Kenya National Bureau of Statistics
Ministry of Planning and National Development

Basic Report on Well-being in Kenya

Based on Kenya Integrated Household Budget Survey - 2005/06

Basic Report on Well-being in Kenya

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Acronyms and Abbreviations

ASAL	-	Arid and semi-arid lands
CBN	-	Cost-of-Basic Needs
CBS	-	Central Bureau of Statistics
CPI	-	Consumer Price Index
DANIDA	-	Danish International Development Agency
DfID	-	Department for International Development
DSO	-	District Statistical Officer
EA	-	Enumeration Area (Population Census)
ERS	-	Economic Recovery Strategy for Wealth and Employment Creation
EU	-	European Union
FGT	-	Foster, Greer and Thorbecke
FAO	-	Food and Agriculture Organization
GDP	-	Gross Domestic Product
GoK	-	Government of Kenya
GPS	-	Global Positioning System
GTZ	-	German Technical Cooperation
HH	-	Household(s)
KDHS	-	Kenya Demographic and Health Survey
KIHBS	-	Kenya Integrated Household Budget Survey
KNBS	-	Kenya National Bureau of Statistics
KShs	-	Kenya Shillings
MDGs	-	Millennium Development Goals
N/A	-	Not Applicable
NASSEP	-	National Sample Survey and Evaluation Programme
NSS	-	National Statistical System
$P_{\alpha=0}$	-	Poverty head count index
$P_{\alpha=1}$	-	Poverty depth Index
$P_{\alpha=2}$	-	Poverty severity Index
PPA	-	Participatory Poverty Assessment
PSUs	-	Primary Sampling Units
RDA	-	Recommended Daily Allowance
SNA	-	System of National Accounts
SPSS	-	Statistical Package for Social Sciences
UHBS	-	Urban Household Budget Survey
UNDP	-	United Nations Development Programme
USAID	-	United States Agency for International Development
WB	-	World Bank
WHO	-	World Health Organisation
WMS	-	Welfare Monitoring Survey
WMS I	-	Welfare Monitoring Survey I 1992
WMS II	-	Welfare Monitoring Survey II 1994
WMS III	-	Welfare Monitoring Survey III 1977

Foreword

The Government's "Economic Recovery Strategy for Wealth and Employment Creation" (ERS) provides a clear framework for national development and poverty reduction, and lays out the actions needed to set policies and monitor progress. In addition, the Government is committed to international development goals such as the Millennium Development Goals (MDGs). These policy initiatives require monitoring and evaluation that calls for availability of reliable and timely statistics.

To this end, the Government of Kenya, through the Kenya National Bureau of Statistics (KNBS), has embarked on an ambitious programme geared towards providing improved and relevant statistics under the National Statistical System (NSS). One of the first major activities to be implemented under the NSS is the Kenya Integrated Household Budget Survey (KIHBS) 2005/06, whose key objective is to provide measures of living standards and updated poverty and inequality statistics that reflect the well being of Kenyans.

This report presents basic findings of poverty at both national and regional levels for the period 2005/06. The report indicates that while poverty levels have declined across the country, there are still pockets of poverty where majority of the population live below the poverty line. These statistics provide a pointer to the path that could be taken in combating poverty in our country.

The Government wishes to extend sincere appreciation for the financial support provided by various development partners, namely, the Department for International Development (DfID), the United States Agency for International Development (USAID), the European Union (EU), the Danish International Development Agency (DANIDA), and the United Nations Development Programme (UNDP). Further gratitude is extended to the World Bank and German Technical Cooperation (GTZ) for their technical support provided throughout the data analysis and report writing stages.

Last but not least, I would like to congratulate and underline the excellent work done by the KNBS core technical team. My particular thanks are extended to Anthony K. M. Kilele, Director of Statistics, for his vision and role in implementing the KIHBS project.

It is my sincere hope that this Poverty Report will be an important source of information for the Government, private sector and the civil society. It should inform evidence-based policy making and trigger further research that will guide formulation of appropriate policies to enhance the welfare of Kenyans.

Hon. Henry O. Obwocha, EGH, MP
MINISTER FOR PLANNING AND NATIONAL DEVELOPMENT

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The 2005/06 Poverty Report is the third in a series since 1994. The report is a culmination of collaborative effort of a committed team of experts from within and outside Government.

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For their commendable hard work and technical expertise applied in producing this report, I would like to congratulate the core technical team comprising team coordinator, Godfrey K. Ndeng'e, Principal Economist and Head of Poverty Analysis and Research Unit (PARU) KNBS, Samuel Kipruto (Senior Economist/Statistician - KNBS), Paul K. Samoei (Senior Economist/Statistician - KNBS), Josiah Kaara (Senior Economist/Statistician - KNBS), and George Kamula (GIS Specialist- KNBS). The core technical team worked to ensure that internationally recognised analytical standards and best practice in poverty measurement were adhered to.

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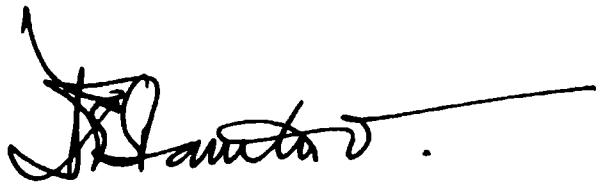

Dr. Edward Sambili

PERMANENT SECRETARY
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Executive Summary

BACKGROUND

Poverty reduction has been a major goal of the Government since independence. In order to track the progress in reducing poverty, the Government, through the Kenya National Bureau of Statistics (KNBS), conducted the Kenya Integrated Household Budget Survey (KIHBS) 2005/06 whose key objectives were to update measures of living standards, the Consumer Price Index (CPI), and the System of National Accounts (SNA). The yearlong (May 2005 - May 2006) survey was the most comprehensive household survey ever implemented in Kenya, and covered all districts with a total sample size of 13,430 households.

POVERTY: CONCEPTS AND MEASUREMENT

Following past poverty reports for Kenya (GoK, 1997 and 2000), the measure of welfare is based on consumption rather than income. The consumption data was adjusted for differences in needs based on household composition (adult equivalence scales), and nominal food expenditures were adjusted for spatial and temporal price differences.

The poverty lines were derived from the KIHBS data using the Cost-of-Basic Needs (CBN) method, where the food poverty lines in monthly adult equivalent terms were Kshs 988 and Kshs 1,474 for rural and urban areas, respectively, and the overall poverty lines were Kshs 1,562 and Kshs 2,913 for rural and urban areas, respectively. The food poverty line for Kenya is estimated as the cost of consuming 2,250 kilocalories per adult equivalent per day. The poverty measures used are the head count index (the proportion of the population below the respective poverty lines), the poverty gap index (the depth of poverty relative to the poverty line), and the poverty severity index.

MAIN RESULTS

Overview of Expenditure Patterns

The overall food expenditure per month per adult equivalent was Kshs 1,453 in the rural areas, with the major share taken by cereals, milk and eggs, vegetables, meat, tubers, pulses, and sugar. The mean rural non-food expenditure per month was Kshs 878 where the major expenditure categories were clothing and footwear, education, household and personal goods and services, fuels and transportation. In the urban areas, the mean food expenditure per month was Kshs 2,642 per adult equivalent, with the major food categories being cereals, followed by food eaten in restaurants, meat, milk and eggs, vegetables, and bread. The mean urban non-food expenditure per adult equivalent was Kshs 4,032, where the major categories were house rent, transportation, clothing and footwear, education, household and personal goods and services, and fuels.

Distribution of Rural Poverty

The results show that the overall incidence of rural food poverty was 47.2% with the lowest in Central (31.4%), followed by Eastern (45.2%) and Nyanza provinces (46.0%), while the highest were North Eastern (66.0%) and Coast provinces (63.5%). Nationally, the poverty gap ratio was 16.2 percent, which means

that the total resources required to eliminate food poverty is about Ksh 3.58 billion per month, with perfect targeting.

The proportion of the rural population below the absolute poverty line was 49.1%, with the lowest in Central province (30.4%), followed by Nyanza (47.6%), Rift Valley (49.0%), Eastern (50.9%), Western (52.2%), Coast (69.7%) and North Eastern province (73.9%). As in the case of rural food poverty, the lowest ratio was recorded in Central and the highest in Coast and North Eastern provinces. Central and Nyanza provinces lie below the rural national head count ratio while the rest of the provinces lie above it.

An individual is defined as hard core poor if s/he has consumption levels that would be inadequate to meet basic food needs alone, even if s/he were able to forego all non-food consumption in order to consume food. The incidence of rural hard core poverty was estimated at 21.9%, with the lowest in Central province (11.4%), followed by Rift Valley (20.6%), Nyanza (21.1%), Eastern (22.5%), Western (23.2%), Coast (35.4%) and North Eastern province (46.3%).

The Distribution of Urban Poverty

Among urban areas of Kenya, food poverty incidence as measured by the headcount index ranged from about 30 percent to about 50 percent representing the least poor and the poorest urban area, respectively. Nairobi City emerged to be the least food poor, while in Nakuru Municipality and Mombasa City one in two persons had food consumption levels below the minimum food energy requirements.

The incidence of overall urban poverty as measured by the headcount index ranged from about 21 percent to about 50 percent representing the least poor and the poorest urban area, respectively. Residents of Nakuru Municipality are about two and half times more likely to be poor compared to their counterparts living in Nairobi City.

Poverty by Socioeconomic Characteristics of the Household Head

The prevalence of absolute poverty in rural Kenya was 49.1%, while the ratio for male-headed households (48.8%) was only slightly lower than for female-headed households (50.0%). The difference in head count, poverty gap and severity of poverty between male and female-headed households was not significant in rural areas, but in urban areas the male-headed households had more favourable poverty indices compared with female-headed households. In both rural and urban Kenya, the incidence, depth and severity of poverty declined with increase in the level of education of the household head.

In both rural and urban areas, the incidence of poverty increases as the household size increases, and poverty also increases with age of household head. However, the age of household head and household size are likely to be correlated, and further analysis is required to separate the effects of each of the factors.

Preliminary Findings on Inequality in Kenya

The distribution of income, using expenditure per adult equivalent (excluding rent), was measured using the Gini coefficient. The Gini coefficient of expenditure per adult equivalent was estimated at 0.380 in

rural areas and at 0.447 in urban areas. In comparison with 1997, income disparities in the rural areas have on average gone down, while the disparities in the urban areas have increased.

Prevailing Macroeconomic Conditions

The Kenyan economy has faced major challenges over the past decade. However, the prevailing conditions between 2003 and 2005/06 have contributed favourably to the improvement of welfare of Kenyans. GDP has gradually recorded impressive growth; prices of key food commodities have remained fairly stable; the introduction of free primary education (FPE) in all public primary schools has increased disposable incomes of households; the secondary school bursary fund kitty continues to cater for needy students; and the Government has created a number of funding windows that allow for allocation of resources directly to the districts and communities. These programmes have increased disposable incomes of a significant proportion of Kenyan households.

SUMMARY

The major finding is that poverty is on a declining trend in Kenya, and the risk of falling into poverty is lower today than in the 1990s. In addition, poverty is still largely a rural phenomenon, although there are large pockets of poverty in the urban areas. However, the economy should maintain a high economic growth rate and devise appropriate policies that ensure that the benefits of growth are shared by the majority of Kenyans.

Chapter 1

BACKGROUND, SURVEY METHODOLOGY AND ORGANISATION

1.1 Introduction

The Government's "Economic Recovery Strategy for Wealth and Employment Creation" (ERS) provides a clear framework for national development and poverty reduction, and lays out the actions needed to set policies and monitor progress. In addition, the Government is committed to international development targets such as the Millennium Development Goals (MDGs). Consequently, the Kenya National Bureau of Statistics (KNBS) is facing overwhelming demand for statistical data to monitor progress in the achievement of these development goals. To address these data demands, the KNBS drew a five-year Strategic Plan spanning from 2003 to 2008.

The Strategic Plan focuses on the development of a National Statistical System which includes components aimed at addressing the need for new and appropriate data to monitor progress in the implementation of national development goals. The Kenya Integrated Household Budget Survey (KIHBS) 2005/06 is a key component of the Strategic Plan. This chapter provides a brief description of the KIHBS 2005/06 sample design, structure of the questionnaires, survey organisation and implementation, comparison between KIHBS 2005/06 and the 1997 Welfare Monitoring Survey (WMS-III), and outline of the poverty report.

1.2 Objectives of the KIHBS 2005/06

Statistics on poverty, consumption patterns, and living standards in Kenya are out of date, the most recent being poverty data from the 1997 WMS-III. There is therefore need for updated welfare data and a new poverty baseline against which the success of future programmes can be assessed.

The KIHBS 2005/06 was therefore designed to provide numerous indicators and the data needed to measure living standards and poverty in Kenya, with particular emphasis on updating the Consumer Price Index (CPI), and providing new estimates of the household accounts for the national accounting system.

The KIHBS 2005/06 survey will be used to update the urban CPI and to establish a rural CPI. The current CPI weights are out of date as they are based on the 1993 Urban Household Budget Survey (UHBS). In addition, given that about 80 percent of the Kenyan population reside in rural areas, the rural CPI will help measure and monitor rural consumption and inflation, and assist in developing policy interventions for rural households.

The KIHBS 2005/06 data will also be used in the measurement of poverty and living standards, and to meet the needs outlined in the ERS log frame and the Millennium Development Goals (MDGs).

Finally, the KIHBS 2005/06 will provide information required for the compilation of national accounts statistics, especially household consumption.

In addition to the indicators outlined above, additional survey objectives include providing data on socio-economic aspects of the Kenyan population including education, health, energy, housing, water and sanitation; and developing technical capacity of KNBS staff to design, process and analyse complex household surveys in a timely manner.

1.3 Sample Design and Survey Coverage

The National Sample Survey and Evaluation Programme (NASSEP-IV) sampling frame is composed of 1,800 clusters selected with probability proportional to size (PPS) from a set of all Enumeration Areas (EAs) used during the 1999 Population and Housing Census (a cluster is either an EA or an EA segment of about 100 households). The KIHBS clusters sampled in each district were selected with equal probability from the NASSEP-IV frame. Therefore, the first stage consists of a *de facto* PPS sub-sample of census EA segments. This

sampling strategy produced an approximately self-weighting sample of households in each stratum.

A total sample of 13,430 households (10 households in each of 1,343 Primary Sampling Units – called clusters) was allocated into 136 explicit strata (the urban and rural sections of each of Kenya's 69 districts, except for Nairobi and Mombasa, which are wholly urban) as shown in Annex Table 1.1. The clusters were selected from a pool of 1,800 clusters (540 urban and 1,260 rural). The sample design facilitates representative estimates at national, provincial, district as well as rural/urban categories. The total sample sizes in rural and urban areas were 8,610 and 4,820 households, respectively.

