.2	0.2	43.7	0.2	0.5	28.8	1.5	25.3	0.0	56.3	8,638
Wamba North	2.4	2.3	1	35.2	8.0	45.7			1	86.4	0.4	5.4	7.9	1		,	13.6	5,729

Table 37.25: Source of Water of Female headed Household by County Constituency and Ward

County/Constituency/				Stream/	Unpro-	Unpro-		Water		Unim-	Protected	Protected		Piped		Rain	lm- proved	Number of
Wards	Pond	Dam	Lake		Spring	Well	Jabia	vendor	Other	Sources	Spring	Well	Borehole	Dwelling	Piped	Collection	Sources	Individuals
Kenya	2.8	2.7	1.3	25.2	5.3	7.4	0.3	4.4	0.3	49.7	8.1	7.7	11.3	5.1	17.5	0.7	50.3	11,164,581
Rural	3.4	3.5	1.6	30.6	6.5	8.9	0.3	1.8	9.0	57.0	9.5	8.0	11.5	9.1	11.7	8.0	43.0	8,058,724
Urban	1.0	8.0	9.0	11.1	2.3	3.4	0.2	11.1	0.1	30.5	4.7	7.0	10.5	14.2	32.5	9.0	69.5	3,105,857
Samburu County	1.3	5.0	0.3	26.8	2.2	30.8	0:0	1.0	0.1	67.4	0.8	4.4	15.9	8.0	10.5	0.2	32.6	96,733
Samburu West Constituency	2.1	8.7	0.1	27.0	3.3	13.2	0:0	2.3	0.1	56.8	1:1	3.4	20.8	1.2	16.4	0.3	43.2	37,095
Lodokejek	1.0	6.1	0.0	26.5	4.4	18.7		1.1		57.8	3.8	1.3	31.6	0.1	5.3	0.0	42.2	7,685
SugutaMarmar	1.9	10.0		14.7	10.6	27.9		0.1	0.1	65.3	0.4	10.2	13.9	0.5	9.8	ı	34.7	6,016
Maralal	1.9	7.7	0.0	8.7	0.5	5.7	0:0	5.4	0.2	30.2	0.4	1.5	28.8	2.9	35.7	0.5	8.69	14,228

Loosuk	2.3	17.0	6:0	58.8	1.1	11.0				91.2	0.2	6.9	1.3		0.2	0.2	8.8	4,575
Porro	4.8	0.9	0.1	69.1	2.3	10.2	1	ı	ı	92.5	0.1	9.0	6.5	ı	,	0.3	7.5	4,591
Samburu North Constituency	7.0	3.5	0.7	20.2	2.0	45.3	0.0	0.2		72.7	0.5	6.1	13.1	0.7	6.9	1	27.3	32,087
El Barta	0.7	13.8	0.1	25.7	2.2	37.3	0.1	0.3		80.2	9.0	16.5	2.7				19.8	6,141
Nachola			,	7.4	'	67.4		0.3	,	75.1		6.7	18.3				24.9	3,833
Ndoto	0.2			7.4	0.4	60.4				68.4	0.5	5.2	21.6	0.2	4.2		31.6	6,282
Nyiro	0.4		3.7	25.9	6:0	26.5		0.5	,	58.0	9.0	2.0	9.6	8.0	29.9		42.0	6,166
AngataNanyukie	3.8	3.7		13.3	6.4	37.7		0.1		65.1	1.1	4.7	26.7		2.3		34.9	3,689
Baawa		2.3		34.7	3.0	47.7				87.7	0.4	1.4	7.8	2.6	0.1		12.3	5,976
Samburu East Constituency	0.7	1.9	0.0	34.0	6:0	37.5	0.1	0.2	0.0	75.4	0.9	3.8	12.4	0.4	9.9	0.4	24.6	27,551
Waso		0.1	,	40.0	7:	32.6		0.3		74.5	3.2	9.3	10.5	0.0	5.6	,	25.5	7,047
Wamba West	0.0	3.0	0.1	38.5	7.0	49.3		0.1		91.7	0.2	2.8	3.9			1.5	8.3	7,708
Wamba East	6.0			20.5	9.0	22.2	0.5	0.3	0.2	45.1	0.1	0.3	29.8	1.4	23.2		54.9	7,084
Wamba North	2.3	5.0	,	37.3	1.1	46.7		1	ı	92.4	0.1	2.7	4.9	ı	,	-	9.7	5,712

