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BASIC REPORT ON WELL-BEING IN KENYA

Based on the 2015/16
Kenya Integrated Household
Budget Survey
(KIHBS)

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THE REPUBLIC OF KENYA

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FOREWORD

The Government of Kenya's long-term economic blueprint, Vision 2030, aims at transforming Kenya into "a newly-industrialising, middle-income country providing a high quality of life to all its citizens in a clean and secure environment". The Social Pillar of Vision 2030, "Enhanced Equity and Wealth Creation Opportunities for the Poor", underscores the Government's commitment to eliminate poverty. This Vision is given more impetus by the Sustainable Development Goals (SDGs) and decentralized system of government.

The planning, monitoring and evaluation of programmes at the national and county levels, the SDGs and other international targets require quality statistics. This report is, therefore, a significant milestone as it is the first report on poverty under the devolved governance framework and coincides with the formulation of the third Medium Term Plan (MTP III) and the second generation of County Integrated Development Plans (CIDPs). The report also integrates, for the first time, child poverty measures based on expenditure analysis.

One of the major findings in this report is that over the last ten years, the welfare of Kenyans has shown significant improvements. Further, the findings suggest that while headcount poverty declined across the country since 2005/06, there remain few geographic areas with high pockets of the population of 16.4 million individuals living below the overall poverty line of KSh 5,995 per adult per month.

The notable poverty decline could be attributed to the fact that more resources have been devolved to the counties. There have also been many pro-poor programmes such as; social protection programmes for the poor and vulnerable groups, initiatives for communities in arid and semi-arid areas where both the incidence and depth of poverty are high, and affirmative action in public procurement and access to credit in favour of the youth and women.

The information presented in this report will greatly strengthen the equity agenda as well as inform policy options geared towards poverty reduction, and sharpen the targeting of needy socio-economic groups not only by the Government but also by the private sector, development partners, civil society and Kenyans at large.

The Government extends sincere appreciation to the World Bank for its all-round financial and technical support provided through the Kenya Statistics Program-for-Results (KSPforR) and the United Nations Children's Fund, Kenya Country Office (UNICEF-KCO) for its support during the analysis and report preparation.

I would like to congratulate the core technical team for their excellent work and extend my special gratitude to Mr. Zachary Mwangi, Director General KNBS, for his leadership and role in the Kenya Integrated Household Budget Survey.

Dr. Julius M. Muia, PhD, EBS
PRINCIPAL SECRETARY
STATE DEPARTMENT FOR PLANNING

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This basic report on well-being in Kenya was prepared with substantive contributions from many institutional and individual stakeholders. I would like to express my appreciation to all those who contributed in various ways including planning, data collection, analyses and the final drafting and finalisation of this report. Specifically, I wish to express my gratitude to over 30,000 individuals from across the 47 counties including: over 250 national and international stakeholders who participated in the consultations convened to guide the design of the survey instruments. I also recognise the 323 field personnel, 75 KNBS staff who supervised and coordinated data collection activities; and over 10 thousand community leaders and focus group discussion participants for their involvement in publicity and data collection. The over 21 thousand households who contributed to this report as respondents to the 2015/16 KIHBS, on which this report is based, also deserve my sincere appreciation for their invaluable time and information. The collective efforts of all stakeholders resulted in new statistics to measure the progress made in well-being over the past decade and to benchmark and inform policies.

I commend the KNBS Directors – Mr. James Gatungu, Mr. Collins Omondi, Mr. Cleophas Kiio, Dr. Margaret Nyakang'o and Mr. Macdonald Obudho - for their guidance and encouragement throughout the entire process. I recognise the KNBS poverty analysis core team comprising of Mr. Samuel Kipruto, Mr. Paul Samoei and Ms. Mary Wanyonyi who worked tirelessly and with great dedication to ensure successful finalisation of this report. Excellent support to the core team was provided by Mr. John Bore, Mr. Canabel Oganga, Ms. Sarah Omache, Mr. Benjamin Muchiri and Ms. Rosemary Chepkoech. Mr. George Kamula was instrumental in producing, with high precision, all the maps in this report.

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The Bureau acknowledges the technical contribution by Mr. Godfrey Ndeng'e of UNICEF who worked alongside the KNBS team in the data analysis and report preparation. The KNBS remains indebted to the distinguished panel of external peer reviewers - Professor Germano Mwabu of the University of Nairobi; and Dr. Nancy Nafula of KIPPRA, for their invaluable comments and suggestions that led to the overall improvement of this report.

Asante Sana!

Zachary Mwangi
DIRECTOR GENERAL
KENYA NATIONAL BUREAU OF STATISTICS

ACRONYMS AND ABBREVIATIONS

CAPI	Computer Assisted Personal Interviews
CBN	Cost-Of-Basic Needs
CBR	Central Bank Rate
CIDPs	County Integrated Development Plans
CHSP	Continuous Household Survey Programme
COICOP	Classification Of Individual Consumption By Purpose
CoK	Constitution Of Kenya
COMESA	Common Market For Eastern And Southern Africa
CPI	Consumer Price Index
CSO	County Statistics Officer
CSPro	Census And Survey Processing System
CT- OVC	Cash Transfer For Orphans And Vulnerable Children
EAC	East African Community
EAs	Enumeration Areas
FGDs	Focus Group Discussions
FGT	Foster, Greer And Thorbecke
GDP	Gross Domestic Product
GoK	Government Of Kenya
HBS	Household Budget Survey
HH	Household
HSNP	Hunger Safety Net Programme
HQ	Head Quarter
ICT	Information Communication Technology
KCHBS	Kenya Continuous Household Budget Survey
KIHBS	Kenya Integrated Household Budget Survey
KNBS	Kenya National Bureau Of Statistics
KNPHLS	Kenyan National Public Health Laboratory Services
KPHC	Kenya Population And Housing Census
KSh	Kenya Shilling
KSPforR	Kenya Statistics Programme-for-Results
MTP	Medium Term Plan
NASSEP V	The Fifth National Sample Survey And Evaluation Programme
NSNP	National Safety Net Programme
OLS	Ordinary Least Squares
OPCT	Older Persons Cash Transfer
PAPI	Paper Assisted Personal Interviews
PWSD-CT	Persons With Severe Disabilities Cash Transfer
RHBS	Rural Household Budget Survey
SDGs	Sustainable Development Goals
SNA	System Of National Accounts
SYSRS	Systematic Random Sampling
UHBS	Urban Household Budget Surveys
UNICEF	United Nations Children's Fund
VFP	Visual Foxpro
WHO	World Health Organization
WMS	Welfare Monitoring Survey

EXECUTIVE SUMMARY

Background

The Government of Kenya's long-term economic blueprint, Vision 2030, aims at transforming Kenya into "a newly-industrialising, middle-income country providing a high quality of life to all its citizens in a clean and secure environment". The Social Pillar of Vision 2030, "Enhanced Equity and Wealth Creation Opportunities for the Poor", underscores the Government's commitment to eliminate poverty. This Vision is given more impetus by Sustainable Development Goals (SDGs) and devolution.

The 2015/16 KIHBS is the second Integrated Household Budget Survey (HBS) to be undertaken in Kenya and the first under the devolved system of government. The Government of Kenya financed the survey through the World Bank-supported Kenya Statistics Programme-for-Results (KSPforR) project. The survey was undertaken to provide integrated household survey data on a wide range of indicators to assess the progress made in improving the living standards of the population at both national and county level. This survey was also conducted to inform and provide benchmark indicators to monitor the third Medium Term Plan (MTP III) and Kenya's progress towards achievement of the Sustainable Development Goals (SDGs).

The 2015/16 KIHBS was a population-based survey designed to provide estimates for various indicators representative at the national level, each of the 47 counties, and place of residence (rural and urban areas).

According to the derived poverty lines, households whose adult equivalent food consumption expenditure per person per month fell below KSh 1,954 in rural areas and KSh 2,551 in urban areas were deemed to be food poor. Similarly, households whose overall consumption expenditure fell below KSh 3,252 and KSh 5,995 in rural and urban areas, respectively, per person per month were considered to be overall poor. Further, all those households that could not afford to meet their basic food requirements with all their total expenditure (food and non-food) were deemed to be hard-core/ extreme poor.

Highlights Of Major Findings

Overall (Absolute) Poverty

One of the key findings in this report is that over the last ten years, the welfare of Kenyans has shown significant improvements with overall headcount poverty recording a 10.5 percentage point drop. The findings suggest that while headcount poverty declined across the country since 2005/06, there remain few geographic areas with high pockets of the population living below the poverty line.

The overall national poverty headcount rate (proportion of poor individuals) dropped from 46.6 per cent in 2005/06 to 36.1 per cent in 2015/16. The findings also show that the total population of poor individuals declined from 16.6 million in 2005/06 to 16.4 Million in 2015/16 even though the country's entire population increased by approximately 10 million over the two periods. Analysis of poverty based on households at the national level shows a decline from 38.3 per cent in 2005/06 to 27.4 per cent of all households covered in 2015/16. Regarding rural and urban dichotomy, the overall rural poverty rate for individuals declined faster than that of core-urban from 49.7 percent in 2005/06 to 40.1 percent in 2015/16. Spatially, across the 47 counties, overall headcount poverty (proportion of poor individuals) widely ranges from a low of 16.7 per cent in Nairobi City County to a high of 79.4 per cent in Turkana County. In 2015/16, the poorest four counties were Turkana (79.4 %), Mandera (77.6%), Samburu (75.8%) and Busia (69.3%). Conversely, the four counties with least poverty include Nairobi (16.7%), Nyeri (19.3%), Meru (19.4%) and Kirinyaga (20.0%).

Food Poverty

The national food poverty headcount rate (proportion of food poor individuals) declined significantly from 45.8 per cent in 2005/06 to 32.0 percent in 2015/16, implying that in the last ten years, the incidence of food poverty dropped by over 13 percentage points. The results also indicate that the total population of food poor individuals declined substantially from 16.3 Million in 2005/06 to 14.5 Million in 2015/16. The analysis of food poverty by place of residence shows that 35.8 per cent of individuals in rural areas were food poor in 2015/16 compared to their counterparts in core-urban (24.4%) and peri-urban (28.9%) areas. In 2005/06, 47.2 per cent of individuals were deemed to be food poor in rural areas compared to 40.4 percent in core-urban. Over the review period, food poverty rates declined by 11.4 percentage points in rural areas and 16.6 percentage points in core-urban areas implying a more rapid drop for core-urban dwellers. Further, there are considerable variations in the prevalence of food poverty across the counties ranging from 16.1 per cent in Nairobi City County to 66.1 per cent in Turkana County. In 2015/16, six counties registered food poverty rates of more than half their population. These were: Turkana (66.1%), Mandera (61.9%), Samburu (60.1%), Busia (59.5%) and West Pokot (57.3%). Conversely, another six counties recorded food poverty rates of less than 20 percent, namely; Meru and Nyeri (15.5%) each, Nairobi City (16.1 %), Kirinyaga (18.8 %) Nakuru (19.5%) and Lamu (19.9%). The contribution to national food poverty by counties shows that five counties account for almost a quarter of the national food poor.

Hard-core (Extreme) Poverty

Survey findings show that hard-core or extreme poverty declined significantly by more than half from 19.5 per cent in 2005/06 to 8.6 per cent in 2015/16 with huge disparities over space. During the period under review, the prevalence of hard-core poor more than halved in core-urban areas from 8.3 percent to 3.4 per cent and similarly halved in rural areas from 22.3 per cent in 2005/06 to 11.2 per cent in rural areas. Geographically, there are pockets of high concentrations of hard-core poor located in a few counties. Turkana County alone accounts for close to 15 per cent of the hard-core poor in Kenya. Overall, about 84 per cent of the total hard-core poor (3.9 Million) are found in rural areas.

Income Inequality (expenditure-based)

Quintile Analysis

The results show that nationally, more than half (55.9 %) of total expenditure is controlled by the topmost quintile (Q5) while the bottom quintile (Q1) controls the least share of 4.1 per cent. This national pattern is consistently replicated across the rural, peri-urban and core-urban areas. However, among the core-urban dwellers, more than 90 per cent of total household expenditure is controlled by the uppermost two quintiles (Q4 and Q5). Over space across the 47 counties, the distribution of spending by quintiles shows that for all counties that exhibited high poverty rates, the two bottom quintiles control relatively larger shares of expenditures compared to counties depicting relatively lower poverty rates. On the other hand, counties with significant components of the urban population present skewed expenditures in favour of the uppermost quintiles.

Poverty and Sex of Household Head

Households headed by females are likely to be poorer than those headed by males. Female-headed households account for 32.4 per cent of all households. The results reveal that 30.2 per cent of female-headed households are poor compared to 26.0 per cent of their male counterparts.

Poverty and Marital Status of Household Head

Overall, 42.8 per cent of households whose headship is in a polygamous union are poor compared to 27.2 per cent of their counterparts in monogamous unions. The poverty rates (45.5%) are worse for households headed by females in a polygamous union. Conversely, households headed by persons who have never married exhibit the least poverty rates across all domains of analysis. (rural, peri-urban and core-urban).

Poverty and Household Size

The findings show that poverty increases with an increase in household size. At the national level, households with one to three members recorded the least poverty headcount rate of 14.7 per cent compared to 54.1 per cent (more than half) of households with seven or more members. This pattern holds across all the domains of analysis.

Poverty and Education Level of Household Head

Poverty rates decrease with increase in the education level of household head. The headcount poverty rates were highest among households headed by individuals with no formal education and lowest in households where the headship had acquired a tertiary level of education or higher.

Poverty and Age of Household Head

Analysis of poverty by age of the household head indicates that the poverty rate increases as the age of the household head increases, except for households headed by persons in the 15-19 age group. Households headed by older persons (60 years and above) recorded a high poverty rate of 36.3 per cent and contributed a high share of 22.9 per cent of the poor.

Child Poverty

Overall (Absolute) Poor Children: The headcount poverty prevalence among households with children is estimated at 33.7 per cent compared to 13.5 per cent of households with no children. Nationally, 41.5 per cent of all children (aged 17 years or less) are categorised as poor. In other words, slightly more than 9 million children live in poor households.

The analysis of child poverty by age group shows that among all the primary school going age group (aged 6-13 years), 43.9 per cent are poor. Similarly, among all the secondary school going age group (aged 14-17 years), 43.8 per cent are poor. In absolute numbers, rural areas account for approximately 6.7 million poor children compared to 1.9 million poor children in urban areas.

Geographically at the county level, the prevalence of child poverty ranges from about 20 per cent in Meru to almost 83 per cent in Turkana. Regarding contribution to overall child poverty at the county level, Turkana which has the highest child poverty prevalence also contributes the highest share of 5.9 per cent of poor children in Kenya. Kakamega County contributes the second highest share of 4.4 per cent of total poor children.

Food Poor Children: The 2015/16 KIHBS analysis of food poverty among children (aged 0-17 years) shows that nationally, 35.8 per cent were food poor. Similar to the overall child poverty pattern, the majority (73.6%) of food poor children reside in rural areas, which is equivalent to 5.9 million children. Spatially, the prevalence of food poverty among children from the 47 Counties shows huge variations ranging from a low of 16.3 per cent in Nyeri County to a high of 69.2 per cent in Turkana County. The highest food prevalence rates among children were registered in the following counties; Turkana (69.2%), Samburu (63.5%), Mandera (62.5%) and Busia (62.1%).

Poverty among the Youth and Elderly: The survey findings show that overall poverty rates increase with advancement in the age of individuals and this pattern holds across the major domains of analysis, notably; rural, peri-urban and core-urban. Counties with a high prevalence of poverty among the youth (aged 18-35 years), were Mandera (75.9%), Turkana (70.5%), Samburu (66.8%) and Busia (64.3%).

Summary, Conclusion and Recommendations

In summary, over the last ten years, the country has seen development gains of unprecedented magnitude compared to the early post-independence years. Tremendous gains have been experienced ranging from improved maternal and child survival to increased primary school enrolments, poverty reduction and general improvements in human well-being. However, despite all these major improvements in the well-being of Kenyans, the report also presents evidence of pockets of extreme poor counties and unequal socioeconomic groups that if left unaddressed could hamper future progress and development. Regarding income inequality, while the Gini Coefficient shows a decline over the last ten years, quintile analysis shows that invariably across all domains of analysis, the largest share of household expenditures is controlled by the two uppermost quintiles (Q4 and Q5).

Conclusion

The evidence on the status of poverty and inequality suggests that good progress has been made in protecting many citizens from falling into poverty. However, the burden of the poor is still significant and could be exacerbated by the threat of existing relatively high and persistent inequalities, calling for concerted efforts and commitment from all stakeholders to ensure that no one is left behind.

Recommendations

At the macroeconomic level, the focus should be on the two major potentially complementary factors that can reduce poverty and income inequalities, notably higher overall economic growth; and a shift in the distribution of incomes that favours poorer people. In addition, strengthened labour markets could reduce disparities through expanding job opportunities by offering opportunities to people previously excluded from growth, such as the low-skilled workers, the youth and women, especially from marginalised areas.

At the sectoral level, commitment to policies aimed at making income distribution more equitable through affordable public services remains crucial. A vital component of a sectoral intervention in this respect should include a strategy designed to boost poor people's access to essential services, including health care, primary education, and water and sanitation.

Institutional (KNBS): The data capture technology for the Continuous Household Survey Programme (CHSP) was tested roughly during the 2015/16 KIHBS in anticipation that the survey would provide a regular stream of comparable household survey data to monitor key national indicators on a quarterly basis and key county level indicators on an annual basis.

Analysis and presentation of data by place of residence are critical as they guide the formulation of area-specific policy interventions. The report provided poverty data at the national, rural, urban and county level. There is, therefore, a need for more in-depth analysis and adoption of modern estimation techniques, including the Small Area Estimation, to derive lower level poverty estimates. Future studies should also incorporate complementary non-money metric measures of poverty such as the asset/wealth index, Multi-Dimensional Poverty Index (MPI) and Multi-Overlapping Deprivation Analysis (MODA) for a comprehensive understanding of the current poverty dynamics.

Information on quantities of calories for various food items in Kenya was sourced from the Food and Nutrition Cooperation ECSA (1987). There is therefore a need to conduct another study to develop new calorific amounts that captures the current lifestyles and food substitution practices among Kenyans.

CHAPTER ONE

Introduction and Survey Methodology

CHAPTER ONE

Introduction and Survey Methodology

1.1 Introduction

Good quality data and statistics are an essential input to inform policy-making and decision-taking. The demand for socio-economic and demographic data emanates from multiple stakeholders, including; government, the private sector, research institutions, development partners and the media. Against the backdrop of an increasingly integrated, interconnected, data-driven and growing economy, users of statistics in Kenya are on the rise, and they require good quality data that is easily accessible, high-frequency, relevant, accurate and timely.

Quality data and statistics are key for monitoring the country's medium and long-term development plans (Vision 2030 and MTPs) and achievements made in various international commitments such as Sustainable Development Goals (SDGs). Moreover, the devolved system of government established by the Constitution of Kenya, 2010 has generated enormous demand for county specific statistics.

The 2013-2017 Strategic Plan of the Kenya National Bureau of Statistics (KNBS) was developed and is being implemented to meet the increasing demands for quality data. Under this strategy, the 2015/16 Kenya Integrated Household Budget Survey (KIHBS) was designed to capture a wide range of socio-economic indicators, such as; demographic, education, health, household consumption, expenditure patterns and sources of household income.

The first Household Budget Survey (HBS) in Kenya, namely the Rural Household Budget Survey (RHBS) was conducted in 1981/82, followed by the Urban Household Budget Surveys (UHBS) of 1983/84 and 1993/94. The Bureau undertook the Welfare Monitoring Survey (WMS) series in 1992, 1994 and 1997. Subsequently, the Kenya Integrated Household Budget Survey (KIHBS) was conducted in 2005/06 as the first integrated year-long HBS to yield nationally and sub-nationally representative data. The 2015/16 KIHBS is therefore the second integrated HBS to be undertaken in Kenya and the first such survey under the devolved system of government. The survey was financed by the Government of Kenya through the World Bank supported Kenya Statistics Programme-for-Results (KSPforR) project.

1.2 Objectives of the 2015/16 KIHBS

The 2015/16 KIHBS was undertaken to provide integrated household survey data on a wide range of indicators to assess the progress made in improving the living standards of the population at both national and county level. This survey was also conducted to inform and provide benchmark indicators to monitor the third Medium Term Plan (MTP III) and Kenya's progress towards achievement of the Sustainable Development Goals (SDGs).

Specifically, the Survey was designed to generate data towards meeting multiple statistical production objectives, including:

a. Computation of updated poverty and inequality indicators at national and county levels;
b. Informing monetary, non-monetary and multi-dimensional indicators and socio-economic profiles of living standards;
c. Computation of updated labour force indicators;
d. Computation of updated consumption baskets to produce new Consumer Price Index (CPI) series;
e. Provide data to update the household sector and the agriculture and livestock input-output structure of the System of National Accounts (SNA) and;
f. Provide ancillary data collected using Computer Assisted Personal Interviews (CAPI) to test the scope of implementing the Continuous Household Survey Programme (CHSP).

1.3 Sample Design and Selection

The 2015/16 KIHBS was a population-based survey designed to provide estimates for various indicators representative at the national level, each of the 47 counties, and place of residence (rural and urban areas). The sample size was calculated independently for each county based on household numbers from the 2009 census, resulting in a national sample of 24,000 households. This sample was further distributed to the urban and rural strata using power allocation method. The distribution of the sample is shown in Table 1.1.

The 2015/16 KIHBS sample was drawn from the fifth National Sample Survey and Evaluation Programme (NASSEP V) household sampling frame, which is the frame that the Bureau currently operates to conduct household-based surveys in Kenya. The frame consists of 5,360 clusters split into four equal sub-samples. The clusters in the frame were drawn from approximately 96,000 enumeration areas (EAs) of the 2009 Kenya Population and Housing Census. The frame is stratified into urban and rural areas within each of the 47 counties resulting in 92 sampling strata with Nairobi and Mombasa Counties being wholly urban.

The sampling for the survey was done in three phases. In the first phase, a total of 2,400 clusters (988 in urban and 1,412 in rural areas) were sampled from NASSEP V sampling frame while the second phase involved selection of 16 households from each of the clusters. The third phase involved the sub-sampling of 10 households (from the 16 households) for the main KIHBS with the remaining six earmarked for the Continuous Household Survey Programme (CHSP)[1]. Further, five households from each cluster were randomly selected among the 10 KIHBS households and targeted for the administration of diaries.

The 2015/16 KIHBS sample was divided into four quarters (a consecutive 3-month period) to capture seasonality. Each of the 2,400 clusters was randomly assigned into a quarter to generate nationally representative quarterly samples of approximately 600 clusters that can be analysed independently.

1.4 Data Weighting

Weighting for the 2015/16 KIHBS data was done and the resultant adjusted weights applied during analysis, necessitated by the survey data being not self-weighting since the sample allocation was not proportional to the size of the strata. Additionally, some of the sampled households did not respond to the interviews while others could not be accessed due to various reasons. The resulting data has therefore been weighted to be representative at the national level as well as at the county level.

The sampling weights W are calculated simply as the inverse of the product of these selection probabilities. The probability (P) of selecting a 2015/16 KIHBS household is the product of four factors, P_i:

Where;

$$P = \prod_{i=1}^{4} P_i$$

P_1 = the probability of selecting the EA for the NASSEP V master sample among all the EAs in the 2009 Population and Housing Census;

P_2 = the probability of selecting the EA segment to form a cluster among all segments in the EA;

P_3 = the probability of selecting the cluster for the 2015/16 KIHBS, among all the clusters in the NASSEP V master sample; and

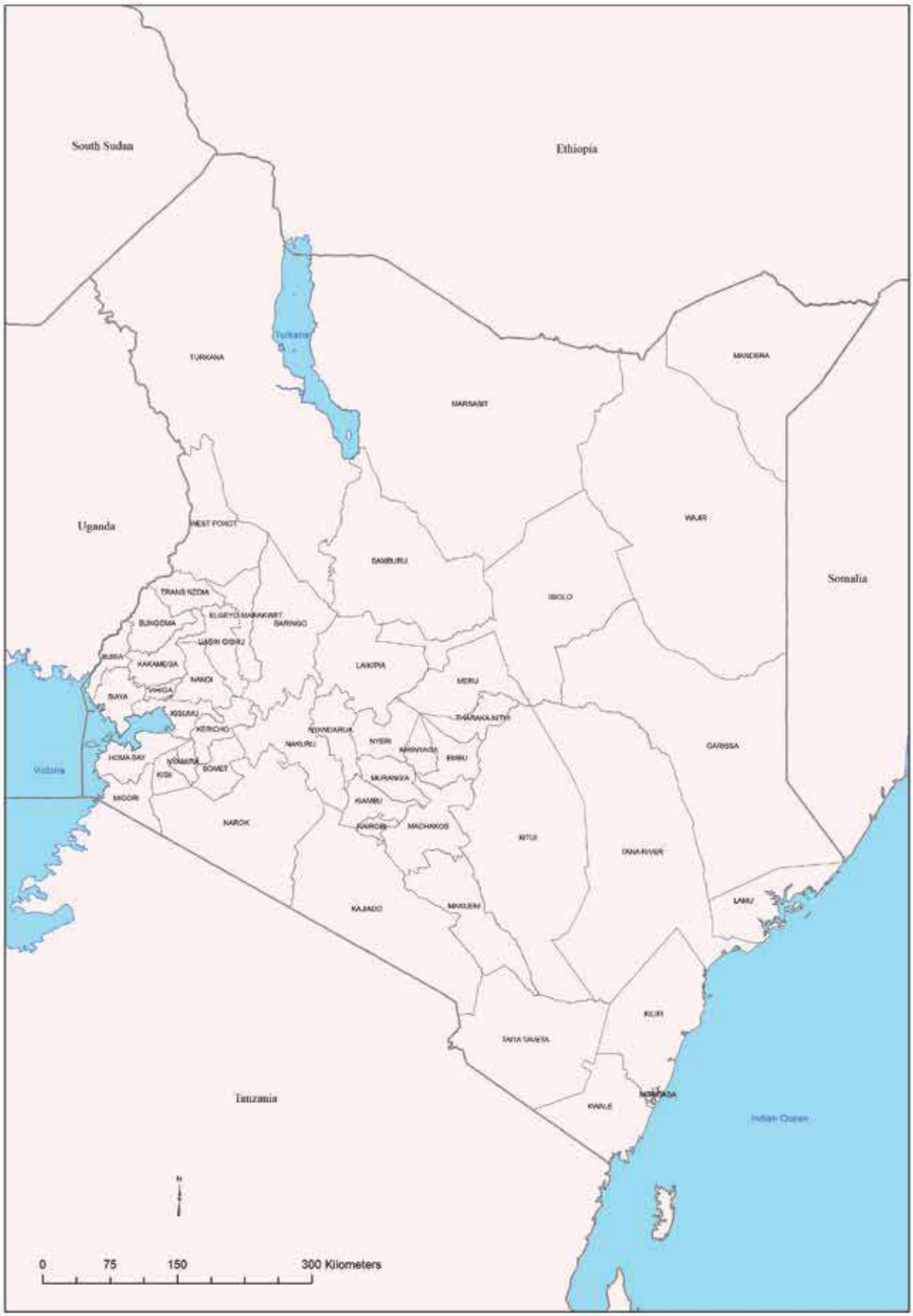
P_4 = the probability of selecting the household among all the households listed in the cluster.

1 The survey provided an opportunity for testing data capture technology for the proposed Continuous Household Survey Programme (CHSP) that is meant to produce key indicators on employment and poverty using Computer Assisted Personal Interviewing (CAPI) on a quarterly basis.

Table 1.1: Sampling Allocation for 2015/16 KIHBS

County Code	County	Number of Clusters			Number of Households		
		Rural	Urban	Total	Rural	Urban	Total
1	Mombasa	0	52	52	0	520	520
2	Kwale	32	20	52	320	200	520
3	Kilifi	28	24	52	280	240	520
4	Tana River	32	16	48	320	160	480
5	Lamu	24	20	44	240	200	440
6	Taita/Taveta	32	16	48	320	160	480
7	Garissa	32	20	52	320	200	520
8	Wajir	28	20	48	280	200	480
9	Mandera	32	16	48	320	160	480
10	Marsabit	28	16	44	280	160	440
11	Isiolo	24	20	44	240	200	440
12	Meru	40	16	56	400	160	560
13	Tharaka-Nithi	32	16	48	320	160	480
14	Embu	32	16	48	320	160	480
15	Kitui	36	16	52	360	160	520
16	Machakos	24	28	52	240	280	520
17	Makueni	36	16	52	360	160	520
18	Nyandarua	32	16	48	320	160	480
19	Nyeri	32	20	52	320	200	520
20	Kirinyaga	32	20	52	320	200	520
21	Murang'a	36	16	52	360	160	520
22	Kiambu	24	34	58	240	340	580
23	Turkana	32	16	48	320	160	480
24	West Pokot	36	12	48	360	120	480
25	Samburu	28	16	44	280	160	440
26	Trans Nzoia	32	20	52	320	200	520
27	Uasin Gishu	28	26	54	280	260	540
28	Elgeyo/Marakwet	32	16	48	320	160	480
29	Nandi	36	16	52	360	160	520
30	Baringo	32	16	48	320	160	480
31	Laikipia	32	20	52	320	200	520
32	Nakuru	28	30	58	280	300	580
33	Narok	36	12	48	360	120	480
34	Kajiado	24	24	48	240	240	480
35	Kericho	28	24	52	280	240	520
36	Bomet	36	16	52	360	160	520
37	Kakamega	36	16	52	360	160	520
38	Vihiga	28	20	48	280	200	480
39	Bungoma	36	16	52	360	160	520
40	Busia	36	16	52	360	160	520
41	Siaya	32	20	52	320	200	520
42	Kisumu	24	30	54	240	300	540
43	Homa Bay	32	20	52	320	200	520
44	Migori	28	24	52	280	240	520
45	Kisii	36	20	56	360	200	560
46	Nyamira	36	16	52	360	160	520
47	Nairobi City	0	72	72	0	720	720
	Total	**1,412**	**988**	**2,400**	**14,120**	**9,880**	**24,000**

Map 1.1: Map of Kenya by County



In the process of weighting, the sample required adjustments to cater for non-proportional distribution of clusters and non-response to provide estimates that are representative of the target population. The cluster weights were computed as the product of sample cluster design weight, household and cluster response adjustment factors as follows:

$$W_{ij} = D_{ij} \frac{S_{ij}}{I_{ij}} \frac{C_j}{c_j}$$

Where;

W_{ij} = overall final cluster weight for cluster i in stratum j;

D_{ij} = sample cluster design weight obtained from inverse of cluster selection probabilities for cluster i in stratum j;

S_{ij} = number of listed households in cluster i in stratum j;

I_{ij} = number of responding households in cluster i in stratum j;

C_j = number of clusters in stratum j; and

c_j = number of clusters selected from stratum j.

The weights were calibrated so that the aggregate matches the projected population number (as at mid-2016). Kenya's population projection for 2016 was estimated at 45.4 million people.

1.5 Amendments in Place of Residence for Poverty Analysis

As per the 2009 Kenya Population and Housing Census, three strata for a place of residence were created, namely: Rural; Core-Urban; and Peri-Urban and defined[2] as below:

Rural. This is a large and isolated part of an open or agricultural area, including trading, market and service centres with relatively low population concentrations of less than 2,000 people.

Urban. This is a built-up and compact human settlement with a population of at least 2,000 people defined without regard to the local authority boundaries. It usually is a trading, market and service centre that provides goods and services to both the resident and surrounding population and is therefore sometimes referred to as an urban centre.

Core-Urban: This is the central built-up area of an urban centre with intense use of land and highest concentration of service functions and activities.

Peri-Urban: This is the area beyond the central built-up area that forms the transition between urban and rural areas. As a result of the extension of town boundaries, peri-urban areas are formerly rural and agricultural lands that are gradually turning to urban land use.

Further, the Peri-Urban was merged with Core-Urban to create Urban stratum that has been used as a definition of Urban Areas by KNBS. Since Peri-Urban is categorised as an area in between Rural and Urban, the analysis of consumption and expenditure showed that they are more of Rural areas than Urban Areas.Therefore, data for this report has used three categories (Rural, Core-Urban, and Peri-Urban). The computation for consumption aggregates in Peri-Urban is the same as Rural.

2 Further information is provided in the Analytical Report on Urbanization, Volume VIII (March 2002), KNBS.

1.6 Survey Instruments

The 2015/16 KIHBS used a set of seven instruments[3]; three main questionnaires, two diaries, one market questionnaire and one community questionnaire. The three main questionnaires and diaries were administered to the households while the market and community questionnaires were administered at the cluster level. The seven questionnaires are:

a. The household members' information questionnaire; collected information on demographics, education, labour, health, fertility and mortality, child health and nutrition, ICT services and domestic tourism at the individual level.

b. The household level information questionnaire; collected information relating to housing, water, sanitation and energy use and agricultural holdings. Activities and outputs, livestock, household economic enterprises, transfers, income, credit, and recent shocks to household welfare, food security, justice, credit and ICT at the household level.

c. Household consumption expenditure information questionnaire; collected information relating to purchases and consumption of food, non-food and services in the household. The data obtained through this questionnaire instrument included expenses incurred by the households on food, house rent, health care, education, household goods and insurance among other things.

Two types of household diaries were given to the households for the recording of food items purchased and consumed over a seven-day period and were administered to five diary households in each sampled cluster. The diary households were trained on how to complete the two diaries. Because some households were illiterate or faced other challenges in completing the diaries, interviewers visited the five diary households every day to ensure diaries were being filled and to assist if required.

d. Household purchases diary; used to keep a record of food items purchased by members of the household.

e. Household consumption expenditure diary; used to record food items consumed by the household members.

f. Market questionnaire; administered by supervisors to interview the business operators at a market place where most of the interviewed households reported making regular purchases. This questionnaire was used to collect prices of all goods and services available in the market to provide information required to standardise units of measurement of commodities and purchases as well as to provide additional cluster-level data to compute average purchase prices for consumption items.

g. Community questionnaire; administered through Focus Group Discussions (FGDs) comprising at least five knowledgeable community members who were selected with the assistance of the local administration in each cluster. This questionnaire was administered by supervisors and was used to collect information about the community in which the sampled households reside. Such information included basic physical infrastructure, access to and quality of public services, economic activities, agriculture, community welfare, security and safety.

Comprehensive interview manuals were prepared to guide personnel during survey training and implementation.

1.7 Management of the survey

The Bureau managed the implementation of the survey and was responsible for coordination of all aspects of the survey including design, data collection, processing and analysis. A steering committee comprising KNBS Directors was responsible for policy direction and overseeing the

overall implementation of the survey. The steering committee constituted a secretariat comprising three KNBS Technical Managers who were responsible for the day-to-day administrative, logistical and technical operations of the survey.

3 The 2015/16 questionnaires, interviewer manuals and other technical documentation can be freely and publicly accessed via: http://statistics.knbs.or.ke/nada/index.php/catalog/88.

Prior to the main survey, a pilot survey was undertaken with the aim of testing various aspects of the survey including data collection instruments, methodology and field logistics. The pilot survey data collection was conducted between April and May 2015 in six counties

1.8 Recruitment and training

All personnel involved in the 2015/16 KIHBS survey were recruited based on rigorous testing and merit based selection procedures. Survey personnel were interviewed, tested for technical skills and hired from all counties to build a regionally balanced team. A total of 323 survey personnel with the relevant qualification were recruited. These included 258 field data collection personnel, 36 field reserves, 23 data entry personnel and 6 data entry reserves.

Three hands-on training phases (training of trainers, training of data collection personnel, and training of data entry and CAPI personnel) was undertaken before fieldwork. The trainees acquired in-depth knowledge of all the data collection instruments and manuals and acquired skills to enable them to participate in the survey field data collection. The training also included a pre-test in non-KIHBS sample clusters in Nakuru County.

1.9 Field logistics and implementation

Field data collection for the 2015/16 KIHBS took place over a period of 12 months from September 2015 to August 2016, and it was organised into 24 cycles of 14 days each. Clusters were equally and randomly allocated to the four quarters of the year which were based on the expected seasons in Kenya. The teams ensured that they completed data collection in the assigned clusters before embarking on clusters assigned for the next quarter.

The field data collection personnel were divided into 50 teams comprising six persons, including one supervisor, two interviewers, one field data entry clerk, one field editor and one driver. In each cycle, a team covered 20 households for the KIHBS main questionnaire and 12 households for the CHSP questionnaire. Each interviewer in a team was allocated a cluster in each cycle. Diaries were administered to 5 pre-selected households in each of the sampled clusters. The diaries were filled for seven days with each household getting a total of 6 diaries- 3 for purchases and 3 for consumption. During the fieldwork, team supervisors, assisted by the field editors administered a community questionnaire through focus group discussions. The supervisor also administered a market questionnaire in markets where interviewed households reported making most of their purchases.

1.10 Survey response rates

The survey achieved high sample response rates. Nationally, 91 per cent of the sampled households participated and completed questionnaires. As shown in Table 1.2, from 23,852 households that were sampled for the survey, a total of 21,773 households were successfully interviewed. The response rate for rural households was higher (93.6%) compared to that of urban households (88.0%). Part of the non-response was due to non-coverage of 13 clusters spread across different counties occasioned by either insecurity or non-availability of households due to movement of populations in nomadic areas

Table 1.2: Response rates

	Residence		
Result	**Urban**	**Rural**	**Total**
Households selected	9,870	13,982	23,852
Households interviewed	8,681	13,092	21,773
Household response rate	88.0	93.6	91.3

1.11 Data processing

The 2015/16 KIHBS data was captured using the Census and Survey Processing System (CSPro) software. The software was programmed with inbuilt checks on consistency and to ensure out of range values are not entered. The data entry adopted a double entry approach for all questionnaires with first entry done in the field (in all the county offices by 50 keyers in all 47 counties, using laptops). The data transmission involved data uploaded to the cloud server after every session of data entry. The same data were downloaded daily from the cloud server to the local server located at the KNBS headquarters. A team of 22 keyers based at the KNBS data processing centre conducted a second independent data entry as soon as the questionnaires were received from the field. The two sets of entered data were compared for differences and corrections done to resolve the differences resulting in clean datasets that were used during analysis.

Internet connectivity was provided through 3G modems loaded with data bundles to enable transmission of data to the cloud servers. Data backup was done using external hard disks and local servers at the headquarters. Power banks were used to recharge the tablets while generators were also used to provide power for the laptops and charge tablets, in some remotely located areas. Data security was achieved through several methods including data encryption, secure file transfer and passwords.

1.12 Comparison of 2005/06 KIHBS and 2015/16 KIHBS

The 2005/06 KIHBS and 2015/16 KIHBS both collected nationally representative household survey data over a 12-month period. Table 1.3 shows the comparison of various survey parameters between the two surveys.

Table 1.3: Comparison of 2005/06 KIHBS and 2015/16 KIHBS

Parameters	2005/06 KIHBS	2015/16 KIHBS
Sample design		
Survey Domains	National, 69 Districts, Rural/Urban	National, 47 Counties, Rural/Urban
Sampling Frame	NASSEP IV (1,800 Clusters)	NASSEP V (5,360 Clusters)
Sample Size & Allocation		
National	13,430 Households (1,343 Clusters)	24,000 Households (2,400 Clusters)
Rural	8,610 Households (861 Clusters)	14,120 Households (1,412 Clusters)
Urban	4,820 Households (482 Clusters)	9,880 Households (988 Clusters)
Data Collection		
Field data collection teams	44 (100 Survey personnel)	50 (323 Survey personnel)
Data collection dates	May 2005 - April 2006	September 2015 - August 2016
Consumption module recall periods (days)		
Food Consumption-recall	7	7
Non -food Expenditures-Regular	30	30
Non -food Expenditures-Non-Durable	90	90
Durables	365	365
Data collection logistics		
Cycles	17	24
Days	21	14
Data Processing		
Data Processing	Single Entry	Double Entry
Data Entry Software	FoxPro	CSPro
Data transmission	USBs	Cloud Server

1.13 Outline of the report

This report provides information discussed in seven chapters. The first chapter presents the introduction and survey methodology. Chapter two explains the poverty concepts and measurement approach while chapter three outlines the findings on consumption expenditure patterns. Chapter four focuses on poverty and inequality indicators while chapter five presents the basic socio-economic poverty profile. Chapter six presents highlights of the prevailing macroeconomic and socio-economic environment over the ten-year period from 2005/6 to 2015/16 Finally, chapter 7 gives conclusions and recommendations based on the survey findings.

CHAPTER TWO

Poverty Concepts and Measurement Approach

CHAPTER TWO

Poverty Concepts and Measurement Approach

This chapter presents an overview of welfare and poverty concepts used in the report and describes the measurement methodologies adopted. Section 2.1 describes the definition and construction of the welfare measures used to estimate poverty. Section 2.2 explains how differences in household needs were adjusted for, based on household composition, while Section 2.3 details how the poverty lines were computed. Section 2.4 describes the approach taken to adjust nominal expenditures for spatial and temporal price differences. Finally, section 2.5 presents and defines the poverty indices and inequality measures used in this report.

2.1 Definition and Construction of the Welfare Measure

The measure of welfare in this report is based on consumption expenditures rather than income, in line with past poverty reports for Kenya (GoK, 1997, 2000 and 2007) and international best practice. The empirical literature on the relationship between income and consumption has established that consumption is not strictly tied to short-term fluctuations in income, and that consumption expenditures are smoother and less variable than income. For instance, rankings of well-being based on consumption tend to be more stable for households whose income fluctuates a great deal from one year to the next or even within the year; such as households dependent on income from agricultural production. Household data on incomes is also typically harder to collect as more people have difficulty reporting it accurately (e.g. those employed in the informal sector or seasonal jobs) or plainly refuse to do so. The measure of nominal household total consumption expenditures was computed following the best-practice guidelines provided in Deaton and Zaidi (2002), which is an aggregate measure which consists of expenditures on two main components: food and non-food consumption.

Food Consumption Component

The food consumption component includes four sub-components derived from purchases, own production, stocks and gifts. The KIHBS 2015/16 questionnaire collected information on the quantities consumed for each of the four components over a 7-day period through a recall approach. Imputed values for food consumed from own production, stocks and gifts were derived using locally representative unit prices reported in the main questionnaire, market questionnaire and the diaries. Prices observed in local markets were also used to value food quantities consumed. Overall, KIHBS 2015/16 collected more than 445,300 observations of 217 distinct food items consumed by about 21,800 households, representing the most comprehensive and detailed dataset on food consumption ever collected in Kenya.

An important design feature of the KIHBS 2015/16 questionnaire is that it conformed with current international best practice recommendations by distinguishing between the value and quantities of food items purchased over a one-week period and the quantities consumed from the purchases during this period. Analysis of the KIHBS 2015/16 data revealed that this distinction proved critical to constructing the food consumption aggregate correctly. Approximately 22 per cent of food items were from purchases reported over the past reference week. It should, however, be noted that not all the purchased quantities by households were consumed during that period, indicating that many households in Kenya purchase certain food items "in bulk" and then consume them over a period that exceeds seven days. These include the following food items: salt, sugar, tea leaves, loose maize grain and flour, rice, potatoes, beans, cooking oil and fat, and certain vegetables such as onions, tomatoes, and cabbages.