However, in the six districts with municipalities (Nairobi, Mombasa, Kisumu, Nakuru, Eldoret and Thika), clusters in the urban sample were further stratified into six groups: five generalised income classes in the municipality itself (upper, lower upper, middle, lower middle, and lower income) and 'other urban' areas in the district. This ensured that different types of neighbourhoods and social classes within municipal areas were all represented in the sample.

With the basic sampling frame constructed, the second stage consisted of updating the NASSEP-IV clusters through a cartographic and household listing exercise conducted in all urban areas and clusters in arid and semi-arid lands (ASAL), as well as a portion of the rural clusters in which population was expected to have changed significantly. Due to the nomadic nature of the population in the ASAL areas, household listing was done immediately prior to the KIHBS fieldwork.

The third stage involved calculation of sampling selection probabilities of each selected KIHBS household, which were used to derive sampling weights needed to compute unbiased estimates and statistics presented in this report.

The probability of selecting a KIHBS household is the product of four factors:

- P_1 is the probability of selecting the EA for the master sample among all the 1999 Population and Housing Census EAs,
- P_2 is the probability of selecting the EA segment among all segments in the EA,
- P_3 is the probability of selecting the cluster for the KIHBS, among all the clusters in the NASSEP-IV master sample, and
- P_4 is the probability of selecting the household among all the households listed in the cluster.

The sampling weights (also called raising factors) used to compute unbiased estimates and indicators from the KIHBS database are calculated simply as the inverse of the product of these selection probabilities.

Upon completion of fieldwork, two adjustments were made to the sampling weights. Firstly, some of the sampled households did not participate in the survey, either because of failure to establish contact or explicit refusal to participate. During the sampling design phase, KNBS had, in addition to the 10 "original" households, selected another 5 "replacement" households in each KIHBS cluster. The reserve households were a simple random sample of all non-selected households in the cluster. These were used as replacements for original households that did not respond or were not available. The list of these additional households was not given to the field staff, as any substitutions were carefully monitored.

The survey was conducted in 1,339 out of the initial 1,343 randomly selected clusters across all districts in Kenya and comprised 857 rural and 482 urban clusters. Four clusters could not be surveyed mainly due to insecurity or inaccessibility. This occurred in only three districts: one cluster in Marsabit district, one cluster in Marakwet district and two clusters in Samburu district. In these cases, the sampling weights were adjusted for cluster non-response.

Item non-response occurs when data on certain questions in the survey are not recorded or captured. This was virtually negligible (less than 1%) because each household was visited at least 10 times and any data that was not collected earlier was completed in the subsequent visits.

1.4 Survey Instruments

The KIHBS survey instruments were organised in four questionnaires, and a GPS unit:

(a) A 21-module household questionnaire;
(b) 14-day household expenditure diaries to record consumption and purchases;
(c) A market price questionnaire, and
(d) A community questionnaire,
(e) Global Positioning System (GPS) unit.

The Household Questionnaire consisted of 21 integrated modules designed to collect information on the following: demographics; education; health, fertility and mortality; employment; labour; child health and nutrition; housing; water, sanitation and energy use; food consumption and expenditures; non-food consumption; ownership of durable goods; agricultural holdings, activities and outputs; livestock; household economic enterprises; transfers; other income; credit; and recent shocks to household welfare. The KIHBS interviewers completed all the modules during regular visits to sampled households during a three-week period.

Two types of Household Diaries were given to the households. One diary was used to keep a record of goods and services purchased by the household while the other was used to record goods and services consumed by the household. These diaries and accompanying verbal instructions were given to the household during the 2nd or 3rd day of the cycle to be completed daily over a two-week period. Because some households were illiterate or had other problems in completing the diaries, interviewers visited households at least once every two days to ensure diaries were being filled and to provide assistance if required.

A Community Questionnaire was administered in each cluster to a group of at least five knowledgeable community members who were selected with the assistance of the local administration. Administration of the questionnaire was the responsibility of the field team leader. The community questionnaire 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.

The Field Team Leader administered the Market Prices Questionnaire at a market place where the sampled households reported making regular purchases. This instrument was used to collect the prices of all goods and services available in the market for the purpose of standardising units of measure of commodities and purchases, and to provide average valuation prices for consumption items.

One of the unique characteristics of KIHBS was the use of Global Positioning System (GPS) to capture the precise location of households within the cluster. The GPS is a satellite-based positioning system that helps in obtaining spatial details of a point relative to its position on the earth's surface. The GPS receiver/ unit uses satellite signals to determine the location of the point or object.

1.5 KIHBS Training

At the national level, the KIHBS was coordinated by a national management team composed of two technical managers from KNBS, a logistics and administration manager, and a project manager. The core team assumed full responsibility for the KIHBS project and coordinated all aspects of the survey. Having a strong and highly skilled core management team in place was one of the necessary conditions that greatly contributed to the successful design and implementation of the KIHBS.

Given the complexity of the survey questionnaires, training was an extremely important aspect of survey preparations. The personnel selected to train interviewers underwent two intensive training workshops. The first workshop took place in November 2004 prior to the pilot survey while the second was conducted in February 2005. An intensive training and testing programme for the interviewers took place from March to April 2005. An additional two-day refresher-training course was held two days before the start of the KIHBS fieldwork.

Great care was taken when hiring the research assistants. These personnel were hired from the private sector after thorough screening. Minimum selection requirements included computer literacy and fluency in one or more of respective local languages and dialects. To the extent possible, interviewers were selected directly from the districts in which they would be assigned to collect data. This hiring and training strategy was complemented by translation of the household questionnaires into 12 different Kenyan languages. Together, these measures greatly facilitated the conducting of interviews in local languages and contributed to the high KIHBS response and completion rates.

1.6 Survey Organization

Data collection for KIHBS 2005/06 took 12 months starting from May 2005. The year-long survey was organised into 17 cycles of 21 days each, during which enumerators conducted household interviews in the clusters. Further, the districts were grouped into 22 zones that were logistically convenient for field teams to operate. Seasonal variation was captured through random visits to the selected clusters so that in each cycle at least one cluster was visited in each zone.

The data collection process required 79 interviewers (total number of selected clusters divided by 17 cycles) who were hired and trained prior to the fieldwork. As a contingency measure for eventualities like illness or unusually large clusters, and to ensure that the fieldwork was not interrupted, a backup team of a further 21 interviewers was hired to make a total of 100 trained KIHBS interviewers.

The 1,343 clusters were split into 17 equal groups (cycles), with each sub-sample having 79 clusters. For logistical purposes, 79 clusters were covered in each cycle by 44 field teams, each team headed by a Field Team Leader and supported by a data entry operator, an interviewer and a driver. Each team was equipped with materials including a vehicle, laptop, a GPS unit, and anthropometrics instruments. The Field Team Leader was responsible for supervising and ensuring quality standards of data collected in his/her team. The typical work schedule of an interviewer during a cycle is shown in Table 1.1.

Table 1.1: **Schematic presentation of interviewer's work schedule in the cluster during a cycle**

Activity	Day	(a) Households 1-5		(b) Households 6-10		Day
	1	Household Roster for the Ten Households				1
Drop diary 1a	2	Recall of food consumption during the past 7 days				2
Drop diary 1b	3	Diary day 1		Recall of food consumption during the past 7 days		3
	4	Diary day 2	Visit 1	Diary day 1		4
	5	Diary day 3		Diary day 2	Visit 1	5
Pick diary 1a / Drop diary 2 a	6	Diary day 4	Visit 2	Diary day 3		6
Pick diary 1b / Drop diary 2b	7	Diary day 5		Diary day 4	Visit 2	7
	8	Diary day 6	Visit 3	Diary day 5		8
	9	Diary day 7		Diary day 6	Visit 3	9
Pick diary 2a / Drop diary 3a	10	Diary day 8	Visit 4	Diary day 7		10
Pick diary 2b / Drop diary 3b	11	Diary day 9		Diary day 8	Visit 4	11
	12	Diary day 10	Visit 5	Diary day 9		12
	13	Diary day 11		Diary day 10	Visit 5	13
Pick diary 3a / Drop diary 4a	14	Diary day 12	Visit 6	Diary day 11		14
Pick diary 3b / Drop diary 4b	15	Diary day 13		Diary day 12	Visit 6	15
	16	Diary day 14	Visit 7	Diary day 13		16
Pick diary 4a	17	Final visits - Recall Non-regular items		Diary day 14	Visit 7	17
Pick diary 4b	18			Final visits - Recall Non-regular items		18
	19	Slack				19
	20					20
	21					21

1.7 KIHBS Fieldwork

KNBS recognises that a survey as large and complex as the KIHBS, and which requires a large number of personnel is particularly prone to non-sampling errors. Therefore, best-practice procedures were built-in during the design phase and implemented by a strong managerial team.

In order to ensure quality control of the data collected, a team of KNBS staff, designated as coordinators, visited the field teams once every cycle for at least six days. This helped to ensure the field teams adhered to instructions they received during the training programme as detailed in the KIHBS interviewers' manual. It also contributed in building firsthand knowledge of the clusters and field collection conditions among the KNBS staff, which is critical at the analysis stage. The coordinators were also responsible for ensuring that focused group discussions (FGDs) were held with the assistance of the District Statistical Officers (DSOs). The DSOs were instrumental in ensuring that teams were clear on their cluster boundaries, and were also responsible for providing any required logistical support to the KIHBS teams on the ground.

1.8 Data Processing

The volume of data collected from the KIHBS was massive and called for advance arrangements to avoid delays in data capture. Consequently, laptops were purchased and assigned to all the 44 field teams operating countrywide. Each team had a data entry operator whose assignment was to ensure that data was collected and simultaneously captured into the computer. Data was captured using a stand-alone programme created using Fox-pro software. The domesticated data capture program was developed by KNBS data processing staff and piloted during the training of research assistants. Based on field data entry experience, the programme was refined and upgraded on a continuous basis.

Experience from many countries over the past 20 years has shown that the integration of computer-based quality controls and data entry in field operations brings about several benefits. Firstly, it significantly improves the quality of the information, because it permits correction of errors and inconsistencies while the interviewers responsible for collecting the data are still in the field. Besides being lengthy and time-consuming, ex-post office data entry and cleaning processes at best ensure the database is internally consistent, but this may not necessarily reflect realities actually observed on the ground.

Secondly, it can generate databases that are ready for tabulation and analysis in a timely fashion. In fact, parts of the database may even be prepared as the survey is conducted (as was the case with the KIHBS), thus giving the survey managers the ability to effectively monitor field operations. Thirdly, an indirect advantage of integration is that it fosters the application of uniform criteria by all interviewers throughout the data collection period.

All completed questionnaires and electronic data were sent to the KNBS headquarters by courier or delivered by field coordinators at the end of every cycle. Completed questionnaires received from the field were stored in an exclusive survey room. These were organised in such a way that they could be easily accessible during the data cleaning process. Data captured on flash disks was transferred to three different computers. In addition, offsite backup was done at least once a week until all the data was assembled.

At the headquarters, one administrative team was responsible for receiving and dispatching questionnaires in every cycle. A second team was charged with quality control of the field data entry operation. This was performed by re-entering data from a sample of completed questionnaires to compare with the same data entered in the field. The field data entry operation was found to produce an extremely robust and high quality database.

1.9 Comparison With WMS-III

A key difference between the KIHBS 2005/06 and the WMS-III is geographical coverage. For example, WMS-III excluded ASAL areas except for their urban clusters, while KIHBS covered both urban and rural clusters in all the ASAL districts countrywide (namely, Marsabit, Moyale, Turkana, West Pokot, Samburu, Mandera, Wajir, Isiolo and Garissa). Secondly, the spatial domains have changed, mainly due to sub-division of districts.

The presentation of urban poverty estimates in the KIHBS 2005/06 has been aggregated into Nairobi, Mombasa, Kisumu, Nakuru Municipality and all other urban areas combined. The KIHBS sampling design treated the rural and urban components of each district as separate strata. In cases where the urban strata included a big town, the number of clusters allocated to the town itself tended to be fewer than for WMS-III.

A survey design which involves consecutive visits to the same household is said be bounded if the recall is based on the period "since my last visit". Under this definition, the reference periods used in the 2005/06 KIHBS (last week, last month, last year) were not bounded, which can lead to serious telescoping (misdating) errors (see Mukui, 1994). The data on food consumption used a 7-day recall period; regular non-food expenditures used a one-month recall period; while data on household durables used a one-year recall period.

Other than telescoping errors, which are common to both the WMS-III and KIHBS, KIHBS household data collected in different cycles where the reference period was long (e.g. "last one year") might have different midpoints of the reference period compared with other data with shorter reference periods. For example, household data on durables collected in the first cycle essentially covered transactions during the year preceding the official survey period, while data for households in the last cycle covered the entire survey period. The time midpoint for the data on household durables is therefore the beginning of the survey, while the time midpoint for shorter reference periods is roughly halfway between commencement and completion of the survey.

1.10 Outline of the Report

The report is divided into seven chapters including the background chapter. Chapter 2 focuses on poverty concepts and methodology, while Chapter 3 presents expenditure patterns in both rural and urban Kenya. Chapter 4 discusses in detail the main poverty findings both at national and sub-national levels. Chapter 5 presents poverty statistics by selected socio-economic characteristics of the household head, while Chapter 6 describes Kenya's macroeconomic and socio-economic environment from 1997 to 2005/06. Finally, Chapter 7 presents the summary and conclusion of the report.