Table 37.26: Human Waste Disposal by County, Constituency and Ward

County/ Constituency	Main Sewer	Septic Tank	Cess Pool	VIP Latrine	Pit Latrine	Improved Sanitation	Pit Latrine Uncovered	Bucket	Bush	Other	Unim- proved Sanitation	Number of HH Memmbers
Kenya	5.91	2.76	0.27	4.57	47.62	61.14	20.87	0.27	17.58	0.14	38.86	37,919,647
Rural	0.14	0.37	0.08	3.97	48.91	53.47	22.32	0.07	24.01	0.13	46.53	26,075,195
Urban	18.61	8.01	0.70	5.90	44.80	78.02	17.67	0.71	3.42	0.18	21.98	11,844,452
Samburu County	0.13	0.52	0.06	1.52	17.43	19.66	4.93	0.04	75.30	0.06	80.34	221,285
Samburu West Constituency	0.12	0.96	0.16	2.57	28.65	32.45	4.23	0.03	63.26	0.03	67.55	82,112
Lodokejek	0.00	0.32	0.09	0.97	14.98	16.35	1.40	0.01	82.22	0.02	83.65	13,961
SugutaMarmar	0.06	0.00	0.00	1.31	17.96	19.33	0.46	0.00	80.21	0.00	80.67	11,662
Maralal	0.26	2.06	0.33	4.53	44.81	51.98	7.19	0.06	40.74	0.03	48.02	35,701
Loosuk	0.00	0.00	0.00	0.36	18.05	18.41	4.12	0.00	77.46	0.01	81.59	10,220
Porro	0.00	0.05	0.00	1.56	14.20	15.81	2.20	0.00	81.89	0.09	84.19	10,568
Samburu North Constituency	0.00	0.03	0.00	0.14	10.72	10.89	8.12	0.06	80.86	0.07	89.11	81,051
El Barta	0.00	0.00	0.03	0.11	23.37	23.51	24.32	0.11	51.94	0.12	76.49	13,554
Nachola	0.00	0.00	0.00	0.07	14.17	14.24	11.96	0.09	73.67	0.03	85.76	11,612
Ndoto	0.00	0.00	0.00	0.07	9.68	9.76	5.99	0.02	84.19	0.04	90.24	14,901
Nyiro	0.00	0.08	0.00	0.23	6.85	7.15	4.50	0.08	88.23	0.05	92.85	19,544
AngataNanyukie	0.00	0.06	0.00	0.09	8.02	8.17	0.73	0.07	90.83	0.20	91.83	9,704
Baawa	0.00	0.00	0.00	0.20	2.70	2.91	0.43	0.00	96.66	0.00	97.09	11,736
Samburu East Constituency	0.33	0.58	0.02	1.98	10.93	13.83	1.50	0.01	84.55	0.11	86.17	58,122
Waso	0.43	1.68	0.00	4.77	13.22	20.10	1.05	0.01	78.58	0.26	79.90	17,311
Wamba West	0.00	0.15	0.07	0.14	3.04	3.40	0.03	0.00	96.51	0.06	96.60	13,648
Wamba East	0.74	0.11	0.00	1.91	22.29	25.05	4.03	0.01	70.87	0.04	74.95	15,722
Wamba North	0.00	0.06	0.00	0.06	1.27	1.39	0.45	0.03	98.10	0.03	98.61	11,441

Table 37.27: Human Waste Disposal in Male Headed household by County, Constituency and Ward

County/ Constituency/ wards	Main Sewer	Septic Tank	Cess Pool	VIP Latrine	Pit Latrine	Improved Sanitation	Pit Latrine Uncovered	Bucket	Bush	Other	Unim- proved Sanitation	Number of HH Memmbers
Kenya	6.30	2.98	0.29	4.60	47.65	61.81	20.65	0.28	17.12	0.14	38.19	26,755,066
Rural	0.15	0.40	0.08	3.97	49.08	53.68	22.22	0.07	23.91	0.12	46.32	18,016,471
Urban	18.98	8.29	0.73	5.89	44.69	78.58	17.41	0.70	3.13	0.18	21.42	8,738,595
Samburu County	0.15	0.71	0.08	1.63	18.80	21.37	4.60	0.03	73.91	0.08	78.63	124,552
Samburu West Constituency	0.17	1.27	0.20	2.93	30.90	35.46	4.46	0.00	60.05	0.03	64.54	45,017
Lodokejek	0.00	0.61	0.06	1.18	16.05	17.89	1.34	0.00	80.72	0.05	82.11	6,276
SugutaMarmar	0.12	0.00	0.00	1.70	19.48	21.31	0.50	0.00	78.20	0.00	78.69	5,646
Maralal	0.32	2.49	0.39	4.78	46.16	54.13	6.92	0.00	38.94	0.00	45.87	21,473
Loosuk	0.00	0.00	0.00	0.50	18.39	18.88	4.87	0.00	76.23	0.02	81.12	5,645
Porro	0.00	0.00	0.00	1.54	14.29	15.83	2.28	0.00	81.73	0.17	84.17	5,977
Samburu North Constituency	0.00	0.02	0.01	0.11	11.49	11.63	6.64	0.07	81.58	0.08	88.37	48,964
El Barta	0.00	0.00	0.05	0.07	26.36	26.48	19.20	0.00	54.27	0.05	73.52	7,413
Nachola	0.00	0.00	0.00	0.05	14.27	14.32	8.90	0.14	76.60	0.04	85.68	7,779
Ndoto	0.00	0.00	0.00	0.06	10.92	10.98	5.51	0.03	83.41	0.07	89.02	8,619
Nyiro	0.00	0.07	0.00	0.16	6.32	6.55	4.28	0.10	89.00	0.07	93.45	13,378
AngataNanyukie	0.00	0.03	0.00	0.05	9.76	9.84	1.10	0.07	88.69	0.30	90.16	6,015