The KIHBS 2015/16 questionnaire also collected information on the point of purchase for each item. The survey collected data on over 295,000 food items purchased. General shops and open markets were the most commonly reported points of purchase accounting for about 30 per cent each while about 20 per cent of purchases were made from kiosks. Less than 4 per cent of reported purchases were made in supermarkets. Purchases from informal sources accounted for less than 10 per cent of total purchases (about 4% from roadside hawkers and about 5.5% from other households).

The nominal food consumption expenditure aggregate, y^{F}_{ch}, for each household h in each cluster c was computed from the KIHBS 2015/16 data collected in section T of the questionnaire as follows:

$$y^{F}_{ch} = \sum_{f=1}^{217} \bar{p}_{cf} \left[q^{(purchases)}_{chf} + q^{(own\ production)}_{chf} + q^{(stocks)}_{chf} + q^{(gifts)}_{chf} \right]$$

where, *f*, indexes the choice set of 217 different food items that could be consumed by each household, *h*, and the superscripts denote the four different sources of food consumed, respectively from purchases; own production; stocks; and gifts or other sources. The quantity consumed from each source was valued using the median reported cluster price, for each food item.

The principal challenge encountered in computing nominal food consumption expenditure aggregate was ensuring accurate valuation of food consumption from purchases, own production, stocks and gifts[4]. The reason for using median prices was two-fold; first, not all households that reported consumption of food items from own production, stocks or gifts also purchased the items over the past one week. In the KIHBS 2015/16, about 132,000 items reported consumed were not purchased. About 85 per cent of households reported having consumed items that were not purchased during the reference week. For such cases, it was not possible to infer a unit price for this item from purchases. Secondly, it is well documented that outliers inevitably occur in household survey data, not only for the usual reasons, but also because there are sometimes misunderstandings (or data entry errors) about units-such as miscoding eggs reported in dozens rather than in pieces (e.g. see Deaton and Zaidi, 2002). By using cluster-level median item prices (as opposed to household specific or average cluster prices) to value food quantities that were consumed but not purchased, the sensitivity of the consumption aggregate to such outliers is reduced.

Cluster-level median unit prices were computed from the recall data on reported purchases. When no households in the cluster reported purchasing certain items, then the respective cluster-level median unit prices were computed from the purchase diary data. When cluster-level median unit prices were not available from the recall and diary data, then consumption was valued using a County-level median unit price. Finally, for the few cases where a County-level median unit price could not be computed, the national item-level unit price was used to value consumption.

Non-Food Consumption Component

Data on non-food consumption by households was collected in separate sections of the KIHBS 2015/16 questionnaire with recall periods of one month, three months or one year depending on the frequency of requisitioning the item. Section T collected a 7-day recall for household expenditure information on 217 regular food items as shown in Table 2.1. Sections U and V collected one-month recall information on housing rent, water, power and cooking related household expenditures and other frequently consumed non-food items. All these expenditures were accounted for to calculate each household's total non-food expenditures except for selected health expenditures.

Table 2.1: Summary details of 2015/16 KIHBS Questionnaire 1C on Consumption Expenditure Information

Section	Description of Contents
T	Food, Beverages and Related Items over the Last 7 Days
U	Expenditures on House Rents, Water, Electricity, Gas and other Cooking Fuels over the last one Month
V	Expenditures on Health Care and Other Items (Non-Durable) Over the last one Month
W	Expenditures on Clothing and Footwear over the last three Months
XA	Household Expenditure on Education in the last 12 Months
XB, XC, XD	Expenditure on Household Good, Furniture and Fittings over the last 12 Months
XE	Expenditure on Communication, Recreation and Culture over the last 12 Months
XF	Expenditures on Insurance, Financial and Miscellaneous Items over the last 12 Months
XG	Expenditures on New/Second Hand Motor Vehicles and Accessories over the last 12 Months

4 During the analysis of the KIHBS 2005/06 an additional challenge involved correctly pricing consumption of food items that was reported in non-standard units. In the KIHBS 2015/16 this was addressed by collecting information not only in the unit reported by the household, but also entering any required conversions into standardized unit during the interview.

Regarding health expenditures, while regular purchases of certain over the counter medication are included in the household consumption aggregate (e.g. pain killers, de-worming and anti-malaria medicine), other infrequent health related expenditures such as doctor and hospital fees were excluded for purposes of poverty analysis. Recommended best practice was followed to include health expenditures only if they have high income elasticity about their transitory variance or measurement error. Most reported health expenditures, except for medication, were found to be lumpy and incidental. The argument for exclusion is that such expenditure reflects a regrettable necessity that does not increase welfare. By including health expenditures for someone who has fallen sick, we register an increase in welfare when, in fact, the opposite has occurred. The fundamental problem is that it is not possible to measure the loss of welfare associated with being sick, and which is (presumably) ameliorated to some extent by health expenditures. Including the latter without allowing for the former would be incorrect (Deaton and Zaidi, 2002).

Housing rental costs were also collected in the survey. These expenditures are particularly crucial for households residing in urban areas. However, households that reside in housing structures that they own do not report rent. For urban households, rent was imputed by estimating a stepwise log-linear Ordinary Least Squares (OLS) regression of reported rents on housing characteristic variables (including location, number of rooms, construction materials, type of water supply and sanitation, and energy source for cooking) and household head employment and educational characteristics. The stepwise OLS regression explains 65 per cent of the reported variation in rent expenditures. Actual rent values were used for those households reporting rent. The median predicted imputed annual expenditure on rent in urban areas was determined to be KSh 30,830. The median reported rent is KSh 32,400 suggesting that the model used for imputation is robust.

2.2 Adjusting for Differences in Needs

The preceding section outlines how nominal measure of welfare - the value of total household consumption - was computed at the household level. Ultimately, however, the objective is to obtain a measure of individual wellbeing. Equivalence scales are used to convert household consumption aggregates into money-metric measures of individual welfare. Household size is the simplest deflator that can be used for this purpose. However, per capita expenditure measures will underestimate the welfare of people that live in households composed of a high fraction of children. Children, up to a certain age, consume less than adults. To adjust for intra-household differences in needs, standard practice, starting with the earliest studies on poverty in Kenya (Greer and Thorbecke, 1986a, 1986b, 1986c), has been to use the equivalence scales developed by Anzagi and Bernard (1977a, 1977b). These adult equivalence scales prescribe that age groups 0-4 years are weighted as 0.24 of an adult, children aged 5-14 years be weighted as 0.65 and all people aged 15 years and older be assigned a value of unity. The Anzagi-Bernard equivalence scales are used in this report.

2.3 Computing Poverty Lines

The poverty lines were calculated from the KIHBS 2015/16 data using the Cost-of-Basic Needs (CBN) method outlined in Ravallion (1994, 1998). The CBN method stipulates a consumption bundle deemed to be adequate for 'basic consumption needs', and then estimates what this bundle costs in reference prices[5].

In practice, computing the poverty line involves several steps starting with determining a calorie requirement, creating a food basket, and evaluating the cost of meeting the calorie requirement using that food basket. The cost of this basket is the food poverty line which is used to determine the proportion of the population that is unable to meet the minimum basic food consumption needs (i.e. the food poor). A minimum allowance for non-food consumption is then added to the food poverty line to determine the overall poverty line which is used to determine the proportion of the population that is unable to meet the minimum overall basic consumption needs (i.e. the absolute poor). All estimates for the poverty line are based on median national reference prices and monthly per-adult-equivalent expenditures to adjust for differing needs across households of differing sizes and composition. In accordance with past practice, separate poverty lines were computed for the rural and urban population in Kenya.

5 The basic tenets of this approach were pioneered by Rowntree (1901) in his seminal study of poverty in York, England and it has been used and refined ever since, including for setting the official poverty lines for the United States (Orshansky, 1965; Citro and Michael, 1995). This is also the approach followed in the construction of poverty lines from the three Welfare Monitoring Surveys (respectively in 1992, 1994 and 1997) as detailed in Mukui (1994) and poverty reports by the Government of Kenya (1997, 2000).

The Food Poverty Line

Nutritional requirements for good health are the apparent anchor for determining basic food needs. Following previous poverty reports on Kenya starting with the studies by Crawford and Thorbecke (1978a, 1978b, 1980), the required daily per adult equivalent calorie requirement for Kenyans in this report was specified as 2,250 Kcal. To examine whether revision of this nutritional anchor was warranted, a sensitivity analysis was conducted on the KIHBS 2015/16 data and benchmarked on calorie recommendations by the Kenyan National Public Health Laboratory Services (1993) and the WHO (1985) as presented in Table 2.2. Based on the sample-weighted KIHBS 2015/16 demographic profile by age and sex, the average required daily per adult equivalent calorie requirement for the population sample enumerated by the KIHBS 2015/16 is 2,251 Kcal.

Table 2.2: Recommended Daily Calorie Intakes by Age, Sex and Workload

Age Group (Years)	Sample Weighted Population			Recommended Daily Kcal	
	Male	Female	Total	Male	Female
<1	607,814	582,678	1,190,492	820	820
1-2	622,973	571,038	1,194,011	1,150	1,150
2-3	583,671	602,151	1,185,822	1,350	1,350
3-5	1,228,719	1,265,901	2,494,620	1,550	1,550
5-7	1,294,444	1,277,794	2,572,238	1,850	1,750
7-10	1,961,673	1,974,650	3,936,323	2,100	1,800
10-12	1,267,279	1,223,165	2,490,444	2,200	1,950
12-14	1,238,134	1,241,352	2,479,486	2,400	2,100
14-16	1,116,112	1,106,451	2,222,563	2,650	2,150
16-18	1,087,280	976,493	2,063,773	2,850	2,150
18-30*	4,578,273	4,957,005	9,535,278	3,138	2,163
30-60*	5,579,482	5,786,530	11,366,012	3,025	2,213
>60*	1,226,746	1,413,288	2,640,034	2,550	2,000
Total	22,392,600	22,978,496	45,371,096	Weighted Mean =	2,251

*Note: World Health Organization (1987) and NPHLS (1993) assuming heavy, moderate and Adults residing in Rural areas for age groups 18-30, 30-60 and >60 respectively.

This sensitivity analysis established that the nutritional anchor of 2,250 Kcal used in previous poverty reports remains robust. The rural and urban food poverty lines were set by costing two separate bundles of basic food items which attain the 2,250 Kcal minimum nutritional requirements in a way which is consistent with food tastes in rural and urban areas observed in the KIHBS. The National Public Health Laboratory Services (1993) report provides detailed information on the nutrient and calorie composition of food items in Kenya (see Tables 2.3 and 2.4)[6].

The rural and urban basic food bundles were determined using an iterative approach. The starting point was to calculate the average quantities of food items consumed by households in the middle quintile of the price-adjusted (by median national prices) weighted (using sampling weights) rural and urban consumption per adult equivalent distributions. The initial choice of the third quintile was motivated by the likely bandwidth in which the food poverty line might fall because conceptually the basic food bundle should be representative of consumption by the poor. Through repeated iterations benchmarked on the food poverty estimates obtained at each stage, it was determined that the households located in the 30th to 50th percentiles of the rural and the 10th to 30th percentiles of the urban price-adjusted weighted food consumption distributions represent the optimal bandwidth for computing the respective food poverty lines. These bandwidths incorporated rural and urban households from each county. The food poverty lines in monthly adult equivalent terms were computed as KSh 1,954 and KSh 2,551 for rural and urban areas, respectively.

6 Previous poverty studies adopted food-weight to calorie conversion factors published by the Food and Nutrition Cooperation ECSA (1987) and Platt (1962). The NPHLS (1993) conversions applied in this study are more up-to-date, more comprehensive in terms of food items covered, and specific to the Kenyan context; for instance, accounting for differences in calorie content of different maize types (hybrids and endemic) grown in different agro-ecological regions.

Table 2.3: Rural Basic Food Basket and Food Poverty Line

Item Code	Food item	[A] Share in the Basket	[B] Kcal (100g)	[C] Median Rural Price (KSh/100g)	[D] Kcal per KSh 100	[E] KSh for 2250 Kcal
108	Loose Maize Flour	0.164	264	5.0	863.5	10.50
401	Unpacketed Fresh Cow Milk	0.105	72	5.0	150.5	6.71
902	Sugar	0.090	375	10.3	329.4	5.81
129	Beans	0.064	324	8.0	257.6	4.09
105	Loose Maize Grain	0.038	353	3.5	385.4	2.45
102	Non-aromatic White Rice	0.029	346	8.0	126.9	1.88
507	Cooking Oil	0.028	900	16.5	152.3	1.79
713	Traditional Vegetables	0.027	42	5.0	22.5	1.72
801	Potatoes	0.025	81	4.0	51.6	1.64
707	Kale (*sukuma wiki*)	0.024	52	4.0	30.5	1.52
201	Beef with Bones	0.023	223	36.0	14.4	1.50
205	Mutton/Goat Meat	0.022	253	40.0	13.8	1.40
705	Tomatoes	0.021	27	6.7	8.3	1.32
405	Goat Milk	0.020	77	8.2	19.1	1.31
114	White Wheat Flour	0.018	335	7.0	87.2	1.17
207	Chicken Meat (broiler, *kienyeji*)	0.018	163	33.3	8.7	1.14
103	Broken White Rice	0.017	346	9.0	66.4	1.11
1102	Tea Leaves	0.017	40	50.0	1.4	1.09
110	Sifted Maize Flour	0.015	264	5.5	73.8	0.99
145	White Bread	0.015	261	12.5	31.3	0.96
601	Ripe Bananas	0.014	94	5.0	27	0.92
111	Fortified Maize Flour	0.014	264	5.5	68.6	0.92
506	Cooking Fat	0.013	900	16.0	72.7	0.83
304	Silver cyprinid (*Omena*)	0.013	359	30.0	15.3	0.82
116	Fortified Wheat Flour	0.012	320	7.0	54.3	0.76
703	Cabbages	0.011	21	2.0	12	0.73
725	Cooking Bananas	0.011	64	3.3	21.4	0.71
604	Avocado	0.010	128	3.3	40.1	0.67
413	Eggs	0.009	152	25.0	5.6	0.59
106	Green Maize	0.009	256	4.0	57.8	0.58
410	Unpacketed Sour Milk	0.009	72	6.0	10.7	0.57
301	Fresh Fish	0.009	121	28.0	3.8	0.56
406	Camel Milk	0.009	208	7.5	23.7	0.55
702	Onion	0.008	44	10.0	3.6	0.52
107	Loose Green Maize	0.008	353	4.9	57.8	0.51
303	Dried/Smoked Fish (excl. *Omena*)	0.008	269	33.3	6.2	0.49
137	Cowpeas	0.007	297	7.5	29.2	0.47
118	Millet Flour	0.007	318	10.0	22.2	0.45
802	Sweet Potato	0.007	128	3.3	26.4	0.44
148	Wheat Buns /Scones	0.007	370	10.0	24.8	0.43
618	Guavas	0.007	50	6.3	5.3	0.43
901	Sugar Cane	0.006	344	1.0	208.8	0.39
701	Onion –Leeks	0.006	60	8.0	4.4	0.38
605	Mangoes	0.006	60	5.0	7.1	0.38
				Total calories (per KSh 100)	3503.3	64.23
				Monthly Adult Equivalent Rural Food Poverty Line (KSh):		**1953.5**

Notes: For each item, Column A provides the expenditure share in the basic needs basket, and column B provides the number of edible kilocalories (Kcal) per 100 grams. The kilocalories and edible portion adjustments for each item were obtained from the NPHLS (1993) and were specifically computed for Kenya. Column C provides the median rural reference price (per 100 grams) for each food item. For each item, column D reflects the kilocalories that would be consumed based on its median price and expenditure share: i.e. D = 100*(B/C)*(A). In other words, given median prices and the expenditures shares in the basket, if the average poor household spends KSh 100 per adult equivalent per day on food, then column D gives the number of kilocalories which would be provided by each item. Note that computation from this text table will be subject to rounding errors. Overall, KSh. 100 would provide about 3,503 Kcal. Column E computes how many KSh a household would have to spend on each item to meet the minimum daily per adult equivalent calorie requirement of 2,250 Kcal. At prevailing median prices and consumer tastes in rural Kenya (as reflected by the average expenditure shares), the total cost of purchasing the minimum daily adult equivalent calorie requirement amounts to KSh 64.23. Thus, the rural food poverty line in monthly adult equivalent terms was determined to be KSh 1,953.50.

Table 2.4: Urban Basic Food Basket and Food Poverty Line

Item Code	Food item	[A] Share in the Basket	[B] Kcal (100g)	[C] Median Urban Price (KSh/100g)	[D] Kcal per KSh 100	[E] KSh for 2250 Kcal
401	Unpacketed Fresh Cow Milk	0.080	72	6.0	95.7	6.68
902	Sugar	0.072	375	10.0	268.5	6.00
108	Loose Maize Flour	0.064	264	5.0	336.5	5.34
201	Beef with Bones	0.053	223	40.0	29.8	4.48
507	Cooking Oil	0.052	900	15.8	293.1	4.32
102	Non-aromatic White Rice	0.049	346	9.0	189.9	4.14
145	White Bread	0.041	261	12.5	86.6	3.48
129	Beans	0.041	324	8.0	167.6	3.47
705	Tomatoes	0.038	27	8.0	12.9	3.20
205	Mutton/Goat Meat	0.032	253	40.0	20.1	2.67
801	Potatoes	0.030	81	4.0	60.6	2.51
103	Broken White Rice	0.024	346	9.0	91.1	1.99
105	Loose Maize Grain	0.022	353	3.8	209.1	1.86
402	Fresh Cow Milk (Packeted)	0.022	72	10.0	15.9	1.85
114	White Wheat Flour	0.022	335	7.0	104.3	1.83
110	Fortified Maize Flour	0.021	264	5.5	102.5	1.79
707	Kale (*Sukuma wiki*)	0.021	52	5.0	22.2	1.79
111	Sifted Maize Flour	0.021	264	5.5	102.4	1.79
301	Fresh Fish	0.021	121	35.0	7.2	1.75
304	Silver cyprinid (*Omena*)	0.018	359	25.0	26.0	1.52
116	Fortified Wheat Flour	0.018	320	6.8	83.4	1.48
407	Condensed/Powder Milk	0.017	355	60.0	10.3	1.46
601	Ripe Bananas	0.017	94	5.3	30.5	1.45
1102	Tea Leaves	0.016	40	50.0	1.3	1.34
702	Onion Bulbs	0.015	44	10.0	6.8	1.29
713	Traditional Vegetables	0.015	42	5.0	12.8	1.28
405	Goat Milk	0.013	77	10.0	10.4	1.13
149	Pasta	0.013	160	13.0	16.3	1.11
703	Cabbages	0.013	21	3.0	8.8	1.05
413	Eggs	0.011	152	22.0	7.4	0.90
148	Wheat Buns /Scones	0.010	370	10.0	36.5	0.83
605	Mangoes	0.009	60	5.0	11.4	0.79
101	Aromatic White Rice (Basmati)	0.008	346	13.0	22.4	0.70
506	Cooking Fat	0.008	900	14.0	52.2	0.68
1203	Sodas	0.008	45	10.0	3.6	0.67
604	Avocado	0.008	128	5.0	19.8	0.65
104	Brown Rice	0.008	346	8.1	32.7	0.65
123	Mixed Porridge Flour	0.007	335	9.0	27.6	0.62
725	Cooking Bananas	0.007	64	4.4	10.5	0.61
206	Camel Meat	0.007	242	40.0	4.2	0.58
602	Oranges	0.007	89	6.1	9.7	0.56
130	Green Grams	0.007	322	13.0	16.3	0.55
211	Offals (*Matumbo*)	0.007	143	22.0	4.2	0.55
207	Chicken Meat (broiler, kienyeji)	0.006	163	40.0	2.3	0.47
	Total calories (per KSh 100)				2683.0	83.86
					Monthly Adult Equivalent Urban Food Poverty Line (KSh):	**2550.8**

Notes: For each item, **Column A** provides the expenditure share in the basic needs basket, and **column B** provides the number of edible kilocalories (Kcal) per 100 grams. The kilocalories and edible portion adjustments for each item were obtained from the NPHLS (1993) and were specifically computed for Kenya. **Column C** provides the median rural reference price (per 100 grams) for each food item. For each item, **column D** reflects the kilocalories that would be consumed based on its median price and expenditure share: i.e. D = 100*(B/C) *(A). In other words, given median prices and the expenditures shares in the basket, if the average poor household spends KSh 100 per adult equivalent per day on food, then column D gives the number of kilocalories which would be provided by each item. Note that computation from this text table will be subject to rounding errors. Overall, KSh100 would provide about 2,682 Kcal. **Column E** computes how many KSh a household would have to spend on each item to meet the minimum daily per adult equivalent calorie requirement of 2,250 Kcal. At prevailing median prices and consumer tastes in urban Kenya (as reflected by the average expenditure shares), the total cost of purchasing the minimum daily adult equivalent calorie requirement amounts to KSh 83.86. Thus, the urban food poverty line in monthly adult equivalent terms was determined to be KSh2,550.80.

In accordance with international best practice, it is recommended to re-evaluate the food poverty line at intervals of 10 or more years and update the baskets for changes in lifestyle and taste. A comparison of the 2015/16 and 2005/06 rural and urban food poverty line baskets suggests that food consumption tastes have indeed changed as revealed by both the inclusion of new food items and apparent substitution effects as shown in Figures 2.1a and 2.1b.

Figure 2.1a: Food Poverty Basket Comparison (2005/06 versus 2015/16): Top 10 Rural and Urban Shares

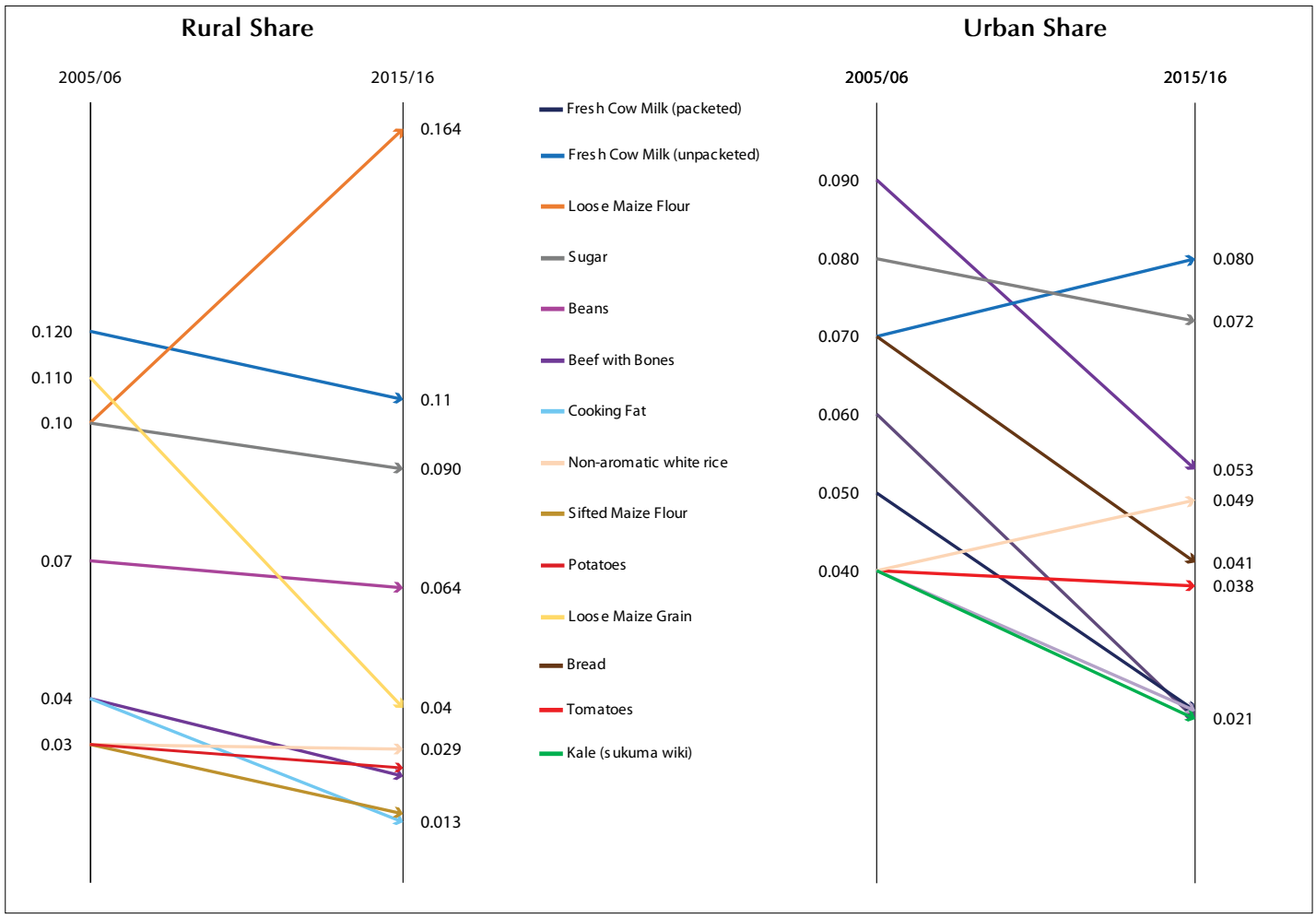
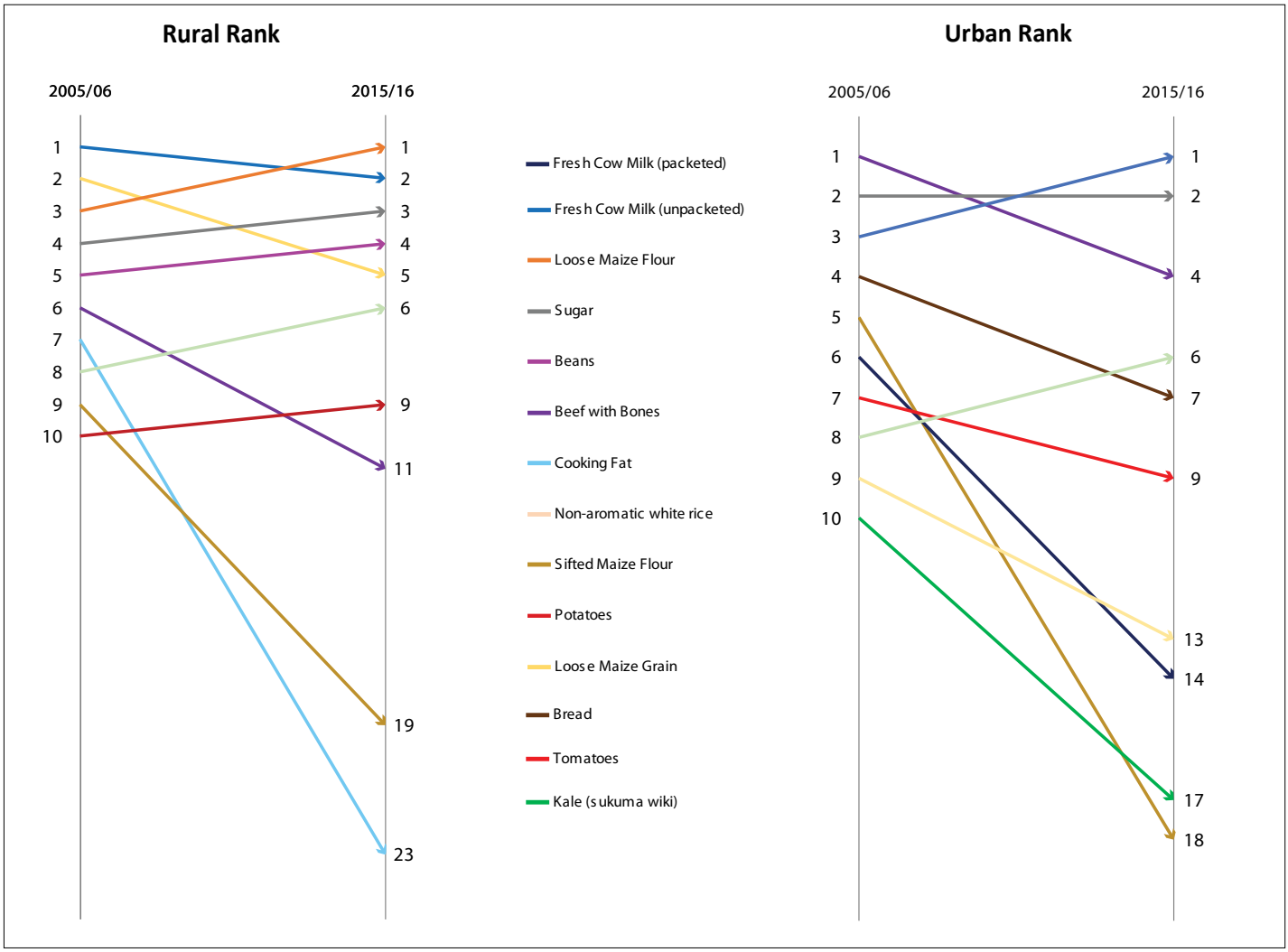


Figure 2.1b: Food Poverty Basket Comparison (2005/06 versus 2015/16): Top 10 Rural and Urban Rank



The Overall Poverty Line

The rural and urban food poverty lines constitute the foundation on which to anchor the computation of the respective overall poverty lines. The rationale for this is the hierarchy of basic needs which begins with survival food needs followed by basic non-food needs. Many activities necessary for escaping poverty cannot be performed without participation in society; for example, employment and schooling. Social involvement is not possible without incurring the essential non-food expenditures on, for instance, shelter, clothing and personal care.

Derivation of the overall poverty line is an iterative process starting with the computation of the mean value of total non-food consumption by households whose food expenditure fall within a one percentage point interval around the food poverty line. This process was repeated ten times, and at each stage, the interval was increased by additional percentage points. The average of the mean total non-food expenditures from each stage provides a weighted non-parametric estimate of the value of the non-food component which was added to the food poverty line to compute the overall poverty line. This approach provides an upper bound to the overall poverty line and therefore insures against underestimating the incidence of poverty. The overall poverty lines for rural and urban areas in monthly adult equivalent terms were computed as KSh 3,252 and KSh 5,995, respectively.

2.4 Adjusting for Spatial and Seasonal Price Variation

Field data collection for the 2015/16 KIHBS took place over a period of 12 months from September 2015 to August 2016 and was organised into 24 cycles of 14 days each. In Kenya, prices for specific food items vary geographically and seasonally. Consequently, it was necessary to construct an index that simultaneously adjusts for cost-of-living differences over both space and time. For this purpose, a price index referenced to national median prices in urban and rural areas was developed to adjust each household's nominal consumption aggregate. The median prices used for referencing the price index are identical to those used for computing and valuing the rural and urban food basket and poverty lines.

The approach developed to adjust for cost-of-living differences is based on a Paasche price index with household specific weights based on unit prices collected by the survey. For each item, an un-weighted national urban and rural median price was calculated across all households reporting consumption of the item. In addition, for each item, a cluster-level median price was computed. The price index for each household h is defined as follows:

$$P_h = \left[\sum_{k \in h(k)} w_k \left(\frac{p_k^0}{\overline{p}_k^c} \right) \right]^{-1},$$

Where w_k , is the share of item k in the households' food consumption basket $h(k)$,

p_k^0 is the national rural or urban median price of item k (depending on whether the household is rural or urban), and

$\overline{p}_k^c$ is the cluster median unit price of item k. This Paasche price index is a household specific index that accounts for each household's expenditure pattern and adjusts for both spatial and temporal differences. To see the latter, remember that households are surveyed in different clusters and cycles. Following Deaton and Zaidi (2002), by using a logarithmic approximation and without loss of generality, the index defined above can also be expressed in a form that is computationally more convenient to implement:

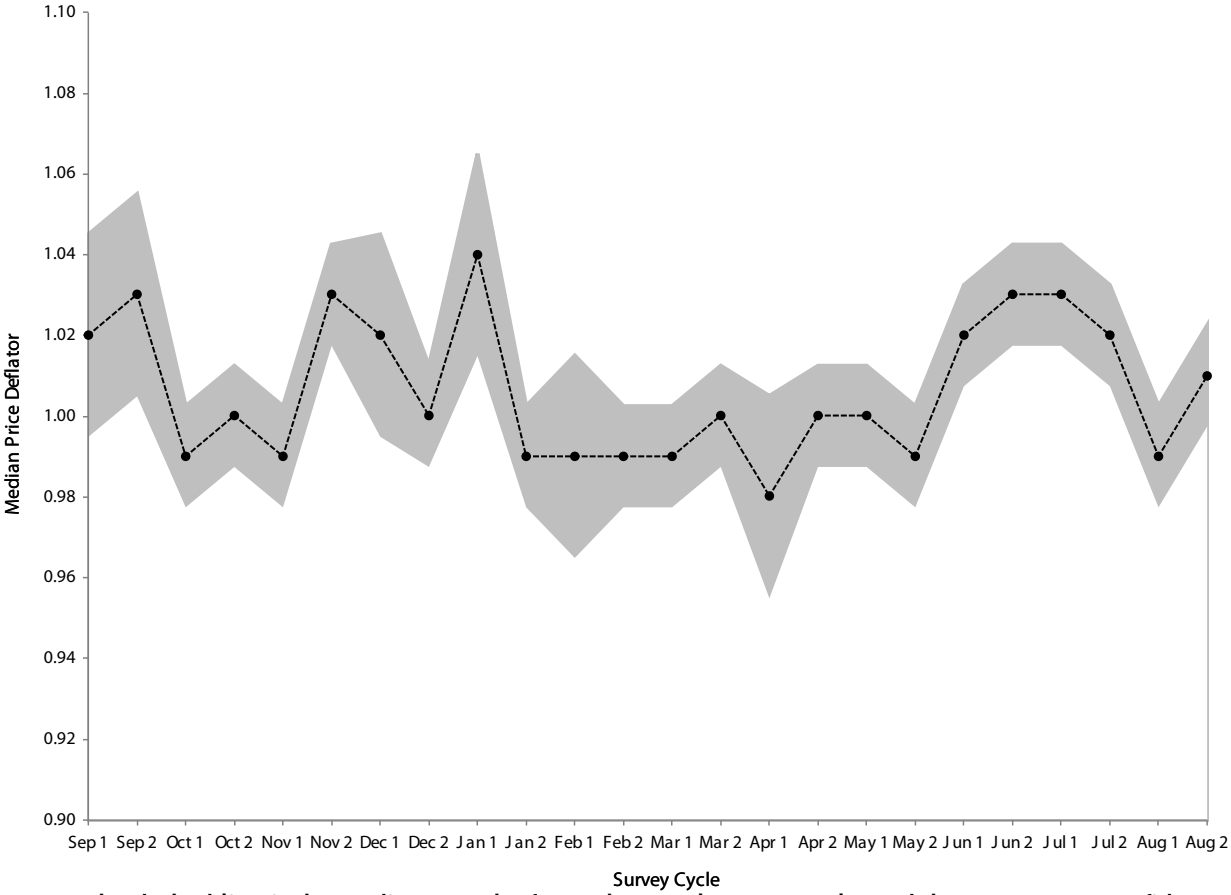
$$\ln P^h \approx \sum_{k \in h(k)} w_k \ln \left(\frac{\overline{p}_k^c}{p_k^0} \right).$$

Further, note that even though the index is based on median prices, the index is household specific because it is weighted by the consumption shares of items in each household's food consumption basket.

The selection of median prices for reference prices was made for a number of reasons. Use of the median rather than the average reduces the sensitivity of the price index to outliers. As explained in section 2.1.1, outliers inevitably occur in household survey data and using median reference prices insures the index from being affected by such cases. Finally, the use of a national median benchmark rather than a reference cycle and county has the advantage of ensuring the deflated money metric conform as closely as possible to national income accounting practices. Also, it minimises price data gaps and eliminates results that are driven by a price relative that occurs rarely or only in a particular area.

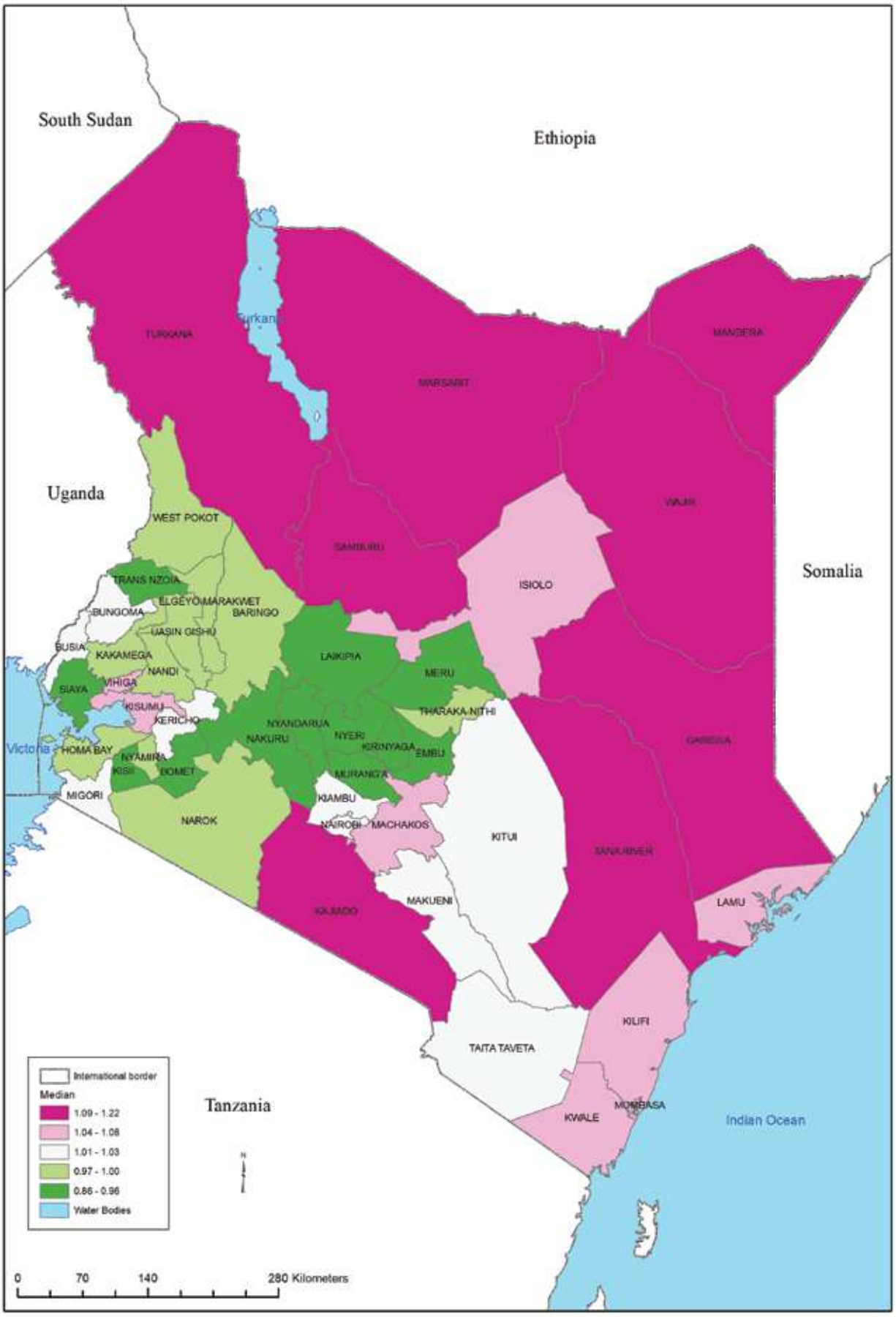
The Paasche price index approach used in this report is identical to the approach that was used to compute poverty estimates from the KIHBS 2005/06. Figure 2.2 illustrates the importance of adjusting for temporal variation in prices during the survey period while Map 1 pictorially depicts the price deflator by county.

Figure 2.2: Seasonal Variation in the Median Price Deflator



Notes: The dashed line is the median Paasche for each 2-week survey cycle, and the 95 per cent confidence interval is shaded.

Map 1: Price Deflator by County



2.5 Poverty Measures

A typical class of poverty measures is the Foster, Greer and Thorbecke (usually referred to as FGT) indexes. The FGT measure, $P(\alpha)$, is defined as:

$$P(\alpha) = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{z - y_i}{z}\right)^{\alpha} I(y_i \le z),$$

Where N is the population size for which the measure is computed, y_i is the level of individual welfare (real per capita consumption) of the ith individual, z is the poverty line. $I(.)$ is an indicator function that maps a value of 1 when the constraint is satisfied and 0 otherwise, and α is the poverty sensitivity indicator. The FGT measure produces three different poverty indices.

The Poverty Headcount Index

The poverty headcount index measures the incidence of poverty. In other words, it measures the proportion of the population that cannot afford the basic basket of goods as measured by the food and overall poverty lines. The headcount index is the most basic measure of poverty and has the advantage of being easily understood and communicated. It is also a good measure for certain poverty comparisons such as assessing progress in reducing poverty over time. The poverty headcount index is computed by setting α=0 in the FGT measure so that:

$$P(0) = \frac{1}{N}\sum_{i=1}^{N} I(y_i \le z).$$

However, the poverty headcount index has some drawbacks, for instance in the analyses of the impacts of specific policies on the poor. As an illustration, suppose a poor person becomes poorer, what happens to the poverty index measure? Nothing. In other words, the poverty headcount index conceals the fact that some people might only be a few shillings short of the poverty line while others might just have a few shillings to spend, explaining why the poverty gap and the poverty severity index are good complementary indicators to assess poverty.

The Poverty Gap Index

The poverty gap index measures the depth of poverty. It provides information on how much poorer the poor people are relative to the poverty line. This measure captures the average expenditure shortfall, or gap, for the poor relative to the poverty line. Intuitively, the poverty gap index is obtained by adding up all the expenditure shortfalls of the poor (ignoring the non-poor) relative to the poverty line and dividing this total by the population. The poverty gap measures the poverty deficit of the population, or the resources that would be needed to lift all the poor out of poverty through perfectly targeted cash transfers geared towards closing the gap. In this sense, the poverty gap is a very crude measure of the minimum amount of resources necessary to eradicate poverty, that is, the amount that one would have to transfer to the poor to lift them up to the poverty line, under the assumption of perfect targeting. The poverty gap index is computed by setting α=1 in the FGT measure so that:

$$P(1) = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{z - y_i}{z}\right) I(y_i \le z).$$

When interpreting the poverty gap measure, at least two caveats apply. First, although the poverty gap accounts for the average expenditure separating the poor from the poverty line, it does not measure inequality among poor people. For instance, a transfer of 100 shillings from the least poor person among the poor to the poorest person would not affect the poverty gap measure. Second, attempting to reach the whole population through perfectly targeted cash transfers is neither practically feasible nor a recommendable policy option (e.g. financing transfers via excessive tax rates could stifle economic growth and, by extension, future poverty reduction). Instead, the index should be viewed as providing a useful policy benchmark by quantifying the absolute minimum amount of resources required to eradicate poverty.

The Severity of Poverty

The poverty severity index is a better measure to assess how poor the poor are.The poverty severity or poverty gap squared index is computed by setting α=2 in the FGT measure so that:

$$P(2) = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{z - y_i}{z}\right)^2 I(y_i \le z) \ .$$

As an example, consider two distributions of consumption expenditures for three people; distribution A is (2, 4, 8) and distribution B is (3, 3, 8). For a poverty line z=6, the headcount index and poverty gap index for both distributions are identical, respectively 0.66 and 0.33. However, the poorest person in distribution A has only two thirds the consumption expenditures of the poorest person in distribution B. These differences are borne out by computing the poverty severity index which is 0.185 for A and 0.167 for B, indicating that poverty is more severe in distribution A. The poverty severity measure is not easy to interpret intuitively but has advantages, such as assessing the impact of policies and programmes which are aimed to reach the poorest of the poor.