Annex Table 1.1: **Allocation of the KIHBS households by Province, District and Urban/Rural Areas**

Region	Rural	Urban	Total	Region	Rural	Urban	Total
1 Kenya	**8,610**	**4,820**	**13,430**	**6 Nyanza**	**1,440**	**700**	**2,140**
				601 Gucha	130	40	170
				602 Homa Bay	110	60	170
101 Nairobi	**0**	**700**	**700**	603 Kisii	100	80	180
				604 Kisumu	100	100	200
				605 Kuria	130	40	170
2 Central	**1,010**	**480**	**1,490**	606 Migori	130	60	190
201 Kiambu	170	100	270	607 Nyamira	120	60	180
202 Kirinyaga	130	60	190	608 Rachuonyo	130	40	170
203 Murang'a	130	40	170	609 Siaya	120	80	200
204 Nyandarua	150	40	190	610 Suba	130	40	170
205 Nyeri	150	10	250	611 Bondo	110	60	170
206 Thika	130	120	250	612 Nyando	130	40	170
207 Maragua	150	20	170				
				7 Rift Valley	**2,370**	**1,000**	**3,370**
3 Coast	**680**	**600**	**1,280**	701 Baringo	110	60	170
301 Kilifi	110	60	170	702 Bomet	110	60	170
302 Kwale	110	60	170	703 Keiyo	130	40	170
303 Lamu	130	40	170	704 Kajiado	100	80	180
304 Mombasa	0	260	260	705 Kericho	120	60	180
305 Taita Taveta	90	80	170	706 Koibatek	130	40	170
306 Tana River	150	20	170	707 Laikipia	110	60	170
307 Malindi	90	80	170	708 Marakwet	140	20	160
				709 Nakuru	230	140	370
4 Eastern	**1,840**	**580**	**2,410**	710 Nandi	130	60	190
401 Embu	90	80	170	711 Narok	130	40	170
402 Isiolo	130	40	170	712 Samburu	110	40	150
403 Kitui	140	40	180	713 Trans Mara	130	40	170
404 Makueni	180	40	220	714 Trans Nzoia	140	60	200
405 Machakos	160	100	260	715 Turkana	150	20	170
406 Marsabit	120	40	160	716 Uasin Gishu	90	120	210
407 Mbeere	150	20	170	717 West Pokot	150	20	170
408 Meru Central	120	80	200	718 Buret	130	40	170
409 Moyale	150	20	170				
410 Mwingi	150	20	170	**8 Western**	**960**	**560**	**1,520**
411 Meru North	140	60	200	801 Bungoma	130	120	250
412 Tharaka	150	20	170	802 Busia	90	80	170
413 Meru South	150	20	170	803 Mt. Elgon	130	40	170
				804 Kakamega	130	80	210
5 North Eastern	**310**	**200**	**510**	805 Lugari	110	60	170
501 Garissa	90	80	170	806 Teso	130	40	170
502 Mandera	110	60	170	807 Vihiga	130	60	190
503 Wajir	110	60	170	808 Butere/Mumias	110	80	190

Annex Table1.2: **List of Districts covered in WMS-III and KIHBS**

WMS III Districts - 1997	New Districts (KIHBS)
Central Rural	Central Rural
Kiambu	Kiambu
	Thika- new
Kirinyaga	Kirinyaga
Murang'a	Murang'a
	Maragua - new
Nyandarua	Nyandarua
Nyeri	Nyeri
Coast Rural	Coast Rural
Kilifi	Kilifi
	Malindi - new
Kwale	Kwale
Lamu	Lamu
Taita Taveta	Taita Taveta
Tana River	Tana River
Eastern Rural	Eastern Rural
Mbeere	Mbeere
Embu	Embu
Kitui	Kitui
	Mwingi - new
Machakos	Machakos
Meru	Meru Central
Makueni	Makueni
Tharaka Nithi	Tharaka - new
	Meru South-new
Meru North - Nyambene	Meru North
Isiolo - not covered	Isiolo
Marsabit - not covered	Marsabit
	Moyale - new

WMS III Districts - 1997	2005/06New Districts (KIHBS)
North Eastern Rural	North Eastern Rural
Garissa - not covered	Garissa
	Ijara - new
Mandera - not covered	Mandera
Wajir - not covered	Wajir
Nyanza Rural	Nyanza Rural
Kisii/Central Kisii	Kisii/Central Kisii
	Gucha/Kisii South - new
Kisumu	Kisumu
	Nyando - new
Siaya	Siaya
	Bondo - new
Homa Bay	Homa Bay
	Kuria - new
	Rachuonyo - new
	Suba - new
Migori	Migori
Nyamira/Kisii North	Nyamira/Kisii North
Rift Valley Rural	Rift Valley Rural
Kajiado	Kajiado
Kericho	Kericho
	Buret - new
Laikipia	Laikipia
Nakuru	Nakuru
Nandi	Nandi
Narok	Narok
Bomet	Bomet
Trans Mara	Trans Mara
Baringo	Baringo
	Koibatek - new

WMS III Districts - 1997	New Districts (KIHBS)
Elgeyo Marakwet	Marakwet - new
	Keiyo - new
Trans Nzoia	Trans Nzoia
Uasin Gishu	Uasin Gishu
West Pokot	West Pokot
Samburu - not covered	Samburu
Turkana - not covered	Turkana
Western Rural	Western Rural
Bungoma	Bungoma
	Mt Elgon - new
Busia	Busia
	Teso - new
Kakamega	Kakamega
	Butere/Mumias - new
	Lugari - new
Vihiga	Vihiga
	Butere/Mumias - new

Chapter 2

POVERTY CONCEPTS AND MEASUREMENT

This chapter presents a detailed overview of the welfare and poverty concepts used in the report and outlines the measurement approaches adopted. Section 2.1 provides a description of the definition and construction of the welfare measure used to estimate poverty. Section 2.2 explains how differences in needs were adjusted for differences in household composition. Section 2.3 details how the poverty lines used in this report were computed. Section 2.4 describes the approach developed to adjust nominal expenditures for spatial and temporal price differences. Finally, section 2.5 defines and interprets the poverty and inequality indices used in this report.

2.1 Definition and Construction of the Welfare Measure

Following past poverty reports for Kenya (GoK, 1997 and 2000), the measure of welfare is based on consumption rather than income. Consumption is a more satisfactory measure of well-being for both theoretical and practical reasons. The empirical literature on the relationship between income and consumption has established that, for both rich and poor countries, consumption is not closely tied to short-term fluctuations in income, and that consumption is smoother and less variable than income. For instance, ranking 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 this information accurately (e.g. those employed in the informal sector or seasonal jobs) or plainly refuse to do so (e.g. wealthy households).

The nominal household consumption aggregate was constructed broadly following the best-practice guidelines provided in Deaton and Zaidi (2002) and consists of two main components: food and non-food consumption.

2.1.1 Food Consumption Component

The constructed food consumption aggregate includes four components: (a) food consumption derived from purchases, and consumption from (b) own production, (c) own stock and (d) gifts and other sources. Section I of the KIHBS questionnaire collected recall information on the quantities consumed for each of the four components over a one week period. The food quantities consumed were valued using reported unit prices from purchases along with locally representative prices obtained from the daily purchase diaries completed by each household over a two-week period. Overall the KIHBS collected over 276,000 observations of over 140 distinct food items that were reported consumed by 13,158 households. This represents the most comprehensive and detailed dataset on food consumption ever collected in Kenya.

The practical and technical challenges encountered by the KIHBS team in processing these numerous data records on reported food consumption were many. The two principal challenges consisted of: (a) accurately valuing food consumption from own production, own stock and gifts, and (b) correctly converting and matching the various unit references in which food items were reported purchased and consumed. The first issue was successfully tackled by constructing a detailed data set of median food item unit prices that are representative of those faced locally by each household. The second challenge was addressed by constructing a table to convert 21 different measurement units into metric units (kilograms or litres) for the various food items. For instance, on average one "gorogoro"(tin) of maize flour was found to weigh about 2 kilograms. These conversions were critical to correctly value the reported quantities of food consumed from own production, own stock and gifts.

A critical feature of the food consumption section (Section I) in the KIHBS questionnaire is that, unlike previous household budget and welfare monitoring surveys in Kenya, it follows current international best-practice recommendations in questionnaire design by distinguishing between the value and quantities of food items purchased over a one-week period and quantities consumed from these purchases during this period. Analysis of the data revealed that this distinction proved critical to correctly construct the food consumption aggregate. For about 37,000 of the reported cases of food item purchases over the past week, not all of the purchased quantities were consumed during that period. This is evidence that many households in Kenya purchase certain food items "in bulk" and then consume these over a period that exceeds 7 days. Further examination of the data file shows this is particularly the case for food items that are not perishable over a 7- day period such as cooking oil, tea, coffee, sugar and certain types of vegetables. It is thus conceivable that previous household budget and welfare monitoring surveys may have over-estimated the true value of food consumption. This report avoids overestimation by taking full advantage of the KIHBS questionnaire design to value the actual reported consumption of food from purchases; as opposed to just using the reported value of purchases.

The nominal food consumption aggregate, y_h^f, for each household h was computed from the KIHBS data collected in section I as follows:

$$y_h^f = \sum_{i \in h(i)} \left[\left(\frac{y_h^{i03}}{q_h^{i03}} \right) q_h^{i04} + \overline{p}_c^i q_h^{i05} + \overline{p}_c^i q_h^{i05A} + \overline{p}_c^i q_h^{i06} \right]$$

where $h(i)$ represents the set of all food items, i, consumed by household h, and the superscripts denote the source of the consumption data, respectively: purchases *(i03)*, consumption from purchases *(i04)*, consumption from own production *(i05)*, consumption from own stock (i05A) and consumption from gifts *(i06)*. For each food item, the quantity of consumption from purchases, q_h^{i04}, was valued using the inferred price by taking the ratio of the reported value of purchases, q_h^{i03}, over the quantity of purchases, y_h^{i03}.

The quantities consumed from own production, own stock and gifts were valued using imputed median cluster prices, $\overline{p}_c^i$, computed from the inferred purchase prices reported in Section I. The reason for using median prices is twofold. First, not all households who reported having consumed quantities of a food item from own production, own stock or gifts also made purchases of that item. For these cases it is 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 by the dozen rather than by the piece (e.g. see Deaton and Zaidi, 2002). By using cluster-level median item prices to value food quantities that were consumed but not purchased, the sensitivity of the consumption aggregate to such outliers is reduced. Further note that for this same reason, a cluster-level median price rather than an average price was used for imputation.

2.1.2 *Non-Food Consumption Component*

Data on non-food consumption by households was collected in three Sections of the KIHBS questionnaire. Section J collected household expenditure information on about 80 regular non-food items during the past month comprising personal care, medical care, transport and communication. Section K collected household expenditure information on about 60 non-food items during the past month such as domestic services, personal goods and recreation. Finally, Section L collected household expenditure information on about 80 clothing items during the past month. All these expenditures were accounted for in order to calculate each household's total non-food expenditures except for selected health expenditures.

Regarding health expenditures, while regular purchases of certain 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 these have high income elasticity in relation to their transitory variance or measurement error. Most reported health expenditures, with the exception of 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 important for households residing in urban areas. However, households who reside in housing structures that they own do not report rent. For such households residing in urban areas, rent was imputed by estimating a log-linear regression of reported rents on housing characteristic variables and urban dummies (see Table 2.1). The regression explains 75% of the reported variation in rent expenditures (i.e. the R^2 statistic was 0.746) and all coefficients (except the Mombasa dummy) were statistically significantly different from zero. 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 Kshs 14,400. This coincides exactly with the median reported rent suggesting that the model used for imputation is robust.

Table 2.1: **Rent Imputation Regression for Urban Areas**

Variables	Coefficient	Standard Error
Constant	7.718	0.048
Ln (Number of Rooms)	1.387	0.035
Good quality walls	0.168	0.028
Good quality roof	0.236	0.037
Good quality floors	0.350	0.035
Flush Toilet	0.222	0.031
Garbage Collection	0.269	0.029
Electrical Cooker	0.354	0.081
Electrical Lighting	0.573	0.026
Piped Water	0.127	0.025
Mombasa Dummy	0.062	0.056
Thika Dummy	-0.592	0.067
Kisumu Dummy	-0.370	0.081
Nakuru Dummy	-0.648	0.063
Other Towns Dummy	-0.599	0.033

2.2 Adjusting for Differences in Needs

The preceding section outlines how a 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 who live in households composed of a high fraction of children. This is because children, up to a certain age, consume less than adults. Adjusting for intra-household differences in needs, starting with the earliest studies on poverty in Kenya (Greer and Thorbecke, 1986a, 1986b, 1986c), entails the use of the equivalence scales developed by Anzagi and Bernard (1977a, 1977b). These adult equivalence scales prescribe that age groups 0-4 are weighted as 0.24, children aged 5-14 are weighted as 0.65 and all people aged 15 years and over are 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 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[1].

In practice, determining the poverty line involves a number of 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.

2.3.1 The Food Poverty Line

Nutritional requirements for good health are the obvious anchor for determining basic food needs. Following previous poverty reports on Kenya starting with the studies by Crawford and Thorbecke (1978a, 1978b, 1980), the daily per adult equivalent calorie requirement for Kenyans in this report was specified as 2,250 kilocalories based on FAO recommendations.

The rural and urban food poverty lines were set by costing two separate bundles of basic food items which attain the 2,250 kilocalories minimum nutritional requirements in a way which is consistent with food tastes in rural and urban areas observed in the KIHBS. The calorie content of food items in these basic food bundles was determined using the National Public Health Laboratory Services (1993) report which provides detailed information on the nutrient and calorie composition of food items in Kenya (see Annex Tables 2.1 and 2.2)[2].

[1] 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)

[2] Previous poverty studies adopted food-weight to calorie conversion factors published by the Food and Nutrition Cooperation ESAC (1987) and Platt (1962). The advantage of utilizing the NPHLS (1993) conversions in this study are that these are more up-to-date, more comprehensive in terms of food items covered, and specific to Kenya and even sub-regionally within the country; for instance, these account for differences in calorie content of different maize types (hybrids and endemic) grown in different agro-ecological regions.

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[3]. Through repeated iterations benchmarked on the food poverty estimates obtained at each stage, it was determined that the households located in the 35 to 55 percentiles of the rural and the 25 to 45 percentiles of the urban price-adjusted weighted food consumption distributions represented the optimal bandwidth for computing the respective food poverty lines. These bandwidths incorporated rural and urban households from each district. The food poverty lines in monthly adult equivalent terms were computed as Kshs 988 and Kshs 1,474 for rural and urban areas, respectively.

2.3.2 The Overall Poverty Line

The rural and urban food poverty lines constitute the foundations 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 and is followed by basic non-food needs. Many activities that are deemed essential to escaping poverty cannot be performed without participation in society; for example, employment and schooling. That social participation is not possible without incurring the basic non-food expenditures on, for instance, shelter, clothing and hygiene.

The approach followed is again an iterative process. The starting point was to compute the mean value of total non-food expenditures consumed by households whose food expenditures 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. It is important to note that this approach provides an upper bound to the overall poverty line and therefore insures against underestimating the incidence of poverty. The overall poverty lines in monthly adult equivalent terms were computed as Kshs 1,562 and Kshs 2,913 for rural and urban areas, respectively.