Baawa	0.00	0.00	0.00	0.24	3.26	3.51	0.43	0.00	96.06	0.00	96.49	5,760
Samburu East Constituency	0.35	1.00	0.03	2.18	12.68	16.24	1.54	0.02	82.04	0.16	83.76	30,571
Waso	0.56	2.64	0.00	4.68	14.35	22.22	0.94	0.02	76.41	0.41	77.78	10,264
Wamba West	0.00	0.30	0.17	0.12	4.71	5.30	0.03	0.00	94.53	0.13	94.70	5,940
Wamba East	0.57	0.10	0.00	1.99	23.59	26.26	4.14	0.00	69.60	0.00	73.74	8,638
Wamba North	0.00	0.12	0.00	0.12	1.50	1.75	0.28	0.07	97.91	0.00	98.25	5,729

Table 37.28: Human Waste Disposal in Female Headed Household by County, Constituency and Ward

County/ Constituency	Main Sewer	Septic Tank	Cess Pool	VIP Latrine	Pit Latrine	Improved Sanitation	Pit Latrine Uncovered	Bucket	Bush	Other	Unim- proved Sanitation	Number of HH Memmbers
Kenya	5.0	2.2	0.2	4.5	47.6	59.5	21.4	0.3	18.7	0.2	40.5	11,164,581.0
Rural	0.1	0.3	0.1	4.0	48.5	53.0	22.6	0.1	24.2	0.1	47.0	8,058,724.0
Urban	17.6	7.2	0.6	5.9	45.1	76.4	18.4	0.7	4.3	0.2	23.6	3,105,857.0
Samburu	0.1	0.3	0.0	1.4	15.7	17.5	5.4	0.0	77.1	0.0	82.5	96,733.0
Samburu West	0.1	0.6	0.1	2.1	25.9	28.8	3.9	0.1	67.2	0.0	71.2	37,095.0
Lodokejek	0.0	0.1	0.1	0.8	14.1	15.1	1.4	0.0	83.4	0.0	84.9	7,685.0
SugutaMarmar	0.0	0.0	0.0	0.9	16.5	17.5	0.4	0.0	82.1	0.0	82.5	6,016.0
Maralal	0.2	1.4	0.2	4.1	42.8	48.7	7.6	0.1	43.5	0.1	51.3	14,228.0
Loosuk	0.0	0.0	0.0	0.2	17.6	17.8	3.2	0.0	79.0	0.0	82.2	4,575.0
Porro	0.0	0.1	0.0	1.6	14.1	15.8	2.1	0.0	82.1	0.0	84.2	4,591.0
Samburu North	0.0	0.0	0.0	0.2	9.6	9.8	10.4	0.1	79.8	0.0	90.2	32,087.0
El Barta	0.0	0.0	0.0	0.2	19.8	19.9	30.5	0.2	49.1	0.2	80.1	6,141.0
Nachola	0.0	0.0	0.0	0.1	14.0	14.1	18.2	0.0	67.7	0.0	85.9	3,833.0
Ndoto	0.0	0.0	0.0	0.1	8.0	8.1	6.7	0.0	85.3	0.0	91.9	6,282.0
Nyiro	0.0	0.1	0.0	0.4	8.0	8.4	5.0	0.0	86.5	0.0	91.6	6,166.0
AngataNanyukie	0.0	0.1	0.0	0.2	5.2	5.4	0.1	0.1	94.3	0.0	94.6	3,689.0
Baawa	0.0	0.0	0.0	0.2	2.2	2.3	0.4	0.0	97.2	0.0	97.7	5,976.0
Samburu East	0.3	0.1	0.0	1.8	9.0	11.2	1.4	0.0	87.3	0.0	88.8	27,551.0
Waso	0.2	0.3	0.0	4.9	11.6	17.0	1.2	0.0	81.7	0.0	83.0	7,047.0
Wamba West	0.0	0.0	0.0	0.2	1.8	1.9	0.0	0.0	98.0	0.0	98.1	7,708.0
Wamba East	0.9	0.1	0.0	1.8	20.7	23.6	3.9	0.0	72.4	0.1	76.4	7,084.0
Wamba North	0.0	0.0	0.0	0.0	1.0	1.0	0.6	0.0	98.3	0.1	99.0	5,712.0



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The Kenya National Bureau of Statistics (KNBS) is a semi-autonomous organization established under Statistics Act 2006 as the principal agency for collecting, compiling, analyzing, publishing and disseminating statistical information needed for planning and policy formulation and is the custodian of official statistical information. More specifically the Bureau is charged with responsibility of: planning, authorizing, co-coordinating and supervising all official statistical programmes undertaken within the National Statistical System (NSS); establishing standards and promoting the use of best practices and methods in the production and dissemination of statistical information across the NSS; collecting, compiling, analyzing, abstracting and disseminating statistical information on matters specified in the First Schedule of the Statistics Act; conducting population and housing census every ten years, and such other censuses and surveys as the board may determine; and maintaining a comprehensive and reliable national socio-economic database.

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