CHAPTER THREE

Overview of Consumption Expenditure Patterns

CHAPTER THREE

Overview of Consumption Expenditure Patterns

The 2015/16 KIHBS collected detailed data on consumption of food and non-food items. The interviewed households provided details on their consumption expenditures on purchased items, and consumption from own production. For food items, details were collected on expenditures, usually within a pre-defined reference period of seven (7) days. The information sought included quantity, unit, and price of each item. The households were further asked to quantify how much food was consumed from purchased, own production, stocks and gifts. The value of total food consumption consists of the sum of the value of consumption from the four sources (purchases, own production, stock and gifts).

3.1 Consumption Aggregates used in the Analysis

Household consumption expenditure refers to the value of goods and services acquired for final consumption plus the value of goods and services received in kind (e.g. gifts) and consumed by the household or individual members thereof. Consumption includes all goods and services that were acquired or purchased for use by households, but excludes those used for business purposes or accumulation of wealth. More specifically, it covers food, health and education, personal services, housing and consumer durables. Some non-food goods and services included in the household survey are excluded from the consumption aggregate. Household final consumption expenditure excludes income tax and other direct taxes, pension and social security contributions, assimilated insurance premiums, remittances, gifts and similar transfers to other households.

The food component consisted of the following sub-groups: cereals and bread, roots and tubers, poultry (chicken), meat, fish and seafoods. It further consisted of dairy products and eggs, vegetable oil and animal fats, fruits, vegetables, pulses, sugar, non-alcoholic beverages, alcoholic beverages, food eaten in restaurants and canteens, and spices and condiments.

The main non-food sub-groups include; education, health expenditure (only include medication), tobacco, water, cooking and lighting fuel, household operations and personal care, transport, communication, refuse costs, domestic services (domestic workers), recreation and entertainment, clothing and footwear, furnishings, and rent (actual or imputed). However, the expenditure totals used in poverty analysis exclude rent for rural areas.

The analysis of expenditure patterns excluded use value of consumer durables, and infrequent expenses such as legal fees and expenses, home repair and improvements as well as expenditure on social ceremonies, marriages, births and funerals. Non-consumption expenditure items such as insurance were also excluded in the analysis.

3.2 Food Expenditure by Source

For each food item, the survey collected data on four sources of consumption, namely, purchases, own-production, own stock, and gifts. The expenditure on household purchases made during the reference period utilised the actual quantity consumed from purchases, rather than the entire purchases made during the period.

Table 3.1 presents the percentage share of total food consumed disaggregated by source. Nationally, food consumed from purchases was the main source accounting for 68.3 per cent of total food consumed. Similarly, a significant share (57.4%) of food consumption in the rural areas was from purchases. At the county level, Mombasa had the highest share of food consumption from purchases (88.9%) while West Pokot had the least share (44.4%). Nationally, in conformity to the expected norm, rural areas reported the highest share (27.7%) of food consumption from own production. On the other hand, Mombasa County reported the least share (0.4%) of consumption from own production followed by Nairobi City (1.6%). Consumption from gifts and other sources was highest (17%) among households in Homa Bay.

The mean monthly food and non-food expenditure per adult equivalent are presented in Table 3.2. The national food expenditure per month per adult equivalent was KSh 7,810.8. The value of food expenditure in core-urban households was on average more than double that of their counterparts in rural areas. Households in the rural and peri-urban spend more than 60 per cent of their income on food which is much higher than the 48.8 per cent spent on food by households in core-urban areas. Among the counties, the highest food share was recorded in Samburu (72.9%) and the least in Nairobi City (44.8%).

Nationally, three sources accounted for three-quarters of all food purchases, namely; general shops (27.9%), open markets (26.6%) and kiosks (22%) as shown in Table 3.3. Most of the purchases in the arid counties were sourced from kiosks with Wajir accounting for the highest share (73.6%), followed by Turkana (57.1%) and Mandera (52.6%).

Information on household food purchases by point of purchase is presented in Table 3.3. Nationally, general shops (27.2%) and specialised shops[7] (21.9%) were preferred outlets, jointly accounting for nearly half of all food purchases made. Majority of rural households (22%) purchased their food items from open markets compared to their core-urban households (13.8%). At the county level, Turkana recorded the highest share of purchases from specialised shops (32.3%), while Wajir (4.8%) recorded the lowest share.

7 Specialized shops are outlets, which deal with specific types of goods and/or services such as butcheries.

Table 3.1: Percentage Distribution of Household Food Consumption by Source and Residence

Residence / County	Purchases	Stock	Own production	Gifts	Total
National	68.3	8.4	18.0	5.2	100
Rural	57.4	8.1	27.7	6.7	100
Peri-Urban	65.6	7.9	21.7	4.8	100
Urban	85.7	8.9	2.4	2.9	100
Mombasa	88.9	7.5	0.4	3.0	100
Kwale	70.9	4.8	20.7	3.6	100
Kilifi	70.0	7.5	15.5	7.0	100
Tana River	81.1	4.7	9.0	5.1	100
Lamu	76.3	6.0	13.2	4.6	100
Taita/Taveta	63.1	8.8	22.1	5.5	100
Garissa	38.0	47.2	9.8	5.0	100
Wajir	68.9	18.8	10.1	2.3	100
Mandera	75.3	5.2	10.6	9.0	100
Marsabit	67.3	11.5	13.4	7.5	100
Isiolo	71.7	12.9	9.4	6.0	100
Meru	61.9	9.4	21.9	6.8	100
Tharaka-Nithi	49.3	8.3	32.8	9.6	100
Embu	58.9	9.0	25.6	6.5	100
Kitui	56.9	6.5	31.7	4.8	100
Machakos	73.7	8.1	15.6	2.7	100
Makueni	60.8	5.7	30.4	3.1	100
Nyandarua	58.7	7.1	28.4	5.9	100
Nyeri	61.2	10.3	20.8	7.7	100
Kirinyaga	68.4	10.3	15.5	5.6	100
Murang'a	59.2	8.2	27.0	5.6	100
Kiambu	83.8	6.6	7.6	1.9	100
Turkana	63.2	13.8	7.0	16.0	100
West Pokot	44.4	14.8	34.1	6.7	100
Samburu	56.4	11.4	21.1	11.0	100
Trans Nzoia	59.8	10.5	21.4	8.4	100
Uasin Gishu	66.6	6.7	23.2	3.5	100
Elgeyo / Marakwet	48.2	11.7	35.6	4.5	100
Nandi	60.7	6.8	28.4	4.0	100
Baringo	68.6	4.8	21.5	5.1	100
Laikipia	66.7	11.7	15.0	6.6	100
Nakuru	71.7	8.7	16.2	3.4	100
Narok	62.7	5.8	28.6	2.9	100
Kajiado	83.5	6.0	7.8	2.6	100
Kericho	55.1	9.5	31.1	4.0	100
Bomet	56.4	10.6	28.6	4.4	100
Kakamega	59.3	5.0	28.8	6.8	100
Vihiga	60.6	4.7	29.3	5.2	100
Bungoma	67.1	5.9	22.1	4.7	100
Busia	52.9	2.2	38.1	6.8	100
Siaya	57.4	5.2	28.5	9.0	100
Kisumu	83.7	3.2	8.9	4.2	100
Homa Bay	56.0	9.4	17.6	17.0	100
Migori	54.9	8.0	32.4	4.3	100
Kisii	60.9	9.0	25.5	4.5	100
Nyamira	46.5	18.3	26.8	8.4	100
Nairobi City	86.7	9.2	1.6	2.6	100

Table 3.2: Mean Monthly Food and Non-Food Expenditure per Adult Equivalent

Residence / County	Expenditure			Percentage share	
	Food	Non-food	Total	Food	Nonfood
National	4,239	3,572	7,811	54.3	45.7
Rural	3,447	1,879	5,326	64.7	35.3
Peri-urban	3,792	2,749	6,540	58.0	42.0
Core-urban	5,550	6,349	11,900	46.6	53.4
Mombasa	5,459	5,510	10,970	49.8	50.2
Kwale	3,924	2,546	6,470	60.6	39.4
Kilifi	4,081	3,828	7,908	51.6	48.4
Tana River	2,935	2,017	4,952	59.3	40.7
Lamu	5,006	2,719	7,725	64.8	35.2
Taita / Taveta	4,023	2,893	6,917	58.2	41.8
Garissa	2,954	1,668	4,622	63.9	36.1
Wajir	2,686	1,097	3,784	71.0	29.0
Mandera	2,287	1,173	3,461	66.1	33.9
Marsabit	2,983	1,510	4,493	66.4	33.6
Isiolo	3,592	2,661	6,252	57.5	42.6
Meru	4,612	2,616	7,228	63.8	36.2
Tharaka - Nithi	4,382	2,861	7,243	60.5	39.5
Embu	4,148	2,859	7,007	59.2	40.8
Kitui	3,424	2,054	5,478	62.5	37.5
Machakos	4,403	4,053	8,455	52.1	47.9
Makueni	3,620	2,453	6,073	59.6	40.4
Nyandarua	4,254	2,439	6,694	63.5	36.4
Nyeri	5,402	3,818	9,220	58.6	41.4
Kirinyaga	4,359	3,010	7,369	59.2	40.8
Murang'a	3,690	2,705	6,394	57.7	42.3
Kiambu	4,567	5,027	9,594	47.6	52.4
Turkana	3,704	1,158	4,862	76.2	23.8
West Pokot	2,552	1,362	3,914	65.2	34.8
Samburu	3,037	1,440	4,477	67.8	32.2
Trans Nzoia	3,543	2,942	6,485	54.6	45.4
Uasin Gishu	3,778	3,252	7,030	53.7	46.3
Elgeyo / Marakwet	3,108	1,800	4,909	63.3	36.7
Nandi	3,215	2,069	5,284	60.8	39.2
Baringo	3,938	2,773	6,712	58.7	41.3
Laikipia	3,960	2,287	6,247	63.4	36.6
Nakuru	4,765	3,869	8,634	55.2	44.8
Narok	4,559	3,706	8,265	55.2	44.8
Kajiado	4,122	4,285	8,407	49.0	51.0
Kericho	3,342	2,260	5,602	59.7	40.3
Bomet	3,179	1,443	4,622	68.8	31.2
Kakamega	3,311	1,961	5,272	62.8	37.2
Vihiga	2,951	1,686	4,637	63.6	36.4
Bungoma	3,619	2,222	5,841	62.0	38.0
Busia	2,617	1,307	3,924	66.7	33.3
Siaya	4,106	1,853	5,959	68.9	31.1
Kisumu	4,435	3,238	7,673	57.8	42.2
Homa Bay	3,724	1,954	5,677	65.6	34.4
Migori	3,239	1,833	5,072	63.9	36.1
Kisii	3,336	2,043	5,378	62.0	38.0
Nyamira	3,402	2,379	5,781	58.8	41.2
Nairobi City	6,153	8,158	14,311	43.0	57.0

Table 3.3: Percentage Distribution of Households by Point of Purchased Food Items

Residence / County	Supermarket	Open Market	Kiosk	General Shop	Specialised Shop	Informal Sources	Other Formal Points	Number of Observations
National	4.7	26.6	22.0	27.9	8.4	10.2	0.3	303,186
Rural	1.7	30.0	17.9	32.5	7.3	10.3	0.4	158,526
Peri-Urban	4.7	32.6	19.1	26.5	7.8	9.1	0.3	37,592
Core-Urban	7.7	22.4	26.4	23.6	9.6	10.1	0.3	107,068
Mombasa	2.7	13.3	35.0	33.6	10.7	4.6	0.2	8,675
Kwale	1.1	13.1	23.3	49.8	3.9	8.1	0.7	7,884
Kilifi	1.5	12.2	23.1	45.5	8.1	9.3	0.3	7,601
Tana River	0.1	2.5	47.5	31.8	12.5	5.6	0.0	5,631
Lamu	0.1	13.5	25.9	43.7	7.2	9.6	0.0	7,564
Taita /Taveta	2.1	27.7	16.4	37.0	11.1	5.5	0.2	7,299
Garissa	0.7	23.2	22.4	30.3	7.6	15.4	0.4	1,968
Wajir	0.2	21.9	73.6	1.2	2.8	0.3	0.0	4,224
Mandera	0.2	17.6	52.6	25.9	2.8	0.9	0.0	3,891
Marsabit	0.2	23.7	46.6	22.2	5.2	2.0	0.0	3,611
Isiolo	1.3	23.0	33.8	30.5	8.2	2.5	0.6	5,067
Meru	2.9	27.9	20.5	31.0	6.6	8.4	2.7	7,902
Tharaka-Nithi	2.5	28.7	19.0	30.6	9.7	9.1	0.4	6,158
Embu	3.3	38.4	7.7	34.4	8.2	7.5	0.5	6,497
Kitui	0.9	11.8	23.5	54.9	5.2	3.7	0.0	6,016
Machakos	4.8	30.5	14.9	37.3	8.9	3.3	0.3	7,190
Makueni	1.9	29.2	8.8	46.6	8.4	5.2	0.0	7,184
Nyandarua	3.6	21.1	5.2	55.5	8.5	5.4	0.7	5,319
Nyeri	4.3	36.9	7.3	30.2	11.2	9.9	0.2	6,857
Kirinyaga	3.1	29.5	12.7	30.0	11.0	13.5	0.2	7,733
Murang'a	1.8	32.3	10.9	39.7	8.1	7.2	0.0	6,084
Kiambu	4.1	20.6	25.4	24.6	7.4	17.0	0.9	7,845
Turkana	0.8	21.2	57.1	10.2	7.0	3.7	0.1	3,502
West Pokot	1.1	31.5	37.8	14.0	5.0	10.5	0.1	4,520
Samburu	0.6	30.2	15.0	32.9	15.0	6.2	0.0	4,708
Trans Nzoia	8.0	35.3	8.1	28.2	9.1	11.3	0.1	7,424
Uasin Gishu	9.2	24.4	24.9	20.8	8.7	11.4	0.6	7,685
Elgeyo / Marakwet	1.1	29.2	33.2	13.0	8.4	14.7	0.3	4,283
Nandi	2.7	21.4	21.5	22.5	8.9	22.1	1.0	6,613
Baringo	5.2	22.7	20.4	29.4	12.0	10.1	0.2	7,420
Laikipia	3.5	34.4	25.0	20.5	6.7	9.7	0.2	6,612
Nakuru	6.6	22.7	21.2	30.1	10.9	8.3	0.2	7,935
Narok	2.2	28.2	9.4	40.5	11.6	8.0	0.1	7,313
Kajiado	10.7	44.5	5.9	29.0	6.8	3.0	0.1	5,915
Kericho	3.9	25.8	24.9	15.3	12.0	17.4	0.6	5,410
Bomet	2.4	20.3	29.8	17.6	14.8	14.9	0.1	4,310
Kakamega	1.7	34.8	10.8	27.0	7.4	18.2	0.1	7,406
Vihiga	1.5	32.6	15.6	34.5	4.2	11.7	0.0	6,038
Bungoma	2.5	39.1	17.3	20.2	8.1	12.6	0.1	7,559
Busia	1.9	43.8	12.6	21.5	6.1	13.9	0.2	6,049
Siaya	1.7	49.1	8.2	28.1	5.4	7.4	0.1	6,951
Kisumu	7.8	34.4	23.7	21.9	5.6	6.6	0.0	9,223
Homa Bay	0.7	54.6	10.6	20.3	5.2	8.2	0.5	7,177
Migori	2.2	60.7	9.3	17.9	3.3	6.5	0.1	6,500
Kisii	3.6	43.0	10.8	25.5	8.0	9.0	0.0	5,942
Nyamira	3.5	32.5	21.1	12.5	9.9	20.3	0.1	5,460
Nairobi City	9.2	16.9	31.9	20.4	9.0	12.4	0.2	13,031

The distribution of households by deciles[8], point of purchase of food items and place of residence is presented in Table 3.4. Households with higher total expenditure tend to purchase a larger proportion of their food items from supermarkets. This pattern holds invariably across all the domains of analysis. Households in the 1st decile in rural (29.3%), peri-urban (29.5%) and core-urban (39.7%) purchased a more significant share of their food items from Kiosks.

Table 3.4 Distribution of Households by Deciles, Point of Purchase of Food Items and Residence

Residence / County	Decile	Super-market	Open Market	Kiosk	General Shop	Specialised Shop	Informal Sources	Other Formal Purchase Points	Number of Observations
Rural	1	0.5	23.8	29.3	26.2	8.0	12.0	0.2	13,750
	2	0.6	23.0	20.8	32.5	9.3	13.3	0.6	17,331
	3	1.1	24.5	16.6	33.7	10.8	12.5	0.7	18,116
	4	0.8	23.0	17.5	32.2	12.8	12.6	1.2	18,160
	5	1.3	22.8	14.6	32.4	15.2	12.5	1.2	18,732
	6	2.6	23.1	11.3	34.0	16.6	11.8	0.6	18,042
	7	2.2	21.5	12.1	33.5	19.1	10.6	1.0	16,930
	8	3.1	21.8	10.7	32.7	21.6	9.2	0.9	15,744
	9	5.6	20.6	8.6	31.9	23.7	8.2	1.3	12,552
	10	8.7	16.7	6.4	26.7	30.5	8.4	2.6	9,169
Total		**2.7**	**22.0**	**14.0**	**31.9**	**17.2**	**11.1**	**1.0**	**158,526**
Peri-Urban	1	0.3	19.5	29.5	24.9	11.4	14.0	0.3	2,159
	2	0.7	26.4	20.1	25.8	11.9	14.4	0.7	2,703
	3	1.8	26.2	20.3	29.0	10.5	11.4	0.7	3,805
	4	1.8	27.7	20.1	25.6	15.0	9.7	0.2	3,767
	5	3.4	26.9	17.0	27.4	14.8	9.8	0.6	4,551
	6	5.4	25.4	14.6	29.7	16.7	8.1	0.1	4,587
	7	5.9	20.9	13.8	30.0	21.0	8.1	0.3	4,581
	8	6.3	22.1	14.0	24.9	22.8	7.8	2.1	4,292
	9	9.6	21.1	11.4	23.2	25.9	7.9	1.0	3,849
	10	14.3	23.0	8.7	16.3	29.7	4.3	3.7	3,298
Total		**6.4**	**23.7**	**14.9**	**25.1**	**20.2**	**8.5**	**1.2**	**37,592**
Core-Urban	1	0.5	23.2	39.7	25.6	4.7	6.3	-	1,076
	2	0.9	22.9	32.6	27.8	9.2	6.5	0.2	2,137
	3	3.0	19.9	21.5	32.2	14.2	6.8	2.4	2,755
	4	1.8	20.5	23.9	32.1	12.6	8.4	0.7	4,047
	5	5.0	15.4	23.7	31.7	14.9	9.0	0.3	5,882
	6	6.6	15.1	17.9	35.2	17.6	6.6	0.9	8,698
	7	4.9	13.9	20.4	30.7	19.7	10.0	0.4	11,956
	8	6.2	15.3	19.7	26.7	22.8	8.7	0.6	16,641
	9	9.2	13.4	17.9	25.0	25.2	8.5	0.8	22,376
	10	17.3	12.7	12.8	18.0	32.0	6.1	1.2	31,500
Total		**11.6**	**13.8**	**16.5**	**23.5**	**26.3**	**7.4**	**0.9**	**107,068**

8 Households in the 1st expenditure decile have the lowest average total consumption expenditure while those in the 10th decile have the highest.

CHAPTER FOUR

Poverty Indicators

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Poverty Indicators

This chapter presents the main findings on poverty levels, using the computed poverty lines as discussed in Chapter 2. Sections 4.1 and 4.2 present the 2015/16 poverty measures at the national level, by place of residence (rural, peri-urban and core-urban), and at the county level. Section 4.3 presents the trend in poverty measures between 2005/06 and 2015/16. Finally, section 4.4 discusses inequality based on the Gini coefficient and quintile analysis.

4.1 Poverty Lines - 2015/16

This section focuses on poverty estimates based on three poverty lines; food poverty line, overall poverty line, and hardcore or extreme poverty line defined as follows:

Food Poverty: Households and individuals whose monthly adult equivalent food consumption expenditure per person is less than KSh 1,954 in rural and peri-urban areas and less than KSh 2,551 in core-urban areas respectively are considered to be food poor or live in "food poverty".

Overall Poverty: Households and individuals whose monthly adult equivalent total consumption expenditure per person is less than KSh 3,252 in rural and peri-urban areas and less than KSh 5,995 in core-urban areas are considered to be overall poor or live in "overall poverty".

Hardcore or Extreme Poverty: Households and individuals whose monthly adult equivalent total consumption expenditure per person is less than KSh 1,954 in rural and peri-urban areas and less than KSh 2,551 in core-urban areas respectively are considered to be hardcore poor or live in "hardcore or extreme poverty".

4.2 Summary of Poverty Measures-National Level - 2015/16

Table 4.1 shows the headcount poverty rates and population of the poor at national level and by area of residence.

Table 4.1: Summary of 2015/16 Headcount Poverty Measures

Residence	Headcount Poverty Measures	Poor Individuals		Poor Households		Poor People (Adult equivalent-Adulteq)	
		(% of Population)	(Number of people in thousands)	(% of Households)	(Number of households in thousands)	(% of Adulteq)	(Number of Adulteq in thousands)
National	Food Poverty	32.0	14,539	23.8	2,718	31.9	11,594
	Overall Poverty	36.1	16,401	27.4	3,126	35.3	12,847
	Hardcore Poverty	8.6	3,908	6.0	682	8.3	3,037
Rural	Food Poverty	35.8	10,419	28.1	1,808	35.7	8,213
	Overall Poverty	40.1	11,687	32.6	2,097	39.5	9,086
	Hardcore Poverty	11.2	3,273	8.7	560	11.0	2,530
Peri-Urban	Food Poverty	28.9	965	21.5	173	29.1	789
	Overall Poverty	27.5	920	21.1	166	27.3	768
	Hardcore Poverty	6.0	199	4.6	37	6.0	163
Core-Urban	Food Poverty	24.4	3,155	17.7	736	24.3	2,592
	Overall Poverty	29.4	3,795	20.6	880	28.3	2,915
	Hardcore Poverty	3.4	436	2.0	85	3.2	343

Food Poverty-National Level

The national food poverty headcount rate for individuals in 2015/16 was 32 per cent, implying that 14.5 million individuals did not meet the food poverty line threshold. In other words, about one in every three individuals in Kenya is unable to consume the minimum daily calorific requirement of 2,250 Kcal as per their expenditures on food. Food poverty incidence remains highest in rural areas, where 35.8 per cent of the population (10.4 million individuals) were below the food poverty line compared to 28.9 per cent (almost 1 million individuals) in peri-urban areas and 29.4 per cent (almost 3.2 million individuals) in core-urban. The results further show that 23.8 per cent of households were food poor in 2015/16.

Overall Poverty-National Level

The statistics indicate that the overall poverty headcount rate for individuals at the national level was 36.1 per cent in 2015/16, implying that 16.4 million individuals lived in overall poverty. The overall poverty incidence remains highest in rural areas, where 40.1 per cent of residents (11.4 million individuals) were overall poor compared to 27.5 per cent (0.9 million individuals) and 29.4 per cent (3.8 million individuals) in peri-urban and core-urban areas, respectively. The statistics further indicate that 27.4 per cent of households lived in overall poverty.

Hardcore/Extreme Poverty-National Level

The hardcore (or extreme) poverty headcount rate for individuals was 8.6 per cent in 2015/16, implying that 3.9 million people lived in conditions of abject poverty and were unable to afford the minimum required food consumption basket even if they allocated all their expenditure on food alone. Extreme poverty incidence remains highest in rural areas, where 11.2 per cent of residents (3.2 million individuals) were hardcore poor. The results further indicate that six per cent of households were extreme poor.

4.3 Main Findings of the 2015/16 Poverty Estimates -County level

Food Poverty Estimates - County level Findings

Table 4.2 summarizes food poverty measures for individuals and across counties. The findings are further presented by corresponding visualizations in: Chart 4.1 - which ranks food poverty incidence estimates at the county level in ascending order, from least to highest poverty incidence; and Map 4.1- which visualizes county level variation in overall poverty incidence geographically.

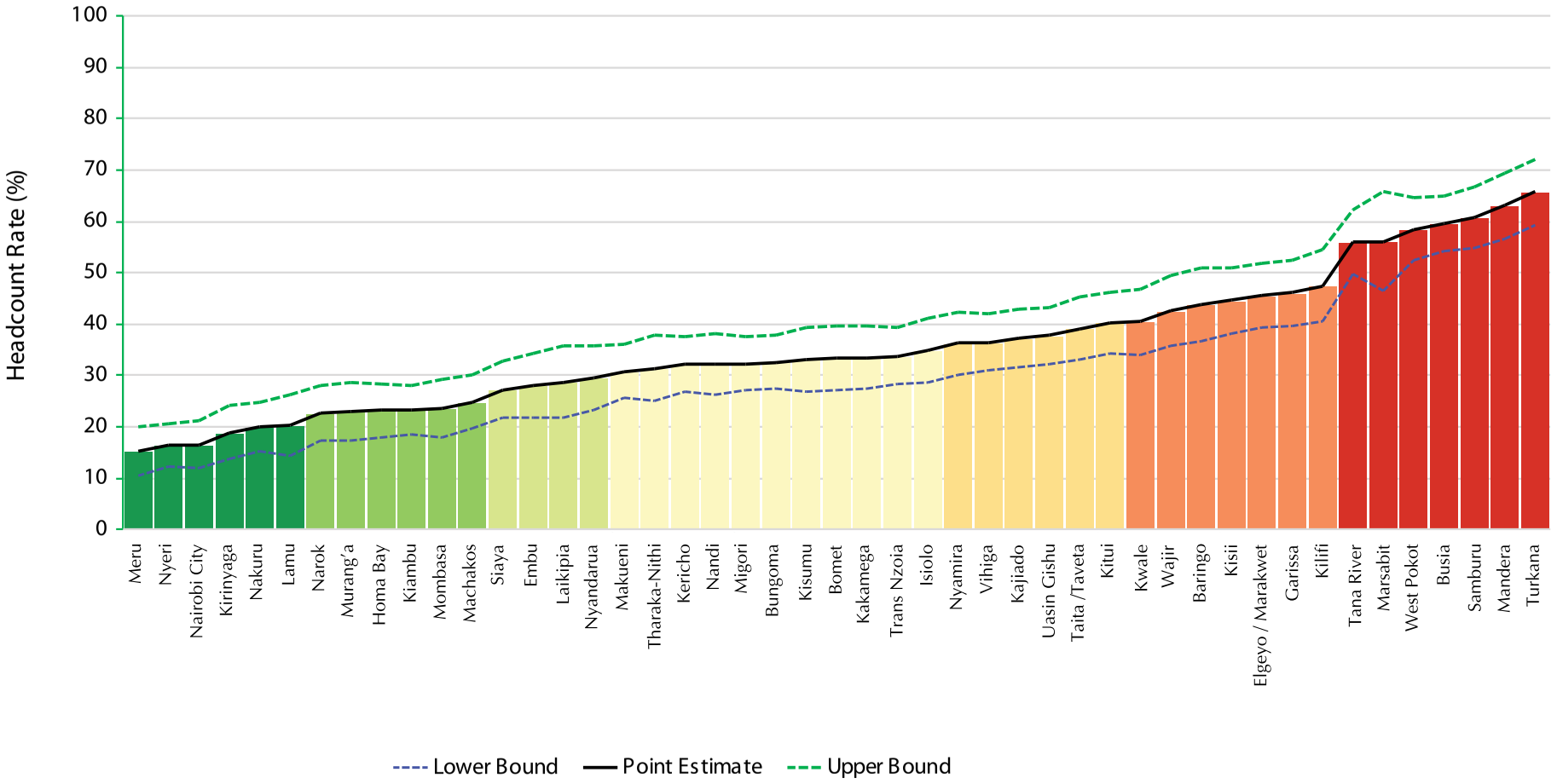
Looking beyond the national average food poverty headcount rate for individuals of 32 per cent reveals substantial and significant variation in food poverty incidence at the county level ranging from lows of 15.5 per cent in Meru and Nyeri Counties to a high of 66.1 per cent in Turkana County. Food poverty incidence levels are higher and affect more than half of the population in the following seven counties: Turkana (66.1 %), Mandera (61.9 %), Samburu (60.1 %), Busia (59.5 %), West Pokot (57.3 %), Marsabit (55.6 %) and Tana River (55.4 %). Food poverty incidence levels are lower and affect less than one fifth of the population in the following six counties: Meru (15.5 %), Nyeri (15.5 %), Nairobi (16.1 %), Kirinyaga (18.8 %) Nakuru (19.5 %) and Lamu (19.9 %).

In terms of numbers of individuals living in food poverty, Turkana and Nairobi City Counties with populations of over 715 thousand food poor people each jointly account for almost ten per cent of all food poor individuals in the country. The six counties with high numbers of overall poor people that collectively account for 26.4 per cent of the national total of 14.5 million food poor individuals are: Turkana (4.9 %), Nairobi City (4.9 %), Kilifi (4.7 %), Kakamega (4.3 %), Kisii (4.1 %) and Bungoma (3.5 %).

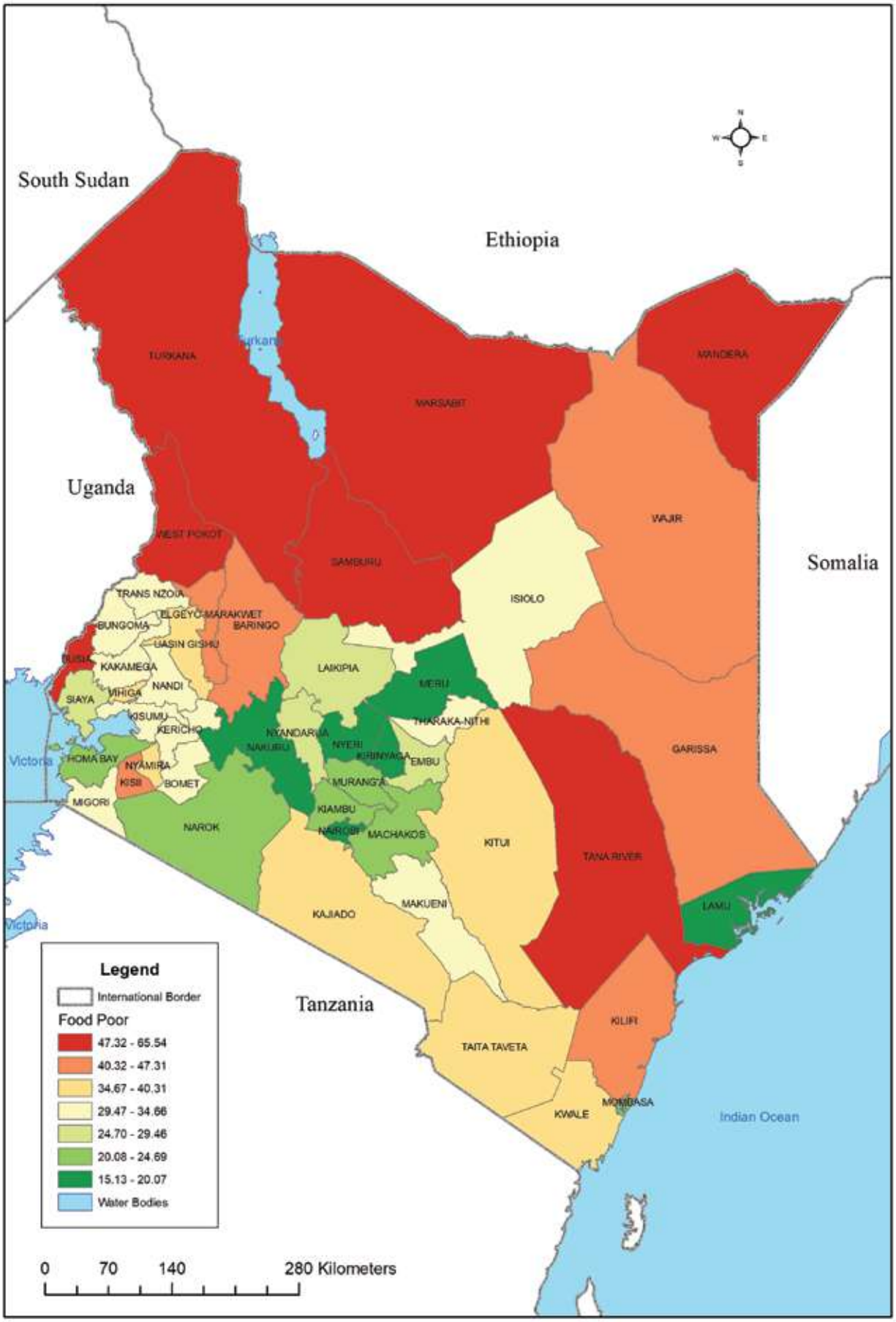
Table 4.2: Food Poverty Estimates (Individual) by Residence and County, 2015/16

Residence/ County	Headcount Rate (%)	Distribution of the Poor (%)	Poverty Gap (%)	Severity of Poverty (%)	Population ('000)	Number of Poor ('000)
National	32.0	100.0	9.2	3.9	45,371	14,539
Rural	35.8	71.7	10.3	4.4	29,127	10,419
Peri-Urban	28.9	6.6	7.4	2.9	3,340	817
Core-Urban	24.4	21.7	7.2	3.0	12,905	3,728
Mombasa	23.6	1.9	7.2	3.1	1,185	280
Kwale	41.1	2.3	10.4	3.6	820	337
Kilifi	48.4	4.7	12.6	4.9	1,400	678
Tana River	55.4	1.2	18.2	8.8	304	168
Lamu	19.9	0.2	4.8	1.8	128	25
Taita /Taveta	38.9	1.0	9.0	3.3	358	139
Garissa	45.2	1.3	14.4	6.5	432	195
Wajir	41.3	1.3	11.8	5.3	459	189
Mandera	61.9	3.0	26.4	14.2	711	440
Marsabit	55.6	1.2	17.9	8.0	316	176
Isiolo	34.2	0.4	9.2	3.5	156	53
Meru	15.5	1.6	3.8	1.4	1,471	228
Tharaka-Nithi	31.2	0.8	7.1	2.3	396	123
Embu	28.3	1.1	6.9	2.7	560	158
Kitui	39.4	3.0	12.5	5.7	1,098	432
Machakos	24.1	2.0	6.8	2.8	1,191	287
Makueni	30.7	2.0	9.1	3.8	959	295
Nyandarua	29.8	1.4	5.9	1.8	686	205
Nyeri	15.5	0.9	3.0	0.8	798	124
Kirinyaga	18.8	0.8	3.0	0.9	608	114
Murang'a	22.7	1.7	5.7	2.2	1,085	246
Kiambu	23.5	3.0	5.9	2.2	1,868	439
Turkana	66.1	4.9	32.9	20.4	1,084	716
West Pokot	57.3	2.6	20.4	9.4	649	372
Samburu	60.1	1.2	22.7	11.3	284	171
Trans Nzoia	33.3	2.4	9.9	4.1	1,038	345
Uasin Gishu	38.2	3.0	11.7	5.0	1,133	433
Elgeyo / Marakwet	44.8	1.4	10.8	4.0	469	210
Nandi	31.5	2.1	8.3	3.1	954	300
Baringo	41.4	2.0	10.8	4.1	704	291
Laikipia	28.5	1.0	9.2	4.2	507	145
Nakuru	19.6	2.7	4.8	1.7	2,031	399
Narok	22.1	1.6	6.7	3.0	1,078	238
Kajiado	36.9	2.2	12.3	5.5	871	321
Kericho	31.4	2.0	7.3	2.9	945	297
Bomet	32.8	2.1	5.6	1.6	916	300
Kakamega	33.3	4.3	8.3	3.1	1,876	624
Vihiga	36.6	1.6	9.5	4.0	627	230
Bungoma	32.4	3.5	9.5	3.9	1,553	503
Busia	59.5	3.4	17.5	7.2	840	500
Siaya	27.3	1.8	7.2	3.1	985	269
Kisumu	32.5	2.5	8.3	3.3	1,132	368
Homa Bay	22.7	1.7	6.0	2.4	1,072	244
Migori	32.0	2.5	7.9	3.0	1,126	360
Kisii	44.5	4.1	11.6	4.3	1,347	599
Nyamira	36.3	1.7	10.1	4.1	699	254
Nairobi City	16.1	4.9	3.9	1.5	4,463	717

Chart 4.1: Mountain of Individual Food Poverty Incidence across Counties



Map 4.1: Food Poverty Headcount (Individual.) at the County Level



Overall Poverty- County level

Table 4.3 summarizes the overall poverty measures for individuals by county, accompanied by corresponding visualizations in: Chart 4.2- which ranks overall poverty incidence estimates at the county level in ascending order, from least to highest poverty incidence; and Map 4.2, which visualizes county level variation in overall poverty incidence geographically.

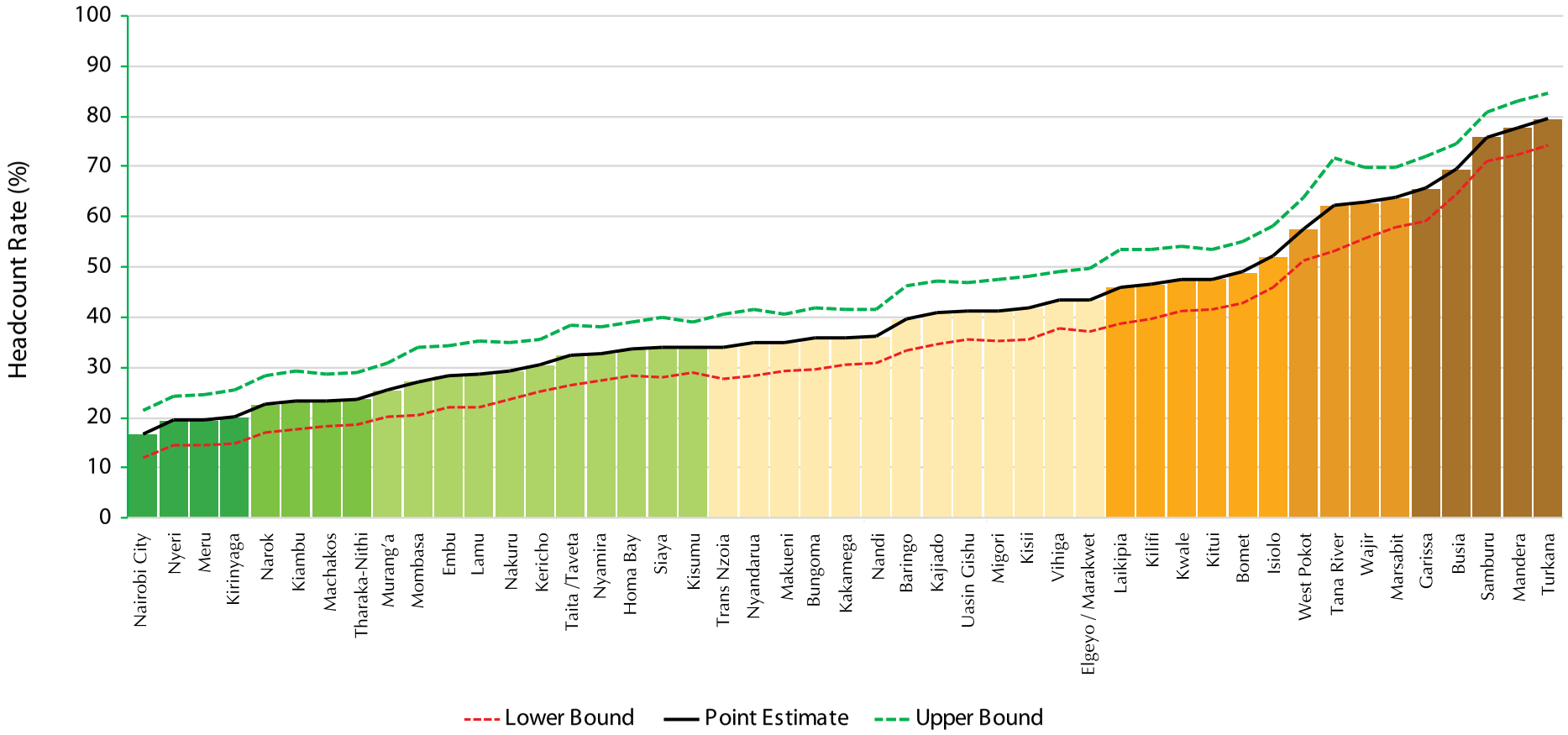
The results reveals substantial and significant variation in overall poverty incidence at the county level ranging from a low of 16.7 per cent in Nairobi City County to a high of 79.4 per cent in Turkana County. Overall poverty incidence is higher in the following five counties: Turkana (79.4 %), Mandera (77.6 %), Samburu (75.8 %), Busia (69.3 %) and Garissa (65.5 %). Overall poverty incidence is lower in: Nairobi City (16.7 %), Nyeri (19.3 %), Meru (19.4 %), Kirinyaga (20 % and Narok (22.6 %) Counties.

Turkana County, with a population of 860 thousand overall poor people, accounts for 5.2 per cent of all the poor individuals in the country. Turkana (5.2 %), Nairobi City (4.5 %), Kakamega (4.1 %) and Kilifi (4.0 %) had higher numbers of overall poor people, collectively accounting for 17.8 per cent of the total overall poor individuals. Map 4.3 visualizes the geographic distribution of the number of overall poor individuals at the county level.