2.4 Adjusting for Spatial and Seasonal Price Variation

The KIHBS data was collected over the course of a calendar year, from May 2005 to May 2006, organized in seventeen successive survey periods referred to as "cycles." Prices in Kenya vary geographically and by season. 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 in the survey. For each item, an unweighted national urban and rural median price was calculated across all households reporting consumption of

[3] The third quintile was selected as a starting point because about 50% of the rural population was food poor in 1997.

the item. In addition, for each good, a cluster-level median price was computed. The price index for each household h is defined as follows:

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

where w_k is the share of good k in the household's food consumption basket $h(k)$, p_k^0 is the National rural or urban median price of good k (depending on whether the household is rural or urban), and $\bar{p}_k^c$ is the cluster median unit price of good 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:

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

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 goods 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. Furthermore, 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 province has the advantage of ensuring the deflated money metric conform as closely as possible to national income accounting practices, minimizes price data gaps, and eliminates results that are driven by a price relative that occurs rarely or only in a particular area.

The above index based on food consumption was used to deflate total nominal household expenditures. Non-food expenditures were assumed constant over time and space because it was not possible to construct a non-food price index. The reasons for these are multiple, but one key issue encountered is that for many non-food goods (e.g. furniture and clothes) it was not possible to distinguish differences in prices from differences in quality. Secondly, many non-food goods were only reported consumed by a handful of households and were not reported in all provinces and cycles, thus there was insufficient representative price data on non-food goods to construct a price index that would not be subject to the impact of potential outliers. Finally, many important non-food goods in Kenya (e.g. mobile phone airtime and household bar soap) exhibit little or no variation in price across space and time.

The Paasche price index approach used in this report differs from previous poverty reports based on the Welfare Monitoring Survey (WMS) data collected in 1992, 1994 and 1997. Unlike the KIHBS, these WMS data were not collected over a year-long period—the 1992 WMS from November to December, the 1994 WMS from June to August, and the 1997 WMS between April and June—and no unit price data was collected. For these reasons, WMS-based analysis of welfare and poverty adopted a Laspeyres Price Index to adjust only for spatial variation in prices across provinces; due to the shorter survey periods of the WMS data sets, no seasonal price adjustments were made.

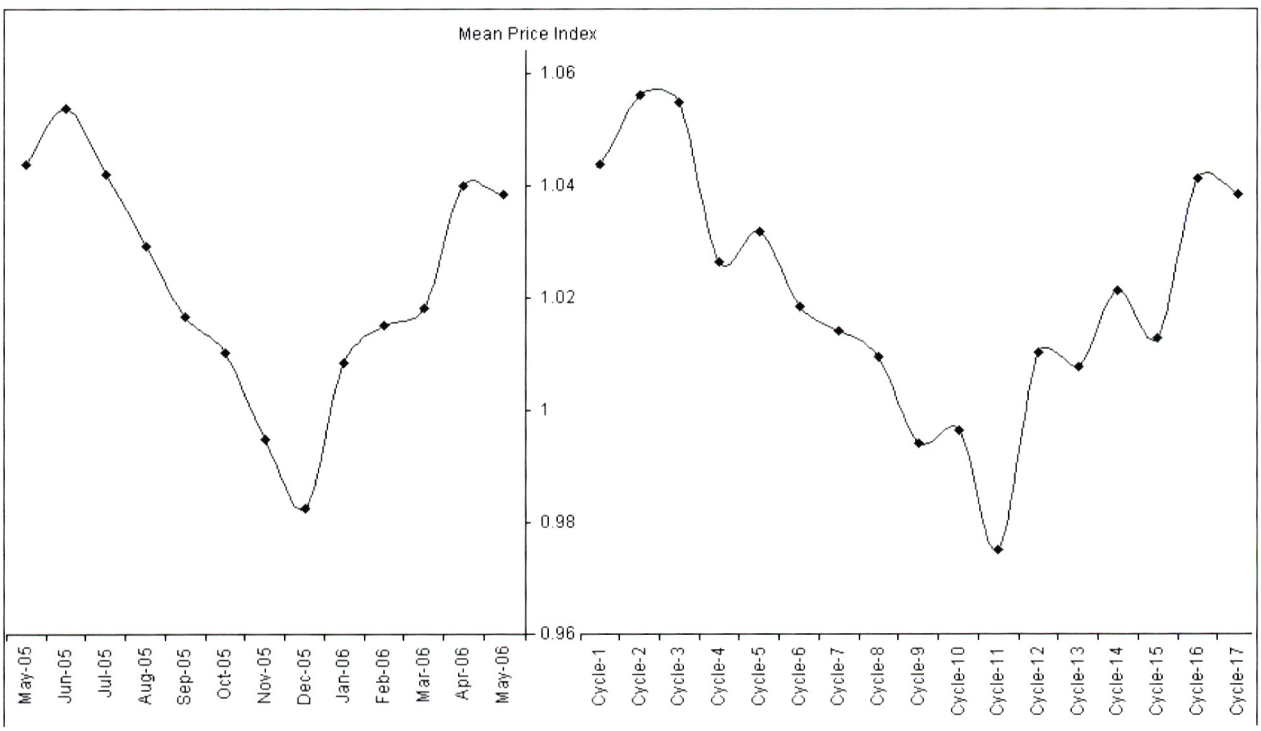
Table 2.2 provides a summary of the computed price indices averaged over the individual households at the province-level for urban and rural areas. Relative to the national median prices prevailing during the period from May 2005 to May 2006, mean prices in rural and urban North Eastern Province were 9 per cent higher (mean index of 1.09) whereas urban Central Province on average experienced prices that were 4 per cent lower (mean index of 0.96). This provides a good overview of why it was critical to adjust for spatial variation in prices to conduct consistent comparisons of welfare and poverty in Kenya.

Table 2.2: **Average Province-Level Price Deflators**

Province	Urban	Rural
Nairobi	1.07	n/a
Central	0.96	0.98
Coast	1.05	1.04
Eastern	1.01	1.01
North Eastern	1.09	1.09
Nyanza	1.07	1.07
Rift valley	0.98	1.01
Western	0.98	0.99
National	1.00	1.00

Likewise Figure 2.1 illustrates the importance of adjusting for temporal variation in prices. Relative to the National median prices prevailing during the period from May 2005 to May 2006, average prices are highest from May to June and lowest in November and December.

Figure 2.1: **Average Cycle and Monthly Level Variation in Price Deflators**



2.5 Poverty Measures

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

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

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.

2.5.1 The Poverty Headcount Index

The poverty headcount index is computed by setting $\alpha = 0$ in the FGT measure so that:

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

The poverty headcount index measures the incidence of poverty. In other words, it measures

the proportion of the population that cannot afford to purchase the basic basket of goods and services 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. However, for some purposes, including the analyses of the impact of specific policies on the poor, the poverty headcount index has some drawbacks.

For example, suppose that a poor person becomes poorer. What will happen to the poverty index measure? Nothing. Put another way, the poverty headcount index conceals the fact that some people might only be a few shillings short of the poverty line while others might only have a few shillings to spend. This is why the poverty gap and the poverty severity indices are good complementary indicators to assess poverty.

2.5.2 The Poverty Gap Index

The poverty gap index is computed by setting α =1 in the FGT measure so that:

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

The poverty gap index measures the depth of poverty. In other words, 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 to 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.

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). Rather this figure should be viewed as providing a useful policy benchmark by quantifying the absolute minimum amount of resources required to eradicate poverty.

2.5.3 The Poverty Severity Index

The poverty severity index is computed by setting α = 2 in the FGT measure so that:

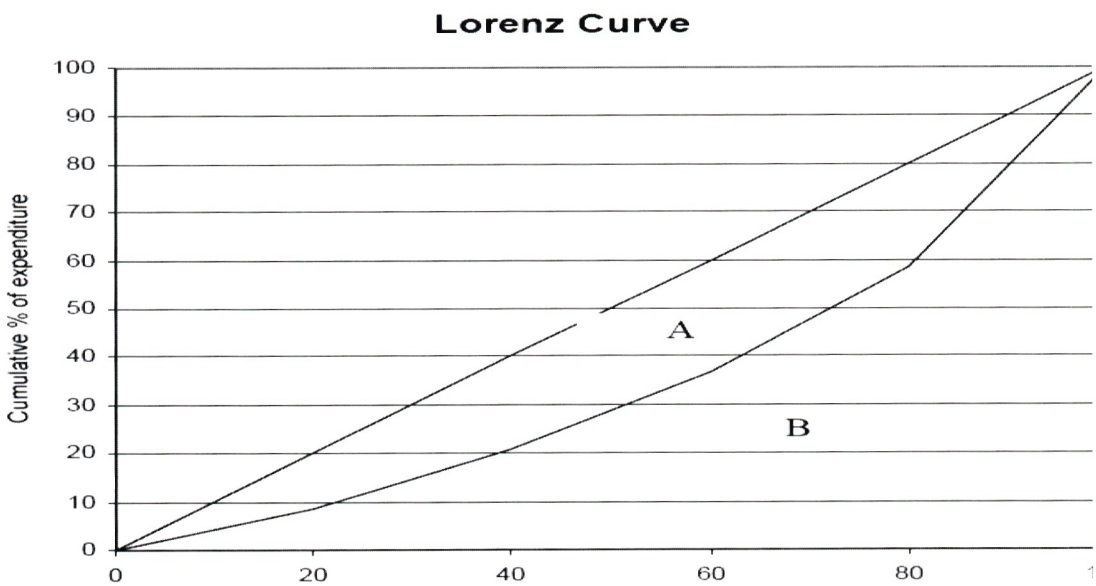
$$P(2) = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{z - y_i}{z}\right)^2 I(y_i < z)$$

The poverty severity index is a better measure to assess how poor the poor are. For 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 indices which are 0.185 for A and 0.167 for B thus indicating poverty is more severe in distribution A. The poverty severity measure, while not easy to interpret intuitively, has some clear advantages; for example, to assess the impact of policies and programmes which are aiming to reach the poorest of the poor.

2.5.4 *The Gini Coefficient: A Measure of Inequality*

The poverty measures focus on where individuals find themselves in relation to the poverty line and therefore provide statistics summarizing the bottom of the consumption distribution (i.e. those that fall below the poverty line). Inequality means different things to different people and there are many ways of measuring inequality. In this report inequality refers to the dispersion of the distribution over the entire consumption aggregate. The most widely used measure of inequality is the Gini coefficient which ranges from zero (indicating perfect equality i.e. where everyone in the population has the same expenditure or income) to one (indicating perfect inequality i.e. when all expenditure or income is accounted for by a single person in the population). For most developing countries, the Gini coefficient ranges between point three (0.3) and point six (0.6) (World Development Indicators, 2006).

Figure 2.2: **An Illustration of the Lorenz Curve and Gini Coeffient**



The Gini coefficient is based on the Lorenz curve, a cumulative frequency curve that compares the distribution of a specific variable (e.g. total expenditures) with the uniform distribution that represents equality. To construct the Gini coefficient, graph the cumulative percentage of households (from poorest to richest) on the horizontal axis and the cumulative percentage of expenditure (or income) on the vertical axis. This gives the convex Lorenz curve as shown in Figure 2.2. The diagonal line represents perfect equality. The Gini coefficient is defined as A/(A+B), where A and B are as shown on the graph. If A=0 the Gini coefficient becomes 0 which means perfect equality, whereas if B=0 the Gini coefficient becomes 1 which means complete inequality. Let xi be a point on the X-axis, and yi a point on the Y-axis, the Gini coefficient is defined as (see World Bank, 2002):

$$Gini = 1 - \sum_{i=1}^{N} (x_i - x_{i-1})(y_i + y_{i-1})$$

Annex Table 2.1: **Determining the Cost of Basic Needs Basket in Rural Kenya**

		(A)	(B)	(C)	(D)	(E)
Item Code	**Food Item**	**Share in Basket**	**Kcal (100g)**	**Median Rural Price (Kshs/100g)**	**Kcal per Kshs. 100**	**Kshs for 2,250 Kcal**
801	Milk (fresh unpacked)	0.12	72	2.3	370.35	3.95
103	Maize Grain (loose)	0.11	353	2.0	1,912.24	3.57
105	Maize Flour (loose)	0.10	264	2.4	1,135.53	3.40
1101	Sugar	0.10	375	6.5	584.02	3.33
301	Beans	0.07	314	4.0	581.48	2.44
501	Beef (with bones)	0.04	156	14.0	47.28	1.40
904	Cooking Fat	0.04	900	10.0	358.66	1.31
101	Rice (grade 2)	0.03	346	4.0	300.37	1.14
106	Maize Flour (sifted)	0.03	264	2.8	314.07	1.10
201	Potatoes (Irish)	0.03	81	2.0	123.06	1.00
406	Kale (sukuma wiki)	0.03	52	2.0	74.10	0.94
208	Cooking Banana	0.02	64	1.0	149.25	0.77
404	Tomatoes	0.02	27	2.5	24.64	0.74
506	Chicken	0.02	163	12.5	28.06	0.71
1305	Tea	0.02	40	32.0	2.63	0.69
116	Bread	0.02	257	5.5	92.63	0.65
104	Green Maize	0.02	56	2.0	53.73	0.63
505	Mutton & Goat Meat	0.02	166	14.0	18.72	0.52
401	Onion & Leeks	0.01	44	3.0	20.18	0.45
402	Cabbages	0.01	21	1.4	19.10	0.43
703	Dried & Smoked Fish	0.01	269	10.0	34.40	0.42
202	Sweet Potato	0.01	113	1.6	69.58	0.32
701	Fresh Fish	0.01	121	7.5	15.54	0.32
1004	Avocado	0.01	128	1.3	94.73	0.30
905	Cooking Oil	0.01	900	10.0	82.99	0.30
811	Eggs	0.01	152	10.2	12.76	0.28
110	Millet Flour (wimbi)	0.01	318	4.0	66.73	0.28
807	Sour Milk (mala)	0.01	72	3.0	19.45	0.27
1020	Sugar cane	0.01	54	0.6	62.16	0.24
1005	Mangoes	0.01	43	1.5	20.54	0.24
1003	Pawpaws	0.01	26	1.9	8.32	0.20
1001	Banana (ripe)	0.01	67	2.5	16.03	0.20
204	Cassava	0.01	134	1.2	69.16	0.20
304	Peas	0.01	338	4.0	50.22	0.20
					6,832.69	32.93
				Monthly Adult Equivalent Poverty Line (Kshs):		**988**

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. An additional calorie and weight conversion adjustment was made for maize flour because this is consumed almost exclusively in the form of ugali. **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 Kshs 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, Kshs. 100 would provide about 6,830 Kcal. **Column E** computes how many Kshs 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 Kshs 32.93. Thus the rural food poverty line in monthly adult equivalent terms was determined to be Kshs 988.

Annex Table 2.2: **Determining the Cost of Basic Needs Basket in Urban Kenya**

Item Code	Food Item	(A) Share in Basket	(B) Kcal (100g)	(C) Median Urban Price (Kshs/100g)	(D) Kcal per Kshs. 100	(E) Kshs for 2,250 Kcal
501	Beef (with bones)	0.09	156	14.0	100.30	4.42
1101	Sugar	0.08	375	6.8	433.18	3.86
801	Milk (fresh unpacked)	0.07	72	2.7	181.89	3.31
116	Bread	0.07	257	5.8	294.19	3.26
106	Maize Flour (sifted)	0.06	264	2.8	562.67	2.93
802	Milk (fresh packed)	0.05	72	5.1	64.58	2.25
404	Tomatoes	0.04	27	3.0	38.81	2.09
101	Rice (grade 2)	0.04	346	4.0	344.71	1.96
103	Maize Grain (loose)	0.04	353	2.0	635.50	1.77
406	Kale (sukuma wiki)	0.04	52	3.3	55.66	1.75
301	Beans	0.03	314	4.0	258.64	1.62
904	Cooking Fat	0.03	900	10.0	289.06	1.58
201	Potatoes (Irish)	0.03	81	2.0	123.46	1.50
105	Maize Flour (loose)	0.03	264	2.3	314.73	1.32
701	Fresh fish	0.02	121	12.0	23.32	1.14
102	Rice (grade 1)	0.02	346	7.0	102.43	1.02
401	Onion & Leeks	0.02	44	4.0	21.06	0.94
811	Eggs	0.02	152	10.2	26.23	0.87
402	Cabbages	0.02	21	2.0	18.21	0.85
506	Chicken	0.02	163	16.0	16.41	0.79
1001	Banana (ripe)	0.02	67	3.3	31.85	0.78
1305	Tea	0.02	40	32.0	1.96	0.77
905	Cooking Oil	0.02	900	9.0	152.65	0.75
1002	Oranges	0.01	43	3.0	18.01	0.62
208	Cooking Banana	0.01	64	2.3	34.44	0.59
120	Wheat buns /Scones	0.01	370	8.3	53.58	0.59
1004	Avocado	0.01	128	2.0	70.65	0.54
505	Mutton & Goat Meat	0.01	166	16.0	11.18	0.53
601	Offal (matumbo)	0.01	143	10.0	15.07	0.52
903	Margarine	0.01	745	18.0	43.22	0.51
703	Dried & Smoked Fish	0.01	269	10.0	26.58	0.49
1005	Mangoes	0.01	43	1.8	24.21	0.48
104	Green Maize	0.01	56	3.0	17.04	0.45
110	Millet Flour (wimbi)	0.01	318	4.5	53.96	0.38
403	Carrots	0.01	38	2.0	13.51	0.35
502	Beef (without bones)	0.01	195	16.0	8.52	0.34
121	Pasta (spaghetti)	0.01	111	10.0	7.41	0.33
108	Wheat Flour	0.01	320	4.0	51.75	0.32
405	Spinach	0.01	32	3.3	5.97	0.31
302	Grams	0.01	322	5.6	32.16	0.27
					4,578.79	49.14
				Monthly Adult Equivalent Poverty Line (Kshs):		**1,474**

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. An additional calorie and weight conversion adjustment was made for maize flour because this is consumed almost exclusively in the form of ugali. **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 Kshs 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, Kshs 100 would provide about 4,580 Kcal **Column E** computes how many Kshs 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 Kshs 49.14. Thus the urban food poverty line in monthly adult equivalent terms was determined to be Kshs 1,474.

Chapter 3

OVERVIEW OF EXPENDITURE PATTERNS

3.1 Consumption Aggregates used in the Analysis

Consumption includes all goods and services (or 'items') that are acquired or purchased for use by households, but excludes those used for business purposes or accumulation of wealth. In this report, household consumption expenditure refer to goods and services intended for consumption, plus the value of goods and services received as income in kind and consumed by the household or individual members thereof. Household consumption expenditure excludes income tax and other direct taxes, pension and social security contributions and assimilated insurance premiums, remittances, gifts and similar transfers by the household as a whole and its individual members.

The items on which consumption information was collected in the KIHBS 2005/06 were classified into two broad categories: food and non-food. The food component consisted of the following sub-groups: cereals, bread, roots and tubers, poultry (chicken), meat, fish and sea foods, 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 are education, health expenditure (only include medication), tobacco, water, cooking and lighting fuel, household operation 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 house rent for rural areas.

The analysis of expenditure patterns excludes use value of consumer durables, and infrequent purchases such as home repair and improvements, and expenditure on social ceremonies, marriages and funerals. Non-consumption expenditure items such as insurance were also excluded.

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 purchases uses the quantity consumed from purchases during the reference period, rather than the actual purchases during the period.

Table 3.1 shows the percentage shares of total food consumed broken down by source. Overall, 53.9 percent of food consumed in rural areas comes from purchases, with a high of 58.5 percent for North Eastern province. The share of own produce was 26.8 percent, with the lowest in North Eastern (9.5%) and Coast province (21.7%). North Eastern province had also the greatest share from gifts and other sources (29.8%), which could have included relief food. The share of own produce was higher in rural households (26.8%) than urban households (4.3%).

Table 3.1: **Total Food shares by Source (%)**

Region	Purchases	Own Produce	Own Stock	Gifts	Total
Total Rural	**53.9**	**26.8**	**8.4**	**10.9**	**100.0**
Central	56.8	29.7	8.5	5.0	100.0
Coast	53.6	21.7	9.0	15.8	100.0
Eastern	51.0	27.6	8.1	13.3	100.0
North Eastern	58.5	9.5	2.2	29.8	100.0
Nyanza	56.8	23.5	7.4	12.3	100.0
Rift Valley	52.5	29.7	11.0	6.8	100.0
Western	53.9	28.2	5.4	12.6	100.0
Total Urban	**79.9**	**4.3**	**12.0**	**3.9**	**100.0**
Nairobi	70.7	1.1	26.3	1.9	100.0
Mombasa	84.8	.7	13.3	1.2	100.0
Kisumu	74.5	1.4	20.8	3.3	100.0
Nakuru	84.1	3.7	7.4	4.8	100.0
Other Urban	82.2	5.5	7.6	4.7	100.0

In the urban areas, the share of purchases was 79.9 percent. Nakuru and the category 'other urban' have higher proportions of food consumption from own produce than the larger urban centres (e.g. Nairobi, Mombasa and Kisumu), as they contain peri-urban clusters where some farming takes place.

Table 3.2 shows the percentage shares of food consumption by source for selected food item or food groups. The food items/groups with the highest shares of consumption from purchases were rice, vegetables and beef; while those with lowest shares included chicken, milk and maize. The food commodities that are produced in only a few areas of the country tended to have the highest shares from purchases, while those produced from subsistence farming in most parts of the country had the lowest shares from purchases.

3.3 Household Consumption Patterns

Table 3.3 shows the undeflated mean food and non-food expenditure by region in monthly adult equivalent terms. The non-food component includes house rent, clothing and footwear, education, health, household and personal goods and services, furnishings and maintenance, water, cooking and lighting fuel, transport, communication, domestic services, tobacco, and refuse and sewage disposal. The health expenditure only includes cost of medication, as the other health components tended to have relatively few responses. The reported non-food expenditure excludes insurance, expenditure on durable goods and housing (e.g. house repair), and expenses related to rites of passage e.g. marriage/dowry, and funeral expenses. The expenditure numbers below are reported in monthly adult equivalent terms.

Table 3.2: **Percentage Share of Consumption from Purchases (Rural)**

Item/Region	Central	Coast	Eastern	North Eastern	Nyanza	Rift Valley	Western
Rice	86.42	80.31	86.12	76.03	88.30	88.10	85.84
Maize	54.70	46.01	42.74	58.74	40.81	43.15	43.40
Wheat	22.96	15.71	20.50	19.11	32.08	34.10	31.28
Potatoes	43.24	70.36	73.74	98.57	66.24	55.01	41.91
Beans	53.45	65.28	55.27	46.04	40.53	45.64	41.15
Vegetables	69.40	78.99	80.74	97.13	81.65	73.58	81.91
Beef	96.94	70.87	88.65	20.00	93.69	82.45	95.61
Mutton/Goat	87.90	57.46	61.93	63.31	60.39	57.60	74.16
Chicken	23.40	10.62	9.31	28.99	15.27	26.64	17.93
Milk	40.12	60.90	41.07	68.36	46.64	29.68	54.00

Rice:	rice grade 1 (pishori/basmati), rice grade 2
Maize:	maize grain (loose), green maize, maize flour (loose), maize flour (sifted)
Wheat:	wheat grain, wheat flour
Potatoes:	irish potatoes, sweet potatoes
Beans:	beans, grams
Vegetables:	onions/leeks, cabbages, carrots, tomatoes, kales (sukuma wiki) and spinach
Beef:	beef with bones, beef without bones
Mutton/goat:	mutton/goat
Chicken:	chicken
Milk:	milk

The mean food expenditure per month per adult equivalent was Kshs 1,453 in the rural areas, with the major share taken by cereals, milk and eggs, sugar vegetables, pulses, meat and tubers. The mean rural non-food expenditure was Kshs 878 where the major expenditure categories were clothing and footwear, education, household and personal goods and services, fuels and transportation.

In the urban areas, the mean food expenditure was Kshs 2,642 per adult equivalent, with the major food categories being cereals, followed by food eaten in restaurants, meat, milk and eggs, vegetables, and bread. The mean urban non-food expenditure per adult equivalent was Kshs 4,032 where the major categories were house rent, transportation, clothing and footwear, education, household and personal goods and services, and fuels.

Nationally, the mean alcohol consumption was Kshs 58, with the highest in Nakuru municipality (Kshs 244) and Mombasa (Kshs 126) and nil in North Eastern province. The mean tobacco consumption was Kshs 28 per month per adult equivalent, with the highest in Mombasa (Kshs 65), Nakuru municipality (Kshs 60) and Eastern Province (Kshs 59), lowest in Kisumu municipality (Kshs 3).

Table 3.3: **Mean Monthly Food and Non-Food Expenditure per adult equivalent**

	Mean Expenditure (KShs)			Shares (%)	
Region	**Food**	**Non-food**	**Total**	**Food**	**Non-food**
Kenya	**1,754**	**1,678**	**3,432**	**51.1**	**48.9**
Total Rural	**1,453**	**878**	**2,331**	**62.3**	**37.7**
Central	1,696	1,263	2,959	57.3	42.7
Coast	1,179	552	1,731	68.1	31.9
Eastern	1,425	806	2,231	63.9	36.1
North Eastern	1,204	374	1,578	76.3	23.7
Nyanza	1,476	786	2,262	65.2	34.8
Rift Valley	1,474	984	2,457	60.0	40.0
Western	1,300	665	1,965	66.2	33.8
Total Urban	**2,642**	**4,032**	**6,673**	**39.6**	**60.4**
Nairobi	3,010	5,696	8,706	34.6	65.4
Mombasa	2,285	3,218	5,503	41.5	58.5
Kisumu	2,172	3,539	5,711	38.0	62.0
Nakuru	2,302	1,708	4,010	57.4	42.6

Nationally, the food share in total consumption was 51.1 percent, with 62.3 percent for rural areas and 39.6 percent in urban areas. Among the rural areas, the highest food share was recorded in North Eastern province (76.3%) and the lowest in Central (57.3%). The two provinces with the lowest mean expenditure per adult equivalent, North Eastern and Coast, also had the highest share of expenditure devoted to cereals, while North Eastern province had the highest share devoted to sugar (14.5%).

3.4 Detailed Commodity Classification used in Poverty Analysis

3.4.1 Aggregation of Food Expenditure

Cereals (rice, maize grain, green maize, maize flour, wheat grain, wheat flour, millet grain and flour, sorghum grain and flour, barley and other cereals, cost of milling, breakfast cereal/oats, pasta, baby food-cereals)

Bread (bread, cakes, biscuits, wheat buns /scones)
Tubers (Irish potatoes, sweet potato, arrow roots, cassava, cassava flour, yams, crisps, cooking banana)

Poultry (chicken)

Meat (beef, minced meat, pork, mutton/goat meat, camel meat, other meats, offal, sausages, bacon, ham, corned beef, tinned meat soups)

Fish, Sea Food (fish, prawns /other sea foods, tinned fish)

Dairy Products and Eggs (milk, tinned baby milk, milk sour, yogurt, cheese, eggs)

Vegetable Oil, Animal Fats (butter, ghee from milk, margarine, cooking fat, cooking oil, lard, peanut butter)

Fruits (ripe banana, oranges, papaws, avocado, mangoes, pineapples, passion fruits, pears, peaches, plums, apples, lemons, grape fruit, strawberries, melons, grapes, coconut, sugarcane, other fruits)

Vegetables (onion / leeks, cabbages, carrots, tomatoes, spinach, kale, capsicums, cucumber, french beans, lettuce, courgette, celery, mushrooms, cauliflower, aubergines, pumpkins, okra, coriander leaves, other vegetables, tinned/packeted vegetable soups).