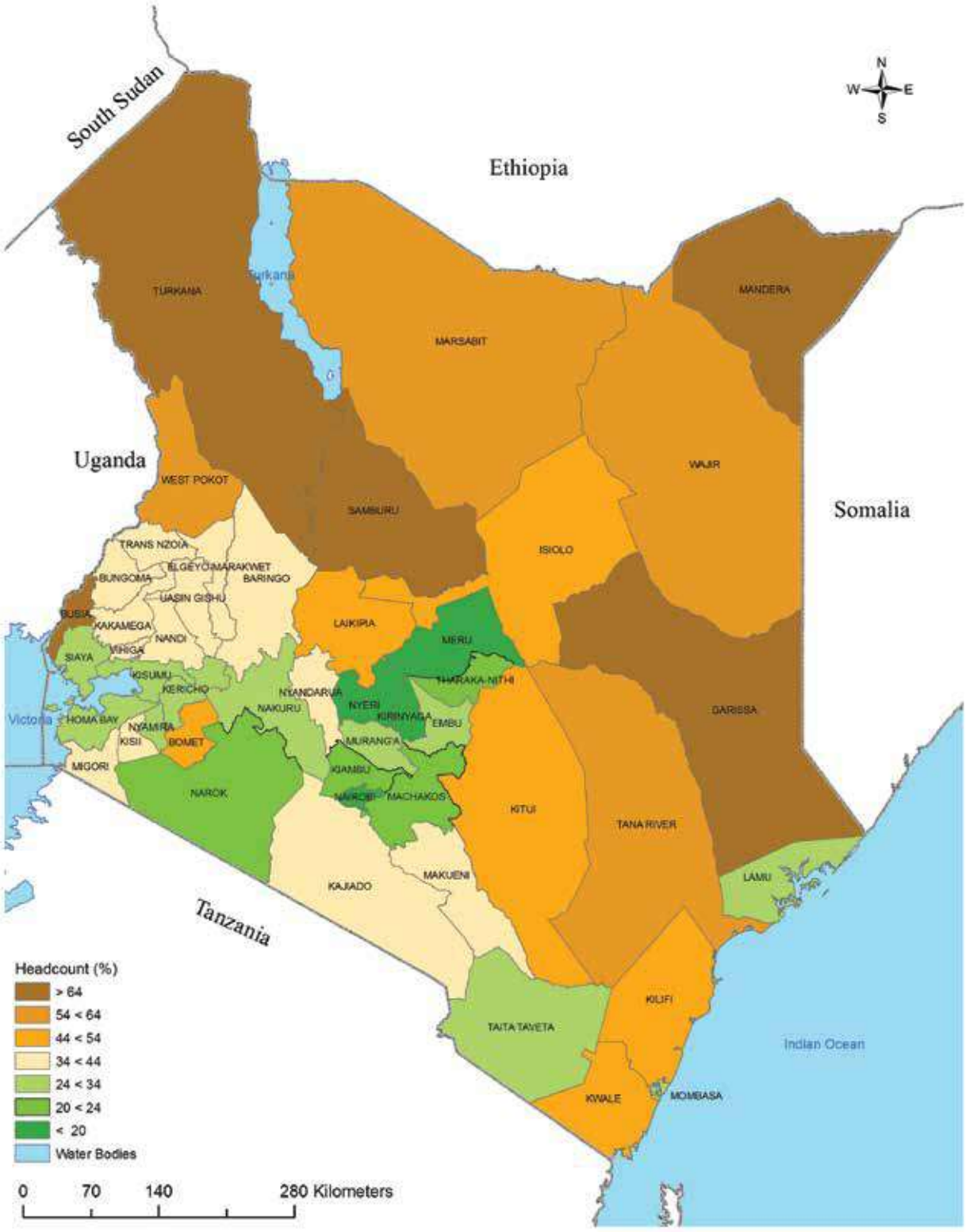
Table 4.3: Overall Poverty Estimates (Individual) by Residence and County, 2015/16

Residence / County	Headcount Rate (%)	Distribution of the Poor (%)	Poverty Gap (%)	Severity of Poverty (%)	Population ('000)	Number of Poor ('000)
National	36.1	100.0	10.4	4.5	45,371	16,401
Rural	40.1	71.3	11.5	5.0	29,127	11,687
Peri-Urban	27.5	5.6	6.9	2.6	3,340	920
Core-Urban	29.4	23.1	8.9	3.9	12,905	3,795
Mombasa	27.1	2.0	7.5	3.3	1,185	321
Kwale	47.4	2.4	11.1	3.6	820	389
Kilifi	46.4	4.0	12.3	4.8	1,400	650
Tana River	62.2	1.2	20.0	9.3	304	189
Lamu	28.5	0.2	5.5	1.8	128	36
Taita/Taveta	32.3	0.7	7.7	2.7	358	116
Garissa	65.5	1.7	24.1	11.3	432	283
Wajir	62.6	1.8	16.3	6.7	459	287
Mandera	77.6	3.4	32.8	17.0	711	552
Marsabit	63.7	1.2	23.4	11.0	316	201
Isiolo	51.9	0.5	15.5	6.7	156	81
Meru	19.4	1.7	4.9	1.8	1,471	285
Tharaka-Nithi	23.6	0.6	3.8	1.0	396	94
Embu	28.2	1.0	6.4	2.3	560	158
Kitui	47.5	3.2	13.4	5.3	1,098	522
Machakos	23.3	1.7	5.7	2.2	1,191	278
Makueni	34.8	2.0	8.8	3.2	959	334
Nyandarua	34.8	1.5	7.2	2.3	686	239
Nyeri	19.3	0.9	2.4	0.5	798	154
Kirinyaga	20.0	0.7	3.5	1.0	608	122
Murang'a	25.3	1.7	6.0	2.1	1,085	274
Kiambu	23.3	2.7	6.6	2.5	1,868	435
Turkana	79.4	5.2	46.0	30.8	1,084	860
West Pokot	57.4	2.3	20.1	9.5	649	373
Samburu	75.8	1.3	32.1	16.8	284	215
Trans Nzoia	34.0	2.2	10.4	4.4	1,038	353
Uasin Gishu	41.0	2.8	12.9	5.8	1,133	465
Elgeyo /Marakwet	43.4	1.2	13.4	5.6	469	204
Nandi	36.0	2.1	9.4	3.4	954	343
Baringo	39.6	1.7	9.7	4.2	704	278
Laikipia	45.9	1.4	14.9	6.8	507	233
Nakuru	29.1	3.6	7.8	2.8	2,031	592
Narok	22.6	1.5	6.0	2.4	1,078	243
Kajiado	40.7	2.2	13.1	5.8	871	355
Kericho	30.3	1.7	8.1	3.2	945	286
Bomet	48.8	2.7	9.3	2.8	916	447
Kakamega	35.8	4.1	9.5	3.8	1,876	672
Vihiga	43.2	1.7	11.5	4.6	627	271
Bungoma	35.7	3.4	9.5	3.6	1,553	555
Busia	69.3	3.6	22.3	9.3	840	583
Siaya	33.8	2.0	8.7	3.5	985	333
Kisumu	33.9	2.3	8.7	3.4	1,132	384
Homa Bay	33.5	2.2	8.4	3.4	1,072	360
Migori	41.2	2.8	8.0	2.5	1,126	464
Kisii	41.7	3.4	10.8	4.0	1,347	562
Nyamira	32.7	1.4	9.1	3.5	699	229
Nairobi City	16.7	4.5	3.4	1.1	4,463	745

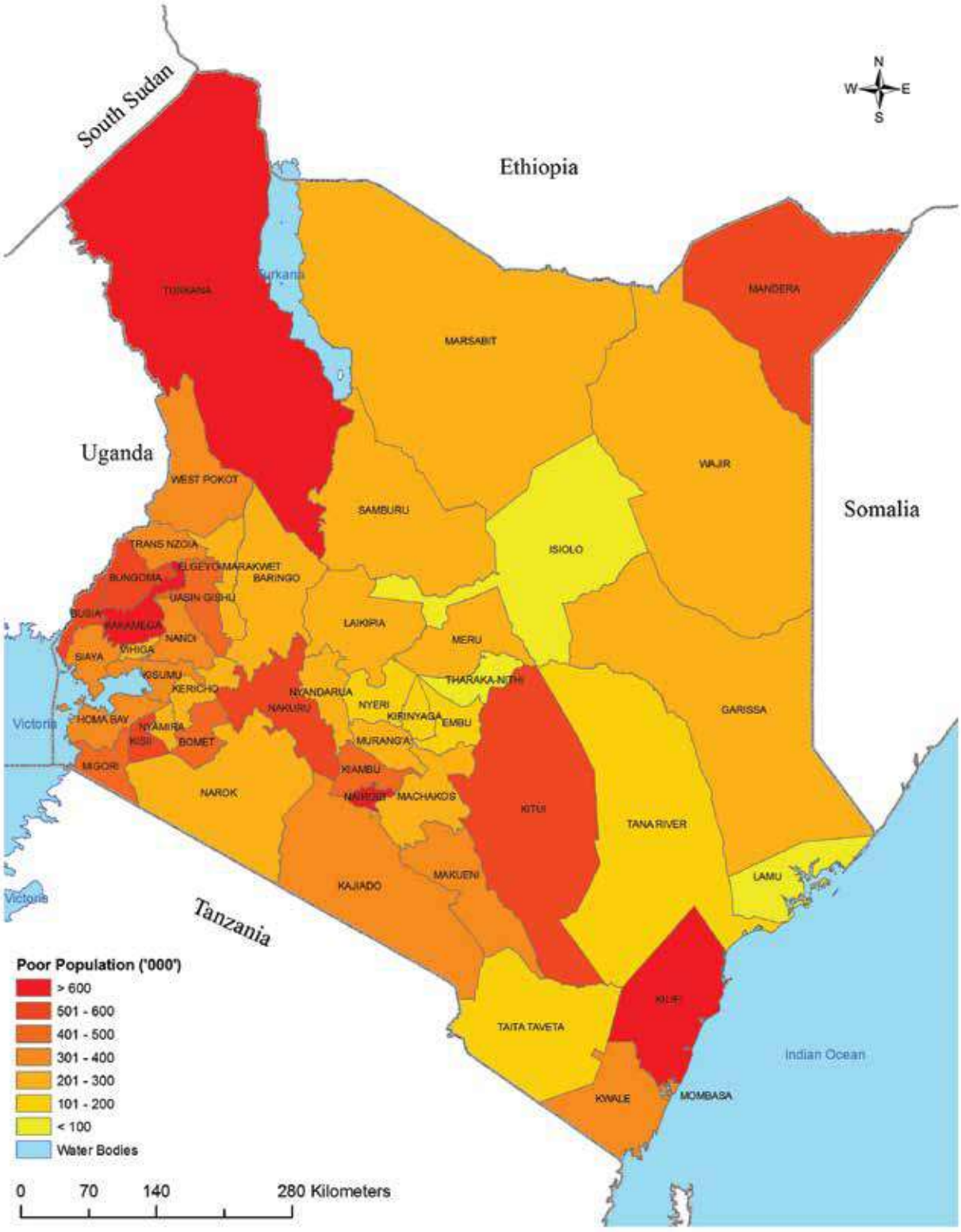
Chart 4.2: Mountain of Individual Overall Poverty Incidence across Counties



Map 4.2: Overall Poverty Headcount (Individual.) at the County Level



Map 4.3: Number of Overall Poor at County Level



Extreme Poverty Estimates- County level

Table 4.4 summarizes the hardcore or extreme poverty measures for individuals and across counties. The hardcore poverty incidence at the county level ranges from a low of 0.2 per cent in Nyeri County to a high of 52.7 per cent in Turkana County.

Extreme poverty incidence levels are higher in the following six counties: Turkana (52.7 %), Samburu (42.2 %), Mandera (38.9 %), Busia (26.8 %), West Pokot (26.3 %) and Marsabit (23.8 %). More than one third (37.5 %) of the total population living in conditions of extreme poverty reside in these six counties. Concentrations of extreme poor populations are also found in Kajiado, Kitui and Uasin Gishu Counties.

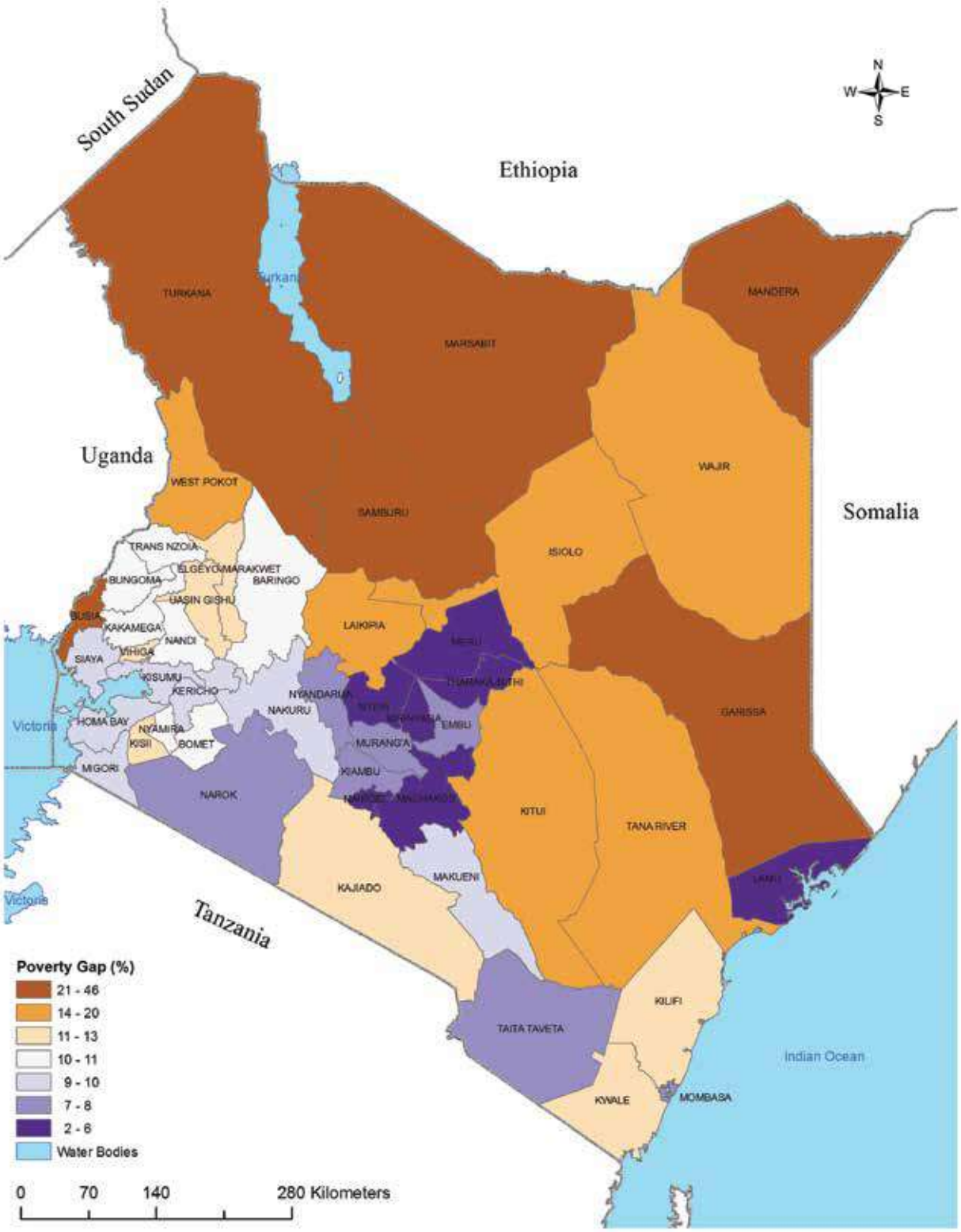
4.4 Depth of overall poverty (Poverty Gap) National and County level

Map 4.4 spatially visualizes the depth of overall poverty at the county level as measured by the poverty gap (see Table 4.3 for county level poverty gap estimates). The poverty gap measure conveys how much poorer the poor are relative to the overall poverty line. The poverty gap and extreme poverty incidence results are highly correlated and the map clearly highlights the counties where poverty incidence is much deeper compared to the national average poverty gap of 10.4 per cent, including: Turkana (46 %), Mandera (32.8 %), Samburu (32.1 %) and Garissa (24.1 %). In other words, the monthly adult equivalent expenditures of the poor in Turkana County would need to almost double on average for these individuals to move out of poverty, compared to a 10 per cent average increase for the national level.

Table 4.4: Hardcore Poverty Estimates (Individual) by Residence and County, 2015/16

Residence/ County	Headcount Rate (%)	Distribution of the Poor (%)	Poverty Gap (%)	Severity of Poverty (%)	Population ('000)	Number of Poor ('000)
National	8.6	100.0	2.2	0.9	45,371	3,908
Rural	11.2	83.8	2.9	1.2	29,127	3,273
Peri-urban	6.0	5.1	1.2	0.4	3,340	199
Core-urban	3.4	11.1	0.8	0.3	12,905	436
Mombasa	2.2	0.7	0.8	0.4	1,185	27
Kwale	5.9	1.2	0.7	0.2	820	48
Kilifi	7.0	2.5	1.9	0.8	1,400	98
Tana River	17.9	1.4	5.3	2.3	304	54
Lamu	3.2	0.1	0.8	0.2	128	4
Taita / Taveta	5.3	0.5	1.0	0.4	358	19
Garissa	23.8	2.6	6.7	2.6	432	103
Wajir	10.5	1.2	3.3	1.8	459	48
Mandera	38.9	7.1	11.0	4.1	711	277
Marsabit	23.8	1.9	6.3	2.6	316	75
Isiolo	8.9	0.4	2.0	0.7	156	14
Meru	2.8	1.1	0.5	0.1	1,471	42
Tharaka - Nithi	1.8	0.2	0.2	0.1	396	7
Embu	4.0	0.6	1.1	0.4	560	22
Kitui	12.8	3.6	2.7	0.8	1,098	141
Machakos	3.5	1.1	0.7	0.2	1,191	41
Makueni	6.6	1.6	1.1	0.3	959	63
Nyandarua	3.4	0.6	0.5	0.1	686	23
Nyeri	0.2	0.0	0.0	0.0	798	1
Kirinyaga	0.9	0.1	0.2	0.1	608	6
Murang'a	5.2	1.4	0.8	0.2	1,085	56
Kiambu	3.1	1.5	0.4	0.1	1,868	58
Turkana	52.7	14.6	24.3	14.1	1,084	571
West Pokot	26.2	4.3	6.0	2.2	649	170
Samburu	42.2	3.1	11.7	5.0	284	120
Trans Nzoia	9.7	2.6	2.2	0.7	1,038	101
Uasin Gishu	12.1	3.5	2.8	1.0	1,133	137
Elgeyo / Marakwet	12.2	1.5	2.8	0.9	469	57
Nandi	8.0	2.0	1.2	0.3	954	76
Baringo	8.5	1.5	2.6	1.2	704	60
Laikipia	15.0	1.9	4.4	1.7	507	76
Nakuru	3.7	1.9	0.4	0.1	2,031	75
Narok	5.5	1.5	1.2	0.4	1,078	60
Kajiado	11.4	2.5	2.5	0.9	871	99
Kericho	7.3	1.8	1.7	0.7	945	69
Bomet	6.1	1.4	0.7	0.1	916	56
Kakamega	6.9	3.3	1.9	0.8	1,876	129
Vihiga	8.2	1.3	1.7	0.7	627	51
Bungoma	8.8	3.5	1.7	0.5	1,553	137
Busia	26.8	5.8	4.3	1.1	840	225
Siaya	6.1	1.5	1.5	0.5	985	60
Kisumu	6.0	1.7	1.2	0.4	1,132	68
Homa Bay	5.9	1.6	1.2	0.3	1,072	64
Migori	3.6	1.0	0.6	0.2	1,126	40
Kisii	7.5	2.6	1.2	0.3	1,347	101
Nyamira	7.6	1.4	1.5	0.5	699	53
Nairobi City	0.6	0.1	0.0	9.8	4,463	26

Map 4.4: Overall Poverty Gap (Individuals) at the County Level



4.5 Trends in Poverty Incidence between 2005/06 and 2015/16

This section summarizes the trends in poverty incidence measures between the 2005/06 and 2015/16 KIHBS. To present a consistent and comparable trend, the food and overall poverty lines endogenously generated from the 2015/16 KIHBS (following the methodology detailed in chapter 2) is deflated and revalued to reflect the expenditure item prices that prevailed during the 2005/06 KIHBS. This is necessary because of differences in the composition and weights in basic rural and urban food baskets between 2005/06 and 2015/16 KIHBS (as illustrated Figures 2.1a and 2.1b in chapter 2). These differences are normal and suggest that, as in most other countries, food consumption preferences have changed over the past decade.

In conformity with recommended best practice, comparable 2005/06 poverty lines were computed in two phases to examine trends in poverty incidence between the two survey years. The first step involves revaluing the 2015/16 rural and urban basic food baskets (detailed in Tables 2.3 and 2.4 respectively) using 2005/06 prices. This generates comparable 2005/06 rural and urban food poverty lines of KSh 1,002 and KSh 1,237, respectively, per adult per month. The second step involves deflating the non-food components of the 2015/16 rural and urban overall poverty lines using the Consumer Price Index (CPI). Adding the latter to the food poverty lines results in comparable 2005/06 rural and urban overall poverty lines of KSh 1,584 and KSh 2,779 respectively, per adult per month. The poverty incidence measures and trends based on this comparable (adjusted) 2005/06 lines are presented in Table 4.5.

Table 4.5: Trends in Poverty Incidence between 2005/06 and 2015/16

Indicator	Place of Residence	Poor Individuals		Poor Individuals 2015/16	10 year Change
		2005/06	2005/06*		
Overall Poverty Rate (%)	National	46.6	46.8	36.1	-10.7
	Rural	49.7	52.5	40.1	-12.4
	Peri-Urban	n/a	42.5	27.5	-15
	Core-Urban	34.4	32.1	29.4	-2.7
Food Poverty Rate (%)	National	45.8	44.4	32.0	-12.4
	Rural	47.2	49.5	35.8	-13.7
	Peri-Urban	n/a	43.3	28.9	-14.4
	Core-Urban	40.4	29.0	24.4	-4.6
Extreme or Hardcore Poverty Rate (%)	National	19.5	19.6	8.6	-11
	Rural	22.3	24.1	11.2	-12.9
	Peri-Urban	n/a	18.4	6.0	-12.4
	Core-Urban	8.3	6.0	3.4	-2.6
Distribution of the Overall Poor (%)	National	n/a	n/a	n/a	n/a
	Rural	84.9	72.2	71.3	-0.9
	Peri-Urban	n/a	14.0	5.6	-8.4
	Core-Urban	15.1	13.8	23.1	9.3
Population Living in Overall Poverty (Millions)	National	16.6	16.6	16.4	-0.2
	Rural	14.1	12.0	11.7	-4.8
	Peri-Urban	n/a	2.3	0.9	0.1
	Core-Urban	2.5	2.3	3.8	2.8
Population Distribution (%)	National	n/a	n/a	n/a	n/a
	Rural	79.3	64.4	64.2	-0.2
	Peri-Urban	n/a	15.4	7.4	-8.1
	Core-Urban	20.7	20.1	28.4	8.3

* Comparable 2005/06 poverty line (revaluing the 2015/16 basic basket using 2005/06 prices)

n/a - Not available

The comparable trend analysis reveals that the overall poverty headcount rate for individuals reduced by 10.7 percentage points from 46.8 per cent in 2005/06 to 36.1 per cent in 2015/16. The overall headcount poverty rate in rural areas decreased by 12.4 percentage points from 52.5 per cent in 2005/06 to 40.1 per cent in 2015/16, while that of peri-urban decreased by 15.0 percentage points from 42.5 per cent in 2005/06 to 27.5 per cent in 2015/16. However, poverty rates in core-urban areas reduced only modestly by 2.7 per cent from 32.1 per cent in 2005/06 to 29.4 per cent in 2015/16.

While the poverty rate has declined substantially, the overall total number of the poor declined marginally from 16.6 million in 2005/06 to 16.4 million in 2015/16. In other words, the pace of poverty reduction has only just overtaken the pace of population growth. The differential trends in poverty reduction across areas of residence are likewise driven in some part by differential demographic trends. Although the share of the national population living in rural areas remained relatively unchanged (at about 64 per cent) over the past decade, there was a substantial population shift from peri-urban to core-urban areas. The 2015/16 core-urban population share expanded to 28.4 per cent of the total population vis-a-vis 20.1 per cent in 2005/06. Peri-urban and core-urban food poverty reduced by 14.4 and 4.6 percentage points, respectively. Correspondingly, while the bulk of the poor (just over 70 %) remain in rural areas, the share of the poor in core-urban areas has increased while that of the poor living in peri-urban areas has decreased.

The food poverty headcount rate for individuals at the national level declined by 12.4 percentage points from 44.4 per cent in 2005/06 to 32.0 per cent in 2015/16. Similar substantive reductions in food poverty incidence were registered in rural (13.7 percentage points) and peri-urban (14.4 percentage points) areas. The core-urban food poverty rate declined by 4.6 per cent points to 24.4 per cent in 2015/16.

The results reveal that extreme or hardcore poverty headcount rate for individuals reduced substantially by more than half from 19.6 per cent in 2005/06 to 8.6 per cent in 2015/16. Similar reductions in extreme poverty incidence were recorded in rural areas, from 24.1 per cent in 2005/06 to 11.2 per cent in 2015/16. The hardcore poverty rate in peri-urban areas declined substantively to a third of the 2005/06 level.

4.6 International Poverty Comparisons

Table 4.6 summarizes a comparison of trends in national poverty rates between the two most recent survey years for several countries in the region. Ghana has experienced a rate of poverty reduction of a similar magnitude to Kenya. The rate of national poverty reduction in Ethiopia, Rwanda and Uganda between their respective most recent survey years has been more rapid than Kenya's. Conversely, the poverty incidence in Burundi, Cameroon, Malawi and Nigeria has declined at a much slower pace than in Kenya.[9]

Table 4.6: Comparisons of recent trends in National poverty rates in selected countries

Country	Survey Year	National Poverty Rate (%)	Survey Year	National Poverty Rate (%)
Burundi	2006	67.1	2014	64.6
Cameroon	2007	39.9	2014	37.5
Ethiopia	2004	38.9	2010	29.6
Ghana	2005	31.9	2012	24.2
Kenya	2005/06	46.8	2015-16	36.1
Malawi	2004	52.4	2010	50.7
Nigeria	2003	48.4	2009	46
Rwanda	2010	44.9	2013	39.1
Tanzania	-		2011	28.2
Uganda	2009	24.5	2012	19.5

Source: World Bank Poverty and Equity Database.

9 Source: World Bank Poverty and Equity Database. The series used to state the population below the national poverty line in the table have the indicator code "SI.POV.NAHC" in the World Bank's poverty and equity database.

4.7 Basic Results on Inequality in Kenya 2015/16

Quintile Analysis

Inequality using quintiles divides a population into five equal groups of 20 per cent each based on the expenditure distribution ranking from the lowest to the highest. Typically, in a normally distributed population with perfect equality, each quintile is expected to control 20 per cent of the total expenditure. The analysis of the 2015/16 survey in Table 4.8 presents a pattern similar to that of other developing countries with income distribution challenges. The results show that nationally, more than half (59.4 %) of total expenditure is controlled by the topmost quintile (Q5) while the bottom quintile (Q1) controls the least share of 3.6 per cent. This national pattern is consistently replicated across the rural, peri-urban and core-urban areas. However, among the core-urban dwellers, more than 90 per cent of total household expenditure is controlled by the uppermost two quintiles (Q4 and Q5).

Over space across the 47 counties, the distribution of expenditure by quintiles shows that for all counties that exhibited high poverty rates, the two bottom quintiles control relatively larger shares of expenditure compared to counties depicting relatively lower poverty rates. On the other hand, counties with significant components of urban population present skewed expenditures in favour of the uppermost quintiles.

Table 4.8: The Mean and Median Per Capita Consumption Expenditure (in KShs) and Quintile Distribution by Place of Residence and County

Residence / County	Mean	Median	< 3,159	3,159 - 4,801	4,802 - 7,037	7,038 - 10,859	> 10,859
			Q1	Q2	Q3	Q4	Q5
National	7,811	5,830	3.6	6.6	10.7	19.7	59.4
Rural	5,326	4,282	8.1	13.9	19.5	25.9	32.6
Peri-urban	6,541	5,174	0.5	1.2	4.0	14.8	79.5
Core-urban	11,900	9,723	4.0	10.1	15.8	25.3	44.8
Mombasa	10,970	9,851	0.3	1.2	3.2	17.2	78.2
Kwale	6,470	4,736	5.8	12.0	11.0	23.1	48.1
Kilifi	7,908	6,019	3.6	7.2	8.2	19.7	61.2
Tana River	4,952	3,438	12.1	17.0	15.4	18.7	36.8
Lamu	7,725	6,055	2.3	7.6	10.9	23.0	56.2
Taita / Taveta	6,917	5,449	3.8	9.9	12.2	23.7	50.4
Garissa	4,622	3,608	13.9	14.9	17.2	23.6	30.4
Wajir	3,784	3,156	19.0	24.9	28.3	17.1	10.7
Mandera	3,461	2,623	27.0	19.1	14.8	22.1	17.0
Marsabit	4,493	3,450	16.9	14.0	18.7	19.5	30.9
Isiolo	6,252	4,653	4.9	10.7	19.9	20.6	43.9
Meru	7,228	5,866	3.0	6.4	13.7	24.3	52.5
Tharaka - Nithi	7,243	5,887	2.5	7.9	14.5	24.2	51.0
Embu	7,007	5,355	3.5	8.7	16.2	20.9	50.7
Kitui	5,478	4,082	10.1	12.2	16.9	22.8	38.0
Machakos	8,455	6,793	2.1	4.4	9.7	20.2	63.6
Makueni	6,073	5,005	6.2	9.9	16.5	26.6	40.8
Nyandarua	6,694	5,581	3.7	9.3	13.9	26.6	46.5
Nyeri	9,220	7,725	0.8	3.7	7.1	21.7	66.7
Kirinyaga	7,369	5,881	1.7	8.7	13.5	24.5	51.6
Murang'a	6,394	5,452	3.5	9.4	17.1	28.2	41.7
Kiambu	9,594	8,028	0.9	3.1	7.9	20.6	67.6
Turkana	4,862	2,572	15.8	9.1	7.9	12.3	54.9
West Pokot	3,914	3,228	18.4	21.1	22.5	18.7	19.3
Samburu	4,477	2,744	20.0	12.9	11.2	14.0	42.0
Trans Nzoia	6,485	4,845	5.7	8.4	16.8	20.2	49.0
Uasin Gishu	7,030	5,960	4.9	5.5	11.9	26.3	51.5
Elgeyo / Marakwet	4,909	3,876	11.2	16.9	17.1	28.2	26.7
Nandi	5,284	4,522	7.7	13.2	22.8	31.5	24.8
Baringo	6,712	5,216	4.3	9.7	12.3	23.9	49.8
Laikipia	6,247	4,676	7.5	8.1	14.0	21.6	48.9
Nakuru	8,634	6,613	2.6	4.7	10.0	20.1	62.5
Narok	8,265	6,481	2.2	4.7	9.0	24.4	59.6
Kajiado	8,407	6,241	3.6	3.9	9.2	19.8	63.4
Kericho	5,602	4,712	5.5	13.6	21.3	25.1	34.5
Bomet	4,622	3,734	9.0	25.1	23.9	22.1	19.9
Kakamega	5,272	4,397	6.9	14.4	24.4	26.9	27.4
Vihiga	4,637	3,825	10.1	21.1	23.3	27.1	18.4
Bungoma	5,841	4,477	6.5	13.8	20.9	20.5	38.3
Busia	3,924	3,033	22.4	22.5	19.5	13.8	21.8
Siaya	5,959	4,888	4.9	11.1	20.3	25.9	37.8
Kisumu	7,673	5,577	3.1	7.1	13.6	22.0	54.2
Homa Bay	5,677	4,959	5.3	11.8	20.0	32.2	30.7
Migori	5,072	3,913	6.7	21.9	20.7	23.5	27.2
Kisii	5,378	4,093	7.1	17.8	19.8	26.0	29.3
Nyamira	5,781	4,760	7.1	10.8	18.1	25.3	38.7
Nairobi City	14,311	11,381	0.1	0.3	2.3	10.9	86.4

CHAPTER FIVE

Basic Socio-Economic Poverty Profiles

CHAPTER FIVE

Basic Socio-Economic Poverty Profiles

This chapter presents poverty estimates cross-tabulated by selected characteristics of the head of the household, namely; age cohort, education level, gender and marital status. The section also presents poverty by household size and selected child and older person poverty measures. The survey adopted the definition of a household as ' a person or a group of people living in the same compound (fenced or unfenced); answerable to the same head and sharing a common source of food and/or income as a single unit'. The members of the household have common housekeeping arrangements (that is, share or are supported by a common budget). A head of a household is defined as a usual member resident in the household who makes critical day to day decisions about the household and whose authority is acknowledged by all other members.

5.1 Poverty and Sex of Household Head

The survey collected information on the sex of the head of household to enable further analysis of poverty by male and female-headed households. Kenya is traditionally a patriarchal society, with an estimated two-thirds of households being under the headship of a male. In terms of poverty, households headed by females are likely to be poorer than those headed by men. Female-headed households account for 32.4 per cent of all households as presented in Table 5.1. The results reveal that 30.2 per cent of female-headed households are poor compared to 26.0 per cent of their male counterparts. Concerning poverty gap, poor female-headed households are on average further below the poverty threshold than their male counterparts.

5.2 Poverty and Marital Status of Household Head

Overall, 42.8 per cent of households whose headship is in a polygamous[10] union are poor compared to 27.2 per cent of their counterparts in monogamous unions. The poverty rate (45.5%) is worse for households headed by females in a polygamous union. Conversely, households headed by persons who have never married exhibit the poverty rates lowest across all domains of analysis. The results further show a significant difference in the depth of poverty, as measured by the poverty gap, with polygamous male-headed households on average registering a smaller gap to the poverty line than their female-headed counterparts.

The other crucial group that registered higher poverty rates is households headed by widows, who constitute 11.1 per cent of all households. These households recorded a poverty incidence of 36.6 per cent and contributed a share of 14.8 per cent to overall poverty. It is worth noting that even though the poverty rates were lower in households whose head was in a monogamous union, these households registered the highest number of the poor which is in tandem with their large share of households.

5.3 Poverty and Household Size

The results in Table 5.1 show that poverty increases with increase in household size. At the national level, households with one to three members recorded the least poverty headcount of 14.7 per cent compared to 54.1 per cent (more than half) of households with seven or more members. This pattern holds across all the domains of analysis (rural, peri-urban and core-urban).

10 Household heads in a polygamous union refers to those married to more than one spouse for males, while for females, it refers to households were the female is married to a male who also has other wives apart from herself and at the time of conducting the interview, the husband was not resident in the household qualifying her to be the de facto household head

5.4 Poverty and Education Level of Household Head

The analysis depicts a significant negative correlation between advancement in the level of education of the head of the household and poverty. Invariably across all the domains of analysis, poverty rates were highest in households headed by an individual without any form of formal education[11] and lowest in those whose head had acquired a tertiary level of education or higher. More than half of households whose head had no formal education live in poverty. Further, whereas households headed by individuals with no formal education constitute 14.4 per cent of all households, they contributed the second largest share of 28.2 per cent to overall poverty. Poor households where the head has no education also experience relatively deeper poverty, indicated by a poverty gap of 19.3 per cent.

5.5 Poverty and Age of Household Head

Analysis of poverty by the age of the household head reveals that poverty rate increases as the age of the household head increases, except for households headed by persons in 15-19 age group. Households headed by older persons (60 years and above) recorded a higher poverty rate of 36.3 per cent and also contributed a higher share (22.9%) of the poor. This is partially attributed to the fact that as one ages, his/her level of productivity decreases making the individual more susceptible to poverty. Households under the headship of the younger population (20-29 years), who are most likely engaged in gainful employment and/or are single and still supported by parents, guardians and relatives registered the lowest poverty incidence of 15.9 per cent.

11 The level of "None" includes non-formal types of education that do not conform to the standard education curriculum approved by the Ministry of Education. This category includes Madrassa and Duksi

Table 5.1: Poverty Measures and Socio-economic Indicators at household level

	Poverty Headcount Rate (%)				Poverty Gap (%)				Distribution of Population (%)				Distribution of Poor (%)			
	Rural	Urban	Peri-Urban	National	Rural	Urban	Peri-Urban	National	Rural	Urban	Peri-Urban	National	Rural	Urban	Peri-Urban	National
National	32.6	20.6	21.1	27.4	9.2	5.8	5.2	7.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Sex of Household head																
Male	31.7	19.3	20.6	26.0	8.7	5.1	4.9	7.0	64.0	73.2	66.7	67.6	62.4	68.7	65.1	64.3
Female	34.0	24.1	22.2	30.2	10.0	7.7	5.7	9.0	36.0	26.8	33.3	32.4	37.6	31.3	34.9	35.7
Education Level of Household Head																
None	52.7	64.1	42.3	53.6	18.8	25.2	12.3	19.3	20.5	5.5	11.9	14.4	33.2	17.0	23.8	28.2
Primary	33.2	29.7	26.2	31.7	8.4	8.5	6.1	8.2	52.0	33.2	49.4	44.9	52.9	47.9	61.1	52.0
Secondary	20.3	18.3	10.0	18.6	4.4	4.1	2.1	4.1	19.7	34.2	26.0	25.4	12.2	30.5	12.3	17.2
Tertiary	6.9	3.5	4.5	4.6	1.4	0.6	1.0	0.9	7.9	27.1	12.7	15.2	1.7	4.6	2.7	2.5
Marital Status of Household Head																
Married Monogamous	31.8	21.3	21.3	27.2	8.4	5.8	4.9	7.2	60.9	60.1	63.8	60.9	59.6	62.1	64.4	60.5
Male	*32.4*	*20.8*	*22.1*	*27.1*	*8.5*	*5.5*	*5.1*	*7.1*	*50.1*	*55.3*	*54.0*	*52.3*	*49.8*	*55.8*	*56.5*	*51.8*
Female	*29.4*	*26.9*	*17.0*	*27.9*	*7.8*	*9.8*	*3.7*	*7.9*	*10.8*	*4.8*	*9.8*	*8.6*	*9.8*	*6.3*	*7.9*	*8.7*
Married Polygamous	44.6	43.0	16.5	42.8	15.0	14.4	4.2	14.3	11.1	3.2	6.3	7.8	15.1	6.6	5.0	12.3
Male	*44.5*	*33.8*	*18.2*	*41.0*	*14.2*	*9.6*	*5.4*	*12.9*	*6.4*	*2.3*	*4.0*	*4.7*	*8.7*	*3.8*	*3.5*	*7.1*
Female	*44.8*	*67.8*	*13.5*	*45.5*	*16.1*	*27.3*	*2.2*	*16.5*	*4.7*	*0.9*	*2.3*	*3.1*	*6.4*	*2.8*	*1.5*	*5.2*
Widower	*21.0*	*25.8*	*19.5*	*21.9*	*6.2*	*10.7*	*3.7*	*7.0*	*1.9*	*0.9*	*1.3*	*1.5*	*1.2*	*1.1*	*1.2*	*1.2*
Widow	*36.7*	*38.3*	*32.1*	*36.6*	*10.9*	*12.6*	*8.8*	*11.0*	*14.8*	*5.1*	*12.8*	*11.1*	*16.6*	*9.4*	*19.4*	*14.8*
Never Married	19.4	9.6	10.8	12.4	5.7	2.3	2.9	3.2	5.3	20.5	7.5	11.0	3.1	9.6	3.8	5.0
Other[1]	22.9	22.4	16.0	22.1	6.0	6.1	4.4	5.9	6.1	10.3	8.3	7.8	4.3	11.2	6.3	6.3
Child in Household																
Household without children	18.2	10.1	12.0	13.5	5.3	2.5	3.0	3.7	22.8	45.1	28.3	31.3	12.7	22.1	16.1	15.5
Household with children	36.8	29.2	24.7	33.7	10.3	8.5	6.0	9.5	77.2	54.9	71.7	68.7	87.3	77.9	83.9	84.5
Household Size (Household members)																
1-3	18.3	11.9	11.1	14.7	5.1	2.8	2.6	3.8	36.8	62.3	43.3	46.6	20.6	35.8	22.8	24.9
4-6	34.4	30.9	23.7	32.5	9.0	9.1	5.4	8.7	42.9	32.0	40.8	38.7	45.2	47.9	45.7	46.0
7+	54.6	58.2	41.9	54.1	16.9	19.8	11.4	16.9	20.3	5.8	15.9	14.7	34.1	16.3	31.5	29.1
Age of Household Head (Years)																
15-19	25.8	32.2	9.3	27.5	9.0	6.3	5.2	7.3	0.5	0.9	0.9	0.7	0.4	1.5	0.4	0.7
20-29	20.9	13.4	8.4	15.9	5.5	3.4	1.5	4.0	13.2	31.5	16.7	20.1	8.4	20.5	6.6	11.6
30-39	29.8	22.3	18.8	25.8	8.2	6.2	3.8	7.0	24.5	32.6	25.7	27.5	22.4	35.3	22.9	26.0
40-49	36.7	22.0	21.1	30.8	10.3	6.1	5.1	8.5	21.7	18.2	21.1	20.4	24.5	19.4	21.0	22.9
50-59	34.4	24.7	24.7	31.1	10.0	7.8	6.2	9.1	16.3	10.1	15.7	14.0	17.3	12.1	18.3	15.9
60-69	36.6	31.6	32.3	35.4	10.1	10.5	8.6	10.1	12.4	4.4	10.3	9.3	14.0	6.8	15.8	12.1
70+	37.3	40.8	32.9	37.3	11.1	12.8	10.0	11.2	11.4	2.3	9.6	7.9	13.0	4.5	15.0	10.8

Notes:

Four (4) households were headed by persons headed by persons less than 15 years and were excluded from analysis.

1 Refers to living together, separated and divorced

5.6 Child Poverty

Although child poverty is more than merely the lack of sufficient money, it is still useful to measure such poverty in monetary terms. This section provides estimates of overall child poverty prevalence and food poor children. Also presented in this sub-section is the contribution of each county/area of residence to the national overall child and food poverty.

To estimate the prevalence of child poverty in this report the absolute (also referred to as overall) poverty line is applied to households. Children are therefore considered to be poor if they are living in households that have been deemed poor based on the absolute poverty lines. The food poor children are estimated from the food poverty lines. The prevalence of food poor children, therefore, refers to the percentage of all children living in households below the food poverty line.

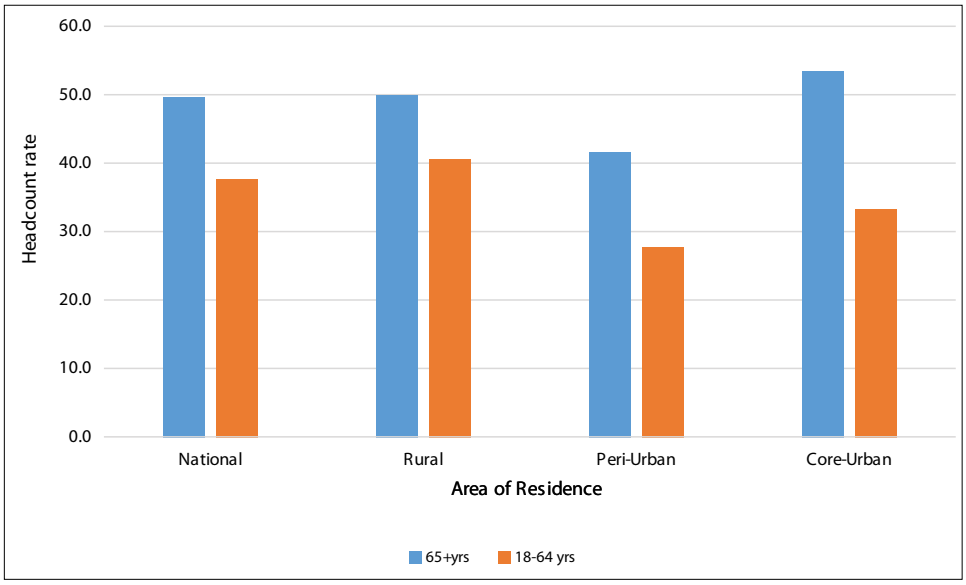
Overall (Absolute) Poor Children

Table 5.1 also shows that the headcount poverty prevalence among households with children is estimated at 33.7 per cent compared to 13.5 per cent of households without children. The poverty gap between these two types of households is comparatively enormous, 9.5 per cent and 3.7 per cent respectively, for households with and without children, meaning that households living with children have a bigger expenditure shortfall compared to their counterparts without children.