Pulses (beans, grams, black grams, peas, groundnut, cowpeas, other pulses, tinned beans, tinned pulses)

Sugar (sugar, jaggery, sugar-icing, other sugar/ confectionary, jam, marmalade, honey, chocolate, sweets, and chewing gum)

Non-Alcoholic Beverages (squashes, health drink, preserved fruit juice, drinking chocolate/other cocoa preparations, soya drink, coffee, tea leaves, mineral water, soda)

Alcoholic Beverages (spirits, wine, beer, traditional brew, cider)
Restaurants and Canteens (food from vendors, cafe and take-away, food from restaurants and hotels)

Spices and Condiments (salt, tomato sauce, chilli sauce, other spices, baking powder, yeast, mustard, garlic, vinegar, pickles)

3.4.2 Aggregation of Non-Food Expenditure

Education (tuition fees, books & other materials, uniform, boarding fees, transport, contribution for school building or maintenance, extra tuition fees, examination fees, PTA & other related fees, pocket money & shopping, other expenses)

Health expenditures only included medication (anti-worms, liver salts and other anti-acids, cold tablets/cough syrup, balms, vaccines, contraceptives, multivitamin/other medicine, fever/ pain killers, anti-malaria medicine, cod/halibut liver oil, ARVs, epileptic drugs, insulin, hypertension, antidepressant drugs, asthmatic drugs)

Tobacco (cigarettes, tobacco, cigars, snuff, miraa-khat)

Water (drinking, bathing, cooking, washing, water purification systems)

Fuel (non- transport) (electricity, other lighting, battery, firewood, animal waste/biomass residue, straw or stalk/biomass residue, charcoal, kerosene/ paraffin, Gas/LPG)

Household Operation and Personal Care (soap, detergents, dish washing paste/liquid, insecticide, disinfectant, air freshener, floor polish, broom, mop/duster, shoe polish /cream, match box, candles, laundry), hair cut, sanitary pads, cotton wool, baby oil/, baby powder, hair oil, perfume, massage, hair dressing, razor/blade, combs, toothbrush, toilet soap, toilet paper, toothpaste, after shave lotion, body lotion, hair cream, shampoo/conditioner, deodorant, tissue paper/handkerchiefs, petroleum jelly, nail polish, lipstick, eye make-ups, feeding bottle, and potty, jewellery, belts, watches, purses/

handbags, wallets, suitcase/briefcase, travel bags, umbrellas, personal torches, clock, smoke pipes, lighters)

Transport (petrol, diesel, ferry/road tolls, taxi fare, parking charges, city bus fares, country bus fare, matatu fares, boda boda fares, train fares, local flights, spark plugs/points, clutch plate, brake lining, brake pads, fuel filter, oil filter, other car parts, car alarm, car insurance, driving lessons, international flights)

Communication (local calls, trunk calls, cell phone airtime, internet costs, telephone installation, cellular handset, fixed line telephone costs)

Refuse costs (refuse collection, sewage collection, toilet emptying services)

Domestic services (domestic workers)

Recreation (video cassette hire, films purchase/ developing, cinema entry fees, stadium entrance fees, national /game park entry fees, traditional dances, disco/night club entry fees, gambling/ lottery tickets, books, newspapers, magazines, blank cassette/CD/DVD, records musical, photography service, pre-recorded cassettes, toys and games, hotel accommodation, tour packages, club membership fees, sports/games charges, other recreation/entertainment)

Clothing and footwear (men's clothing, women's clothing, children's clothing, infant's clothing, dress /clothing material, men's footwear, women's footwear, boy's footwear, girl's footwear)

Furnishings (glassware/tableware and utensils, door mats, curtains and accessories, bed covers, bed sheets, blankets, pillows, mattress, towels, table cloth/mats, mosquito net, pillow cases)

Rent: actual rent or imputed rent based on characteristics of the housing structure, tenure status, number of habitable rooms, water and sanitation (main source of water, the main toilet facilities, garbage disposal), cooking and lighting fuel.

Annex Table 3.1a: **Mean Monthly Food and Non-Food Consumption per Adult equivalent (Kshs)**

Region	Kenya	Rural	Central	Coast	North Eastern	Eastern	Nyanza	Rift Valley	Western	Urban	Nairobi	Mombasa	Kisumu	Nakuru	Other urban
Food	**1,754**	**1,453**	1,696	1,179	1,425	1,204	1,476	1,474	1,300	**2,642**	3,010	2,285	2,172	2,302	2,436
Cereals	**359**	**360**	342	381	414	352	363	347	324	**355**	368	307	334	380	354
Bread	**72**	**43**	63	44	37	0	47	41	34	**156**	194	131	121	138	130
Tubers	**106**	**108**	170	43	118	21	110	72	137	**99**	107	73	67	97	102
Poultry	**38**	**33**	29	40	25	1	56	14	61	**53**	68	30	55	14	49
Meat	**158**	**110**	128	45	96	110	82	151	87	**301**	360	224	188	250	275
Fish	**39**	**28**	5	52	5	0	91	11	41	**72**	81	84	115	59	58
Milk, Eggs	**196**	**163**	207	79	127	204	128	224	113	**291**	345	241	229	278	258
Oils	**71**	**62**	77	43	48	135	69	61	50	**97**	100	98	99	72	95
Fruits	**89**	**68**	106	64	68	1	80	47	62	**150**	180	128	142	123	128
Vegetables	**160**	**130**	156	113	101	14	162	128	134	**249**	295	243	205	262	207
Pulses	**103**	**108**	144	84	172	92	78	89	67	**85**	86	59	89	68	93
Sugar	**111**	**106**	106	84	82	228	102	122	98	**125**	124	95	147	145	132
Non-alcoholic beverages	**68**	**47**	67	27	41	28	37	54	41	**130**	147	107	119	56	127
Alcohol	**58**	**37**	34	35	43	-	26	53	20	**120**	107	126	58	244	126
Restaurants	**113**	**37**	39	31	40	8	34	50	22	**335**	426	311	181	101	282
Spices and condiments	**15**	**12**	21	13	10	10	8	11	10	**22**	24	28	23	15	19
Non-food	**1,678**	**878**	**1,263**	**552**	**806**	**374**	**786**	**984**	**665**	**4,032**	**5,696**	**3,218**	**3,539**	**1,708**	**2,838**
Tobacco	**28**	**24**	23	37	59	31	8	14	9	**40**	33	65	3	60	42
Water	**33**	**17**	27	40	23	21	9	11	4	**82**	89	108	133	61	66
Fuels	**177**	**113**	186	74	90	56	104	123	73	**366**	433	365	315	234	316
Refuse, Sewage	**2**	**0**	0	-	0	-	-	0	0	**6**	12	1	8	1	1
Clothing & Footwear	**304**	**232**	274	131	193	140	246	283	181	**517**	580	493	587	221	481
Household, Personal	**191**	**117**	165	86	103	46	122	120	97	**407**	530	331	399	238	321
Furnishings & Maintenance	**23**	**17**	24	11	15	7	16	15	19	**40**	38	40	66	28	41
Domestic Services	**45**	**22**	32	11	25	-	10	28	18	**112**	215	26	93	19	43
Transportation	**232**	**108**	189	69	82	20	80	128	76	**596**	962	348	517	170	344
Communication	**99**	**39**	62	16	34	2	30	52	24	**275**	402	235	269	52	181
Recreation	**56**	**16**	26	5	8	0	18	18	13	**174**	288	36	79	60	115
House rent	**238**	-	-	-	-	-	-	-	-	**937**	1,431	901	558	393	530
Education	**224**	**152**	215	63	155	45	119	171	135	**435**	625	244	487	147	319
Health	**27**	**22**	39	9	19	6	24	19	17	**43**	57	24	25	23	36
Total	**3,432**	**2,331**	**2,959**	**1,731**	**2,231**	**1,578**	**2,262**	**2,457**	**1,965**	**6,673**	**8,706**	**5,503**	**5,711**	**4,010**	**5,274**

Annex Table 3.1b: **Mean Monthly Food and Non-Food Consumption per Adult equivalent (%)**

Region	Kenya	Rural	Central	Coast	North Eastern	Eastern	Nyanza	Rift Valley	Western	Urban	Nairobi	Mombasa	Kisumu	Nakuru	Other urban
Food	**51.1**	**62.3**	57.3	68.1	63.9	76.3	65.2	60.0	66.2	**39.6**	34.6	41.5	38.0	57.4	46.2
Cereals	**10.5**	**15.5**	11.5	22.0	18.5	22.3	16.1	14.1	16.5	**5.3**	4.2	5.6	5.8	9.5	6.7
Bread	**2.1**	**1.8**	2.1	2.5	1.7	0.0	2.1	1.7	1.7	**2.3**	2.2	2.4	2.1	3.4	2.5
Tubers	**3.1**	**4.7**	5.8	2.5	5.3	1.3	4.9	2.9	7.0	**1.5**	1.2	1.3	1.2	2.4	1.9
Poultry	**1.1**	**1.4**	1.0	2.3	1.1	0.1	2.5	0.6	3.1	**0.8**	0.8	0.5	1.0	0.4	0.9
Meat	**4.6**	**4.7**	4.3	2.6	4.3	7.0	3.6	6.2	4.5	**4.5**	4.1	4.1	3.3	6.2	5.2
Fish	**1.1**	**1.2**	0.2	3.0	0.2	0.0	4.0	0.5	2.1	**1.1**	0.9	1.5	2.0	1.5	1.1
Milk, Eggs	**5.7**	**7.0**	7.0	4.6	5.7	12.9	5.7	9.1	5.7	**4.4**	4.0	4.4	4.0	6.9	4.9
Oils	**2.1**	**2.7**	2.6	2.5	2.1	8.5	3.0	2.5	2.5	**1.5**	1.2	1.8	1.7	1.8	1.8
Fruits	**2.6**	**2.9**	3.6	3.7	3.0	0.1	3.5	1.9	3.1	**2.2**	2.1	2.3	2.5	3.1	2.4
Vegetables	**4.7**	**5.6**	5.3	6.5	4.5	0.9	7.2	5.2	6.8	**3.7**	3.4	4.4	3.6	6.5	3.9
Pulses	**3.0**	**4.7**	4.9	4.8	7.7	5.8	3.5	3.6	3.4	**1.3**	1.0	1.1	1.6	1.7	1.8
Sugar	**3.2**	**4.6**	3.6	4.9	3.7	14.5	4.5	5.0	5.0	**1.9**	1.4	1.7	2.6	3.6	2.5
Non-alcoholic beverages	**2.0**	**2.0**	2.3	1.6	1.8	1.7	1.6	2.2	2.1	**2.0**	1.7	1.9	2.1	1.4	2.4
Alcohol	**1.7**	**1.6**	1.2	2.0	1.9	0.0	1.2	2.1	1.0	**1.8**	1.2	2.3	1.0	6.1	2.4
Restaurants	**3.3**	**1.6**	1.3	1.8	1.8	0.5	1.5	2.0	1.1	**5.0**	4.9	5.7	3.2	2.5	5.3
Spices and condiments	**0.4**	**0.5**	0.7	0.8	0.4	0.7	0.4	0.4	0.5	**0.3**	0.3	0.5	0.4	0.4	0.4
Non-food	**47.7**	**38.4**	47.4	37.2	40.5	26.9	39.7	32.2	38.8	**58.8**	65.2	57.9	62.1	42.4	50.0
Tobacco	**0.8**	**0.9**	0.7	1.9	2.4	1.9	0.3	0.4	0.4	**0.6**	0.4	1.2	0.0	1.5	0.7
Water	**0.9**	**0.6**	0.8	2.1	0.9	1.3	0.4	0.3	0.2	**1.2**	1.0	2.0	2.3	1.5	1.2
Fuels	**4.7**	**4.1**	5.8	3.9	3.7	3.4	4.3	3.4	3.4	**5.3**	4.9	6.7	5.5	5.8	5.6
Refuse, Sewage	**0.0**	**0.0**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.1**	0.1	0.0	0.1	0.0	0.0
Clothing & Footwear	**8.0**	**8.3**	8.5	6.9	8.0	8.5	10.1	7.8	8.5	**7.6**	6.6	9.0	10.2	5.4	8.5
Household, Personal	**5.0**	**4.2**	5.1	4.6	4.3	2.8	5.0	3.3	4.5	**5.9**	6.1	6.0	7.0	5.9	5.7
Furnishings & Maintenance	**0.6**	**0.6**	0.7	0.6	0.6	0.4	0.7	0.4	0.9	**0.6**	0.4	0.7	1.1	0.7	0.7
Domestic Services	**1.2**	**0.8**	1.0	0.6	1.0	0.0	0.4	0.8	0.8	**1.6**	2.5	0.5	1.6	0.5	0.8
Transportation	**6.1**	**3.9**	5.9	3.7	3.4	1.2	3.3	3.6	3.5	**8.7**	11.0	6.4	9.0	4.2	6.1
Communication	**2.6**	**1.4**	1.9	0.8	1.4	0.1	1.2	1.4	1.1	**4.0**	4.6	4.3	4.7	1.3	3.2
Recreation	**1.5**	**0.6**	0.8	0.3	0.3	0.0	0.7	0.5	0.6	**2.5**	3.3	0.7	1.4	1.5	2.0
House rent	**9.9**	**6.7**	8.3	8.0	7.1	4.1	7.5	5.0	7.7	**13.7**	16.5	15.6	10.1	10.1	9.3
Education	**5.9**	**5.5**	6.7	3.4	6.5	2.7	4.9	4.8	6.3	**6.3**	7.1	4.5	8.5	3.6	5.6
Health	**0.7**	**0.8**	1.2	0.5	0.8	0.4	1.0	0.5	0.8	**0.6**	0.7	0.4	0.4	0.6	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	**100.0**	100.0	100.0	100.0	100.0	100.0

Chapter 4

MAIN WELFARE FINDINGS

4.1 Background

This chapter presents the main findings on welfare and poverty levels, using the various poverty lines discussed in Chapter 2. The rural and urban food poverty lines were set by costing the respective bundles of basic food items which attain the minimum recommended daily allowance of 2,250 kilocalories per day, taking into account the food expenditure patterns in rural and urban areas. Households whose adult equivalent food consumption expenditure per month fell below Kshs 988 in rural and Kshs 1,474 in urban were considered to be food poor, while households whose overall consumption expenditure fell below Kshs 1,562 in rural and Kshs 2,913 in urban were considered to be overall poor. In addition, households were deemed to be hardcore poor if they could not afford to meet their basic food requirements with their total expenditure (food and non-food).

4.2 Summary of Poverty Estimates

This section presents the summary of poverty estimates at national, rural and urban. Table 4.1 presents poverty estimates as measured using the headcount ratio (FGT0) for adult equivalent, households and individuals. Annex Table 4.1 presents the associated standard errors for 2005/6 poverty point estimates based on adult equivalents only. The discussion that follows focuses on the headcount poverty estimates (adult equivalent units). This is because the poverty lines are pegged on adult equivalent units.

Food Poverty: The national incidence of food poverty declined marginally from 48.3 percent in 1997 to 45.8 percent in 2005/6. Put differently, just under half of Kenyans reported food consumption levels that were insufficient to meet their basic daily energy requirements (2250 kilocalories per adult equivalent per day). In the rural areas, food poverty declined from 50.7 percent to 47.2 percent during the same period, while urban food poverty increased from 38.3 percent in 1997 to 40.5 percent in 2005/6 implying that the national decline in food poverty incidence is attributable to the decline that occurred in rural areas.

Overall Poverty: The results show that national absolute poverty declined from 52.3 percent in 1997 to 45.9 percent in 2005/6. In other words, 46 percent of Kenyans have levels of consumption that are insufficient to meet basic food and non-food needs. In rural areas, overall poverty declined from 52.9 percent in 1997 to 49.1 percent, while urban overall poverty declined from 49.2 percent in 1997 to 33.7 percent in 2005/6.

Hardcore Poverty: The percentage of hardcore poor in Kenya declined from 29.6 percent in 1997 to 19.1 percent in 2005/6. In other words, one in five individuals (adult equivalent adjusted) in Kenya have consumption levels that would be inadequate to meet basic food needs alone, even if the individual were able to forego all non-food consumption in order to consume food. While the percentage of hardcore poor has substantially declined in rural areas from 34.8 percent in 1997 to 21.9 percent in 2005/6, urban hardcore poverty increased marginally from 7.6 percent in 1997 to 8.3 percent in 2005/6.

Table 4.1: **Summary of Poverty Measures**

Region	Poverty Measures	WMS III -1997 Pα = 0 Adulteq (%)	WMS III -1997 Pα = 0 Households (%)	WMS III -1997 Pα = 0 Individuals (%)	KIHBS-2005/06 Pα = 0 Adulteq (%)	KIHBS-2005/06 Pα = 0 Households (%)	KIHBS-2005/06 Pα = 0 Individuals (%)
Rural	Food	50.7	43.4	50.6	47.2	38.5	47.2
	Absolute	52.9	46.4	53.1	49.1	42.0	49.7
	Hardcore	34.8	30.1	34.9	21.9	18.0	22.3
Urban	Food	38.3	32.4	38.4	40.5	31.2	40.4
	Absolute	49.2	43.5	50.1	33.7	27.4	34.4
	Hardcore	7.6	5.9	7.7	8.3	5.9	8.3
National	Food	48.3	41.6	48.6	45.8	36.7	45.8
	Absolute	52.3	45.8	52.6	45.9	38.3	46.6
	Hardcore	29.6	26.2	30.5	19.1	14.9	19.5

4.3 Poverty in Absolute Numbers

Table 4.2 presents the distribution of poverty in absolute numbers from the 1997 WMS-III and KIHBS 2005/6. The projected population for 1997 was 27 million while in 2005/6 the population was projected at 35.5 million individuals. Based on the 1997 projected population, the share of rural and urban populations were 0.81 and 0.19, respectively, while in 2005/6 these had changed to 0.79 and 0.21, respectively.

Table 4.2: **Poverty in Absolute Numbers ('000s)**

Region	Poverty Measure	1997 Adult Equivalents below Poverty line	1997 Households below Poverty line	1997 Individuals below Poverty line	KIHBS-2005/06 Adult Equivalents below Poverty line	KIHBS-2005/06 Households below Poverty line	KIHBS-2005/06 Individuals below Poverty line
Rural	Food	8,524	1,914	10,867	10,552	2,004	13,375
	Absolute	8,908	2,045	11,400	10,978	2,183	14,100
	Hardcore	5,860	1,328	7,494	4,890	934	6,314
Urban	Food	1,245	367	1,527	2,362	555	2,889
	Absolute	1,600	1,917	1,994	1,965	488	2,463
	Hardcore	246	113	306	484	105	597
National	**Absolute**	**10,507**	**2,537**	**13,394**	**12,944**	**2,671**	**16,563**

Compared to urban areas, rural areas have a much larger population that is poor. In terms of absolute numbers, 85 percent of all poor people (16.6 million) live in rural areas. The share of rural population to total population is 79 percent, implying that the contribution of rural areas to poverty is 5 percent over and above its share of population. Thus, poverty in Kenya is largely a rural phenomenon. Similarly, the hardcore poor in rural and urban are estimated at 6.91 million people. In terms of share, rural areas account disproportionately for 91.3 percent of the total hardcore poor. Annex Tables 4.1a, 4.2a and 4.3a present measures of food, overall and hardcore poverty by province and district.

4.4 Interpreting Poverty Incidence versus the Number of Poor

The statistics on **poverty incidence** and statistics on **the number of poor people** are frequently misinterpreted and occasionally used interchangeably. Because of population growth, a country can simultaneously experience a reduction in the incidence of poverty but an increase in the absolute number of poor people.

In 1997, the total population was projected at 27 million, while the poverty incidence (individuals) was estimated at 52.6 percent, implying that the number of poor individuals was 14.2 million. Over a nine year period, the population grew to an estimated 35.5 million in 2005/6. Thus, the population increased by an additional 8.5 million people. National poverty incidence (individuals) was estimated at 46.6 percent in 2005/6, implying that the number of poor individuals was 16.6 million. Thus, while the population increased by an additional 8.5 million people, the number of poor individuals increased by only 2.4 million. Finally, note that given this growth in the population, if the poverty incidence had not decreased from 52.6 percent to 46.6 percent, then the number of poor individuals would have increased by 4.4 million.

4.5 Distribution of Rural Poverty

4.5.1 Rural Food Poverty

The rural food poverty line was estimated at Ksh 988 per month per adult equivalent. The main measures of food poverty used are the **'headcount index'**, which measures the prevalence of poverty and is insensitive to how far below the poverty line each poor unit is; the **'income-gap ratio'**, the average of the poverty gaps expressed as a fraction of the poverty line; and the **'severity of poverty'** or coefficient of variation of expenditure distribution of the poor. The sum of the poverty gaps is the total income required to eliminate poverty. The income-gap ratio is insensitive to income distribution among the poor.

Table 4.3: **Rural Food Poverty by Region 2005/06 (%)**

Region	Headcount			Poverty Gap	Severity of Poverty		Contribution to Poverty		
	Pα = 0 Adulteq	Pα = 0 Households	Pα = 0 Individuals	Pα = 1 Adulteq	Pα = 2 Adulteq	% of Population	Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Total Rural	**47.2**	**38.5**	**47.2**	**16.2**	**7.9**	**100.0**	**100.0**	**100.0**	**100.0**
Central	31.4	23.9	31.0	9.3	4.1	14.5	9.6	8.3	7.5
Coast	63.5	52.0	63.2	21.9	10.5	7.1	9.6	9.6	9.5
Eastern	45.2	38.1	45.2	15.8	7.6	19.6	18.8	19.1	18.9
North Eastern	66.0	57.7	65.3	24.9	12.3	3.1	4.3	4.7	4.8
Nyanza	46.0	39.4	45.6	15.7	7.4	15.2	14.8	14.6	14.3
Rift Valley	49.5	39.9	49.0	17.5	9.1	26.7	28.0	28.8	30.8
Western	51.1	43.2	51.4	17.4	8.0	13.8	15.0	14.8	14.2

Table 4.3 shows the prevalence, depth and severity of food poverty for the rural provinces using food expenditure per adult equivalent. The results show that the overall incidence of rural food poverty was 47.2 percent with the lowest in Central (31.4%), followed by Eastern (45.2%) and Nyanza provinces (46.0%), while the highest were North Eastern (66.0%) and Coast provinces (63.5%).

Nationally, the poverty gap ratio was 16.2 percent, which means that the total resources required to eliminate food poverty is about Ksh 3.58 billion per month (the product of the poverty gap ratio, the total rural population in adult equivalents, and the food poverty line). The total population rather than the population of the poor is used since the measures of poverty are adjusted to the total population.

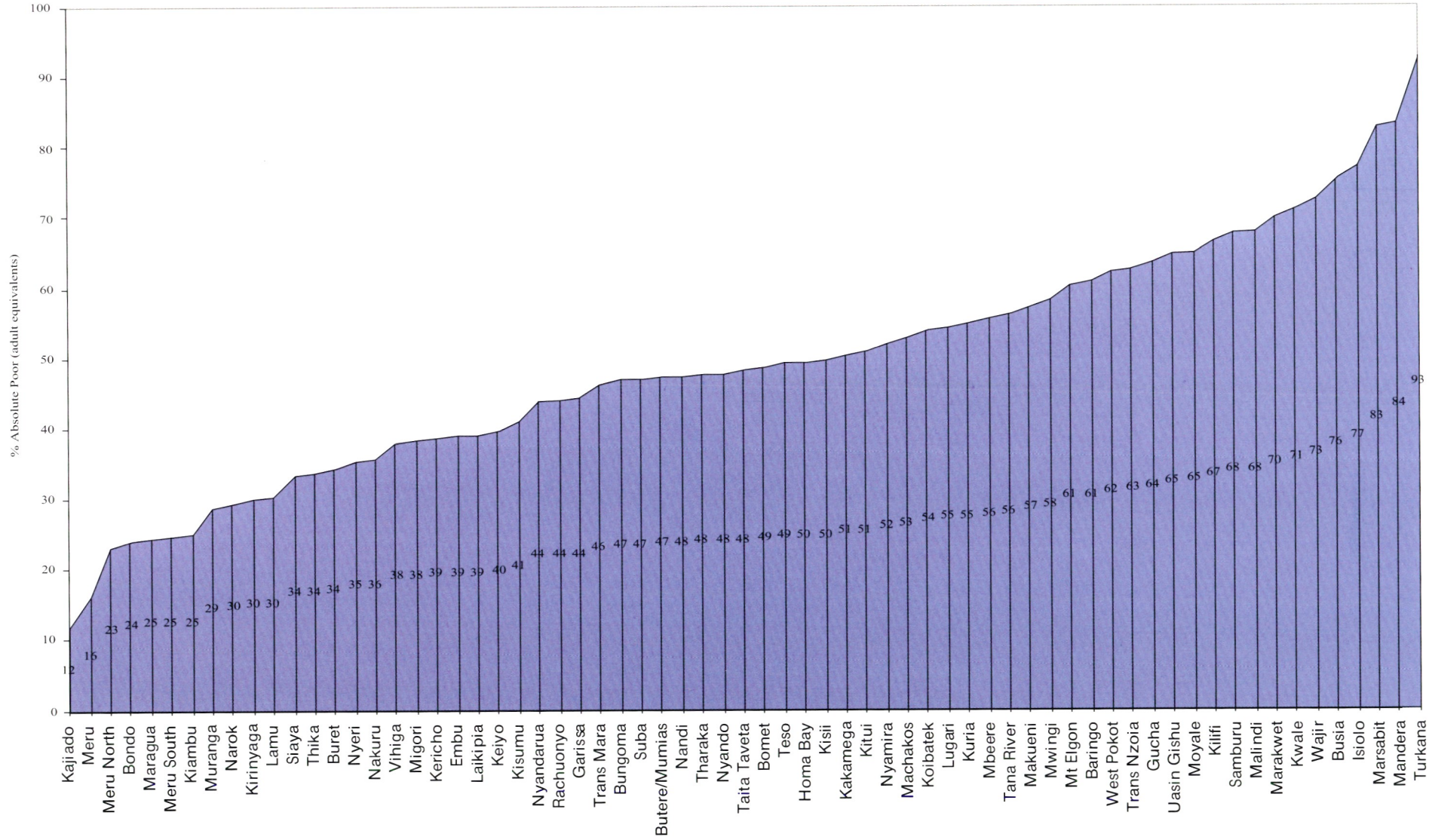
The last three columns in Table 4.3 show each region's contribution to the national poverty measures. For example, while Central province's share in population expressed in adult equivalents was 14.5 percent, its national share in the population of the people below the food poverty line was 9.6 percent and its share in the depth of poverty (income-gap ratio) was 8.3 percent. In general, if a region's contribution to the particular measure of poverty is larger than its population share, it implies that its poverty index is higher than the national mean.

The corresponding Annex Table 4.1a shows the food poverty measures by province and district. In Central province, the head count ratio was 31.4 percent roughly half-way between the lowest (Kiambu, 25.1%) and the highest (Nyeri, 35.4%), excluding Nyandarua (44.2%) where the poverty incidence was not typical of the province. In Coast province, all the districts except Lamu (30.5%) lie in the range 48.3 percent (Taita Taveta) and 71.5 percent (Kwale).

The incidence of poverty in Eastern province varied greatly by district, with the highest in the upper Eastern province, followed by lower Eastern province and lowest in middle Eastern province. The same heterogeneity was observed in Rift Valley province, with the highest incidence of food poverty observed in North Rift districts of Turkana (92.6%) and Marakwet (70.3%). Nyanza and Western provinces also showed high diversity in incidence of food poverty, although the differences in climatic conditions and production systems are not as diverse as in Eastern and Rift Valley provinces.

Chart 4.1 shows the mountain of poverty, which is a graphical representation of the incidence of poverty where districts are ranked by their incidence of food poverty from the lowest to the highest. The lower plains of the poverty mountain start in Kajiado (with its high share of meat products in its diet) at 10.0 points above 'sea level', through Meru, Bondo, and some districts in Central province. All the districts of Central province lie below 44.2 points above 'sea level'. Between the lowest point at Kajiado (10.0) to the peak at Turkana (93), the mid-point of 51 points lies between Kitui and Nyamira. The ascent towards the top is rather sharp, as a quarter of the climb (72.0 to 92.6 points) has only six stops at Wajir (72.6), Busia (75.6), Isiolo (77.4), Marsabit (82.8), Mandera (83.5) and Turkana (92.6). On the higher end of the mountain, more than three-quarters of the population of Busia, Isiolo, Marsabit, Mandera and Turkana are food poor.

Chart 4.1: **The Mountain of Food Poverty – Rural Districts**



4.5.2 *Rural Absolute Poverty*

The overall rural poverty line was estimated at Ksh 1,562 per adult equivalent per month, which includes food and non-food but excludes house rent, and expenditures on durables and ceremonies. The proportion of the rural population below the poverty line was 49.1 percent, with the lowest in Central province (30.4%), followed by Nyanza (47.6%), Rift Valley (49.0%), Eastern (50.9%), Western (52.2%), Coast (69.7%) and North Eastern province (73.9%) as shown in Table 4.4. As in the case of rural food poverty, the lowest ratio was recorded in Central and the highest in Coast and North Eastern provinces. Central and Nyanza provinces lie below the rural national head count ratio, Rift Valley province ratio is the same as the national mean, while the rest of the provinces lie above it.