Table 5.2: Proportion of Poor Children by Age group and County

Residence / County	Total population		0 - 5 Years		6 - 13 Years		14 - 17 Years		0 - 17 Years	
	Poverty Head-count Rate (%)	Population ('000)	Poverty Head-count Rate (%)	Population ('000)	Poverty Head-count Rate (%)	Population ('000)	Poverty Head-count Rate (%)	Population ('000)	Poverty Head-count Rate (%)	Population ('000)
National	36.1	45,371	36.8	7,358	43.9	10,186	43.8	4,286	41.5	21,830
Rural	40.1	29,127	40.2	4,860	45.9	7,264	45.0	3,077	43.9	15,200
Peri-urban	27.5	3,340	27.3	489	31.2	746	32.0	350	30.2	1,585
Core urban	29.4	12,905	30.9	2,009	41.8	2,176	44.2	860	37.9	5,044
Mombasa	27.1	1,185	28.1	159	42.3	213	40.6	59	36.8	431
Kwale	47.4	820	50.3	151	51.7	197	52.3	82	51.3	430
Kilifi	46.4	1,400	49.9	260	53.6	315	58.1	140	53.2	715
Tana River	62.2	304	56.4	58	69.4	80	70.5	31	65.2	169
Lamu	28.5	128	28.3	21	31.9	30	39.9	11	32.2	63
Taita / Taveta	32.3	358	25.0	50	38.2	74	41.1	33	34.6	156
Garissa	65.5	432	60.2	81	71.8	131	69.2	46	67.7	258
Wajir	62.6	459	52.6	108	66.4	131	71.5	46	62.0	284
Mandera	77.6	711	72.1	144	82.0	219	81.5	74	78.7	437
Marsabit	63.7	316	62.9	64	69.1	86	67.4	30	66.6	180
Isiolo	51.9	156	48.8	30	56.5	36	66.6	16	55.7	82
Meru	19.4	1,471	15.2	196	23.9	303	19.8	137	20.3	636
Tharaka - Nithi	23.6	396	22.6	54	27.7	83	27.7	39	26.1	177
Embu	28.2	560	26.0	67	38.7	114	34.4	49	34.1	229
Kitui	47.5	1,098	45.8	166	51.2	278	48.4	115	49.0	558
Machakos	23.3	1,191	19.4	164	26.2	210	25.6	114	23.8	488
Makueni	34.8	959	34.2	135	43.1	211	42.5	113	40.3	459
Nyandarua	34.8	686	36.1	85	39.9	162	44.1	75	39.9	323
Nyeri	19.3	798	15.5	96	22.7	133	30.8	70	22.3	299
Kirinyaga	20.0	608	22.3	72	24.5	118	17.3	52	22.3	242
Murang'a	25.3	1,085	22.7	145	28.0	218	32.3	99	27.3	462
Kiambu	23.3	1,868	30.5	236	26.9	317	29.6	167	28.7	721
Turkana	79.4	1,084	79.7	232	84.0	286	86.2	96	82.7	613
West Pokot	57.4	649	54.2	136	63.8	170	55.0	70	58.7	375
Samburu	75.8	284	71.1	64	86.2	78	84.4	27	80.2	169
Trans Nzoia	34.0	1,038	36.2	166	41.8	246	40.0	112	39.6	525
Uasin Gishu	41.0	1,133	39.8	184	49.1	241	51.6	111	46.4	535
Elgeyo / Marakwet	43.4	469	36.2	79	49.1	104	58.9	47	46.7	231
Nandi	36.0	954	34.1	153	36.4	209	44.7	100	37.4	463
Baringo	39.6	704	39.1	116	46.2	170	46.1	77	43.9	363
Laikipia	45.9	507	45.2	75	55.9	125	50.3	49	51.6	249
Nakuru	29.1	2,031	26.9	323	36.6	495	37.2	165	33.5	984
Narok	22.6	1,078	21.3	237	25.9	277	29.9	100	24.8	615
Kajiado	40.7	871	47.4	143	48.5	175	49.8	70	48.3	389
Kericho	30.3	945	27.9	134	31.6	228	34.1	89	31.0	451
Bomet	48.8	916	51.4	157	57.6	248	50.1	91	54.3	496
Kakamega	35.8	1,876	33.8	325	40.0	460	42.2	224	38.5	1,009
Vihiga	43.2	627	47.2	85	46.2	156	46.4	66	46.5	307
Bungoma	35.7	1,553	36.7	288	41.7	398	38.4	188	39.4	873
Busia	69.3	840	70.3	138	75.0	220	72.5	97	73.0	456
Siaya	33.8	985	33.4	166	39.5	237	38.0	113	37.2	516
Kisumu	33.9	1,132	35.5	182	41.2	271	40.9	100	39.3	553
Homa Bay	33.5	1,072	31.4	217	36.0	294	38.9	110	34.9	622
Migori	41.2	1,126	38.7	185	46.2	304	41.9	149	43.0	638
Kisii	41.7	1,347	45.1	210	45.5	328	49.3	139	46.2	678
Nyamira	32.7	699	27.7	100	37.3	167	34.7	74	33.9	341
Nairobi City	16.7	4,463	15.2	717	26.4	640	31.1	225	22.0	1,582

Figure 5.1 Headcount poverty for households headed by old persons with children compared with households headed by working age group, living with children



The distribution of child poverty prevalence by age group and place of residence for 2015/16 is tabulated in Table 5.2. Nationally, 41.5 per cent of all children (aged 17 or less) are categorised as poor. In other words, slightly more than 9 million children live in poor households.

The analysis of child poverty by age group shows that among all the primary school going age group (aged 6-13 years), 43.9 per cent are poor. Similarly, among all the secondary school going age group (aged 14-17 years), 43.8 per cent are poor. The findings also show that there are no major differences in poverty prevalence for these two age groups in rural, core-urban and peri-urban areas. However, the concentration of poor children (aged 0-17 years) is in rural areas (73.6%). In absolute numbers, rural areas account for approximately 6.7 million poor children compared to 1.9 million poor children in urban areas.

Geographically at the county level, the prevalence of child poverty ranges from about 20 per cent in Meru to almost 83 per cent in Turkana. Regarding contribution to overall child poverty at the county level, Turkana which has the highest child poverty prevalence also contributes the highest share of 5.9 per cent of poor children in Kenya. Kakamega County contributes the second highest share of 4.4 per cent of total poor children. Kilifi and Mandera Counties also contribute high shares of 4.20 per cent and 4.04 per cent of poor children, respectively. Conversely the least contributors to national child poverty are Lamu (0.22%), Isiolo and Tharaka Nithi (0.52 % each) Counties.

Food Poor Children

The 2015/16 KIHBS analysis of food poverty among children shows that nationally 35.8 per cent were food poor. The tabulation of child food poverty by age group shown in Table 5.3 indicates that 37.7 per cent of children aged 6-13 years are food poor, compared to 42.5 per cent of children aged 14-17 years. In contrast to the overall poverty pattern, the results depict major disparities in food poverty prevalence for these two age groups in rural, core-urban and peri-urban areas, where the rates are relatively lower for the younger primary school going age group than that for the secondary. Similar to the overall child poverty pattern, the majority (73.6%) of food poor children (aged 0-17 years) reside in rural areas, which is equivalent to 5.9 million children.

Spatially, the prevalence of food poverty among children (aged 0-17 years) from the 47 counties shows enormous variations. The prevalence of food poverty among children ranges from a low of 16.3 per cent in Nyeri County to a high of 69.2 per cent in Turkana County. The highest food prevalence rates among children were registered in the following counties; Turkana (69.2%), Samburu (63.5%), Mandera (62.5%) and Busia (62.1%).

Table 5.3: Poverty Estimates (Food poor) for children living in Poor Households by Age groups by County

Residence / County	Total population		0 - 5 Years		6 - 13 Years		14 - 17 Years		0 - 17 Years	
	Poverty Head count Rate (%)	Population ('000)	Poverty Head count Rate (%)	Population ('000)	Poverty Head count Rate (%)	Population ('000)	Poverty Head count Rate (%)	Population ('000)	Poverty Head count Rate (%)	Population ('000)
National	32.0	45,371	29.4	7,358	37.7	10,186	42.5	4,286	35.8	21,830
Rural	35.8	29,127	33.1	4,860	39.9	7,264	43.6	3,077	38.5	15,200
Peri-urban	28.9	3,340	24.3	489	33.1	746	37.2	350	31.3	1,585
Core urban	24.4	12,905	21.4	2,009	32.0	2,176	40.6	860	29.3	5,044
Mombasa	23.6	1,185	20.3	159	31.1	213	41.6	59	28.6	431
Kwale	41.1	820	45.6	151	43.1	197	45.0	82	44.3	430
Kilifi	48.4	1,400	49.5	260	57.4	315	60.2	140	55.1	715
Tana River	55.4	304	47.1	58	62.2	80	66.1	31	57.8	169
Lamu	19.9	128	18.7	21	20.6	30	29.2	11	21.5	63
Taita / Taveta	38.9	358	31.1	50	47.7	74	60.4	33	45.0	156
Garissa	45.2	432	36.4	81	50.4	131	53.1	46	46.5	258
Wajir	41.3	459	31.4	108	39.9	131	55.3	46	39.2	284
Mandera	61.9	711	53.5	144	67.8	219	64.3	74	62.5	437
Marsabit	55.6	316	51.6	64	61.1	86	59.9	30	57.5	180
Isiolo	34.2	156	31.6	30	36.6	36	43.9	16	36.2	82
Meru	15.5	1,471	14.3	196	21.2	303	16.1	137	18.0	636
Tharaka - Nithi	31.2	396	25.5	54	37.8	83	39.1	39	34.3	177
Embu	28.3	560	21.3	67	39.9	114	40.8	49	34.7	229
Kitui	39.4	1,098	31.1	166	42.2	278	48.5	115	40.2	558
Machakos	24.1	1,191	17.6	164	26.9	210	27.7	114	24.0	488
Makueni	30.7	959	27.3	135	36.0	211	37.3	113	33.8	459
Nyandarua	29.8	686	26.0	85	36.3	162	42.0	75	34.9	323
Nyeri	15.5	798	6.3	96	15.7	133	31.1	70	16.3	299
Kirinyaga	18.8	608	16.8	72	24.1	118	27.0	52	22.5	242
Murang'a	22.7	1,085	18.9	145	23.8	218	33.4	99	24.3	462
Kiambu	23.5	1,868	24.7	236	27.3	317	34.9	167	28.2	721
Turkana	66.1	1,084	66.4	232	71.2	286	70.1	96	69.2	613
West Pokot	57.3	649	49.0	136	63.7	170	66.4	70	58.9	375
Samburu	60.1	284	52.8	64	69.4	78	71.7	27	63.5	169
Trans Nzoia	33.3	1,038	33.6	166	37.6	246	39.8	112	36.8	525
Uasin Gishu	38.2	1,133	37.5	184	45.3	241	48.1	111	43.2	535
Elgeyo/ Marakwet	44.8	469	37.7	79	49.4	104	60.8	47	47.7	231
Nandi	31.5	954	29.0	153	27.2	209	43.3	100	31.3	463
Baringo	41.4	704	33.1	116	40.5	170	61.5	77	42.5	363
Laikipia	28.5	507	23.4	75	33.1	125	39.8	49	31.5	249
Nakuru	19.6	2,031	15.1	323	23.9	495	27.1	165	21.5	984
Narok	22.1	1,078	18.9	237	24.3	277	32.2	100	23.5	615
Kajiado	36.9	871	36.7	143	43.6	175	50.7	70	42.4	389
Kericho	31.4	945	22.7	134	34.2	228	40.4	89	32.0	451
Bomet	32.8	916	26.2	157	36.7	248	46.2	91	35.1	496
Kakamega	33.3	1,876	29.3	325	37.2	460	40.2	224	35.4	1,009
Vihiga	36.6	627	37.4	85	39.1	156	41.5	66	39.1	307
Bungoma	32.4	1,553	27.2	288	35.4	398	41.6	188	34.0	873
Busia	59.5	840	55.3	138	64.6	220	66.1	97	62.1	456
Siaya	27.3	985	27.4	166	29.9	237	33.8	113	29.9	516
Kisumu	32.5	1,132	29.0	182	38.0	271	45.8	100	36.4	553
Homa Bay	22.7	1,072	18.7	217	25.9	294	26.8	110	23.5	622
Migori	32.0	1,126	28.4	185	34.6	304	32.7	149	32.4	638
Kisii	44.5	1,347	41.3	210	49.2	328	54.5	139	47.9	678
Nyamira	36.3	699	30.0	100	39.9	167	44.6	74	38.0	341
Nairobi City	16.1	4,463	11.7	717	21.1	640	32.1	225	18.4	1,582

5.7 Poverty among the Youth and the Elderly

Nationally, overall poverty rates increase with increases in age of individuals as shown in Table 5.4. This pattern holds true across the major domains of analysis, notably; rural, peri-urban and core-urban.

Table 5.4: Poverty Estimates for Youth and Elderly Living in Poor Households by Age Group *

Residence / County	Total population		0 - 17 Years		18 - 35 Years		36 - 59 Years		60 - 69 Years		70+ Years	
	Poverty Head count Rate (%)	Population ('000)	Poverty Head count Rate (%)	Population ('000)	Poverty Head count Rate (%)	Population ('000)	Poverty Head count Rate (%)	Population ('000)	Poverty Head count Rate (%)	Population ('000)	Poverty Head count Rate (%)	Population ('000)
National	36.1	45,371	41.5	21,830	29.1	13,115	32.5	7,786	36.2	1,459	39.1	1,181
Rural	40.1	29,127	43.9	15,200	34.9	7,005	36.7	4,876	37.5	1,112	39.0	933
Peri-urban	27.5	3,340	30.2	1,585	23.1	933	25.3	601	31.6	230	42.7	143
Core urban	29.4	12,905	37.9	5,044	22.4	5,178	25.5	2,309	32.2	116	35.0	104

* Analysis by county is in annex table E4

CHAPTER SIX

Macro and Socio-Economic Environment, 2007-2016

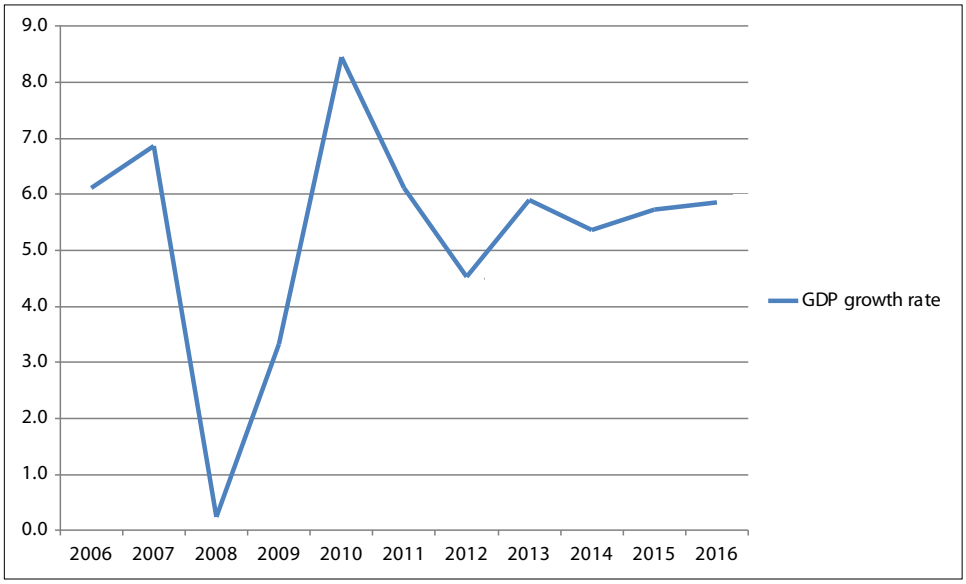
CHAPTER SIX

Macro and Socio-Economic Environment, 2007-2016

During the past decade, economic activity in Kenya gained momentum supported by structural changes (financial sector reforms), a sustained increase in domestic demand and a sound macroeconomic environment. Despite experiencing internal shocks (drought and election-related disruptions) as well as external shocks (slowdown in the global economy), economic growth remained resilient at an average of 5.2 percent per annum between 2006 and 2016, compared to 3 percent per annum in the period preceding the 2005/06 KIHBS (1995-2005). Consequently, real GDP per capita expanded by 2.3 per cent annually following near stagnation in the previous two decades.

On the demand side, growth was mainly driven by private consumption attributable to rising disposable incomes, increasing credit to households, and an increase in inward remittances. In addition, investments have been an important contributor to growth with private investments rising due to growth in credit to private sector. Further, increased government investment expenditure in public infrastructure projects such as roads and railways boosted growth over the decade to 2016.

Figure 6.1: Real GDP Growth Rate, 2006 - 2016

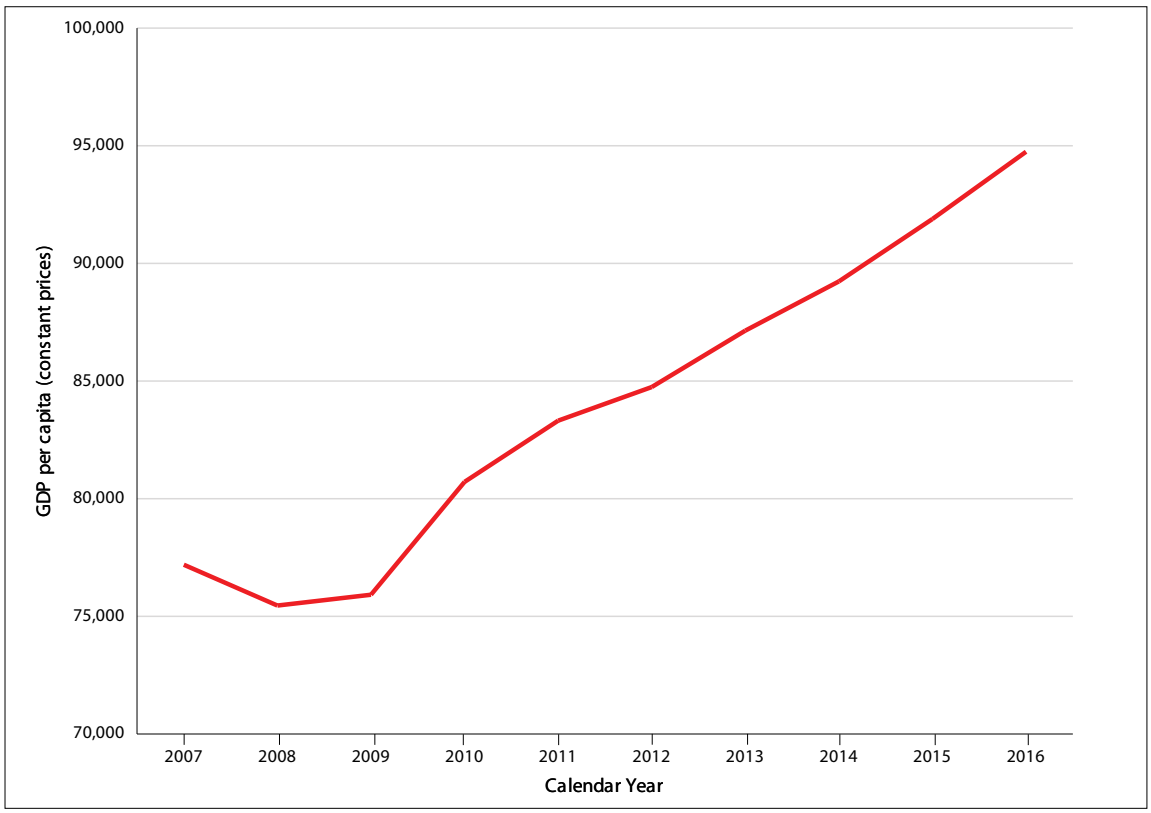


Economic growth remained mostly above the period average of 5.2 per cent (Figure 6.1), with a decline in 2008 due to electoral shocks and the slowdown in the global economy attributable to the 2008 financial crisis. Despite unfavourable weather and sluggish demand, the economy strengthened in 2009 to record a growth rate of 3.3 per cent. A favourable macroeconomic environment, increase in credit to the private sector, improved weather conditions, as well as low base effects from the previous two years, saw growth rebound to a remarkable 8.4 per cent in 2010. Recovery of growth in the global arena also supported domestic growth during the period as external demand for local goods and services increased.

After moderating to 6.1 per cent in 2011, growth slumped to 4.5 per cent in 2012, mainly on account of high oil and food prices as well as unfavourable weather conditions in some parts of the country. Between 2013 and 2017, the economy registered consistent growth of over 5 per cent supported by relatively low and stable inflation, moderate interest rates and a stable Shilling against major trading currencies that contributed to the stable macroeconomic environment. Further, investment in fixed assets expanded rapidly because of vibrant growth in the real estate sector, large-scale public infrastructure projects and increased investments in machinery and transport equipments. The establishment of the county governments also impacted positively on economic growth as public consumption expenditure rose in line with the devolved system of government.

Figure 6.2 shows how the GDP per capita evolved between 2006 and 2016. The GDP per capita is a measure of a country's economic output that accounts for population. It is derived by dividing a country's GDP by mid-year population and is a measure of the living standards in a country. Except for 2008 and 2009, the per capita GDP registered a consistent increase during the review period.

Figure 6.2: Real GDP Per Capita (2009 Prices) in KSh, 2006 - 2016



6.1 Performance of Economic Sectors

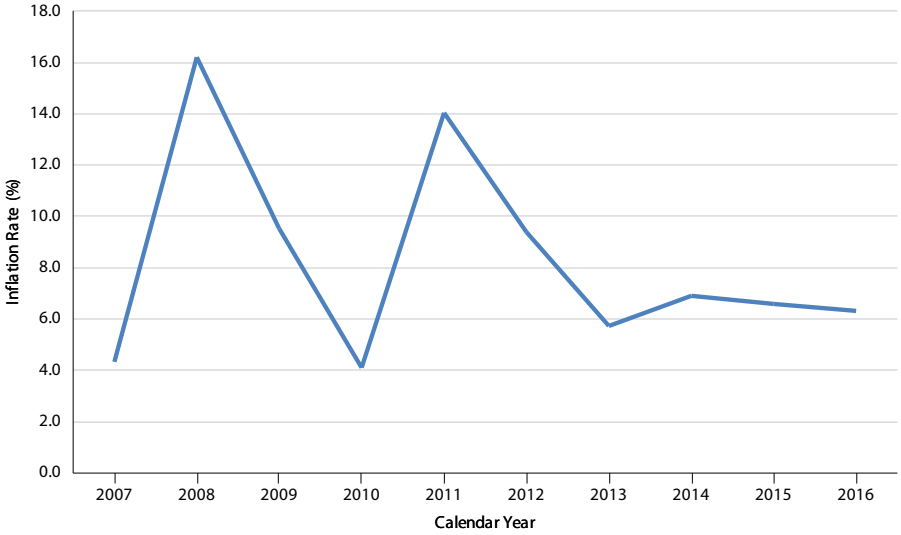
Performance of key sectors of the economy was positive but varied significantly during the period 2007-2016. On average, agriculture, forestry and fishing contributed about 26 per cent to the GDP while manufacturing's share was about 11 per cent over the review period. Other key sectors included; real estate; wholesale and retail trade; transport and storage; and financial and insurance activities with respective share contributions of 8.2, 7.6, 7.5 and 6.0 per cent during the period. Agriculture and manufacturing recorded modest growths of about 3 per cent between 2007 and 2016 while the industry and services sectors' expansion were above 5 per cent. Thus, the service industry was a key driver of Kenya's economic performance over the period under review.

In the agricultural sector, production of major food crops varied widely with the output of beans and sorghum increasing at an annual average of 13.6 per cent and 6.6 per cent, respectively. Production of maize was generally suppressed at an average annual growth rate of 2.6 per cent while on average output of Irish potatoes contracted by 4.7 per cent per year. Production of milk improved significantly over the review period while the amount of fish landed was on a general decline.

Horticultural production expanded by an average of 3.9 per cent per annum while the output of tea was also on the rise at an average annual increase of 3.7 per cent, partly on account of rising international prices. However, production of coffee almost stagnated between 2007 and 2016 despite a general improvement in international prices for the commodity.

The Consumer Price Index (CPI) rose from an annual average of 80.2 in 2007 to 169.6 in 2016 mainly due to a steady increase in prices of food and non-alcoholic drinks which more than doubled over the period. Figure 6.3 depicts the trend of inflation during the period under review. Inflation averaged 8.3 per cent with the highest level reported in 2008 following a drastic rise in prices of food commodities due to post-electoral shocks. Inflation was lowest in 2010 at 4.1 per cent as the economy recovered from the effects of the drought in 2009.

Figure 6.3: Inflation Rate, 2006 - 2016



The consistent supply of major food items coupled with prevailing Retail food prices has a big impact on the prevalence and depth of food poverty, especially for the poor households. Figure 6.4 depicts the evolution of prices of popular food commodities between 2007 and 2016 in Kenya. The prices of the commodities doubled during the period except those of 2kg wheat flour which increased by 30 per cent. The prices of dry beans and rice grade II recorded the highest growths, rising by more than three times during the reference period.

Figure 6.4: Price changes for key Commodities

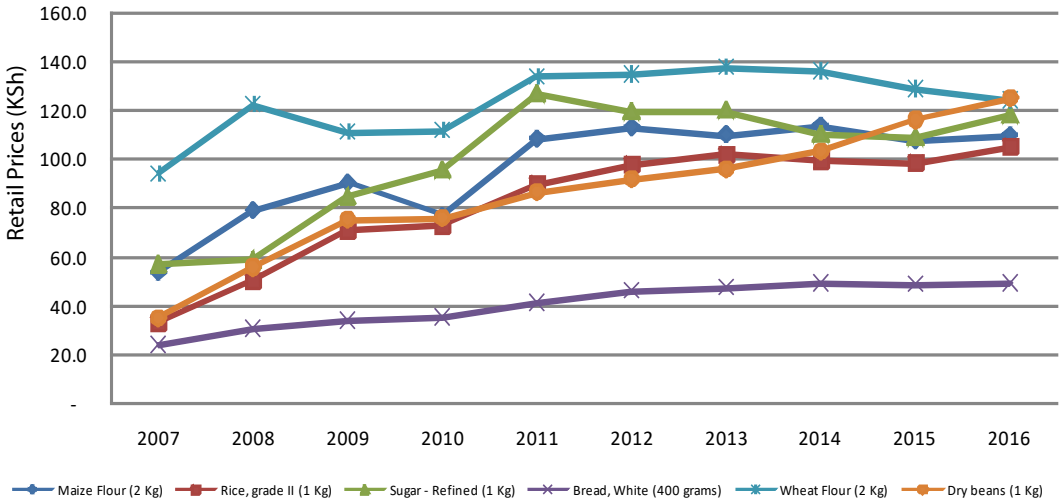


Table 6.1 shows details on movements of retail prices of popular commodities during the review period. The retail prices of 87 per cent of the food products at least doubled during this time with prices of 40 per cent of the food commodities more than tripling. However, prices of kerosene and petrol rose by only 10 per cent over the same period. The slow rise in the fuel prices was mainly due to the decline in the international oil prices that started in 2014 through to 2016. Government revenue and expenditure increased over the period of review. However, expenditure grew at a faster pace resulting in an increase in the fiscal deficit over the period. Consistent with the Public Finance Management (PFM) Act, development spending has consistently been more extensive than the fiscal deficit, while wages, interest payments and more recently county allocations have taken the larger share of recurrent expenditure.

In general, interest rates were stable and supportive of economic expansion, particularly the construction industry, during the review period. Interest rates on commercial bank loans and advances fluctuated from 13.32 per cent in 2007 to peak at 20.04 per cent in 2011 before progressively slowing to 13.67 per cent in 2016. However, the lending rates were high for some sectors of the economy such as small-scale agriculture and micro and small businesses. In 2016, the government introduced legislation that placed a ceiling on interest rates at 4.0 per cent above the Central Bank Rate (CBR) to moderate the interest rates and encourage credit uptake.

Table 6.1: Summary of Macro and Socio-economic Statistics

Calendar year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Population (million)	35.8	36.7	37.7	38.5	39.5	40.7	41.8	43.0	44.2	45.4
GDP per capita (constant prices)	77,197	75,431	75,910	80,689	83,298	84,721	87,105	89,240	91,890	94,757
Gross Domestic Product growth (%)	6.8	0.2	3.3	8.4	6.1	4.5	5.9	5.4	5.7	5.8
Agriculture growth (%)	5.1	-5.0	-2.3	10.3	2.4	2.8	5.4	4.3	5.5	4.0
Manufacturing growth (%)	4.4	1.1	-1.1	4.5	7.2	-0.6	5.6	2.5	3.6	3.5
Private Final Consumption Expenditure (KSh million)	1,610,397	1,870,440	2,183,634	2,445,341	2,935,944	3,355,112	3,831,453	4,316,539	4,953,100	5,714,141
Government Final Consumption Expenditure (KSh million)	314,903	389,206	435,705	448,876	520,941	590,538	670,936	750,450	894,853	976,510
Gross Fixed Capital Formation (KSh million)	429,511	468,426	529,936	647,363	754,175	901,305	976,086	1,236,107	1,360,448	1,236,835
Exports	475,284	567,792	573,672	686,298	851,985	947,190	945,478	988,521	1,042,700	1,043,002
Imports	684,181	861,918	882,904	1,063,942	1,446,502	1,514,394	1,575,731	1,782,945	1,735,621	1,672,236
Tourism earnings (KSh. Million)	65.2	52.7	62.5	73.7	97.9	96.0	94.0	87.1	84.6	99.7
Interest rate on commercial bank loans and advances	13.32	14.87	14.76	13.87	20.04	18.15	16.99	15.98	17.44	13.67
Formal Employment sector (000's)	1,977	2,011	2,068	2,129	2,203	2,233	2,367	2,473	2,601	2,687
Informal Employment sector (000's)	7,502	7,943	8,389	8,826	9,272	10,529	11,150	11,846	12,562	13,310
Total employment	9,479	9,954	10,457	10,955	11,475	12,761	13,517	14,319	15,164	15,997
Primary School Enrolment (000's)	8,330	8,564	8,831	9,381	9,858	9,758	9,858	9,951	10,091	10,269
Agricultural Production										
Maize (million bags)	32.5	26.3	27.1	35.8	34.4	41.9	40.7	39	42.5	37.1
Beans (million bags)	3.5	2.9	5.2	4.3	6.4	6.8	7.9	6.8	8.5	8.1
Horticulture ('000 tons)	192.2	193.2	180.7	228.3	216.2	205.7	213.8	220.2	238.7	261.2
Tea ('000 tons)	369.6	345.8	314.1	399	377.9	469.4	432.9	445.1	399.1	473
Coffee ('000 tons)	53.4	42	54	42	36.3	49	39.8	49.5	42	46.1
Irish Potatoes (million tons)	2.8	2.2	2.6	3.1	2.4	1.5	2.1	2.3	2.0	1.3
Sorghum (million bags)	1.8	0.6	1.1	1.8	1.8	1.9	1.7	1.9	2.1	1.3
Milk Production (million litres)	423.1	398.5	406.5	515.7	549	495.2	523	540	615.9	650.3
Fish Landed ('000 tons)	136.4	135.4	133.6	140.8	149	154	163.4	168.4	146.3	128.6

Calendar year		2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Annual Average Retail Prices (in KSh)											
Product	Units of Measure										
Maize Flour	2 Kg	53.8	79.3	90.6	76.9	108.7	113.3	110.2	114.0	108.1	110.2
Maize Grain	1 Kg	13.8	19.9	27.3	25.0	37.9	41.6	42.3	45.2	43.1	42.8
Rice, grade II	1 Kg	33.2	50.3	71.3	73.0	90.0	98.0	102.2	99.7	98.8	105.2
Sugar - Refined	1 Kg	57.1	59.0	84.9	95.8	127.2	119.9	120.2	110.6	109.2	118.2
Bread,White	400 Grams	24.2	30.7	34.2	35.6	41.3	46.1	47.5	49.2	48.9	49.2
Beef - with bones	1 Kg	146.2	181.0	231.7	248.5	285.0	322.9	342.5	369.1	392.5	399.6
Wheat Flour	2 Kg	94.2	122.7	111.2	112.0	134.2	134.9	137.9	136.4	129.1	124.3
Cooking Bananas	1 Kg	22.3	28.2	41.8	49.1	55.7	64.9	70.5	60.5	53.3	57.6
Dry beans	1 Kg	35.4	56.1	75.5	76.2	86.9	92.1	96.2	103.6	116.2	125.1
English Potatoes	1 Kg	18.6	29.5	36.3	39.2	47.6	55.7	52.7	49.3	63.0	77.0
Green Grams	1 Kg	79.5	98.7	103.9	107.5	128.5	122.1	120.6	131.6	154.2	156.4
Kales - Sukumawiki	1 Kg	12.8	19.2	27.4	28.9	36.1	36.3	41.8	38.8	38.4	40.1
Cabbages	1 Kg	15.1	23.8	28.2	30.4	37.6	48.8	49.0	41.4	42.9	59.1
Eggs (dozen)	12 Pieces	68.7	85.5	103.8	114.2	129.4	146.2	152.4	157.3	164.7	168.1
Tea leaves	100 Grams	30.1	33.9	40.2	43.6	45.3	46.8	46.7	47.0	48.2	50.2
Kerosene	1 Litre	50.2	64.0	59.6	63.5	87.9	83.0	83.9	82.4	58.4	54.6
Petrol Super	1 Litre	82.4	99.8	83.0	90.1	113.6	114.1	113.1	112.8	94.7	90.3

Fiscal Year	**2007/08**	**2008/09**	**2009/10**	**2010/11**	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**
Government expenditure (Ksh million)	664,615	694,165	789,361	956,226	1,016,709	1,241,396	1,532,993	1,953,509	2,047,352	2,496,108
Education Expenditure (Ksh million)	127,424	144,439	159,340	189,846	205,510	220,338	253,632	304,249	313,377	342,348
Health Expenditure (Ksh million)	27,479	32,181	37,353	47,911	61,103	71,852	38,197	49,782	34,655	69,227
Social services Expenditure (Ksh million)	169,785	197,537	208,799	260,620	300,971	424,657	369,089	330,201	377,243	401,852
Education Expenditure (%)	19.2	20.8	20.2	19.9	20.2	17.7	16.5	15.6	15.3	13.7
Health Expenditure (%)	4.1	4.6	4.7	5.0	6.0	5.8	2.5	2.5	1.7	2.8
Social services Expenditure (%)	25.5	28.5	26.5	27.3	29.6	34.2	24.1	16.9	18.4	16.1

Calendar Year	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
CPI Index (Feb 2009=100)	80.2	93.2	102.1	106.3	121.2	132.5	140.1	149.7	159.6	169.6
Food & Non Alcoholic Drinks(Feb 2009=100)	72.7	89.5	103.3	109.3	131.8	144.9	155.4	169.0	188.2	207.2
Non-Food index (Feb 2009=100)	84.5	95.4	101.4	104.5	115.2	125.5	131.5	138.9	143.5	148.5
Annual Inflation (%)	4.3	16.2	9.5	4.1	14.0	9.4	5.7	6.9	6.6	6.3

Source: Economic Survey, various issues (KNBS)

6.2 Performance of the Social Sectors

The fact that the social sector forms one of the three 'pillars' of the Vision 2030 underscores the importance the country places on the welfare of her citizens. Under the social pillar, the vision envisages a "just and cohesive society with social equity in a clean and secure environment". The country has therefore been implementing various social protection programmes with the aim of developing the sector for better lives of the citizens.

Overall, government expenditure increased by almost four times in absolute terms between 2007 and 2016. Consequently, expenditure on the social sector (which includes; education; health; social protection; gender affairs; sports, arts and culture; and youth affairs) more than doubled over the same period. The national government expenditure on the social sector as a share of the total expenditure rose from around 25 per cent in 2006/07 to about 34 per cent in 2011/12 before gradually declining to approximately 18 per cent in 2015/16. The decline was primarily due to the entry of the county governments which took over some of the former central government's functions.

Expenditure on public education expanded at an annual nominal rate of 11.7 per cent over the period under review. National government's spending on health on average rose by 21 per cent per year between 2007 and 2011. However, in 2013 the national government expenditure on health reduced dramatically as the provision of health care shifted to the county governments in line with the constitutional requirement.

National government expenditure as a proportion of overall expenditure averaged 17.9 per cent during the ten years prior to the survey. However, there was a noticeable decline in overall spending from an average of 20 per cent between 2007 and 2011 to an average of 15.8 per cent during the rest of the period. Public health expenditure as a proportion of the overall expenditure rose gradually from 4.1 per cent in 2007 to reach 6.0 per cent in 2011 but slowed to 5.8 per cent in 2012 before the function was devolved.

Four government cash transfer programs under the National Safety Net Program (NSNP) were introduced during the review period. These programs include; Hunger Safety Net Program (HSNP), Cash Transfer for Orphans and Vulnerable Children (CT- OVC), Older Persons Cash Transfer (OPCT) and Persons with Severe Disabilities Cash Transfer (PWSD-CT). The primary objective of the cash transfer programmes was to reduce extreme hunger and vulnerability by delivering regular and unconditional support to some of the most vulnerable in Kenya.

6.3 Devolution

The Constitution of Kenya 2010 devolved political power and economic resources to the 47 counties, which was a departure from the previous case where governance and development were centralised. Devolution has transferred public services and governance closer to the people by establishing autonomous governments at the county level where leadership and decisions are based on local needs. The implementation of this governance framework is supported by constitutional transfer of at least 15 per cent of the last audited national revenue to the county governments (currently estimated at 30%). In addition, some other transmissions (e.g. conditional grants, equalisation fund and national government CDF) have been supporting development programmes at the county level.

Although there are both positive and negative impacts from devolution, the overall assessment seems to favour the system. One of the positive effects is the opening up of the once marginalised areas, in particular, the arid and semi-arid lands. Healthcare is now primarily run by the county governments and progress has been evident in a number of the counties. For instance, many health facilities have been upgraded and are now able to deal with various forms of ailments that were previously only handled by Kenyatta National Hospital and Moi Teaching and Referral Hospital.

Regarding infrastructure, most counties have made great strides in upgrading feeder roads and therefore easing transportation for better access to markets. The creation of county governments also led to increased demand for better services like housing, communication, transportation and finance, which has, in turn, led to a surge in the expansion of real estate sector, banking industry, accommodation and food sector, and the Information Communication Technology (ICT). This phenomenon has created employment opportunities as well as resulted in increased investments at the local level.

CHAPTER SEVEN

Summary, Conclusions and Recommendations

CHAPTER SEVEN

Summary, Conclusions and Recommendations

Summary

The findings in this report show that at the national level, the overall incidence of poverty declined from 46.6 per cent in 2005/06 to 36.1 per cent in 2015/16, posting a 10.5 percentage point drop. The report further shows Kenya's poverty reduction is comparable to similar declines in a number of countries in Africa recorded in the last ten years. For Kenya, many factors could have aided this reduction in poverty.

Kenya's economy invariably experienced robust growth over the past decade growing at an average annual rate of about 5.2 per cent with the exception of 2007/08 which was negatively affected by the post-election violence. According to the World Bank, the significant decreases in poverty experienced by many countries globally is in tandem with the unprecedented progress that humanity has made around the world in the whole range of other non-monetary indicators of well-being ranging from improved maternal and child health, better living conditions and higher education enrolment rates at all levels. In addition, Kenya's per capita Gross Domestic Product in constant prices (a crude measure of welfare) over the last ten years recorded a positive trend. The drop in poverty also coincides with a significant increase in the resources to the rural areas especially during the last five years of devolution. Every year (since 2013/14), county governments have received not less than fifteen per cent of all revenue collected by the national Government as part of the equitable share. In the last three years, the national Government has transferred between 30-34% of such income. Besides such transfers, various other conditional grants are channelled to counties which supplement certain local taxes that are collected locally. Similarly, the Social Sector spending increased significantly in the last ten years.

In terms of income inequality, while the Gini coefficient shows a decline over the last ten years, quintile analysis shows that invariably across all domains of analysis the most significant shares of household expenditures are controlled by the two uppermost quintiles (Q4 and Q5).

In summary, over the last ten years, the country has seen development gains of significant magnitude compared to the early post-independence years. Huge gains have been experienced ranging from improved maternal and child survival to increased primary school enrolments to poverty reduction and general improvements human wellbeing. However, despite all these major average improvements in the wellbeing of Kenyans, the report also presents evidence of pockets of extreme poor counties and unequal socio-economic groups that if left unaddressed could hamper future progress and development.

7.1 Conclusion

Over the ten-year period, the poverty headcount declined by 10.5 percentage points while the average growth rate in GDP averaged 5.2 per cent save for 2007-08 post-election violence period. The slow growth in 2007-08 was, however, countered by the promulgation of the Kenya Constitution in 2010 and the subsequent implementation of devolution among other favourable factors. Generally, while overall food and hardcore poverty headcounts have declined substantially over the last ten years, the current levels are consistently higher in the rural areas than in the core-urban areas with significant variations among the counties. Female-headed households have relatively higher poverty rates compared to their male counterparts while households in polygamous unions are relatively poorer than those in monogamous unions. The proportion of poor children is higher in rural than in urban areas, while the total number of poor children is larger than that of poor adults. In light of this, poverty still appears to be predominantly a rural phenomenon.

The evidence on the status of poverty and inequality provokes one to conclude that while good progress has been made in protecting many citizens from falling into poverty, the burden of the poor is still significant and could be exacerbated by the threat of existing relatively high and persistent inequalities, calling for more concerted efforts and commitment from all stakeholders to ensure that no one is left behind. Global evidence illustrates that widespread income poverty and inequalities often weakens social bonds and can foster a climate of mutual resentment and suspicion among social groups.

7.2 Recommendations

The recommendations presented are at three levels- Macro level, Sectoral and Institutional- with a focus on KNBS that is the principal agency of the national government for official statistics.

At the macroeconomic level, the focus should be on the two major potentially complementary factors that can reduce poverty and income inequalities, notably higher overall economic growth; and a shift in the distribution of incomes that favours poorer people. Evidence from across the world has shown that adhering to disciplined macroeconomic policy and ensuring sustained economic growth are critical drivers of poverty and inequality reduction. Sustained economic growth with better distribution policies should translate into rising average incomes, improvement in poor people's living conditions and reduced inequalities. Strengthened labour markets can also reduce inequalities through expanding job opportunities by offering opportunities to people previously excluded from growth, such as the low-skilled workers, the youth and women especially from marginalised areas.

At the sectoral level, focus should target commitment to policies aimed at making income distribution more equitable through affordable public services, premised on the fact that income equality is very crucial in reducing income poverty. Disparities in income inequality drive or exacerbate other forms of inequality, including differences in health, education and life expectancy. Income level provides a marker of people's position in society and their likely overall well-being. Specifically, in most communities invariably across the world, household income/expenditure levels powerfully determine the educational, social, and professional opportunities that will be open (or closed) to children. Income inequality shapes unequal life opportunities in the next generation.

A key component of a sectoral intervention in this respect should include a strategy designed to boost poor people's access to essential services, including health care, primary education, and water and sanitation. Such an intervention could require significant investment in education, especially amongst the rural population that facilitate their transition from low wage traditional sectors such as agriculture to the modern high skilled and high wage sectors. Specific examples include: expanding cash transfer programs that directly raise poor people's incomes while helping families keep children healthy and in school; improved road networks that multiply economic opportunities for the rural poor; and nutrition and parenting training interventions that optimise children's early cognitive development and their later earning potential.

Institutional (KNBS)

Finally, for the Bureau and its stakeholders, the observed changing consumption and expenditure patterns necessitate regular collection of household consumption data for further monitoring of the poverty and inequality trends. Through the 2015/16 KIHBS, data collection technology for the Continuous Household Survey Programme (CHSP) was tested with the expectation that moving forward it would provide a regular stream of comparable household survey data to monitor key national indicators on a quarterly basis and county level indicators on an annual basis. The programme will also ensure that the current lag time of more than five years before conducting a household budget survey is significantly reduced.

Analysis and presentation of data by place of residence is fundamental as it guides the formulation of area specific policy interventions. The report provided poverty data at the national, rural, urban and county level. There is therefore need for further analysis and research on determinants of poverty and impact of pro-poor programmes on poverty alleviation and inequality. Enhancement of statistical capacities and methodologies while embracing modern estimation techniques, including the Small Area Estimation, will be crucial in the derivation of lower level poverty estimates. It will also be important to conduct and calculate complimentary non-monetary metric measures of poverty such as the asset/wealth index, Multi-Dimensional Poverty Index (MPI) and Multi-overlapping Deprivation Analysis (MODA) for a comprehensive understanding of the current poverty dynamics.

Information on quantities of calories for various food items in Kenya was sourced from the Food and Nutrition Cooperation ECSA (1987). With the changing preferences and food substitutions observed, further research and intervention are recommended to inform on diet and required calorific requirement for good health for the major socioeconomic groups. There is therefore a need to conduct another study to develop new calorific amounts that captures the current situation.

REFERENCES

Anzagi, S.K. and F.K. Bernard (1977a) *Population Pressure in Kenya: A Preliminary Report*, Central Bureau of Statistics, Nairobi.

Anzagi, S.K. and F.K. Bernard (1977b) "Population Pressure in Rural Kenya," *Geoforum* 8(2).

Citro, C. and R. Michael (1995) *Measuring Poverty: A New Approach*. Washington, DC: National Academy Press.

Crawford, E. and E. Thorbecke (1978a) *Employment, Income Distribution, Poverty Alleviation and Basic Needs in Kenya*, Report of an ILO Consulting Mission. Ithaca: Cornell University.

Crawford, E. and E. Thorbecke (1978b) *The Analysis of Food Poverty: An Illustration from Kenya*, Ithaca: Cornell University.

Crawford, E. and E. Thorbecke (1980) "The Analysis of Food Poverty: An Illustration from Kenya," *Pakistan Development Review*, 19(4).

Deaton, A. and S. Zaidi (2002) *Guidelines for Constructing Consumption Aggregates for Welfare Analysis*. LSMS Working Paper No. 135, Washington, DC: The World Bank.

Food and Nutrition Cooperation – East, Central and Southern Africa (1987) *Food Composition Table for Energy and Eight Important Nutrients in Foods Commonly Eaten in East Africa*. ECSA/CTA.

Foster, J., J. Greer and E. Thorbecke (1984) "A Class of Decomposable Poverty Measures," *Econometrica*, 52(3):761-66.

Greer, J. and E. Thorbecke (1986a) *Food Poverty and Consumption Patterns in Kenya*, Geneva: ILO.

Greer, J. and E. Thorbecke (1986b) "Food Poverty Profile Applied to Kenyan Smallholders," *Economic Development and Cultural Change*, 35(1).

Greer, J. and E. Thorbecke (1986c) "A Methodology for Measuring Food Poverty Applied to Kenya," *Journal of Development Economics*, 24:59-74.

Kenya National Bureau of Statistics (2007), Ministry of Planning and National Development. Basic Report on Well-being in Kenya, Based on Kenya Integrated Household Budget Survey- 2005/06

Kenya National Bureau of Statistics, *Economic survey 2012*

Kenya National Bureau of Statistics, *Economic survey 2017*

Mukui, J. T. (1994) *Kenya Poverty Profiles, 1982-1992*. Report for the Office of the Vice-President and the Ministry of Planning and National Development. Nairobi.

National Public Health Laboratory Services (1993) *National Food Composition Tables and the Planning of Satisfactory Diets in Kenya*. Nairobi: Government Printer.

Orshansky, M. (1963) "Children of the Poor," *Social Security Bulletin*, 26:3-29.

Platt, B.S. (1962) *Tables of Representative Values of Foods Commonly Used in Tropical Countries*. London School of Hygiene and Tropical Medicine, London: United Kingdom.

Ravallion, M. (1998) *Poverty Comparisons*. Fundamentals of Pure and Applied Economics, Volume 56, Chur, Switzerland: Hardwood Academic Press.

Ravallion, M. (1998) *Poverty Lines in Theory and Practice*. LSMS Working Paper No. 133, Washington, D.C. The World Bank

Rowntree, B. (1901) *Poverty: A Study of Town Life*. London: Macmillan.

World Health Organization (1985) *Energy and Protein Requirements*. WHO Technical Report Series 724. Geneva: WHO.

ANNEX TABLES

Annex Table A1: Overall Poverty Estimates (Individuals) by Place of Residence and County, 2015/16

Residence / County	Headcount Rate (%) $P\alpha_{=0}$	(Std. errors)	Poverty Gap (%) $P\alpha_{=0}$	(Std. errors)	Severity of Poverty (%) $P\alpha_{=0}$	(Std. errors)	Contribution to Poverty: Individual $P\alpha_{=0}$	(Std. errors)	Individual $P\alpha_{=1}$	(Std. errors)	Individual $P\alpha_{=2}$	(Std. errors)	Adulteq Population (000)	Number of Poor - Adulteq (000)
National	**36.1**	**(0.51)**	**10.4**	**(0.19)**	**4.5**	**(0.11)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**45,371**	**16,401**
Rural	40.1	(0.59)	11.5	(0.23)	5.0	(0.14)	71.3	(0.88)	58.8	(1.24)	44.3	(1.57)	29,127	11,687
Peri-Urban	27.5	(1.21)	6.9	(0.39)	2.6	(0.19)	5.6	(0.29)	4.0	(0.26)	2.7	(0.22)	3,340	920
Core-Urban	29.4	(1.13)	8.9	(0.40)	3.9	(0.22)	23.1	(0.88)	37.1	(1.28)	53.0	(1.63)	12,905	3,795
Mombasa	27.1	(3.35)	7.5	(1.20)	3.3	(0.68)	2.0	(0.30)	2.9	(0.51)	4.0	(0.88)	1,185	321
Kwale	47.4	(3.22)	11.1	(1.02)	3.6	(0.45)	2.4	(0.23)	1.8	(0.21)	1.3	(0.20)	820	389
Kilifi	46.4	(3.53)	12.3	(1.53)	4.8	(0.82)	4.0	(0.45)	3.8	(0.74)	3.7	(1.00)	1,400	650
Tana River	62.2	(4.64)	20.0	(1.80)	9.3	(1.17)	1.2	(0.13)	1.3	(0.14)	1.4	(0.23)	304	189
Lamu	28.5	(3.33)	5.5	(0.92)	1.8	(0.44)	0.2	(0.03)	0.1	(0.02)	0.1	(0.02)	128	36
Taita/Taveta	32.3	(2.93)	7.7	(0.98)	2.7	(0.51)	0.7	(0.08)	0.5	(0.08)	0.4	(0.07)	358	116
Garissa	65.5	(3.27)	24.1	(1.55)	11.3	(0.97)	1.7	(0.13)	2.2	(0.19)	2.1	(0.23)	432	283
Wajir	62.6	(3.51)	16.3	(1.43)	6.7	(1.01)	1.8	(0.16)	1.4	(0.16)	1.2	(0.21)	459	287
Mandera	77.6	(2.64)	32.8	(1.67)	17.0	(1.15)	3.4	(0.26)	4.9	(0.43)	5.7	(0.66)	711	552
Marsabit	63.7	(3.03)	23.4	(1.51)	11.0	(0.97)	1.2	(0.11)	1.5	(0.14)	1.5	(0.17)	316	201
Isiolo	51.9	(3.10)	15.5	(1.48)	6.7	(0.99)	0.5	(0.05)	0.6	(0.09)	0.8	(0.18)	156	81
Meru	19.4	(2.54)	4.9	(0.78)	1.8	(0.34)	1.7	(0.25)	1.4	(0.23)	1.1	(0.23)	1,471	285
Tharaka-Nithi	23.6	(2.62)	3.8	(0.53)	1.0	(0.20)	0.6	(0.07)	0.3	(0.04)	0.1	(0.03)	396	94
Embu	28.2	(3.07)	6.4	(0.94)	2.3	(0.47)	1.0	(0.13)	0.7	(0.11)	0.5	(0.10)	560	158
Kitui	47.5	(2.99)	13.4	(1.12)	5.3	(0.59)	3.2	(0.29)	2.6	(0.28)	1.8	(0.23)	1,098	522
Machakos	23.3	(2.64)	5.7	(0.76)	2.2	(0.36)	1.7	(0.20)	1.4	(0.21)	1.3	(0.27)	1,191	278
Makueni	34.8	(2.77)	8.8	(0.93)	3.2	(0.44)	2.0	(0.20)	1.5	(0.19)	1.1	(0.17)	959	334
Nyandarua	34.8	(3.25)	7.2	(0.92)	2.3	(0.39)	1.5	(0.18)	0.9	(0.14)	0.6	(0.11)	686	239
Nyeri	19.3	(2.50)	2.4	(0.40)	0.5	(0.12)	0.9	(0.14)	0.4	(0.09)	0.3	(0.08)	798	154
Kirinyaga	20.0	(2.71)	3.5	(0.55)	1.0	(0.19)	0.7	(0.12)	0.4	(0.07)	0.3	(0.06)	608	122
Murang'a	25.3	(2.66)	6.0	(0.87)	2.1	(0.44)	1.7	(0.21)	1.2	(0.19)	0.9	(0.18)	1,085	274
Kiambu	23.3	(2.86)	6.6	(0.95)	2.5	(0.43)	2.7	(0.38)	3.4	(0.59)	3.8	(0.81)	1,868	435
Turkana	79.4	(2.58)	46.0	(2.05)	30.8	(1.76)	5.2	(0.41)	11.2	(0.96)	17.9	(1.71)	1,084	860
West Pokot	57.4	(3.11)	20.1	(1.54)	9.5	(0.93)	2.3	(0.20)	2.4	(0.24)	2.1	(0.25)	649	373
Samburu	75.8	(2.39)	32.1	(1.63)	16.8	(1.24)	1.3	(0.10)	1.7	(0.15)	1.7	(0.18)	284	215
Trans Nzoia	34.0	(3.28)	10.4	(1.31)	4.4	(0.74)	2.2	(0.26)	2.1	(0.29)	1.9	(0.32)	1,038	353
Uasin Gishu	41.0	(2.79)	12.9	(1.20)	5.8	(0.71)	2.8	(0.26)	3.2	(0.38)	3.6	(0.62)	1,133	465
Elgeyo/Marakwet	43.4	(3.14)	13.4	(1.26)	5.6	(0.69)	1.2	(0.12)	1.2	(0.13)	0.9	(0.14)	469	204
Nandi	36.0	(2.66)	9.4	(0.92)	3.4	(0.44)	2.1	(0.20)	1.6	(0.18)	1.1	(0.15)	954	343
Baringo	39.6	(3.20)	9.7	(1.07)	4.2	(0.65)	1.7	(0.17)	1.3	(0.15)	1.1	(0.17)	704	278
Laikipia	45.9	(3.63)	14.9	(2.05)	6.8	(1.40)	1.4	(0.17)	1.4	(0.24)	1.2	(0.26)	507	233
Nakuru	29.1	(2.78)	7.8	(0.92)	2.8	(0.43)	3.6	(0.42)	3.8	(0.54)	3.9	(0.79)	2,031	592
Narok	22.6	(2.82)	6.0	(1.01)	2.4	(0.54)	1.5	(0.22)	1.2	(0.21)	0.9	(0.20)	1,078	243
Kajiado	40.7	(3.17)	13.1	(1.21)	5.8	(0.66)	2.2	(0.22)	2.5	(0.29)	2.6	(0.38)	871	355
Kericho	30.3	(2.60)	8.1	(0.92)	3.2	(0.52)	1.7	(0.18)	1.4	(0.18)	1.0	(0.17)	945	286
Bomet	48.8	(3.02)	9.3	(0.90)	2.8	(0.39)	2.7	(0.25)	1.5	(0.18)	0.8	(0.12)	916	447
Kakamega	35.8	(2.78)	9.5	(0.98)	3.8	(0.57)	4.1	(0.40)	3.4	(0.39)	2.7	(0.40)	1,876	672
Vihiga	43.2	(2.81)	11.5	(1.08)	4.6	(0.61)	1.7	(0.15)	1.5	(0.19)	1.4	(0.28)	627	271
Bungoma	35.7	(3.07)	9.5	(0.97)	3.6	(0.47)	3.4	(0.36)	2.8	(0.32)	2.3	(0.32)	1,553	555
Busia	69.3	(2.52)	22.3	(1.20)	9.3	(0.68)	3.6	(0.25)	3.5	(0.29)	3.0	(0.32)	840	583
Siaya	33.8	(2.92)	8.7	(1.00)	3.5	(0.53)	2.0	(0.22)	1.8	(0.22)	1.7	(0.26)	985	333
Kisumu	33.9	(2.56)	8.7	(0.85)	3.4	(0.45)	2.3	(0.22)	2.3	(0.26)	2.3	(0.40)	1,132	384
Homa Bay	33.5	(2.60)	8.4	(0.91)	3.4	(0.48)	2.2	(0.21)	2.0	(0.26)	2.1	(0.40)	1,072	360
Migori	41.2	(3.07)	8.0	(0.83)	2.5	(0.33)	2.8	(0.28)	1.8	(0.21)	1.2	(0.19)	1,126	464
Kisii	41.7	(3.14)	10.8	(1.10)	4.0	(0.51)	3.4	(0.34)	2.9	(0.35)	2.4	(0.37)	1,347	562
Nyamira	32.7	(2.68)	9.1	(0.93)	3.5	(0.46)	1.4	(0.14)	1.2	(0.14)	0.8	(0.12)	699	229
Nairobi City	16.7	(2.35)	3.4	(0.56)	1.1	(0.24)	4.5	(0.69)	4.9	(0.84)	5.1	(1.12)	4,463	745

Annex Table A2: Overall Poverty estimates (Adulteq) by Place of Residence and County, 2015/16

Residence/ County	Headcount Rate (%) $P\alpha_{=0}$		Poverty Gap (%) $P\alpha_{=1}$		Severity of Poverty (%) $P\alpha_{=2}$		Contribution to Poverty						Adulteq Population (000)	Number of Poor - Adulteq (000)
							Adulteq $P\alpha_{=0}$		Adulteq $P\alpha_{=1}$		Adulteq $P\alpha_{=2}$			
	(Std. errors)		(Std. errors)		(Std. errors)		(Std. errors)		(Std. errors)		(Std. errors)			
National	**35.3**	**(0.50)**	**10.2**	**(0.19)**	**4.4**	**(0.11)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**36,377**	**12,847**
Rural	39.5	(0.59)	11.3	(0.23)	4.9	(0.13)	70.7	(0.89)	58.2	(1.25)	43.6	(1.57)	22,980	9,086
Peri-Urban	27.3	(1.21)	6.9	(0.40)	2.7	(0.20)	5.8	(0.30)	4.2	(0.28)	2.8	(0.24)	2,715	768
Core-Urban	28.3	(1.09)	8.5	(0.39)	3.8	(0.21)	23.5	(0.89)	37.6	(1.29)	53.6	(1.64)	10,682	2,915
Mombasa	25.9	(3.16)	7.3	(1.17)	3.2	(0.68)	2.0	(0.30)	3.0	(0.54)	4.3	(0.94)	997	258
Kwale	46.6	(3.21)	10.9	(1.00)	3.5	(0.44)	2.3	(0.23)	1.8	(0.21)	1.3	(0.19)	637	297
Kilifi	45.1	(3.49)	11.9	(1.50)	4.7	(0.81)	3.9	(0.44)	3.7	(0.72)	3.6	(0.96)	1,098	495
Tana River	62.1	(4.93)	19.8	(1.87)	9.3	(1.18)	1.1	(0.13)	1.3	(0.14)	1.4	(0.25)	234	145
Lamu	28.2	(3.27)	5.6	(0.93)	1.8	(0.46)	0.2	(0.03)	0.1	(0.03)	0.1	(0.02)	102	29
Taita / Taveta	32.8	(2.92)	7.8	(0.99)	2.8	(0.51)	0.8	(0.08)	0.6	(0.08)	0.4	(0.07)	295	97
Garissa	65.6	(3.24)	24.0	(1.52)	11.3	(0.94)	1.7	(0.13)	2.1	(0.19)	2.1	(0.23)	326	214
Wajir	64.6	(3.36)	17.2	(1.50)	7.1	(1.11)	1.7	(0.15)	1.4	(0.16)	1.2	(0.22)	334	215
Mandera	78.0	(2.61)	33.5	(1.70)	17.5	(1.18)	3.2	(0.25)	4.8	(0.43)	5.7	(0.66)	528	412
Marsabit	63.3	(3.03)	23.3	(1.53)	11.0	(0.98)	1.2	(0.10)	1.4	(0.14)	1.5	(0.17)	240	152
Isiolo	52.1	(3.10)	15.5	(1.44)	6.6	(0.94)	0.5	(0.05)	0.6	(0.09)	0.8	(0.17)	122	64
Meru	19.5	(2.56)	4.9	(0.76)	1.7	(0.32)	1.8	(0.27)	1.5	(0.24)	1.1	(0.24)	1,215	237
Tharaka-Nithi	23.5	(2.60)	3.8	(0.53)	1.0	(0.20)	0.6	(0.08)	0.3	(0.04)	0.1	(0.03)	326	76
Embu	27.3	(2.94)	6.3	(0.93)	2.3	(0.48)	1.0	(0.13)	0.7	(0.12)	0.5	(0.11)	470	128
Kitui	47.4	(2.95)	13.3	(1.09)	5.2	(0.57)	3.2	(0.30)	2.6	(0.28)	1.8	(0.23)	878	416
Machakos	23.7	(2.65)	6.0	(0.79)	2.3	(0.37)	1.8	(0.22)	1.6	(0.23)	1.4	(0.29)	995	236
Makueni	34.2	(2.72)	8.6	(0.91)	3.1	(0.44)	2.1	(0.21)	1.6	(0.19)	1.1	(0.17)	784	268
Nyandarua	34.2	(3.14)	7.0	(0.89)	2.2	(0.38)	1.5	(0.18)	0.9	(0.14)	0.6	(0.11)	563	192
Nyeri	19.3	(2.49)	2.4	(0.40)	0.5	(0.11)	1.0	(0.15)	0.5	(0.09)	0.3	(0.08)	678	131
Kirinyaga	19.6	(2.63)	3.4	(0.51)	1.0	(0.19)	0.8	(0.12)	0.4	(0.07)	0.3	(0.06)	515	101
Murang'a	25.4	(2.66)	6.2	(0.93)	2.2	(0.49)	1.8	(0.22)	1.3	(0.21)	1.0	(0.21)	903	230
Kiambu	22.3	(2.62)	6.2	(0.88)	2.3	(0.40)	2.7	(0.36)	3.4	(0.58)	3.8	(0.80)	1,575	351
Turkana	78.7	(2.60)	45.3	(2.06)	30.2	(1.75)	5.0	(0.40)	10.8	(0.96)	17.3	(1.75)	816	642
West Pokot	57.4	(3.10)	20.0	(1.53)	9.5	(0.93)	2.2	(0.19)	2.3	(0.23)	2.0	(0.23)	489	280
Samburu	75.4	(2.41)	32.3	(1.65)	17.0	(1.26)	1.2	(0.10)	1.6	(0.15)	1.6	(0.17)	209	158
Trans Nzoia	33.0	(3.22)	10.1	(1.26)	4.2	(0.70)	2.1	(0.26)	2.1	(0.28)	1.9	(0.32)	828	273
Uasin Gishu	40.4	(2.76)	12.7	(1.18)	5.7	(0.70)	2.9	(0.26)	3.2	(0.37)	3.5	(0.57)	911	368
Elgeyo/ Marakwet	43.9	(3.14)	13.6	(1.27)	5.7	(0.70)	1.3	(0.12)	1.2	(0.14)	1.0	(0.15)	374	164
Nandi	36.2	(2.66)	9.4	(0.92)	3.5	(0.45)	2.2	(0.20)	1.7	(0.19)	1.1	(0.16)	768	278
Baringo	39.1	(3.16)	9.5	(1.05)	4.1	(0.62)	1.7	(0.17)	1.3	(0.15)	1.0	(0.16)	556	217
Laikipia	44.9	(3.53)	14.5	(2.06)	6.7	(1.44)	1.4	(0.17)	1.4	(0.24)	1.2	(0.27)	406	182
Nakuru	28.6	(2.73)	7.5	(0.89)	2.7	(0.41)	3.6	(0.42)	3.8	(0.55)	3.9	(0.78)	1,620	464
Narok	22.4	(2.78)	6.0	(1.01)	2.4	(0.55)	1.4	(0.20)	1.2	(0.20)	0.9	(0.19)	808	181
Kajiado	39.0	(3.08)	12.6	(1.18)	5.6	(0.65)	2.1	(0.21)	2.5	(0.28)	2.6	(0.37)	704	275
Kericho	30.4	(2.59)	8.1	(0.92)	3.2	(0.52)	1.8	(0.19)	1.5	(0.18)	1.1	(0.17)	765	233
Bomet	47.5	(3.02)	9.2	(0.92)	2.8	(0.40)	2.6	(0.24)	1.5	(0.18)	0.8	(0.13)	714	339
Kakamega	35.9	(2.78)	9.6	(0.99)	3.8	(0.59)	4.1	(0.40)	3.5	(0.39)	2.8	(0.41)	1,476	529
Vihiga	42.4	(2.79)	11.5	(1.11)	4.7	(0.64)	1.7	(0.15)	1.5	(0.20)	1.5	(0.32)	509	216
Bungoma	35.1	(3.04)	9.6	(0.99)	3.8	(0.49)	3.3	(0.34)	2.8	(0.32)	2.3	(0.32)	1,197	421
Busia	68.7	(2.52)	22.3	(1.21)	9.4	(0.69)	3.5	(0.25)	3.5	(0.29)	3.1	(0.31)	661	454
Siaya	33.6	(2.86)	8.7	(0.99)	3.5	(0.53)	2.0	(0.22)	1.8	(0.22)	1.7	(0.25)	782	263
Kisumu	33.0	(2.53)	8.6	(0.84)	3.4	(0.43)	2.3	(0.22)	2.3	(0.27)	2.3	(0.39)	904	299
Homa Bay	33.8	(2.60)	8.4	(0.90)	3.4	(0.47)	2.1	(0.21)	1.9	(0.25)	2.0	(0.38)	812	274
Migori	41.1	(3.05)	8.2	(0.84)	2.6	(0.35)	2.8	(0.28)	1.8	(0.21)	1.2	(0.19)	881	362
Kisii	40.9	(3.10)	10.6	(1.07)	3.9	(0.50)	3.4	(0.34)	2.9	(0.35)	2.5	(0.38)	1,081	442
Nyamira	33.0	(2.68)	9.2	(0.93)	3.5	(0.45)	1.5	(0.15)	1.2	(0.14)	0.9	(0.12)	565	187
Nairobi City	16.2	(2.27)	3.3	(0.56)	1.1	(0.24)	4.7	(0.71)	5.1	(0.88)	5.4	(1.20)	3,727	604

Annex Table A3: Overall Poverty Estimates (Households) by Place of residence and County, 2015/16

Residence / County	Headcount Rate (%) $P\alpha_{=0}$	(Std. errors)	Poverty Gap (%) $P\alpha_{=1}$	(Std. errors)	Severity of Poverty (%) $P\alpha_{=2}$	(Std. errors)	Contribution to Poverty: Household $P\alpha_{=0}$	(Std. errors)	Contribution to Poverty: Household $P\alpha_{=1}$	(Std. errors)	Contribution to Poverty: Household $P\alpha_{=2}$	(Std. errors)	Adulteq Population (000)	Number of Poor - Adulteq (000)
National	**27.4**	**(0.41)**	**7.7**	**(0.14)**	**3.3**	**(0.08)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**11,414**	**3,126**
Rural	32.6	(0.49)	9.2	(0.18)	3.9	(0.11)	67.1	(0.87)	54.8	(1.15)	41.1	(1.40)	6,441	2,097
Peri-Urban	21.1	(0.95)	5.2	(0.29)	2.0	(0.15)	5.4	(0.27)	3.9	(0.24)	2.6	(0.21)	806	166
Core-Urban	20.6	(0.79)	5.8	(0.25)	2.4	(0.13)	27.5	(0.88)	41.3	(1.19)	56.3	(1.46)	4,166	880
Mombasa	17.5	(2.03)	4.5	(0.62)	1.9	(0.33)	2.2	(0.28)	3.1	(0.44)	4.1	(0.72)	397	69
Kwale	35.0	(2.72)	8.1	(0.81)	2.6	(0.33)	2.0	(0.18)	1.5	(0.18)	1.2	(0.18)	174	61
Kilifi	33.9	(2.62)	8.4	(0.96)	3.2	(0.52)	3.5	(0.33)	3.3	(0.48)	3.0	(0.63)	326	111
Tana River	54.8	(3.99)	17.9	(1.59)	8.8	(1.08)	1.0	(0.09)	1.1	(0.11)	1.3	(0.18)	56	31
Lamu	21.0	(2.35)	4.0	(0.58)	1.3	(0.27)	0.2	(0.03)	0.1	(0.02)	0.1	(0.02)	30	6
Taita /Taveta	26.3	(2.29)	6.5	(0.76)	2.4	(0.40)	0.9	(0.09)	0.7	(0.09)	0.5	(0.09)	102	27
Garissa	59.6	(2.81)	20.2	(1.22)	9.2	(0.73)	1.5	(0.11)	1.8	(0.14)	1.7	(0.17)	78	47
Wajir	54.6	(3.33)	14.2	(1.25)	5.8	(0.82)	1.2	(0.11)	1.0	(0.10)	0.8	(0.13)	69	38
Mandera	72.9	(2.70)	29.0	(1.49)	14.5	(0.97)	2.6	(0.19)	3.5	(0.29)	4.0	(0.41)	111	81
Marsabit	55.8	(3.01)	20.1	(1.40)	9.5	(0.88)	1.1	(0.09)	1.3	(0.12)	1.3	(0.14)	62	35
Isiolo	42.3	(2.86)	12.5	(1.22)	5.3	(0.75)	0.5	(0.04)	0.6	(0.08)	0.8	(0.15)	34	14
Meru	16.3	(1.98)	4.2	(0.64)	1.5	(0.29)	2.1	(0.27)	1.7	(0.26)	1.3	(0.24)	393	64
Tharaka-Nithi	19.2	(1.99)	3.3	(0.44)	1.0	(0.18)	0.7	(0.08)	0.4	(0.05)	0.2	(0.04)	107	21
Embu	22.4	(2.20)	5.2	(0.67)	2.0	(0.34)	1.2	(0.13)	0.9	(0.12)	0.7	(0.12)	164	37
Kitui	39.3	(2.56)	11.0	(0.90)	4.3	(0.45)	3.0	(0.25)	2.5	(0.25)	1.8	(0.23)	236	93
Machakos	18.2	(2.05)	4.4	(0.62)	1.7	(0.32)	1.9	(0.21)	1.7	(0.25)	1.6	(0.34)	328	60
Makueni	27.6	(2.18)	6.9	(0.71)	2.6	(0.35)	2.1	(0.19)	1.6	(0.18)	1.1	(0.17)	233	64
Nyandarua	24.0	(2.27)	4.8	(0.57)	1.5	(0.22)	1.5	(0.16)	0.9	(0.12)	0.6	(0.10)	191	46
Nyeri	13.0	(1.61)	1.6	(0.26)	0.3	(0.08)	1.1	(0.15)	0.5	(0.10)	0.4	(0.11)	271	35
Kirinyag'a	16.9	(2.11)	3.4	(0.54)	1.2	(0.30)	1.1	(0.15)	0.7	(0.11)	0.5	(0.12)	198	33
Murang'a	19.7	(1.97)	4.5	(0.58)	1.6	(0.27)	2.0	(0.22)	1.5	(0.20)	1.1	(0.22)	323	64
Kiambu	18.2	(2.10)	4.9	(0.66)	1.8	(0.31)	3.5	(0.44)	4.3	(0.67)	4.6	(0.91)	600	109
Turkana	70.8	(3.06)	38.2	(2.01)	24.6	(1.55)	5.6	(0.39)	11.2	(0.84)	17.3	(1.46)	246	174
West Pokot	53.1	(2.80)	18.4	(1.32)	8.6	(0.82)	2.0	(0.16)	2.1	(0.19)	1.8	(0.21)	119	63
Samburu	63.1	(2.57)	24.6	(1.39)	12.4	(0.93)	1.2	(0.09)	1.5	(0.12)	1.5	(0.15)	61	39
Trans Nzoia	28.3	(2.57)	8.5	(0.97)	3.5	(0.51)	1.9	(0.21)	1.9	(0.23)	1.7	(0.27)	210	59
Uasin Gishu	32.0	(2.30)	9.6	(0.92)	4.3	(0.54)	2.8	(0.23)	3.2	(0.37)	3.7	(0.63)	270	86
Elgeyo/ Marakwet	38.5	(2.70)	11.4	(0.99)	4.6	(0.52)	1.2	(0.11)	1.1	(0.12)	0.9	(0.12)	99	38
Nandi	30.5	(2.23)	7.9	(0.72)	2.8	(0.32)	2.0	(0.17)	1.5	(0.16)	1.1	(0.13)	202	61
Baringo	31.4	(2.54)	7.8	(0.82)	3.3	(0.46)	1.5	(0.14)	1.2	(0.13)	1.0	(0.13)	152	48
Laikipia	37.1	(2.97)	10.8	(1.26)	4.5	(0.77)	1.6	(0.17)	1.5	(0.19)	1.2	(0.20)	135	50
Nakuru	21.2	(2.04)	5.4	(0.64)	1.9	(0.29)	3.9	(0.42)	4.1	(0.56)	4.2	(0.81)	578	123
Narok	16.9	(2.07)	4.2	(0.67)	1.6	(0.34)	1.2	(0.16)	1.0	(0.15)	0.8	(0.15)	223	38
Kajiado	31.9	(2.64)	10.1	(1.04)	4.4	(0.59)	2.6	(0.24)	3.1	(0.35)	3.4	(0.49)	250	80
Kericho	27.3	(2.20)	6.7	(0.68)	2.5	(0.34)	1.8	(0.17)	1.4	(0.16)	1.0	(0.14)	211	57
Bomet	40.4	(2.62)	7.2	(0.68)	2.1	(0.27)	2.3	(0.20)	1.2	(0.13)	0.6	(0.09)	179	72
Kakamega	31.2	(2.24)	8.5	(0.78)	3.5	(0.47)	3.9	(0.33)	3.5	(0.34)	3.0	(0.39)	392	122
Vihiga	38.6	(2.44)	10.2	(0.90)	4.2	(0.54)	1.8	(0.14)	1.6	(0.18)	1.6	(0.27)	144	56
Bungoma	30.2	(2.41)	8.1	(0.79)	3.3	(0.41)	3.1	(0.28)	2.7	(0.28)	2.3	(0.32)	321	97
Busia	59.9	(2.46)	18.0	(0.99)	7.2	(0.53)	3.4	(0.22)	3.2	(0.24)	2.8	(0.28)	177	106
Siaya	27.4	(2.29)	6.8	(0.71)	2.7	(0.38)	2.2	(0.21)	1.9	(0.20)	1.8	(0.24)	246	67
Kisumu	27.0	(2.05)	6.8	(0.65)	2.7	(0.34)	2.5	(0.21)	2.4	(0.26)	2.5	(0.39)	284	77
Homa Bay	29.2	(2.20)	7.3	(0.75)	2.9	(0.39)	2.1	(0.19)	1.9	(0.23)	2.0	(0.35)	224	66
Migori	34.3	(2.51)	7.6	(0.88)	3.1	(0.63)	2.6	(0.23)	1.8	(0.22)	1.5	(0.28)	233	80
Kisii	34.5	(2.52)	8.7	(0.84)	3.3	(0.42)	3.2	(0.29)	2.7	(0.30)	2.3	(0.36)	290	100
Nyamira	28.7	(2.30)	7.8	(0.75)	3.0	(0.36)	1.6	(0.15)	1.4	(0.15)	1.0	(0.15)	179	51
Nairobi City	11.3	(1.54)	2.4	(0.39)	0.8	(0.18)	5.4	(0.75)	6.1	(1.00)	6.6	(1.42)	1,503	169

Annex Table B1: Food Poverty Estimates (Individuals) by Residence and County, 2015/16

Residence / County	Headcount Rate (%) $P\alpha_{=0}$	(Std. errors)	Poverty Gap (%) $P\alpha_{=1}$	(Std. errors)	Severity of Poverty (%) $P\alpha_{=2}$	(Std. errors)	Contribution to Poverty: Individual $P\alpha_{=0}$	(Std. errors)	Individual $P\alpha_{=1}$	(Std. errors)	Individual $P\alpha_{=2}$	(Std. errors)	Adulteq Population (000)	Number of Poor - Adulteq (000)
National	**32.0**	**(0.49)**	**9.2**	**(0.18)**	**3.9**	**(0.10)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**45,371**	**14,539**
Rural	35.8	(0.59)	10.3	(0.23)	4.4	(0.14)	71.7	(0.91)	67.3	(1.16)	62.8	(1.52)	29,127	10,419
Peri-Urban	28.9	(1.24)	7.4	(0.41)	2.9	(0.21)	6.6	(0.34)	5.6	(0.35)	4.7	(0.38)	3,340	965
Core-Urban	24.4	(1.05)	7.2	(0.35)	3.0	(0.18)	21.7	(0.90)	27.1	(1.17)	32.5	(1.54)	12,905	3,155
Mombasa	23.6	(2.98)	7.2	(1.06)	3.1	(0.59)	1.9	(0.29)	2.5	(0.41)	3.1	(0.61)	1,185	280
Kwale	41.1	(3.24)	10.4	(1.12)	3.6	(0.52)	2.3	(0.25)	2.0	(0.26)	1.6	(0.26)	820	337
Kilifi	48.4	(3.49)	12.6	(1.36)	4.9	(0.76)	4.7	(0.51)	4.3	(0.62)	3.9	(0.72)	1,400	678
Tana River	55.4	(4.61)	18.2	(2.13)	8.8	(1.32)	1.2	(0.14)	1.3	(0.20)	1.5	(0.27)	304	168
Lamu	19.9	(3.01)	4.8	(0.98)	1.8	(0.45)	0.2	(0.03)	0.1	(0.03)	0.1	(0.03)	128	25
Taita /Taveta	38.9	(3.10)	9.0	(1.13)	3.3	(0.62)	1.0	(0.10)	0.7	(0.11)	0.6	(0.12)	358	139
Garissa	45.2	(3.23)	14.4	(1.35)	6.5	(0.87)	1.3	(0.12)	1.5	(0.17)	1.6	(0.24)	432	195
Wajir	41.3	(3.53)	11.8	(1.43)	5.3	(0.98)	1.3	(0.14)	1.3	(0.17)	1.3	(0.25)	459	189
Mandera	61.9	(3.20)	26.4	(1.90)	14.2	(1.30)	3.0	(0.26)	4.5	(0.46)	5.6	(0.65)	711	440
Marsabit	55.6	(3.21)	17.9	(1.42)	8.0	(0.84)	1.2	(0.11)	1.3	(0.14)	1.4	(0.17)	316	176
Isiolo	34.2	(3.13)	9.2	(1.25)	3.5	(0.76)	0.4	(0.04)	0.4	(0.06)	0.4	(0.10)	156	53
Meru	15.5	(2.44)	3.8	(0.69)	1.4	(0.31)	1.6	(0.27)	1.3	(0.25)	1.1	(0.25)	1,471	228
Tharaka-Nithi	31.2	(3.14)	7.1	(0.80)	2.3	(0.36)	0.8	(0.11)	0.6	(0.08)	0.5	(0.08)	396	123
Embu	28.3	(3.18)	6.9	(1.18)	2.7	(0.71)	1.1	(0.15)	0.9	(0.17)	0.8	(0.21)	560	158
Kitui	39.4	(2.95)	12.5	(1.27)	5.7	(0.71)	3.0	(0.29)	3.1	(0.37)	3.1	(0.43)	1,098	432
Machakos	24.1	(2.58)	6.8	(0.87)	2.8	(0.45)	2.0	(0.21)	1.9	(0.25)	1.8	(0.29)	1,191	287
Makueni	30.7	(2.67)	9.1	(1.03)	3.8	(0.58)	2.0	(0.21)	2.0	(0.25)	1.8	(0.29)	959	295
Nyandarua	29.8	(3.23)	5.9	(0.86)	1.8	(0.34)	1.4	(0.19)	0.9	(0.15)	0.6	(0.12)	686	205
Nyeri	15.5	(2.27)	3.0	(0.54)	0.8	(0.16)	0.9	(0.14)	0.6	(0.11)	0.4	(0.08)	798	124
Kirinyag'a	18.8	(2.64)	3.0	(0.50)	0.9	(0.19)	0.8	(0.13)	0.4	(0.08)	0.3	(0.06)	608	114
Murang'a	22.7	(2.62)	5.7	(0.90)	2.2	(0.46)	1.7	(0.23)	1.4	(0.24)	1.2	(0.26)	1,085	246
Kiambu	23.5	(2.93)	5.9	(0.87)	2.2	(0.36)	3.0	(0.44)	3.0	(0.52)	3.0	(0.54)	1,868	439
Turkana	66.1	(3.19)	32.9	(2.10)	20.4	(1.71)	4.9	(0.42)	8.6	(0.78)	12.4	(1.22)	1,084	716
West Pokot	57.3	(3.07)	20.4	(1.50)	9.4	(0.90)	2.6	(0.23)	3.0	(0.31)	3.0	(0.37)	649	372
Samburu	60.1	(3.00)	22.7	(1.67)	11.3	(1.21)	1.2	(0.11)	1.5	(0.16)	1.6	(0.21)	284	171
Trans Nzoia	33.3	(3.20)	9.9	(1.23)	4.1	(0.67)	2.4	(0.28)	2.4	(0.34)	2.3	(0.39)	1,038	345
Uasin Gishu	38.2	(2.78)	11.7	(1.07)	5.0	(0.61)	3.0	(0.28)	3.3	(0.36)	3.4	(0.50)	1,133	433
Elgeyo / Marakwet	44.8	(3.17)	10.8	(1.03)	4.0	(0.52)	1.4	(0.14)	1.2	(0.14)	1.0	(0.14)	469	210
Nandi	31.5	(2.60)	8.3	(0.88)	3.1	(0.42)	2.1	(0.21)	1.8	(0.22)	1.5	(0.22)	954	300
Baringo	41.4	(3.40)	10.8	(1.14)	4.1	(0.58)	2.0	(0.23)	1.7	(0.23)	1.5	(0.23)	704	291
Laikipia	28.5	(3.59)	9.2	(1.89)	4.2	(1.16)	1.0	(0.16)	1.1	(0.25)	1.1	(0.32)	507	145
Nakuru	19.6	(2.41)	4.8	(0.74)	1.7	(0.38)	2.7	(0.38)	2.5	(0.42)	2.3	(0.57)	2,031	399
Narok	22.1	(2.68)	6.7	(1.03)	3.0	(0.64)	1.6	(0.23)	1.7	(0.28)	1.7	(0.36)	1,078	238
Kajiado	36.9	(3.16)	12.3	(1.21)	5.5	(0.68)	2.2	(0.24)	2.7	(0.32)	2.9	(0.41)	871	321
Kericho	31.4	(2.66)	7.3	(0.86)	2.9	(0.52)	2.0	(0.21)	1.6	(0.21)	1.4	(0.25)	945	297
Bomet	32.8	(2.98)	5.6	(0.77)	1.6	(0.29)	2.1	(0.24)	1.1	(0.18)	0.7	(0.14)	916	300
Kakamega	33.3	(2.73)	8.3	(0.91)	3.1	(0.50)	4.3	(0.43)	3.6	(0.44)	3.0	(0.48)	1,876	624
Vihiga	36.6	(2.77)	9.5	(1.01)	4.0	(0.59)	1.6	(0.16)	1.4	(0.18)	1.3	(0.22)	627	230
Bungoma	32.4	(3.09)	9.5	(1.12)	3.9	(0.55)	3.5	(0.40)	3.4	(0.46)	3.1	(0.46)	1,553	503
Busia	59.5	(2.74)	17.5	(1.19)	7.2	(0.67)	3.4	(0.27)	3.4	(0.31)	3.1	(0.35)	840	500
Siaya	27.3	(2.80)	7.2	(1.01)	3.1	(0.66)	1.8	(0.23)	1.7	(0.25)	1.7	(0.34)	985	269
Kisumu	32.5	(2.59)	8.3	(0.90)	3.3	(0.51)	2.5	(0.25)	2.3	(0.29)	2.2	(0.39)	1,132	368
Homa Bay	22.7	(2.32)	6.0	(0.77)	2.4	(0.39)	1.7	(0.20)	1.6	(0.23)	1.5	(0.29)	1,072	244
Migori	32.0	(2.96)	7.9	(0.96)	3.0	(0.46)	2.5	(0.28)	2.1	(0.28)	1.8	(0.30)	1,126	360
Kisii	44.5	(3.25)	11.6	(1.33)	4.3	(0.69)	4.1	(0.45)	3.6	(0.51)	3.1	(0.54)	1,347	599
Nyamira	36.3	(2.76)	10.1	(1.02)	4.1	(0.57)	1.7	(0.17)	1.6	(0.19)	1.5	(0.22)	699	254
Nairobi City	16.1	(2.03)	3.9	(0.62)	1.5	(0.30)	4.9	(0.66)	5.1	(0.82)	5.4	(1.11)	4,463	717

Annex Table B2: Food Poverty estimates (Adulteq) by Place of Residence and County, 2015/16

Residence/ County	Headcount Rate (%) $P\alpha_{=0}$	(Std. errors)	Poverty Gap (%) $P\alpha_{=1}$	(Std. errors)	Severity of Poverty (%) $P\alpha_{=2}$	(Std. errors)	Contribution to Poverty: Adulteq $P\alpha_{=0}$	(Std. errors)	Adulteq $P\alpha_{=1}$	(Std. errors)	Adulteq $P\alpha_{=2}$	(Std. errors)	Adulteq Population (000)	Number of Poor - Adulteq (000)
National	**31.9**	**(0.49)**	**9.1**	**(0.18)**	**3.9**	**(0.10)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**36,377**	**11,594**
Rural	35.7	(0.58)	10.3	(0.23)	4.4	(0.14)	70.8	(0.92)	66.5	(1.17)	61.9	(1.54)	22,980	8,213
Peri-Urban	29.1	(1.25)	7.6	(0.42)	2.9	(0.22)	6.8	(0.35)	5.8	(0.37)	4.8	(0.39)	2,715	789
Core-Urban	24.3	(1.04)	7.1	(0.35)	3.0	(0.18)	22.4	(0.92)	27.8	(1.18)	33.3	(1.57)	10,682	2,592
Mombasa	23.5	(2.88)	7.2	(1.07)	3.2	(0.62)	2.0	(0.29)	2.6	(0.43)	3.3	(0.67)	997	234
Kwale	40.3	(3.21)	10.3	(1.11)	3.6	(0.50)	2.2	(0.24)	1.9	(0.25)	1.6	(0.25)	637	257
Kilifi	47.3	(3.45)	12.3	(1.31)	4.9	(0.75)	4.5	(0.49)	4.1	(0.58)	3.8	(0.68)	1,098	519
Tana River	55.9	(4.86)	18.5	(2.27)	9.1	(1.44)	1.1	(0.14)	1.3	(0.20)	1.5	(0.29)	234	131
Lamu	20.1	(2.99)	4.9	(1.01)	1.9	(0.46)	0.2	(0.03)	0.1	(0.03)	0.1	(0.03)	102	20
Taita /Taveta	39.0	(3.06)	9.1	(1.14)	3.3	(0.64)	1.0	(0.11)	0.8	(0.11)	0.6	(0.13)	295	115
Garissa	45.9	(3.23)	14.7	(1.38)	6.7	(0.93)	1.3	(0.12)	1.5	(0.17)	1.6	(0.25)	326	150
Wajir	43.8	(3.57)	12.9	(1.56)	5.9	(1.11)	1.3	(0.14)	1.2	(0.17)	1.3	(0.26)	334	146
Mandera	62.9	(3.19)	27.4	(1.99)	15.0	(1.39)	2.9	(0.26)	4.3	(0.46)	5.5	(0.66)	528	332
Marsabit	55.8	(3.19)	18.4	(1.44)	8.2	(0.85)	1.2	(0.11)	1.3	(0.14)	1.3	(0.17)	240	134
Isiolo	34.7	(3.14)	9.2	(1.21)	3.5	(0.74)	0.4	(0.04)	0.4	(0.06)	0.4	(0.10)	122	42
Meru	15.1	(2.36)	3.7	(0.67)	1.4	(0.30)	1.6	(0.27)	1.3	(0.25)	1.1	(0.24)	1,215	184
Tharaka-Nithi	31.3	(3.14)	7.1	(0.80)	2.4	(0.37)	0.9	(0.11)	0.7	(0.09)	0.5	(0.08)	326	102
Embu	27.9	(3.07)	6.9	(1.21)	2.8	(0.75)	1.1	(0.15)	0.9	(0.18)	0.8	(0.23)	470	131
Kitui	40.1	(2.95)	12.9	(1.30)	5.9	(0.74)	3.0	(0.30)	3.2	(0.39)	3.2	(0.45)	878	352
Machakos	24.7	(2.60)	7.0	(0.89)	2.9	(0.46)	2.1	(0.23)	2.1	(0.27)	1.9	(0.31)	995	246
Makueni	30.6	(2.64)	9.1	(1.02)	3.8	(0.58)	2.1	(0.22)	2.0	(0.26)	1.8	(0.30)	784	240
Nyandarua	29.5	(3.14)	5.8	(0.84)	1.8	(0.33)	1.4	(0.19)	0.9	(0.15)	0.6	(0.13)	563	166
Nyeri	16.4	(2.34)	3.2	(0.56)	0.8	(0.17)	1.0	(0.15)	0.6	(0.12)	0.4	(0.09)	678	111
Kirinyag'a	18.7	(2.60)	3.1	(0.51)	1.0	(0.21)	0.8	(0.13)	0.5	(0.08)	0.3	(0.07)	515	96
Murang'a	23.0	(2.63)	5.9	(0.95)	2.3	(0.50)	1.8	(0.24)	1.5	(0.27)	1.3	(0.30)	903	208
Kiambu	22.9	(2.81)	5.7	(0.83)	2.2	(0.35)	3.1	(0.44)	3.1	(0.51)	3.1	(0.55)	1,575	361
Turkana	65.5	(3.21)	32.5	(2.10)	20.2	(1.71)	4.6	(0.40)	8.1	(0.75)	11.6	(1.19)	816	535
West Pokot	58.3	(3.02)	20.8	(1.50)	9.6	(0.91)	2.5	(0.22)	2.9	(0.30)	2.9	(0.35)	489	285
Samburu	60.6	(2.98)	23.2	(1.70)	11.6	(1.23)	1.1	(0.10)	1.4	(0.15)	1.5	(0.20)	209	127
Trans Nzoia	32.9	(3.17)	9.8	(1.20)	4.1	(0.65)	2.4	(0.27)	2.4	(0.33)	2.3	(0.38)	828	273
Uasin Gishu	37.6	(2.74)	11.6	(1.07)	5.0	(0.60)	3.0	(0.28)	3.2	(0.36)	3.4	(0.48)	911	343
Elgeyo/Marakwet	45.4	(3.17)	11.1	(1.06)	4.1	(0.56)	1.5	(0.14)	1.2	(0.14)	1.0	(0.15)	374	170
Nandi	32.2	(2.62)	8.6	(0.90)	3.2	(0.44)	2.1	(0.22)	1.9	(0.23)	1.6	(0.23)	768	247
Baringo	42.4	(3.38)	11.1	(1.14)	4.2	(0.57)	2.0	(0.23)	1.8	(0.23)	1.5	(0.23)	556	236
Laikipia	28.6	(3.54)	9.1	(1.88)	4.1	(1.15)	1.0	(0.16)	1.1	(0.25)	1.0	(0.31)	406	116
Nakuru	19.9	(2.43)	4.8	(0.73)	1.7	(0.37)	2.8	(0.38)	2.5	(0.43)	2.4	(0.58)	1,620	322
Narok	22.4	(2.67)	6.8	(1.06)	3.0	(0.66)	1.6	(0.21)	1.6	(0.27)	1.6	(0.35)	808	181
Kajiado	36.1	(3.07)	12.1	(1.19)	5.5	(0.68)	2.2	(0.24)	2.7	(0.31)	2.9	(0.41)	704	254
Kericho	32.1	(2.68)	7.4	(0.86)	2.9	(0.50)	2.1	(0.22)	1.6	(0.21)	1.4	(0.25)	765	246
Bomet	33.3	(3.00)	5.7	(0.81)	1.6	(0.31)	2.1	(0.24)	1.2	(0.19)	0.7	(0.15)	714	238
Kakamega	33.6	(2.74)	8.4	(0.92)	3.2	(0.51)	4.3	(0.43)	3.6	(0.44)	3.0	(0.49)	1,476	496
Vihiga	36.3	(2.76)	9.7	(1.03)	4.1	(0.61)	1.6	(0.16)	1.5	(0.18)	1.4	(0.23)	509	184
Bungoma	33.2	(3.10)	9.9	(1.14)	4.0	(0.56)	3.4	(0.39)	3.4	(0.45)	3.1	(0.46)	1,197	398
Busia	59.5	(2.71)	17.7	(1.20)	7.3	(0.69)	3.4	(0.26)	3.4	(0.31)	3.1	(0.35)	661	393
Siaya	27.1	(2.75)	7.2	(1.01)	3.2	(0.66)	1.8	(0.22)	1.6	(0.25)	1.6	(0.33)	782	212
Kisumu	32.5	(2.60)	8.4	(0.92)	3.3	(0.51)	2.5	(0.25)	2.3	(0.29)	2.2	(0.39)	904	294
Homa Bay	23.2	(2.34)	6.1	(0.78)	2.4	(0.39)	1.6	(0.19)	1.5	(0.22)	1.5	(0.27)	812	188
Migori	32.1	(2.95)	8.2	(0.99)	3.2	(0.48)	2.4	(0.28)	2.1	(0.29)	1.8	(0.30)	881	283
Kisii	44.4	(3.24)	11.7	(1.35)	4.4	(0.71)	4.1	(0.45)	3.7	(0.53)	3.1	(0.55)	1,081	480
Nyamira	37.1	(2.77)	10.4	(1.04)	4.3	(0.59)	1.8	(0.18)	1.7	(0.20)	1.5	(0.23)	565	210
Nairobi City	16.3	(2.05)	3.9	(0.63)	1.5	(0.31)	5.2	(0.69)	5.3	(0.87)	5.8	(1.19)	3,727	608

Annex Table B3: Food Poverty Estimates (Households) by Place of Residence and County, 2015/16

Residence / County	Headcount Rate (%) $P\alpha_{=0}$	(Std. errors)	Poverty Gap (%) $P\alpha_{=1}$	(Std. errors)	Severity of Poverty (%) $P\alpha_{=2}$	(Std. errors)	Contribution to Poverty: Household $P\alpha_{=0}$	(Std. errors)	Contribution to Poverty: Household $P\alpha_{=1}$	(Std. errors)	Contribution to Poverty: Household $P\alpha_{=2}$	(Std. errors)	Adulteq Population (000)	Number of Poor - Adulteq (000)
National	**23.8**	**(0.39)**	**6.7**	**(0.14)**	**2.9**	**(0.08)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**11,414**	**2,718**
Rural	28.1	(0.46)	8.0	(0.18)	3.5	(0.11)	66.5	(0.95)	61.8	(1.19)	57.1	(1.57)	6,441	1,808
Peri-Urban	21.5	(0.97)	5.5	(0.31)	2.2	(0.18)	6.4	(0.32)	5.4	(0.33)	4.5	(0.38)	806	173
Core-Urban	17.7	(0.75)	5.0	(0.24)	2.2	(0.13)	27.1	(0.97)	32.8	(1.22)	38.4	(1.62)	4,166	736
Mombasa	16.1	(1.82)	4.9	(0.67)	2.3	(0.41)	2.4	(0.29)	3.1	(0.43)	3.8	(0.69)	397	64
Kwale	30.9	(2.72)	7.6	(0.87)	2.7	(0.40)	2.0	(0.21)	1.7	(0.22)	1.4	(0.24)	174	54
Kilifi	35.2	(2.63)	9.0	(0.93)	3.6	(0.53)	4.2	(0.38)	3.8	(0.46)	3.5	(0.55)	326	115
Tana River	47.1	(3.88)	16.3	(2.07)	8.7	(1.54)	1.0	(0.10)	1.2	(0.17)	1.4	(0.26)	56	26
Lamu	15.7	(2.13)	3.9	(0.71)	1.6	(0.40)	0.2	(0.03)	0.1	(0.03)	0.1	(0.03)	30	5
Taita /Taveta	29.3	(2.42)	7.2	(0.81)	3.0	(0.51)	1.1	(0.11)	0.9	(0.11)	0.8	(0.14)	102	30
Garissa	38.6	(2.67)	11.9	(1.07)	5.4	(0.71)	1.1	(0.09)	1.2	(0.13)	1.3	(0.21)	78	30
Wajir	35.1	(3.04)	10.2	(1.26)	4.7	(0.82)	0.9	(0.09)	0.9	(0.12)	0.9	(0.16)	69	24
Mandera	55.8	(3.06)	22.2	(1.60)	11.6	(1.04)	2.3	(0.19)	3.1	(0.29)	3.7	(0.39)	111	62
Marsabit	46.3	(3.04)	15.1	(1.29)	7.0	(0.84)	1.1	(0.10)	1.2	(0.12)	1.2	(0.16)	62	29
Isiolo	26.8	(2.62)	6.7	(0.93)	2.5	(0.55)	0.3	(0.04)	0.3	(0.05)	0.3	(0.08)	34	9
Meru	12.4	(1.76)	3.6	(0.72)	1.7	(0.46)	1.8	(0.27)	1.8	(0.35)	1.7	(0.47)	393	49
Tharaka-Nithi	22.8	(2.12)	5.5	(0.65)	2.0	(0.32)	0.9	(0.09)	0.7	(0.09)	0.6	(0.10)	107	24
Embu	20.3	(2.12)	4.9	(0.71)	2.0	(0.41)	1.2	(0.14)	1.0	(0.15)	0.8	(0.18)	164	33
Kitui	33.9	(2.49)	10.9	(1.09)	5.1	(0.65)	2.9	(0.27)	3.2	(0.37)	3.2	(0.50)	236	80
Machakos	19.2	(2.09)	5.4	(0.72)	2.3	(0.44)	2.3	(0.24)	2.3	(0.30)	2.1	(0.38)	328	63
Makueni	24.4	(2.09)	7.1	(0.76)	2.9	(0.43)	2.1	(0.20)	2.0	(0.23)	1.7	(0.27)	233	57
Nyandarua	19.8	(2.18)	3.7	(0.51)	1.1	(0.20)	1.4	(0.17)	0.9	(0.12)	0.6	(0.10)	191	38
Nyeri	10.8	(1.49)	1.9	(0.32)	0.5	(0.10)	1.1	(0.16)	0.7	(0.12)	0.4	(0.09)	271	29
Kirinyag'a	15.0	(1.93)	3.1	(0.56)	1.4	(0.39)	1.1	(0.15)	0.8	(0.14)	0.8	(0.20)	198	30
Murang'a	17.1	(1.86)	4.1	(0.59)	1.6	(0.30)	2.0	(0.24)	1.7	(0.25)	1.4	(0.28)	323	55
Kiambu	17.4	(2.06)	4.7	(0.69)	2.1	(0.40)	3.8	(0.49)	4.1	(0.65)	4.6	(0.92)	600	104
Turkana	55.9	(3.23)	26.6	(1.83)	16.1	(1.32)	5.1	(0.40)	8.6	(0.72)	11.7	(1.08)	246	137
West Pokot	49.3	(2.82)	17.0	(1.29)	7.8	(0.77)	2.2	(0.18)	2.5	(0.24)	2.4	(0.28)	119	59
Samburu	47.2	(2.71)	17.1	(1.29)	8.3	(0.84)	1.1	(0.09)	1.3	(0.12)	1.3	(0.16)	61	29
Trans Nzoia	27.3	(2.50)	8.0	(0.93)	3.3	(0.48)	2.1	(0.23)	2.1	(0.27)	2.0	(0.30)	210	57
Uasin Gishu	28.4	(2.21)	8.8	(0.85)	3.9	(0.48)	2.8	(0.25)	3.2	(0.35)	3.4	(0.49)	270	77
Elgeyo/Marakwet	36.9	(2.69)	8.9	(0.84)	3.3	(0.44)	1.3	(0.12)	1.1	(0.12)	0.9	(0.13)	99	37
Nandi	26.2	(2.14)	7.0	(0.72)	2.7	(0.38)	1.9	(0.18)	1.7	(0.20)	1.4	(0.21)	202	53
Baringo	30.8	(2.55)	7.8	(0.78)	3.0	(0.39)	1.7	(0.17)	1.5	(0.16)	1.2	(0.17)	152	47
Laikipia	21.4	(2.49)	6.5	(1.09)	2.8	(0.63)	1.1	(0.14)	1.1	(0.20)	1.0	(0.24)	135	29
Nakuru	14.4	(1.72)	3.5	(0.51)	1.2	(0.24)	3.1	(0.39)	2.8	(0.44)	2.5	(0.55)	578	83
Narok	16.5	(1.96)	4.8	(0.70)	2.1	(0.43)	1.4	(0.17)	1.3	(0.20)	1.3	(0.26)	223	37
Kajiado	28.7	(2.57)	9.5	(1.08)	4.4	(0.68)	2.6	(0.27)	3.2	(0.40)	3.6	(0.57)	250	72
Kericho	26.0	(2.18)	6.0	(0.69)	2.4	(0.44)	2.0	(0.20)	1.6	(0.19)	1.3	(0.24)	211	55
Bomet	24.3	(2.30)	3.9	(0.51)	1.1	(0.19)	1.6	(0.18)	0.8	(0.12)	0.5	(0.09)	179	44
Kakamega	28.3	(2.18)	7.4	(0.74)	2.9	(0.43)	4.1	(0.36)	3.6	(0.39)	3.1	(0.45)	392	111
Vihiga	30.2	(2.29)	8.3	(0.84)	3.6	(0.52)	1.6	(0.14)	1.5	(0.17)	1.5	(0.22)	144	44
Bungoma	26.0	(2.31)	7.8	(0.85)	3.4	(0.48)	3.1	(0.30)	3.1	(0.36)	2.9	(0.42)	321	83
Busia	47.6	(2.51)	13.2	(0.94)	5.3	(0.50)	3.1	(0.22)	2.9	(0.25)	2.5	(0.27)	177	84
Siaya	20.5	(2.05)	5.3	(0.71)	2.3	(0.50)	1.9	(0.20)	1.7	(0.23)	1.6	(0.32)	246	50
Kisumu	24.2	(1.99)	6.2	(0.65)	2.5	(0.40)	2.5	(0.23)	2.3	(0.26)	2.2	(0.37)	284	69
Homa Bay	19.2	(1.88)	5.1	(0.63)	2.1	(0.33)	1.6	(0.17)	1.5	(0.21)	1.5	(0.26)	224	43
Migori	27.2	(2.40)	7.5	(0.99)	3.6	(0.77)	2.3	(0.24)	2.2	(0.30)	2.3	(0.48)	233	63
Kisii	33.6	(2.61)	8.4	(0.90)	3.1	(0.45)	3.6	(0.35)	3.1	(0.37)	2.5	(0.39)	290	98
Nyamira	29.9	(2.32)	8.3	(0.83)	3.4	(0.48)	2.0	(0.18)	1.8	(0.20)	1.7	(0.27)	179	53
Nairobi City	12.9	(1.54)	3.0	(0.45)	1.1	(0.22)	7.1	(0.85)	7.1	(1.03)	7.3	(1.35)	1,503	194

Annex Table C1: Extreme Poverty Estimates (Individual) by Place of Residence and County, 2015/16

Residence / County	Headcount Rate (%) $P\alpha_{=0}$	(Std. errors)	Poverty Gap (%) $P\alpha_{=1}$	(Std. errors)	Severity of Poverty (%) $P\alpha_{=2}$	(Std. errors)	Contribution to Poverty: Individual $P\alpha_{=0}$	(Std. errors)	Individual $P\alpha_{=1}$	(Std. errors)	Individual $P\alpha_{=2}$	(Std. errors)	Adulteq Population (000)	Number of Poor - Adulteq (000)
National	**8.6**	**(0.27)**	**2.2**	**(0.09)**	**0.9**	**(0.05)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**45,371**	**3,908**
Rural	11.2	(0.38)	2.9	(0.13)	1.2	(0.08)	83.8	(1.18)	83.2	(1.62)	81.7	(2.31)	29,127	3,273
Peri-Urban	6.0	(0.60)	1.2	(0.16)	0.4	(0.07)	5.1	(0.53)	3.9	(0.52)	3.2	(0.56)	3,340	199
Core-Urban	3.4	(0.35)	0.8	(0.10)	0.3	(0.05)	11.1	(1.10)	12.9	(1.57)	15.1	(2.29)	12,905	436
Mombasa	2.2	(1.00)	0.8	(0.38)	0.4	(0.20)	0.7	(0.31)	1.2	(0.58)	1.6	(0.93)	1,185	27
Kwale	5.9	(1.64)	0.7	(0.28)	0.2	(0.08)	1.2	(0.35)	0.6	(0.22)	0.3	(0.15)	820	48
Kilifi	7.0	(1.79)	1.9	(0.63)	0.8	(0.30)	2.5	(0.66)	2.6	(0.86)	2.5	(0.95)	1,400	98
Tana River	17.9	(2.73)	5.3	(0.99)	2.3	(0.55)	1.4	(0.21)	1.6	(0.31)	1.8	(0.43)	304	54
Lamu	3.2	(1.45)	0.8	(0.35)	0.2	(0.09)	0.1	(0.05)	0.1	(0.04)	0.1	(0.03)	128	4
Taita /Taveta	5.3	(1.50)	1.0	(0.44)	0.4	(0.18)	0.5	(0.14)	0.4	(0.16)	0.3	(0.15)	358	19
Garissa	23.8	(2.71)	6.7	(0.96)	2.6	(0.48)	2.6	(0.34)	2.8	(0.44)	2.7	(0.51)	432	103
Wajir	10.5	(2.11)	3.3	(0.98)	1.8	(0.73)	1.2	(0.26)	1.5	(0.45)	1.9	(0.77)	459	48
Mandera	38.9	(3.38)	11.0	(1.14)	4.1	(0.55)	7.1	(0.80)	7.8	(0.98)	7.1	(1.06)	711	277
Marsabit	23.8	(2.92)	6.3	(0.96)	2.6	(0.49)	1.9	(0.28)	2.0	(0.33)	1.9	(0.38)	316	75
Isiolo	8.9	(2.06)	2.0	(0.71)	0.7	(0.32)	0.4	(0.09)	0.4	(0.14)	0.4	(0.19)	156	14
Meru	2.8	(0.95)	0.5	(0.21)	0.1	(0.06)	1.1	(0.36)	0.8	(0.31)	0.4	(0.21)	1,471	42
Tharaka-Nithi	1.8	(0.76)	0.2	(0.11)	0.1	(0.02)	0.2	(0.08)	0.1	(0.04)	0.1	(0.02)	396	7
Embu	4.0	(1.19)	1.1	(0.40)	0.4	(0.18)	0.6	(0.17)	0.6	(0.22)	0.5	(0.24)	560	22
Kitui	12.8	(2.05)	2.7	(0.50)	0.8	(0.17)	3.6	(0.61)	2.9	(0.56)	2.0	(0.45)	1,098	141
Machakos	3.5	(0.88)	0.7	(0.22)	0.2	(0.11)	1.1	(0.27)	0.8	(0.26)	0.7	(0.29)	1,191	41
Makueni	6.6	(1.53)	1.1	(0.32)	0.3	(0.12)	1.6	(0.39)	1.0	(0.30)	0.7	(0.28)	959	63
Nyandarua	3.4	(1.21)	0.5	(0.22)	0.1	(0.05)	0.6	(0.22)	0.3	(0.15)	0.2	(0.08)	686	23
Nyeri	0.2	(0.17)	0.0	(0.01)	0.0	0.00	0.0	(0.04)	0.0	(0.01)	0.0	0.00	798	1
Kirinyag'a	0.9	(0.47)	0.2	(0.09)	0.1	(0.06)	0.1	(0.07)	0.1	(0.06)	0.2	(0.08)	608	6
Murang'a	5.2	(1.55)	0.8	(0.36)	0.2	(0.15)	1.4	(0.44)	0.9	(0.38)	0.6	(0.37)	1,085	56
Kiambu	3.1	(0.95)	0.4	(0.17)	0.1	(0.04)	1.5	(0.46)	0.9	(0.35)	0.6	(0.22)	1,868	58
Turkana	52.7	(3.46)	24.3	(1.99)	14.1	(1.43)	14.6	(1.25)	26.8	(2.25)	37.7	(3.13)	1,084	571
West Pokot	26.2	(3.01)	6.0	(0.88)	2.2	(0.39)	4.3	(0.59)	3.8	(0.62)	3.2	(0.62)	649	170
Samburu	42.2	(3.30)	11.7	(1.36)	5.0	(0.81)	3.1	(0.35)	3.2	(0.47)	3.2	(0.60)	284	120
Trans Nzoia	9.7	(2.27)	2.2	(0.66)	0.7	(0.27)	2.6	(0.63)	2.3	(0.68)	1.8	(0.66)	1,038	101
Uasin Gishu	12.1	(2.03)	2.8	(0.57)	1.0	(0.25)	3.5	(0.63)	3.3	(0.69)	2.9	(0.77)	1,133	137
Elgeyo/Marakwet	12.2	(2.17)	2.8	(0.60)	0.9	(0.25)	1.5	(0.28)	1.3	(0.29)	1.0	(0.27)	469	57
Nandi	8.0	(1.56)	1.2	(0.33)	0.3	(0.11)	2.0	(0.40)	1.1	(0.31)	0.6	(0.23)	954	76
Baringo	8.5	(1.62)	2.6	(0.62)	1.2	(0.35)	1.5	(0.30)	1.8	(0.43)	1.9	(0.57)	704	60
Laikipia	15.0	(3.39)	4.4	(1.44)	1.7	(0.70)	1.9	(0.49)	2.1	(0.76)	2.0	(0.85)	507	76
Nakuru	3.7	(1.28)	0.4	(0.16)	0.1	(0.03)	1.9	(0.67)	0.8	(0.34)	0.4	(0.15)	2,031	75
Narok	5.5	(1.76)	1.2	(0.46)	0.4	(0.20)	1.5	(0.50)	1.3	(0.49)	1.0	(0.48)	1,078	60
Kajiado	11.4	(1.85)	2.5	(0.53)	0.9	(0.22)	2.5	(0.43)	2.2	(0.46)	1.9	(0.47)	871	99
Kericho	7.3	(1.51)	1.7	(0.47)	0.7	(0.26)	1.8	(0.38)	1.5	(0.44)	1.4	(0.56)	945	69
Bomet	6.1	(1.67)	0.7	(0.21)	0.1	(0.06)	1.4	(0.40)	0.6	(0.19)	0.3	(0.12)	916	56
Kakamega	6.9	(1.49)	1.9	(0.54)	0.8	(0.29)	3.3	(0.73)	3.5	(0.98)	3.3	(1.22)	1,876	129
Vihiga	8.2	(1.56)	1.7	(0.47)	0.7	(0.27)	1.3	(0.26)	1.1	(0.30)	1.0	(0.40)	627	51
Bungoma	8.8	(1.69)	1.7	(0.36)	0.5	(0.13)	3.5	(0.68)	2.6	(0.56)	1.8	(0.48)	1,553	137
Busia	26.8	(2.70)	4.3	(0.57)	1.1	(0.21)	5.8	(0.69)	3.6	(0.53)	2.1	(0.45)	840	225
Siaya	6.1	(1.52)	1.5	(0.44)	0.5	(0.18)	1.5	(0.39)	1.5	(0.44)	1.2	(0.42)	985	60
Kisumu	6.0	(1.22)	1.2	(0.33)	0.4	(0.16)	1.7	(0.36)	1.4	(0.39)	1.3	(0.51)	1,132	68
Homa Bay	5.9	(1.34)	1.2	(0.31)	0.3	(0.12)	1.6	(0.38)	1.3	(0.34)	0.9	(0.30)	1,072	64
Migori	3.6	(1.19)	0.6	(0.16)	0.2	(0.10)	1.0	(0.35)	0.6	(0.18)	0.6	(0.26)	1,126	40
Kisii	7.5	(1.99)	1.2	(0.32)	0.3	(0.09)	2.6	(0.71)	1.6	(0.43)	1.0	(0.30)	1,347	101
Nyamira	7.6	(1.60)	1.5	(0.36)	0.5	(0.14)	1.4	(0.30)	1.0	(0.25)	0.7	(0.22)	699	53
Nairobi City	0.6	(0.37)	0.0	(0.02)	9.8	(0.49)	0.7	(0.46)	0.5	(0.35)	0.5	(0.32)	4,463	26

Annex Table C2: Hardcore Poverty Estimates (Adulteq) by Place of Residence and County

Residence/ County	Headcount Rate (%) $P\alpha_{=0}$		Poverty Gap (%) $P\alpha_{=1}$		Severity of Poverty (%) $P\alpha_{=2}$		Contribution to Poverty						Adulteq Population (000)	Number of Poor -Adulteq (000)
							Adulteq $P\alpha_{=0}$		Adulteq $P\alpha_{=1}$		Adulteq $P\alpha_{=2}$			
	(Std. errors)		(Std. errors)		(Std. errors)		(Std. errors)		(Std. errors)		(Std. errors)			
National	**8.3**	**(0.27)**	**2.1**	**(0.09)**	**0.9**	**(0.05)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**36,377**	**3,037**
Rural	11.0	(0.37)	2.9	(0.13)	1.2	(0.07)	83.3	(1.21)	82.5	(1.72)	80.7	(2.49)	22,980	2,530
Peri-Urban	6.0	(0.61)	1.2	(0.16)	0.4	(0.08)	5.4	(0.55)	4.2	(0.56)	3.4	(0.62)	2,715	163
Core-Urban	3.2	(0.34)	0.8	(0.11)	0.3	(0.05)	11.3	(1.12)	13.4	(1.67)	15.8	(2.47)	10,682	343
Mombasa	2.4	(1.06)	0.8	(0.4)	0.4	(0.21)	0.8	(0.35)	1.3	(0.65)	1.9	(1.05)	997	24
Kwale	5.7	(1.58)	0.7	(0.27)	0.2	(0.08)	1.2	(0.34)	0.6	(0.22)	0.3	(0.15)	637	36
Kilifi	6.9	(1.75)	1.9	(0.63)	0.8	(0.31)	2.5	(0.65)	2.7	(0.87)	2.6	(0.99)	1,098	76
Tana River	17.7	(2.75)	5.2	(0.95)	2.3	(0.51)	1.4	(0.21)	1.6	(0.30)	1.8	(0.41)	234	41
Lamu	3.4	(1.51)	0.8	(0.37)	0.2	(0.09)	0.1	(0.05)	0.1	(0.05)	0.1	(0.03)	102	3
Taita /Taveta	5.4	(1.5)	1.1	(0.45)	0.4	(0.18)	0.5	(0.15)	0.4	(0.17)	0.3	(0.16)	295	16
Garissa	23.3	(2.65)	6.5	(0.91)	2.6	(0.45)	2.5	(0.32)	2.7	(0.41)	2.5	(0.48)	326	76
Wajir	11.4	(2.25)	3.5	(1.1)	1.9	(0.85)	1.2	(0.26)	1.5	(0.47)	1.9	(0.84)	334	38
Mandera	40.1	(3.47)	11.5	(1.17)	4.3	(0.56)	7.0	(0.81)	7.8	(0.99)	7.1	(1.06)	528	212
Marsabit	24.1	(2.98)	6.3	(0.97)	2.6	(0.49)	1.9	(0.28)	1.9	(0.33)	1.8	(0.37)	240	58
Isiolo	8.6	(1.97)	1.9	(0.67)	0.7	(0.31)	0.3	(0.08)	0.3	(0.13)	0.4	(0.19)	122	11
Meru	2.8	(0.91)	0.5	(0.20)	0.1	(0.05)	1.1	(0.36)	0.8	(0.30)	0.4	(0.19)	1,215	34
Tharaka-Nithi	1.9	(0.79)	0.2	(0.11)	0.1	(0.03)	0.2	(0.09)	0.1	(0.05)	0.1	(0.03)	326	6
Embu	4.2	(1.23)	1.1	(0.43)	0.4	(0.20)	0.6	(0.19)	0.7	(0.25)	0.6	(0.28)	470	20
Kitui	12.6	(1.98)	2.7	(0.48)	0.8	(0.17)	3.7	(0.60)	3.0	(0.56)	2.0	(0.46)	878	111
Machakos	3.6	(0.92)	0.7	(0.24)	0.3	(0.12)	1.2	(0.30)	0.9	(0.30)	0.8	(0.34)	995	36
Makueni	6.3	(1.48)	1.1	(0.33)	0.3	(0.14)	1.6	(0.39)	1.1	(0.33)	0.8	(0.33)	784	50
Nyandarua	3.4	(1.22)	0.5	(0.21)	0.1	(0.05)	0.6	(0.23)	0.3	(0.15)	0.2	(0.08)	563	19
Nyeri	0.1	(0.13)	0.0	(0.01)	0.0	(0.00)	0.0	(0.03)	0.0	(0.01)	0.0	(0.00)	678	1
Kirinyag'a	1.0	(0.46)	0.2	(0.11)	0.1	(0.07)	0.2	(0.08)	0.2	(0.07)	0.2	(0.10)	515	5
Murang'a	5.6	(1.68)	0.9	(0.40)	0.3	(0.17)	1.7	(0.51)	1.1	(0.46)	0.7	(0.45)	903	51
Kiambu	3.0	(0.89)	0.4	(0.15)	0.1	(0.04)	1.5	(0.46)	0.9	(0.34)	0.6	(0.23)	1,575	47
Turkana	51.5	(3.50)	23.6	(1.96)	13.6	(1.39)	13.9	(1.21)	25.4	(2.22)	35.8	(3.13)	816	421
West Pokot	25.6	(2.93)	6.1	(0.88)	2.2	(0.39)	4.1	(0.55)	3.7	(0.60)	3.2	(0.61)	489	125
Samburu	42.5	(3.32)	12.1	(1.39)	5.2	(0.83)	2.9	(0.34)	3.2	(0.45)	3.2	(0.59)	209	89
Trans Nzoia	9.3	(2.13)	2.1	(0.62)	0.7	(0.26)	2.5	(0.61)	2.2	(0.67)	1.8	(0.65)	828	77
Uasin Gishu	11.8	(1.98)	2.9	(0.57)	1.0	(0.26)	3.6	(0.63)	3.4	(0.71)	3.1	(0.79)	911	108
Elgeyo / Marakwet	12.6	(2.19)	2.8	(0.62)	0.9	(0.26)	1.5	(0.29)	1.3	(0.31)	1.0	(0.30)	374	47
Nandi	8.1	(1.57)	1.3	(0.34)	0.3	(0.11)	2.1	(0.41)	1.2	(0.34)	0.7	(0.26)	768	62
Baringo	8.4	(1.60)	2.4	(0.57)	1.1	(0.32)	1.5	(0.3)	1.7	(0.40)	1.8	(0.52)	556	47
Laikipia	14.5	(3.35)	4.3	(1.49)	1.7	(0.76)	1.9	(0.5)	2.2	(0.81)	2.0	(0.95)	406	59
Nakuru	3.4	(1.21)	0.3	(0.13)	0.1	(0.02)	1.8	(0.65)	0.7	(0.28)	0.3	(0.13)	1,620	56
Narok	5.4	(1.70)	1.2	(0.48)	0.4	(0.21)	1.4	(0.47)	1.3	(0.5)	1.0	(0.50)	808	43
Kajiado	11.0	(1.80)	2.5	(0.53)	0.9	(0.23)	2.5	(0.43)	2.2	(0.48)	1.9	(0.49)	704	77
Kericho	7.2	(1.50)	1.7	(0.47)	0.7	(0.27)	1.8	(0.39)	1.6	(0.46)	1.5	(0.61)	765	55
Bomet	6.2	(1.74)	0.7	(0.22)	0.1	(0.06)	1.5	(0.42)	0.6	(0.21)	0.3	(0.12)	714	44
Kakamega	6.8	(1.48)	1.9	(0.56)	0.8	(0.31)	3.3	(0.73)	3.6	(1.03)	3.5	(1.33)	1,476	100
Vihiga	8.3	(1.57)	1.8	(0.49)	0.7	(0.28)	1.4	(0.28)	1.2	(0.33)	1.1	(0.43)	509	42
Bungoma	9.2	(1.74)	1.8	(0.39)	0.5	(0.14)	3.6	(0.70)	2.8	(0.59)	1.9	(0.52)	1,197	110
Busia	26.8	(2.70)	4.4	(0.58)	1.1	(0.22)	5.8	(0.70)	3.7	(0.55)	2.2	(0.46)	661	177
Siaya	6.0	(1.50)	1.5	(0.45)	0.5	(0.19)	1.5	(0.4)	1.5	(0.46)	1.3	(0.46)	782	47
Kisumu	5.9	(1.19)	1.1	(0.30)	0.4	(0.14)	1.7	(0.36)	1.3	(0.37)	1.3	(0.47)	904	53
Homa Bay	6.1	(1.36)	1.2	(0.30)	0.3	(0.11)	1.6	(0.37)	1.2	(0.32)	0.8	(0.27)	812	49
Migori	3.7	(1.19)	0.6	(0.19)	0.3	(0.13)	1.1	(0.35)	0.7	(0.21)	0.8	(0.34)	881	32
Kisii	7.3	(1.85)	1.2	(0.31)	0.3	(0.09)	2.6	(0.68)	1.7	(0.44)	1.1	(0.33)	1,081	79
Nyamira	7.6	(1.60)	1.5	(0.35)	0.5	(0.13)	1.4	(0.31)	1.1	(0.25)	0.8	(0.22)	565	43
Nairobi City	0.6	(0.38)	0.1	(0.07)	0.0	(0.02)	0.8	(0.46)	0.6	(0.45)	0.6	(0.41)	3,727	23

Annex Table C3: Hardcore Poverty Estimates (Households) By Place of Residence and County

Residence / County	Headcount Rate (%) $P\alpha_{=0}$	(Std. errors)	Poverty Gap (%) $P\alpha_{=1}$	(Std. errors)	Severity of Poverty (%) $P\alpha_{=2}$	(Std. errors)	Contribution to Poverty: Households $P\alpha_{=0}$	(Std. errors)	Households $P\alpha_{=1}$	(Std. errors)	Households $P\alpha_{=2}$	(Std. errors)	Adulteq Population (000)	Number of Poor -Adulteq (000)
National	**6.0**	**(0.18)**	**1.5**	**(0.06)**	**0.7**	**(0.03)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**100.0**	**(0.00)**	**11,414**	**682**
Rural	8.7	(0.28)	2.3	(0.10)	1.0	(0.06)	82.2	(1.30)	82.4	(1.55)	81.9	(2.02)	6,441	560
Peri-Urban	4.6	(0.44)	1.0	(0.13)	0.4	(0.06)	5.4	(0.53)	4.3	(0.57)	3.6	(0.65)	806	37
Core-Urban	2.0	(0.22)	0.4	(0.05)	0.2	(0.02)	12.4	(1.24)	13.3	(1.49)	14.5	(1.96)	4,166	85
Mombasa	1.3	(0.50)	0.4	(0.17)	0.2	(0.09)	0.8	(0.29)	1.1	(0.49)	1.5	(0.73)	397	5
Kwale	3.7	(1.06)	0.5	(0.16)	0.1	(0.05)	1.0	(0.28)	0.4	(0.16)	0.3	(0.10)	174	6
Kilifi	4.6	(1.11)	1.3	(0.42)	0.6	(0.23)	2.2	(0.54)	2.4	(0.76)	2.5	(0.93)	326	15
Tana River	15.8	(2.21)	5.1	(0.96)	2.7	(0.72)	1.3	(0.18)	1.6	(0.31)	2.1	(0.53)	56	9
Lamu	2.0	(0.80)	0.5	(0.21)	0.2	(0.06)	0.1	(0.04)	0.1	(0.04)	0.1	(0.02)	30	1
Taita /Taveta	4.7	(1.15)	1.1	(0.34)	0.4	(0.15)	0.7	(0.18)	0.6	(0.19)	0.5	(0.20)	102	5
Garissa	19.4	(2.08)	5.1	(0.68)	2.0	(0.34)	2.2	(0.26)	2.2	(0.32)	2.0	(0.37)	78	15
Wajir	8.8	(1.79)	2.8	(0.79)	1.5	(0.54)	0.9	(0.19)	1.1	(0.31)	1.3	(0.48)	69	6
Mandera	33.0	(2.94)	9.0	(0.93)	3.3	(0.44)	5.4	(0.59)	5.7	(0.68)	4.9	(0.71)	111	37
Marsabit	20.4	(2.53)	5.5	(0.85)	2.3	(0.47)	1.9	(0.26)	1.9	(0.32)	1.8	(0.39)	62	13
Isiolo	6.2	(1.50)	1.3	(0.48)	0.5	(0.22)	0.3	(0.08)	0.3	(0.12)	0.3	(0.16)	34	2
Meru	2.8	(0.90)	0.5	(0.20)	0.1	(0.05)	1.6	(0.52)	1.2	(0.44)	0.6	(0.27)	393	11
Tharaka-Nithi	1.7	(0.61)	0.3	(0.12)	0.1	(0.03)	0.3	(0.10)	0.2	(0.07)	0.1	(0.04)	107	2
Embu	4.0	(1.00)	1.0	(0.29)	0.3	(0.12)	1.0	(0.24)	0.9	(0.26)	0.7	(0.26)	164	7
Kitui	10.6	(1.55)	2.2	(0.37)	0.7	(0.13)	3.7	(0.55)	2.9	(0.50)	1.9	(0.40)	236	25
Machakos	2.7	(0.73)	0.6	(0.23)	0.2	(0.12)	1.3	(0.34)	1.1	(0.42)	1.0	(0.50)	328	9
Makueni	5.1	(1.08)	1.0	(0.28)	0.4	(0.15)	1.7	(0.38)	1.3	(0.36)	1.0	(0.45)	233	12
Nyandarua	2.1	(0.62)	0.3	(0.10)	0.1	(0.02)	0.6	(0.17)	0.3	(0.10)	0.1	(0.06)	191	4
Nyeri	0.1	(0.13)	0.0	(0.01)	0.0	(0.00)	0.1	(0.05)	0.0	(0.01)	0.0	(0.00)	271	0
Kirinyag'a	1.6	(0.64)	0.6	(0.28)	0.3	(0.18)	0.5	(0.19)	0.7	(0.31)	0.8	(0.44)	198	3
Murang'a	3.6	(0.99)	0.6	(0.18)	0.1	(0.07)	1.7	(0.47)	1.0	(0.33)	0.6	(0.27)	323	12
Kiambu	2.1	(0.60)	0.4	(0.15)	0.2	(0.09)	1.9	(0.52)	1.5	(0.52)	1.3	(0.66)	600	13
Turkana	43.6	(3.10)	18.8	(1.57)	10.5	(1.04)	15.7	(1.24)	26.9	(2.06)	35.6	(2.80)	246	107
West Pokot	22.6	(2.43)	5.4	(0.80)	2.0	(0.39)	3.9	(0.49)	3.6	(0.57)	3.1	(0.63)	119	27
Samburu	30.6	(2.58)	8.2	(0.94)	3.4	(0.52)	2.8	(0.29)	2.8	(0.37)	2.7	(0.45)	61	19
Trans Nzoia	7.9	(1.72)	1.6	(0.41)	0.5	(0.16)	2.4	(0.55)	1.9	(0.49)	1.4	(0.45)	210	16
Uasin Gishu	8.5	(1.43)	1.9	(0.37)	0.7	(0.18)	3.4	(0.58)	3.1	(0.60)	2.8	(0.70)	270	23
Elgeyo/Marakwet	9.8	(1.62)	2.2	(0.44)	0.7	(0.18)	1.4	(0.25)	1.2	(0.25)	0.9	(0.24)	99	10
Nandi	6.6	(1.19)	0.9	(0.21)	0.2	(0.06)	2.0	(0.36)	1.1	(0.24)	0.5	(0.16)	202	13
Baringo	7.0	(1.26)	1.9	(0.41)	0.8	(0.22)	1.6	(0.29)	1.6	(0.35)	1.6	(0.44)	152	11
Laikipia	9.8	(2.05)	2.5	(0.74)	0.9	(0.34)	1.9	(0.43)	1.9	(0.57)	1.6	(0.61)	135	13
Nakuru	2.4	(0.74)	0.2	(0.09)	0.0	(0.02)	2.0	(0.63)	0.8	(0.33)	0.3	(0.15)	578	14
Narok	3.3	(1.03)	0.8	(0.28)	0.3	(0.12)	1.1	(0.34)	0.9	(0.35)	0.7	(0.34)	223	7
Kajiado	7.6	(1.37)	1.8	(0.50)	0.7	(0.23)	2.8	(0.51)	2.6	(0.70)	2.4	(0.78)	250	19
Kericho	5.3	(1.07)	1.0	(0.27)	0.4	(0.14)	1.6	(0.34)	1.2	(0.32)	1.0	(0.37)	211	11
Bomet	4.1	(1.11)	0.4	(0.13)	0.1	(0.03)	1.1	(0.30)	0.4	(0.13)	0.2	(0.08)	179	7
Kakamega	5.8	(1.12)	1.7	(0.44)	0.8	(0.29)	3.4	(0.65)	3.8	(0.94)	4.1	(1.41)	392	23
Vihiga	7.6	(1.31)	1.8	(0.45)	0.9	(0.32)	1.6	(0.29)	1.5	(0.37)	1.6	(0.59)	144	11
Bungoma	7.4	(1.29)	1.6	(0.33)	0.5	(0.14)	3.5	(0.61)	3.0	(0.60)	2.2	(0.59)	321	24
Busia	19.1	(1.99)	3.1	(0.41)	0.8	(0.14)	5.0	(0.57)	3.1	(0.44)	1.8	(0.35)	177	34
Siaya	4.2	(0.97)	1.0	(0.32)	0.4	(0.16)	1.5	(0.35)	1.5	(0.44)	1.2	(0.51)	246	10
Kisumu	4.6	(0.85)	0.9	(0.25)	0.4	(0.12)	1.9	(0.36)	1.6	(0.41)	1.5	(0.54)	284	13
Homa Bay	5.2	(1.07)	1.0	(0.25)	0.3	(0.10)	1.7	(0.36)	1.3	(0.33)	0.9	(0.29)	224	12
Migori	4.5	(1.16)	1.5	(0.62)	1.1	(0.49)	1.6	(0.40)	2.0	(0.80)	3.2	(1.42)	233	11
Kisii	5.6	(1.37)	1.1	(0.30)	0.4	(0.17)	2.4	(0.59)	1.8	(0.49)	1.5	(0.64)	290	16
Nyamira	6.0	(1.16)	1.2	(0.27)	0.4	(0.10)	1.6	(0.31)	1.2	(0.27)	0.8	(0.22)	179	11
Nairobi City	0.6	(0.35)	0.1	(0.06)	0.0	(0.02)	1.3	(0.77)	1.0	(0.70)	1.0	(0.74)	1,503	9

Annex Table D1: Estimated Population and Households Numbers, 2016

Residence / County	Individuals ('000)	Adult Equivalents ('000)	Households ('000)
National	**45,371**	**36,377**	**11,414**
Rural	29,127	22,980	6,441
Peri-Urban	3,340	2,715	806
Core-Urban	12,905	10,682	4,166
Mombasa	1,185	997	397
Kwale	820	637	174
Kilifi	1,400	1,098	326
Tana River	304	234	56
Lamu	128	102	30
Taita /Taveta	358	295	102
Garissa	432	326	78
Wajir	459	334	69
Mandera	711	528	111
Marsabit	316	240	62
Isiolo	156	122	34
Meru	1,471	1,215	393
Tharaka-Nithi	396	326	107
Embu	560	470	164
Kitui	1,098	878	236
Machakos	1,191	995	328
Makueni	959	784	233
Nyandarua	686	563	191
Nyeri	798	678	271
Kirinyag'a	608	515	198
Murang'a	1,085	903	323
Kiambu	1,868	1,575	600
Turkana	1,084	816	246
West Pokot	649	489	119
Samburu	284	209	61
Trans Nzoia	1,038	828	210
Uasin Gishu	1,133	911	270
Elgeyo / Marakwet	469	374	99
Nandi	954	768	202
Baringo	704	556	152
Laikipia	507	406	135
Nakuru	2,031	1,620	578
Narok	1,078	808	223
Kajiado	871	704	250
Kericho	945	765	211
Bomet	916	714	179
Kakamega	1,876	1,476	392
Vihiga	627	509	144
Bungoma	1,553	1,197	321
Busia	840	661	177
Siaya	985	782	246
Kisumu	1,132	904	284
Homa Bay	1,072	812	224
Migori	1,126	881	233
Kisii	1,347	1,081	290
Nyamira	699	565	179
Nairobi City	4,463	3,727	1,503

Annex Table E1: Overall poverty by household characteristics

	Poverty Headcount Rate (%)				Poverty Gap (%)				Distribution of Population (%)				Distribution of Poor (%)			
	Rural	Urban	Peri-Urban	National	Rural	Urban	Peri-Urban	National	Rural	Urban	Peri-Urban	National	Rural	Urban	Peri-Urban	National
National	32.6	20.6	21.1	27.4	9.2	5.8	5.2	7.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
(Std. errors)	(0.7)	(1.1)	(1.4)	(0.6)	(0.2)	(0.2)	(0.3)	(0.1)	(0.8)	(0.9)	(0.5)		(1.3)	(1.3)	(0.4)	
Sex of Household head																
Male	31.7	19.3	20.6	26.0	8.7	5.1	4.9	7.0	64.0	73.2	66.7	67.6	62.4	68.7	65.1	64.3
(Std. errors)	(0.8)	(1.1)	(1.5)	(0.6)	(0.2)	(0.3)	(0.3)	(0.2)	(0.6)	(1.1)	(1.3)	(0.5)	(1.0)	(2.0)	(2.6)	(0.9)
Female	34.0	24.1	22.2	30.2	10.0	7.7	5.7	9.0	36.0	26.8	33.3	32.4	37.6	31.3	34.9	35.7
(Std. errors)	(1.0)	(1.8)	(2.1)	(0.8)	(0.3)	(0.6)	(0.5)	(0.3)	(0.6)	(1.1)	(1.3)	(0.5)	(1.0)	(2.0)	(2.6)	(0.9)
Education Level of Household Head																
None	52.7	64.1	42.3	53.6	18.8	25.2	12.3	19.3	20.5	5.5	11.9	14.4	33.2	17.0	23.8	28.2
(Std. errors)	(1.4)	(3.7)	(3.3)	(1.2)	(0.5)	(1.6)	(1.1)	(0.5)	(0.6)	(0.4)	(0.9)	(0.4)	(1.1)	(1.6)	(2.2)	(0.9)
Primary	33.2	29.7	26.2	31.7	8.4	8.5	6.1	8.2	52.0	33.2	49.4	44.9	52.9	47.9	61.1	52.0
(Std. errors)	(0.8)	(2.0)	(1.9)	(0.8)	(0.2)	(0.5)	(0.5)	(0.2)	(1.1)	(1.3)	(1.7)	(0.6)	(1.1)	(2.4)	(2.7)	(1.0)
Secondary	20.3	18.3	10.0	18.6	4.4	4.1	2.1	4.1	19.7	34.2	26.0	25.4	12.2	30.5	12.3	17.2
(Std. errors)	(1.1)	(1.4)	(1.3)	(0.8)	(0.3)	(0.4)	(0.3)	(0.2)	(0.7)	(1.1)	(1.3)	(0.5)	(0.7)	(2.2)	(1.4)	(0.8)
Tertiary	6.9	3.5	4.5	4.6	1.4	0.6	1.0	0.9	7.9	27.1	12.7	15.2	1.7	4.6	2.7	2.5
(Std. errors)	(0.9)	(0.6)	(1.5)	(0.5)	(0.2)	(0.1)	(0.3)	(0.1)	(0.4)	(1.5)	(0.8)	(0.6)	(0.2)	(0.8)	(0.8)	(0.3)
Marital Status of Household Head																
Married Monogamous	31.8	21.3	21.3	27.2	8.4	5.8	4.9	7.2	60.9	60.1	63.8	60.9	59.6	62.1	64.4	60.5
(Std. errors)	(0.8)	(1.3)	(1.5)	(0.7)	(0.2)	(0.3)	(0.4)	(0.2)	(0.6)	(1.3)	(1.6)	(0.6)	(1.0)	(2.0)	(2.6)	(0.9)
Male	32.4	20.8	22.1	27.1	8.5	5.5	5.1	7.1	50.1	55.3	54.0	52.3	49.8	55.8	56.5	51.8
(Std. errors)	(0.9)	(1.4)	(1.7)	(0.7)	(0.2)	(0.3)	(0.4)	(0.2)	(0.6)	(1.3)	(1.5)	(0.6)	(1.0)	(2.0)	(2.8)	(0.9)
Female	29.4	26.9	17.0	27.9	7.8	9.8	3.7	7.9	10.8	4.8	9.8	8.6	9.8	6.3	7.9	8.7
(Std. errors)	(1.5)	(3.5)	(2.8)	(1.3)	(0.5)	(1.5)	(0.8)	(0.5)	(0.4)	(0.4)	(0.8)	(0.3)	(0.5)	(1.0)	(1.4)	(0.5)
Married Polygamous	44.6	43.0	16.5	42.8	15.0	14.4	4.2	14.3	11.1	3.2	6.3	7.8	15.1	6.6	5.0	12.3
(Std. errors)	(1.9)	(5.4)	(3.1)	(1.7)	(0.7)	(1.9)	(0.8)	(0.6)	(0.4)	(0.4)	(0.8)	(0.3)	(0.8)	(1.0)	(0.9)	(0.7)
Male	44.5	33.8	18.2	41.0	14.2	9.6	5.4	12.9	6.4	2.3	4.0	4.7	8.7	3.8	3.5	7.1
(Std. errors)	(2.2)	(5.8)	(4.1)	(2.1)	(0.8)	(1.9)	(1.2)	(0.7)	(0.3)	(0.3)	(0.6)	(0.2)	(0.6)	(0.7)	(0.7)	(0.4)
Female	44.8	67.8	13.5	45.5	16.1	27.3	2.2	16.5	4.7	0.9	2.3	3.1	6.4	2.8	1.5	5.2
(Std. errors)	(3.1)	(7.9)	(4.7)	(2.9)	(1.2)	(3.5)	(0.7)	(1.1)	(0.3)	(0.2)	(0.4)	(0.2)	(0.6)	(0.8)	(0.5)	(0.5)
Widower	21.0	25.8	19.5	21.9	6.2	10.7	3.7	7.0	1.9	0.9	1.3	1.5	1.2	1.1	1.2	1.2
(Std. errors)	(3.1)	(8.2)	(7.2)	(2.9)	(1.3)	(4.6)	(1.6)	(1.3)	(0.1)	(0.2)	(0.3)	(0.1)	(0.2)	(0.4)	(0.5)	(0.2)
Widow	36.7	38.3	32.1	36.6	10.9	12.6	8.8	11.0	14.8	5.1	12.8	11.1	16.6	9.4	19.4	14.8
(Std. errors)	(1.4)	(4.7)	(3.2)	(1.3)	(0.5)	(1.4)	(1.0)	(0.5)	(0.4)	(0.5)	(0.9)	(0.3)	(0.7)	(1.1)	(2.0)	(0.6)
Never Married	19.4	9.6	10.8	12.4	5.7	2.3	2.9	3.2	5.3	20.5	7.5	11.0	3.1	9.6	3.8	5.0
(Std. errors)	(2.0)	(1.3)	(2.8)	(1.1)	(0.7)	(0.3)	(0.8)	(0.3)	(0.3)	(1.0)	(1.0)	(0.4)	(0.3)	(1.2)	(0.9)	(0.4)
Other[1]	22.9	22.4	16.0	22.1	6.0	6.1	4.4	5.9	6.1	10.3	8.3	7.8	4.3	11.2	6.3	6.3
(Std. errors)	(1.8)	(2.4)	(3.6)	(1.4)	(0.6)	(0.8)	(1.1)	(0.5)	(6.1)	(0.7)	(1.2)	(7.8)	(0.4)	(1.3)	(1.2)	(0.5)

	Poverty Headcount Rate (%)				Poverty Gap (%)				Distribution of Population (%)				Distribution of Poor (%)			
	Rural	Urban	Peri-Urban	National	Rural	Urban	Peri-Urban	National	Rural	Urban	Peri-Urban	National	Rural	Urban	Peri-Urban	National
Child in Household																
Household without children	18.2	10.1	12.0	13.5	5.3	2.5	3.0	3.7	22.8	45.1	28.3	31.3	12.7	22.1	16.1	15.5
(Std. errors)	(0.7)	(1.0)	(1.4)	(0.6)	(0.3)	(0.2)	(0.5)	(0.5)	(0.5)	(1.4)	(1.7)	(0.6)	(0.6)	(1.7)	(2.1)	(0.6)
Household with children	36.8	29.2	24.7	33.7	10.3	8.5	6.0	9.5	77.2	54.9	71.7	68.7	87.3	77.9	83.9	84.5
(Std. errors)	(1.3)	(4.3)	(3.1)	(1.2)	(0.2)	(0.4)	(0.4)	(0.2)	(0.5)	(1.4)	(1.7)	(0.6)	(0.6)	(1.7)	(2.1)	(0.6)
Household Size (Household members)																
1-3	18.3	11.9	11.1	14.7	5.1	2.8	2.6	3.8	36.8	62.3	43.3	46.6	20.6	35.8	22.8	24.9
(Std. errors)	(0.7)	(0.8)	(1.4)	(0.5)	(0.2)	(0.2)	(0.3)	(0.2)	(0.6)	(1.3)	(2.1)	(0.6)	(0.8)	(2.2)	(2.3)	(0.8)
4-6	34.4	30.9	23.7	32.5	9.0	9.1	5.4	8.7	42.9	32.0	40.8	38.7	45.2	47.9	45.7	46.0
(Std. errors)	(0.9)	(2.2)	(1.8)	(0.9)	(0.3)	(0.5)	(0.5)	(0.2)	(0.5)	(1.3)	(1.6)	(0.6)	(0.9)	(2.7)	(2.3)	(1.0)
7+	54.6	58.2	41.9	54.1	16.9	19.8	11.4	16.9	20.3	5.8	15.9	14.7	34.1	16.3	31.5	29.1
(Std. errors)	(1.3)	(4.1)	(2.7)	(1.2)	(0.5)	(1.6)	(1.0)	(0.4)	(0.5)	(0.5)	(1.0)	(0.4)	(0.9)	(1.7)	(2.1)	(0.8)
Age of Household Head (Years)																
15-19	25.8	32.2	9.3	27.5	9.0	6.3	5.2	7.3	0.5	0.9	0.9	0.7	0.4	1.5	0.4	0.7
(Std. errors)	(5.9)	(8.3)	(7.2)	(4.9)	(2.4)	(1.8)	(4.0)	(1.4)	(0.1)	(0.2)	(0.3)	(0.1)	(0.1)	(0.5)	(0.4)	(0.1)
20-29	20.9	13.4	8.4	15.9	5.5	3.4	1.5	4.0	13.2	31.5	16.7	20.1	8.4	20.5	6.6	11.6
(Std. errors)	(1.2)	(1.4)	(1.7)	(0.9)	(0.4)	(0.4)	(0.3)	(0.3)	(0.4)	(1.2)	(1.6)	(0.6)	(0.5)	(2.0)	(1.2)	(0.6)
30-39	29.8	22.3	18.8	25.8	8.2	6.2	3.8	7.0	24.5	32.6	25.7	27.5	22.4	35.3	22.9	26.0
(Std. errors)	(1.2)	(1.7)	(2.1)	(1.0)	(0.4)	(0.5)	(0.4)	(0.3)	(0.5)	(1.1)	(1.1)	(0.5)	(0.8)	(2.4)	(2.1)	(0.9)
40-49	36.7	22.0	21.1	30.8	10.3	6.1	5.1	8.5	21.7	18.2	21.1	20.4	24.5	19.4	21.0	22.9
(Std. errors)	(1.2)	(1.9)	(2.2)	(1.0)	(0.4)	(0.5)	(0.6)	(0.3)	(0.4)	(0.8)	(1.0)	(0.4)	(0.8)	(1.5)	(2.0)	(0.7)
50-59	34.4	24.7	24.7	31.1	10.0	7.8	6.2	9.1	16.3	10.1	15.7	14.0	17.3	12.1	18.3	15.9
(Std. errors)	(1.2)	(2.6)	(2.6)	(1.1)	(0.5)	(0.9)	(0.8)	(0.4)	(0.4)	(0.6)	(0.9)	(0.3)	(0.7)	(1.3)	(1.9)	(0.6)
60-69	36.6	31.6	32.3	35.4	10.1	10.5	8.6	10.1	12.4	4.4	10.3	9.3	14.0	6.8	15.8	12.1
(Std. errors)	(1.4)	(4.6)	(3.9)	(1.4)	(0.5)	(1.5)	(1.2)	(0.5)	(0.4)	(0.4)	(0.8)	(0.3)	(0.6)	(1.0)	(1.9)	(0.5)
70+	37.3	40.8	32.9	37.3	11.1	12.8	10.0	11.2	11.4	2.3	9.6	7.9	13.0	4.5	15.0	10.8
(Std. errors)	(1.5)	(5.3)	(3.2)	(1.4)	(0.6)	(2.0)	(1.4)	(0.5)	(0.4)	(0.3)	(0.8)	(0.2)	(0.6)	(0.7)	(1.8)	(0.5)

Annex Table E2: Overall child poverty by age groups and area of residence

Residence / County	Total population			0 - 5 Years			6 - 13 Years			14 - 17 Years			0 - 17 Years		
	Poverty Head count Rate (%)	(Std. errors)	Population ('000)	Poverty Head count Rate (%)	(Std. errors)	Population ('000)	Poverty Head count Rate (%)	(Std. errors)	Population ('000)	Poverty Head count Rate (%)	(Std. errors)	Population ('000)	Poverty Head count Rate (%)	(Std. errors)	Population ('000)
National	36.1	(0.2)	45,371	36.8	(0.6)	7,358	43.9	(0.5)	10,186	43.8	(0.7)	4,286	41.5	(0.3)	21,830
Rural	40.1	(0.2)	29,127	40.2	(0.6)	4,860	45.9	(0.5)	7,264	45.0	(0.8)	3,077	43.9	(0.3)	15,200
Peri-urban	27.5	(0.5)	3,340	27.3	(1.3)	489	31.2	(1.1)	746	32.0	(1.6)	350	30.2	(0.7)	1,585
Core urban	29.4	(0.5)	12,905	30.9	(1.4)	2,009	41.8	(1.3)	2,176	44.2	(2.1)	860	37.9	(0.9)	5,044
Mombasa	27.1	(1.4)	1,185	28.1	(3.9)	159	42.3	(3.9)	213	40.6	(6.5)	59	36.8	(2.6)	431
Kwale	47.4	(1.3)	820	50.3	(3.0)	151	51.7	(2.6)	197	52.3	(4.0)	82	51.3	(1.8)	430
Kilifi	46.4	(1.4)	1,400	49.9	(3.2)	260	53.6	(2.9)	315	58.1	(4.1)	140	53.2	(1.9)	715
Tana River	62.2	(1.8)	304	56.4	(3.8)	58	69.4	(3.1)	80	70.5	(5.6)	31	65.2	(2.3)	169
Lamu	28.5	(1.3)	128	28.3	(3.2)	21	31.9	(2.7)	30	39.9	(4.8)	11	32.2	(1.9)	63
Taita / Taveta	32.3	(1.3)	358	25.0	(3.1)	50	38.2	(2.9)	74	41.1	(4.5)	33	34.6	(2.0)	156
Garissa	65.5	(1.2)	432	60.2	(2.9)	81	71.8	(2.1)	131	69.2	(3.9)	46	67.7	(1.6)	258
Wajir	62.6	(1.3)	459	52.6	(2.7)	108	66.4	(2.4)	131	71.5	(4.0)	46	62.0	(1.7)	284
Mandera	77.6	(1.0)	711	72.1	(2.4)	144	82.0	(1.6)	219	81.5	(2.9)	74	78.7	(1.3)	437
Marsabit	63.7	(1.3)	316	62.9	(2.8)	64	69.1	(2.3)	86	67.4	(3.9)	30	66.6	(1.6)	180
Isiolo	51.9	(1.3)	156	48.8	(3.0)	30	56.5	(2.6)	36	66.6	(3.7)	16	55.7	(1.7)	82
Meru	19.4	(1.1)	1,471	15.2	(2.5)	196	23.9	(2.7)	303	19.8	(3.5)	137	20.3	(1.7)	636
Tharaka - Nithi	23.6	(1.1)	396	22.6	(2.9)	54	27.7	(2.6)	83	27.7	(4.4)	39	26.1	(1.8)	177
Embu	28.2	(1.3)	560	26.0	(3.6)	67	38.7	(3.2)	114	34.4	(4.7)	49	34.1	(2.2)	229
Kitui	47.5	(1.2)	1,098	45.8	(3.1)	166	51.2	(2.4)	278	48.4	(3.5)	115	49.0	(1.7)	558
Machakos	23.3	(1.2)	1,191	19.4	(3.0)	164	26.2	(2.6)	210	25.6	(3.6)	114	23.8	(1.8)	488
Makueni	34.8	(1.2)	959	34.2	(3.1)	135	43.1	(2.6)	211	42.5	(3.5)	113	40.3	(1.7)	459
Nyandarua	34.8	(1.4)	686	36.1	(3.9)	85	39.9	(3.0)	162	44.1	(4.3)	75	39.9	(2.1)	323
Nyeri	19.3	(1.1)	798	15.5	(3.0)	96	22.7	(2.8)	133	30.8	(4.4)	70	22.3	(1.9)	299
Kirinyaga	20.0	(1.3)	608	22.3	(4.0)	72	24.5	(3.1)	118	17.3	(4.2)	52	22.3	(2.1)	242
Murang'a	25.3	(1.2)	1,085	22.7	(3.1)	145	28.0	(2.7)	218	32.3	(4.3)	99	27.3	(1.9)	462
Kiambu	23.3	(1.3)	1,868	30.5	(4.5)	236	26.9	(3.4)	317	29.6	(4.5)	167	28.7	(2.4)	721
Turkana	79.4	(1.2)	1,084	79.7	(2.5)	232	84.0	(1.9)	286	86.2	(3.0)	96	82.7	(1.4)	613
West Pokot	57.4	(1.2)	649	54.2	(2.7)	136	63.8	(2.3)	170	55.0	(3.6)	70	58.7	(1.6)	375
Samburu	75.8	(1.1)	284	71.1	(2.4)	64	86.2	(1.7)	78	84.4	(3.0)	27	80.2	(1.3)	169
Trans Nzoia	34.0	(1.2)	1,038	36.2	(3.1)	166	41.8	(2.6)	246	40.0	(4.0)	112	39.6	(1.8)	525
Uasin Gishu	41.0	(1.2)	1,133	39.8	(2.9)	184	49.1	(2.5)	241	51.6	(3.7)	111	46.4	(1.7)	535
Elgeyo/Marakwet	43.4	(1.3)	469	36.2	(3.0)	79	49.1	(2.7)	104	58.9	(4.0)	47	46.7	(1.8)	231
Nandi	36.0	(1.1)	954	34.1	(2.7)	153	36.4	(2.3)	209	44.7	(3.4)	100	37.4	(1.6)	463
Baringo	39.6	(1.3)	704	39.1	(3.0)	116	46.2	(2.7)	170	46.1	(4.0)	77	43.9	(1.8)	363
Laikipia	45.9	(1.6)	507	45.2	(4.3)	75	55.9	(3.2)	125	50.3	(5.0)	49	51.6	(2.3)	249
Nakuru	29.1	(1.2)	2,031	26.9	(2.9)	323	36.6	(2.5)	495	37.2	(4.4)	165	33.5	(1.8)	984
Narok	22.6	(1.1)	1,078	21.3	(2.2)	237	25.9	(2.2)	277	29.9	(3.8)	100	24.8	(1.5)	615
Kajiado	40.7	(1.4)	871	47.4	(3.5)	143	48.5	(3.3)	175	49.8	(5.1)	70	48.3	(2.2)	389
Kericho	30.3	(1.1)	945	27.9	(2.8)	134	31.6	(2.2)	228	34.1	(3.5)	89	31.0	(1.6)	451
Bomet	48.8	(1.2)	916	51.4	(2.8)	157	57.6	(2.2)	248	50.1	(3.7)	91	54.3	(1.6)	496
Kakamega	35.8	(1.1)	1,876	33.8	(2.6)	325	40.0	(2.2)	460	42.2	(3.2)	224	38.5	(1.5)	1,009
Vihiga	43.2	(1.2)	627	47.2	(3.2)	85	46.2	(2.4)	156	46.4	(3.7)	66	46.5	(1.7)	307
Bungoma	35.7	(1.2)	1,553	36.7	(2.8)	288	41.7	(2.4)	398	38.4	(3.6)	188	39.4	(1.6)	873
Busia	69.3	(1.1)	840	70.3	(2.6)	138	75.0	(2.0)	220	72.5	(3.0)	97	73.0	(1.4)	456
Siaya	33.8	(1.2)	985	33.4	(3.0)	166	39.5	(2.6)	237	38.0	(3.7)	113	37.2	(1.7)	516
Kisumu	33.9	(1.1)	1,132	35.5	(2.7)	182	41.2	(2.3)	271	40.9	(3.9)	100	39.3	(1.6)	553
Homa Bay	33.5	(1.0)	1,072	31.4	(2.3)	217	36.0	(2.0)	294	38.9	(3.4)	110	34.9	(1.4)	622
Migori	41.2	(1.2)	1,126	38.7	(2.9)	185	46.2	(2.4)	304	41.9	(3.3)	149	43.0	(1.6)	638
Kisii	41.7	(1.2)	1,347	45.1	(3.2)	210	45.5	(2.6)	328	49.3	(4.0)	139	46.2	(1.8)	678
Nyamira	32.7	(1.2)	699	27.7	(2.9)	100	37.3	(2.5)	167	34.7	(3.6)	74	33.9	(1.7)	341
Nairobi City	16.7	(1.1)	4,463	15.2	(2.5)	717	26.4	(3.3)	640	31.1	(5.7)	225	22.0	(2.0)	1,582

Annex Table E3: Child food poverty by age group and area of residence

Residence / County	Total population			0 - 5 Years			6 - 13 Years			14 - 17 Years			0 - 17 Years		
	Poverty Head count Rate (%)	(Std. errors)	Population ('000)	Poverty Head count Rate (%)	(Std. errors)	Population ('000)	Poverty Head count Rate (%)	(Std. errors)	Population ('000)	Poverty Head count Rate (%)	(Std. errors)	Population ('000)	Poverty Head count Rate (%)	(Std. errors)	Population ('000)
National	32.0	(0.2)	45,371	29.4	(0.5)	7,358	37.7	(0.4)	10,186	42.5	(0.7)	4,286	35.8	(0.3)	21,830
Rural	35.8	(0.2)	29,127	33.1	(0.6)	4,860	39.9	(0.5)	7,264	43.6	(0.7)	3,077	38.5	(0.3)	15,200
Peri-urban	28.9	(0.5)	3,340	24.3	(1.2)	489	33.1	(1.1)	746	37.2	(1.7)	350	31.3	(0.8)	1,585
Core urban	24.4	(0.5)	12,905	21.4	(1.1)	2,009	32.0	(1.2)	2,176	40.6	(2.1)	860	29.3	(0.8)	5,044
Mombasa	23.6	(1.3)	1,185	20.3	(3.4)	159	31.1	(3.4)	213	41.6	(6.4)	59	28.6	(2.3)	431
Kwale	41.1	(1.3)	820	45.6	(3.0)	151	43.1	(2.6)	197	45.0	(3.9)	82	44.3	(1.8)	430
Kilifi	48.4	(1.4)	1,400	49.5	(3.2)	260	57.4	(2.9)	315	60.2	(4.0)	140	55.1	(1.9)	715
Tana River	55.4	(1.7)	304	47.1	(3.6)	58	62.2	(3.1)	80	66.1	(5.6)	31	57.8	(2.2)	169
Lamu	19.9	(1.1)	128	18.7	(2.8)	21	20.6	(2.4)	30	29.2	(4.6)	11	21.5	(1.7)	63
Taita / Taveta	38.9	(1.4)	358	31.1	(3.4)	50	47.7	(3.1)	74	60.4	(4.5)	33	45.0	(2.1)	156
Garissa	45.2	(1.2)	432	36.4	(2.6)	81	50.4	(2.2)	131	53.1	(3.9)	46	46.5	(1.6)	258
Wajir	41.3	(1.2)	459	31.4	(2.4)	108	39.9	(2.3)	131	55.3	(4.2)	46	39.2	(1.6)	284
Mandera	61.9	(1.2)	711	53.5	(2.7)	144	67.8	(2.0)	219	64.3	(3.5)	74	62.5	(1.5)	437
Marsabit	55.6	(1.3)	316	51.6	(2.9)	64	61.1	(2.5)	86	59.9	(4.2)	30	57.5	(1.7)	180
Isiolo	34.2	(1.3)	156	31.6	(2.9)	30	36.6	(2.6)	36	43.9	(3.9)	16	36.2	(1.7)	82
Meru	15.5	(1.0)	1,471	14.3	(2.6)	196	21.2	(2.6)	303	16.1	(3.3)	137	18.0	(1.6)	636
Tharaka - Nithi	31.2	(1.3)	396	25.5	(3.0)	54	37.8	(3.0)	83	39.1	(4.6)	39	34.3	(2.0)	177
Embu	28.3	(1.3)	560	21.3	(3.5)	67	39.9	(3.3)	114	40.8	(4.8)	49	34.7	(2.2)	229
Kitui	39.4	(1.2)	1,098	31.1	(2.9)	166	42.2	(2.3)	278	48.5	(3.5)	115	40.2	(1.6)	558
Machakos	24.1	(1.2)	1,191	17.6	(2.8)	164	26.9	(2.6)	210	27.7	(3.7)	114	24.0	(1.7)	488
Makueni	30.7	(1.1)	959	27.3	(2.9)	135	36.0	(2.5)	211	37.3	(3.4)	113	33.8	(1.7)	459
Nyandarua	29.8	(1.3)	686	26.0	(3.5)	85	36.3	(3.0)	162	42.0	(4.3)	75	34.9	(2.0)	323
Nyeri	15.5	(1.0)	798	6.3	(2.1)	96	15.7	(2.5)	133	31.1	(4.4)	70	16.3	(1.7)	299
Kirinyaga	18.8	(1.2)	608	16.8	(3.4)	72	24.1	(3.1)	118	27.0	(4.8)	52	22.5	(2.1)	242
Murang'a	22.7	(1.1)	1,085	18.9	(2.8)	145	23.8	(2.6)	218	33.4	(4.3)	99	24.3	(1.8)	462
Kiambu	23.5	(1.3)	1,868	24.7	(4.0)	236	27.3	(3.5)	317	34.9	(5.3)	167	28.2	(2.4)	721
Turkana	66.1	(1.4)	1,084	66.4	(3.0)	232	71.2	(2.5)	286	70.1	(4.4)	96	69.2	(1.8)	613
West Pokot	57.3	(1.2)	649	49.0	(2.7)	136	63.7	(2.3)	170	66.4	(3.4)	70	58.9	(1.6)	375
Samburu	60.1	(1.2)	284	52.8	(2.7)	64	69.4	(2.2)	78	71.7	(3.7)	27	63.5	(1.6)	169
Trans Nzoia	33.3	(1.2)	1,038	33.6	(3.0)	166	37.6	(2.6)	246	39.8	(3.9)	112	36.8	(1.7)	525
Uasin Gishu	38.2	(1.1)	1,133	37.5	(2.9)	184	45.3	(2.5)	241	48.1	(3.7)	111	43.2	(1.7)	535
Elgeyo / Marakwet	44.8	(1.3)	469	37.7	(3.0)	79	49.4	(2.7)	104	60.8	(3.9)	47	47.7	(1.8)	231
Nandi	31.5	(1.0)	954	29.0	(2.5)	153	27.2	(2.1)	209	43.3	(3.4)	100	31.3	(1.5)	463
Baringo	41.4	(1.3)	704	33.1	(3.0)	116	40.5	(2.6)	170	61.5	(4.0)	77	42.5	(1.8)	363
Laikipia	28.5	(1.5)	507	23.4	(3.6)	75	33.1	(3.2)	125	39.8	(5.2)	49	31.5	(2.2)	249
Nakuru	19.6	(1.0)	2,031	15.1	(2.3)	323	23.9	(2.2)	495	27.1	(4.0)	165	21.5	(1.5)	984
Narok	22.1	(1.0)	1,078	18.9	(2.0)	237	24.3	(2.1)	277	32.2	(3.7)	100	23.5	(1.4)	615
Kajiado	36.9	(1.4)	871	36.7	(3.4)	143	43.6	(3.3)	175	50.7	(5.1)	70	42.4	(2.1)	389
Kericho	31.4	(1.1)	945	22.7	(2.6)	134	34.2	(2.3)	228	40.4	(3.7)	89	32.0	(1.6)	451
Bomet	32.8	(1.1)	916	26.2	(2.6)	157	36.7	(2.2)	248	46.2	(3.7)	91	35.1	(1.5)	496
Kakamega	33.3	(1.1)	1,876	29.3	(2.5)	325	37.2	(2.2)	460	40.2	(3.2)	224	35.4	(1.5)	1,009
Vihiga	36.6	(1.2)	627	37.4	(3.1)	85	39.1	(2.3)	156	41.5	(3.7)	66	39.1	(1.7)	307
Bungoma	32.4	(1.2)	1,553	27.2	(2.7)	288	35.4	(2.3)	398	41.6	(3.7)	188	34.0	(1.6)	873
Busia	59.5	(1.1)	840	55.3	(2.8)	138	64.6	(2.2)	220	66.1	(3.3)	97	62.1	(1.5)	456
Siaya	27.3	(1.1)	985	27.4	(2.8)	166	29.9	(2.4)	237	33.8	(3.6)	113	29.9	(1.6)	516
Kisumu	32.5	(1.1)	1,132	29.0	(2.6)	182	38.0	(2.3)	271	45.8	(4.0)	100	36.4	(1.6)	553
Homa Bay	22.7	(0.9)	1,072	18.7	(1.9)	217	25.9	(1.8)	294	26.8	(3.0)	110	23.5	(1.2)	622
Migori	32.0	(1.1)	1,126	28.4	(2.8)	185	34.6	(2.3)	304	32.7	(3.1)	149	32.4	(1.5)	638
Kisii	44.5	(1.3)	1,347	41.3	(3.3)	210	49.2	(2.6)	328	54.5	(3.9)	139	47.9	(1.8)	678
Nyamira	36.3	(1.2)	699	30.0	(3.0)	100	39.9	(2.5)	167	44.6	(3.8)	74	38.0	(1.7)	341
Nairobi City	16.1	(1.0)	4,463	11.7	(2.1)	717	21.1	(2.9)	640	32.1	(5.5)	225	18.4	(1.8)	1,582

Annex Table E4: Overall poverty by all age groups and area of residence

Residence / County	Total population		0 - 17 Years		18 - 35 Years		36 - 59 Years		60 - 69 Years		70+ Years	
	Poverty Head count Rate (%) (Std. errors)	Population ('000)	Poverty Head count Rate (%) (Std. errors)	Population ('000)	Poverty Head count Rate (%) (Std. errors)	Population ('000)	Poverty Head count Rate (%) (Std. errors)	Population ('000)	Poverty Head count Rate (%) (Std. errors)	Population ('000)	Poverty Head count Rate (%) (Std. errors)	Population ('000)
National	36.1 (0.2)	45,371	41.5 (0.3)	21,830	29.1 (0.4)	13,115	32.5 (0.5)	7,786	36.2 (1.1)	1,459	39.1 (1.2)	1,181
Rural	40.1 (0.2)	29,127	43.9 (0.3)	15,200	34.9 (0.5)	7,005	36.7 (0.6)	4,876	37.5 (1.2)	1,112	39.0 (1.3)	933
Peri-urban	27.5 (0.5)	3,340	30.2 (0.7)	1,585	23.1 (0.9)	933	25.3 (1.2)	601	32.2 (2.9)	230	35.0 (2.8)	143
Core urban	29.4 (0.5)	12,905	37.9 (0.9)	5,044	22.4 (0.8)	5,178	25.5 (1.1)	2,309	31.6 (3.7)	116	42.7 (4.6)	104
Mombasa	27.1 (1.4)	1,185	36.8 (2.6)	431	22.4 (2.0)	486	19.6 (2.7)	237	26.2 (9.3)	23	17.1 (11.1)	8
Kwale	47.4 (1.3)	820	51.3 (1.8)	430	42.2 (2.6)	208	45.3 (3.2)	136	36.5 (6.5)	32	49.4 (10.0)	14
Kilifi	46.4 (1.4)	1,400	53.2 (1.9)	715	38.4 (2.6)	391	36.3 (3.3)	212	55.4 (7.8)	40	48.8 (9.1)	42
Tana River	62.2 (1.8)	304	65.2 (2.3)	169	54.5 (3.8)	79	68.2 (4.3)	40	55.3 (10.3)	8	51.4 (11.2)	9
Lamu	28.5 (1.3)	128	32.2 (1.9)	63	22.7 (2.3)	33	26.9 (2.9)	24	26.8 (5.8)	5	29.7 (7.5)	3
Taita / Taveta	32.3 (1.3)	358	34.6 (2.0)	156	27.3 (2.3)	96	29.4 (2.7)	79	37.8 (6.5)	15	54.2 (7.1)	12
Garissa	65.5 (1.2)	432	67.7 (1.6)	258	61.9 (2.6)	92	60.5 (3.3)	61	76.3 (5.7)	13	54.3 (9.2)	8
Wajir	62.6 (1.3)	459	62.0 (1.7)	284	61.9 (2.7)	91	65.3 (3.6)	60	68.5 (6.5)	13	64.8 (8.2)	11
Mandera	77.6 (1.0)	711	78.7 (1.3)	437	75.9 (2.2)	159	75.0 (3.0)	79	72.9 (6.7)	21	85.0 (5.1)	16
Marsabit	63.7 (1.3)	316	66.6 (1.6)	180	57.7 (2.8)	71	63.8 (3.2)	47	56.7 (7.8)	10	59.4 (8.2)	8
Isiolo	51.9 (1.3)	156	55.7 (1.7)	82	45.5 (2.6)	43	53.7 (3.3)	22	38.2 (7.1)	5	49.2 (8.1)	4
Meru	19.4 (1.1)	1,471	20.3 (1.7)	636	16.8 (2.0)	420	20.0 (2.4)	308	15.4 (5.4)	60	31.0 (6.9)	47
Tharaka - Nithi	23.6 (1.1)	396	26.1 (1.8)	177	19.5 (2.0)	101	24.5 (2.5)	84	12.5 (3.8)	17	29.8 (5.4)	17
Embu	28.2 (1.3)	560	34.1 (2.2)	229	20.5 (2.3)	146	25.0 (2.6)	127	30.9 (6.1)	33	31.5 (6.3)	25
Kitui	47.5 (1.2)	1,098	49.0 (1.7)	558	47.4 (2.5)	274	44.0 (3.0)	173	48.9 (6.1)	42	42.1 (5.6)	50
Machakos	23.3 (1.2)	1,191	23.8 (1.8)	488	20.5 (2.1)	375	23.5 (2.5)	244	32.7 (6.3)	40	32.2 (5.4)	44
Makueni	34.8 (1.2)	959	40.3 (1.7)	459	27.7 (2.1)	249	31.3 (2.7)	173	32.5 (5.0)	49	34.4 (6.4)	30
Nyandarua	34.8 (1.4)	686	39.9 (2.1)	323	29.8 (2.6)	162	32.7 (2.9)	151	25.4 (6.2)	20	24.4 (5.3)	30
Nyeri	19.3 (1.1)	798	22.3 (1.9)	299	17.2 (2.1)	211	18.1 (2.1)	208	20.0 (5.0)	38	12.9 (3.9)	42
Kirinyaga	20.0 (1.3)	608	22.3 (2.1)	242	16.7 (2.4)	155	17.1 (2.4)	151	24.6 (6.4)	31	28.7 (6.9)	29
Murang'a	25.3 (1.2)	1,085	27.3 (1.9)	462	24.2 (2.4)	247	22.7 (2.4)	250	24.7 (5.1)	60	25.4 (4.8)	66
Kiambu	23.3 (1.3)	1,868	28.7 (2.4)	721	21.0 (2.2)	642	16.4 (2.3)	404	19.8 (5.5)	53	35.7 (7.4)	48
Turkana	79.4 (1.2)	1,084	82.7 (1.4)	613	70.7 (3.0)	236	77.9 (3.1)	174	79.2 (5.7)	32	88.4 (4.6)	28
West Pokot	57.4 (1.2)	649	58.7 (1.6)	375	51.3 (2.4)	167	62.5 (3.2)	84	60.2 (8.1)	12	63.2 (8.4)	11
Samburu	75.8 (1.1)	284	80.2 (1.3)	169	66.8 (2.4)	69	72.6 (3.1)	34	72.2 (7.4)	7	77.7 (8.4)	5
Trans Nzoia	34.0 (1.2)	1,038	39.6 (1.8)	525	25.7 (2.1)	295	30.7 (3.0)	162	32.6 (7.0)	28	36.1 (8.1)	28
Uasin Gishu	41.0 (1.2)	1,133	46.4 (1.7)	535	32.2 (2.0)	359	40.4 (2.9)	178	49.7 (7.0)	31	46.0 (7.1)	29
Elgeyo/Marakwet	43.4 (1.3)	469	46.7 (1.8)	231	32.4 (2.2)	138	51.4 (3.2)	74	51.5 (8.1)	13	50.4 (6.9)	14
Nandi	36.0 (1.1)	954	37.4 (1.6)	463	33.4 (1.9)	285	31.7 (2.5)	158	56.6 (6.3)	32	38.8 (8.2)	16
Baringo	39.6 (1.3)	704	43.9 (1.8)	363	31.1 (2.2)	189	39.1 (3.2)	102	41.0 (6.8)	26	41.6 (7.0)	24
Laikipia	45.9 (1.6)	507	51.6 (2.3)	249	40.3 (3.1)	130	41.4 (3.5)	100	28.5 (6.2)	16	51.0 (8.5)	13
Nakuru	29.1 (1.2)	2,031	33.5 (1.8)	984	20.5 (2.1)	558	30.7 (2.8)	367	30.3 (7.0)	80	25.2 (8.2)	42
Narok	22.6 (1.1)	1,078	24.8 (1.5)	615	17.0 (1.8)	293	23.3 (2.9)	140	29.3 (10.5)	14	26.2 (8.6)	16
Kajiado	40.7 (1.4)	871	48.3 (2.2)	389	34.8 (2.5)	302	35.9 (3.3)	144	23.3 (7.1)	22	34.3 (10.6)	14
Kericho	30.3 (1.1)	945	31.0 (1.6)	451	26.5 (1.9)	282	30.5 (2.6)	164	45.4 (7.0)	24	45.2 (7.2)	23
Bomet	48.8 (1.2)	916	54.3 (1.6)	496	39.1 (2.2)	243	46.7 (3.0)	138	52.1 (6.9)	25	40.1 (8.6)	14
Kakamega	35.8 (1.1)	1,876	38.5 (1.5)	1,009	31.1 (2.1)	453	32.9 (2.7)	297	39.7 (6.5)	57	38.4 (6.2)	60
Vihiga	43.2 (1.2)	627	46.5 (1.7)	307	35.5 (2.5)	132	39.6 (2.7)	119	49.1 (4.9)	39	50.1 (5.5)	29
Bungoma	35.7 (1.2)	1,553	39.4 (1.6)	873	26.9 (2.2)	368	33.2 (3.2)	233	37.7 (6.8)	45	51.4 (7.2)	35
Busia	69.3 (1.1)	840	73.0 (1.4)	456	64.3 (2.2)	207	66.3 (2.9)	117	65.9 (5.7)	30	63.1 (6.0)	30
Siaya	33.8 (1.2)	985	37.2 (1.7)	516	29.7 (2.4)	235	34.5 (3.2)	141	33.1 (5.4)	54	13.1 (3.9)	39
Kisumu	33.9 (1.1)	1,132	39.3 (1.6)	553	28.0 (1.9)	360	29.9 (2.7)	163	33.0 (6.3)	32	27.9 (6.6)	24
Homa Bay	33.5 (1.0)	1,072	34.9 (1.4)	622	30.6 (2.1)	254	34.0 (2.9)	145	28.7 (5.9)	31	33.0 (7.6)	20
Migori	41.2 (1.2)	1,126	43.0 (1.6)	638	39.6 (2.4)	280	35.9 (3.2)	145	30.4 (6.0)	35	58.2 (7.4)	28
Kisii	41.7 (1.2)	1,347	46.2 (1.8)	678	35.6 (2.3)	369	40.8 (3.2)	213	29.7 (5.0)	57	45.7 (7.0)	30
Nyamira	32.7 (1.2)	699	33.9 (1.7)	341	30.7 (2.3)	182	33.0 (2.7)	138	29.0 (6.4)	23	32.6 (7.3)	16
Nairobi City	16.7 (1.1)	4,463	22.0 (2.0)	1,582	12.7 (1.4)	1,997	16.0 (2.4)	786	12.5 (6.9)	66	30.6 (12.5)	32

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