Table 4.4: **Rural Overall Poverty by 2005/06 (%)**

Region	Headcount Gap			Poverty Poverty	Severity of		Contribution to Poverty		
	Pα = 0 Adulteq	Pα = 0 Households	Pα = 0 Individuals	Pα = 1 Adulteq	Pα = 2 Adulteq	% of Population	Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Total Rural	**49.1**	**42.0**	**49.7**	**17.5**	**8.8**	**100.0**	**100.0**	**100.0**	**100.0**
Central	30.4	24.3	30.7	9.5	4.5	14.5	9.0	7.9	7.4
Coast	69.7	59.5	70.1	26.6	13.2	7.1	10.1	10.8	10.7
Eastern	50.9	45.1	51.5	17.8	8.7	19.6	20.3	19.9	19.5
North Eastern	73.9	66.1	73.5	32.9	17.8	3.1	4.6	5.8	6.2
Nyanza	47.6	42.2	47.5	16.8	8.0	15.2	14.7	14.5	13.8
Rift Valley	49.0	41.5	49.3	17.5	9.4	26.7	26.7	26.7	28.7
Western	52.2	47.0	53.1	18.3	8.6	13.8	14.7	14.4	13.6

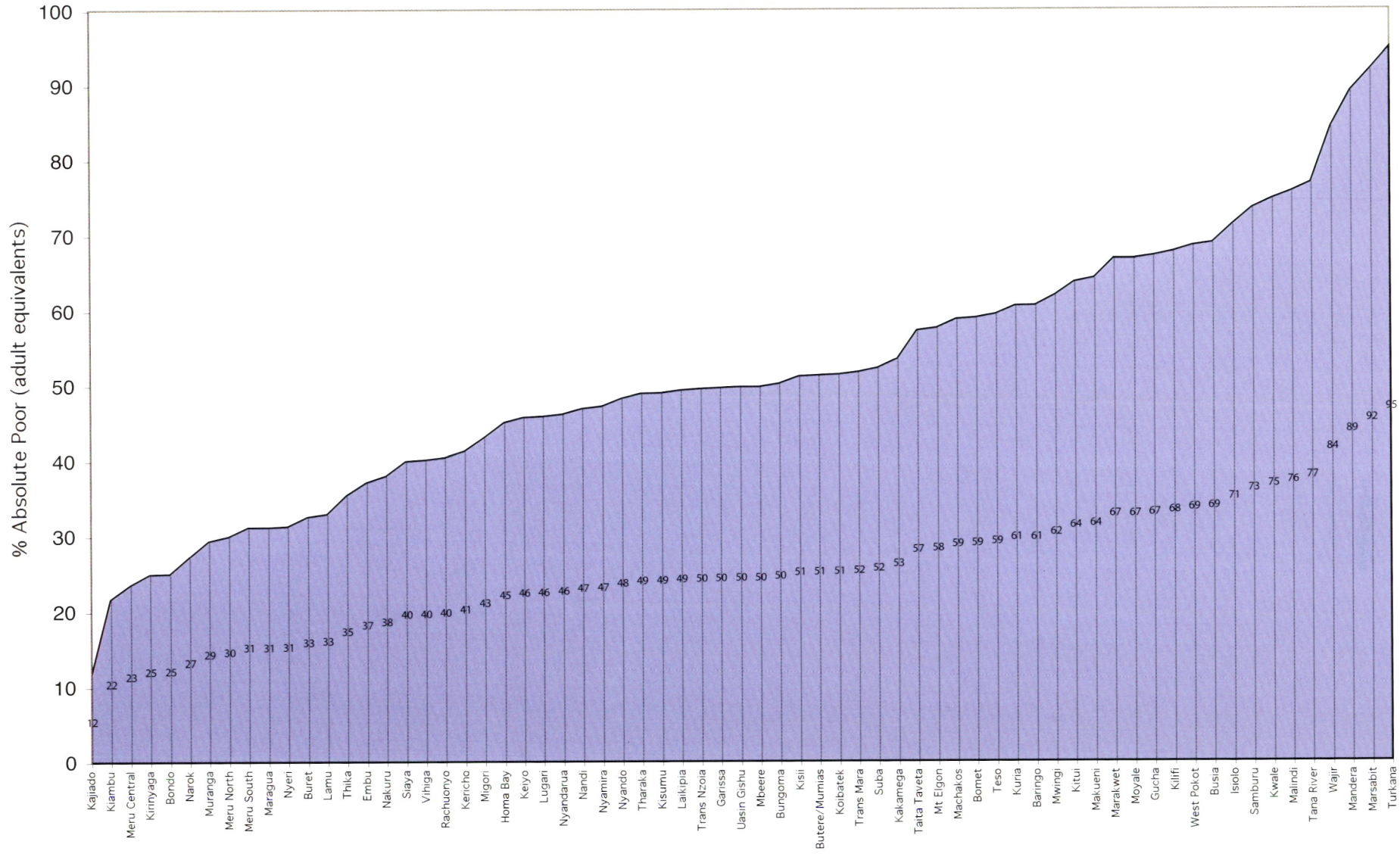
The national poverty gap (the depth of poverty adjusted to the total population in adult equivalents) was estimated at 17.5 percent of the overall poverty line. This implies that the total resources required to eliminate absolute poverty with perfect targeting is about Ksh 6.1 billion, or the product of the poverty gap, the overall poverty line and the rural national population expressed in adult equivalents.

Table 4.4 also shows the distribution of the population in adult equivalents and the contribution of each regional domain in the poverty measure. Where the region's contribution of the poverty measure is higher than the region's contribution to total population, the region has a higher poverty index than the national mean. For example, Central province's share of population is higher than its contribution to the three measures of poverty, while the contributions of Coast and North Eastern provinces to the three measures of poverty are all above their respective population shares because Coast and North Eastern provinces are disproportionately represented among the poor.

Within the provinces, the incidence of absolute poverty in Central province was between 21.6 percent (Kiambu) and Nyandarua (46.1%). The incidence of poverty in Coast province was between 57.2 percent (Taita Taveta) and Tana River (76.9%), other than for outlier case of Lamu district with 32.9%. Within Eastern and Rift Valley provinces, there were wide disparities by district due to the large internal variations in agro-ecological zones and production systems. The poverty indices therefore combine the effects of regional variations and income inequality among households living in the same communities, although data has not been analyzed to estimate the relative contribution of each factor.

The mountain of absolute poverty starts at 12 points above 'sea level' (with height normalized to 100) in Kajiado, to a gentle slope in the middle but with a steep slope over the arid and semi-arid districts before reaching its peak at Turkana at 94.9 points. The halfway point (53.2) lies between Suba and Kakamega. By the time the mountaineer is three quarters uphill at 74.0 points, he will be somewhere between Samburu (73.5 points) and Kwale (74.7 points). Just as in the case of the mountain of food poverty, the last quarter of the mountain expressed in height above 'sea level' is arid and rather steep.

Chart 4.2: **The Mountain of Absolute Poverty – Rural Districts**



4.5.3 Rural Hardcore Poverty

A **household is** defined as hard core poor if it is classified as poor even if it spent all its expenditure on food, i.e. the classification uses its food and non-food expenditure (excluding house rent, expenses on durables and rites of passage) on the food poverty line (estimated at Ksh 988 per adult equivalent per month). Ideally, the hard core poverty line should include some allowance for cooking fuel (to prepare the food) and house rent (since the food has to be cooked and preserved with an enclosure). The hard core calibrator is rather austere and far much below the mean rural food expenditure of Ksh 1,700.3 per adult equivalent per month.

The incidence of rural hard core poverty was estimated at 21.9 percent, with the lowest in Central province (11.4%), followed by Rift Valley (20.6%), Nyanza (21.1%), Eastern (22.5%), Western (23.2%), Coast (35.4%) and North Eastern province (46.3%). In other words, while only one in every ten persons in Central rural is hardcore poor, in North Eastern Rural one in two persons is hardcore poor.

Table 4.5: **Rural Hard Core Poverty 2005/06 (%)**

Region	Headcount			Poverty Gap	Severity of Poverty		Contribution to Poverty		
	Pα = 0 Adulteq	Pα = 0 Households	Pα = 0 Individuals	Pα = 1 Adulteq	Pα = 2 Adulteq	% of Population	Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Total Rural	**21.9**	**18.0**	**22.3**	**6.9**	**3.3**	**100.0**	**100.0**	**100.0**	**100.0**
Central	11.4	7.9	11.6	3.4	1.5	14.5	7.6	7.2	6.7
Coast	35.4	28.7	35.6	10.5	4.5	7.1	11.5	10.7	9.6
Eastern	22.5	19.0	22.8	6.8	3.0	19.6	20.1	19.4	18.1
North Eastern	46.3	39.3	45.8	15.2	6.9	3.1	6.5	6.7	6.4
Nyanza	21.1	18.6	20.9	6.0	2.6	15.2	14.6	13.1	11.9
Rift Valley	20.6	17.4	20.9	7.8	4.5	26.7	25.1	30.2	36.3
Western	23.2	19.7	23.8	6.4	2.6	13.8	14.6	12.7	11.0

The poverty gap was 6.9 percent of the food poverty line, with the lowest in Central (3.4%) and the highest in Coast (10.5%) and North Eastern province (15.2%). The Central province's contribution to the three measures of poverty were lower than in its share in total population in adult equivalents, while those of Coast and North Eastern provinces were higher than their contributions to the total population, because Coast and North Eastern provinces are disproportionately represented among the poor.

4.6 Distribution of Urban Poverty

4.6.1 Urban Food Poverty

Among urban areas of Kenya, food poverty incidence as measured by the headcount index ranged from about 30 percent to about 50 percent, representing the least poor and the poorest urban area, respectively. Nairobi City, which is also a province, emerges to be the least food poor, while Nakuru Municipality and the city of Mombasa were hardest hit by food poverty among urban areas, as one in two persons in Nakuru and Mombasa had food consumption levels below the minimum food energy requirements.

The urban depth of food poverty varies widely from a low of 8.2 percent in Nairobi City to 16.7 percent in "other urban". The poverty gap differential implies that, on average, every poor person who lives in "Other Urban" would require Kshs 527 (in 2005/6) to climb above the urban food poverty line of KSh 1,474 per month per adult equivalent. By contrast, the poor in Nairobi would require Kshs 408.

All the urban areas of Kenya contribute about 17.4 percent to total national food poverty. With an

estimated 2.93 million food poor, 47.8 percent of them are concentrated in 'other urban', while a third (28.8%) are to be found in Nairobi City. Mombasa also contributes a sizeable proportion of food poor, accounting for 15.6 percent. The least contribution to the urban food poverty comes from Nakuru, at 3.8 percent of the total urban food poor.

Box 4.1: **Resource Transfers Required to Eliminate Urban Food Poverty**

The information required to compute the total resource transfers required to eliminate poverty are the poverty line, incidence of poverty, poverty gap ratio and the total population in adult equivalents.

Poverty Parameters	Total Urban	Nairobi	Mombasa	Kisumu	Nakuru	other urban
Urban food poverty line (Kshs.)	1,474	1,474	1,474	1,474	1,474	1,474
Poverty Gap (%)	13.0	8.2	15.7	13.1	15.0	16.7
Total population in adult equivalents	5,833,095	2,305,778	729,947	202,707	181,625	2,413,037
Total resources to eliminate food poverty (Kshs)	1,121,670,295	278,116,558	169,413,869	39,166,931	40,227,851	594,749,980
Poverty incidence (P_ =0)	40.5	29.5	50.4	46.8	49.3	46.8
Population of the poor	2,361,952	681,018	367,625	94,776	89,465	1,129,044
Resources required by each poor person (Kshs per month)	475	408	461	413	450	527

The total resources required to eliminate urban food poverty per month is Kshs 1,121,670,295 (row 4) which is the product of the food poverty line (row 1), the poverty gap ratio (row 2) and the total population in adult equivalents (row 3). The resources required by each poor adult equivalent is Kshs 475 which is row 4 divided by the population of the poor (the product of the incidence of poverty and the total population).

4.6.2 Urban Overall Poverty

In the urban areas, the incidence of overall poverty as measured by the headcount index ranges from about 21 percent to about 50 percent representing the least poor and the poorest urban area, respectively. Urban residents of Nakuru are over 2 times more likely to be poor compared to their counterparts living in Nairobi City.

Compared to the national urban poverty gap of 11.4 percent, the urban depth of poverty varies widely from a low of 6.9 percent in Nairobi City to 18.3 percent in Nakuru. The poverty gap differential implies that, on average, every poor person in Nakuru would require Kshs 1,062 (in 2005/06) to climb above the urban overall poverty line of KSh 2,913 per month per adult equivalent; by contrast, the poor in Nairobi would require Kshs 944.

All the urban areas of Kenya contribute about 15 percent to total national poverty. With an estimated 2.46 million poor people, 51.9 percent of them are concentrated in 'other urban' while about a quarter (25.0%) is in Nairobi City. The least contribution to the urban overall poverty comes from Kisumu city, at 4.5 percent.

Table 4.6: **Distribution of Urban Poverty 2005/06**

	Headcount			Poverty Gap	Severity of Poverty		Contribution to Poverty		
	Pα = 0 Adulteq	Pα = 0 Households	Pα = 0 Individuals	Pα = 1 Adulteq	Pα = 2 Adulteq	% of Population	Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Food									
Total Urban	**40.5**	**31.2**	**40.4**	**13.0**	**6.1**	**100.0**	**100.0**	**100.0**	**100.0**
Nairobi	29.5	24.6	29.7	8.2	3.6	39.5	28.8	24.8	23.5
Mombasa	50.4	37.3	49.3	15.7	6.9	12.5	15.6	15.1	14.2
Kisumu	46.8	38.6	45.9	13.1	4.9	3.5	4.0	3.5	2.8
Nakuru	49.3	40.9	47.8	15.0	6.3	3.1	3.8	3.6	3.3
Other Urban	46.8	34.7	46.8	16.7	8.3	41.4	47.8	53.0	56.2
Absolute									
Total Urban	**33.7**	**27.4**	**34.4**	**11.4**	**5.5**	**100.0**	**100.0**	**100.0**	**100.0**
Nairobi	21.3	19.6	22.0	6.9	3.1	39.5	25.0	24.0	22.8
Mombasa	37.6	28.2	37.6	8.7	2.9	12.5	14.0	9.5	6.7
Kisumu	43.4	38.6	44.4	12.4	4.6	3.5	4.5	3.8	2.9
Nakuru	50.2	41.4	50.1	18.3	8.4	3.1	4.6	5.0	4.8
Other Urban	42.3	33.1	43.1	15.9	8.3	41.4	51.9	57.7	62.8
HardCore									
Total Urban	**8.3**	**5.9**	**8.3**	**2.5**	**1.1**	**100.0**	**100.0**	**100.0**	**100.0**
Nairobi	4.2	4.4	4.2	1.3	0.7	39.5	20.1	20.5	23.2
Mombasa	1.7	1.3	1.8	0.5	0.2	12.5	2.6	2.8	2.3
Kisumu	4.3	4.2	4.8	0.4	0.1	3.5	1.8	0.6	0.3
Nakuru	13.0	5.9	11.4	2.5	0.5	3.1	4.9	3.1	1.5
Other Urban	14.2	8.8	14.3	4.3	2.0	41.4	70.7	72.9	72.7

4.6.3 Urban Hardcore Poverty

In 2005/06, the percentage of hardcore poor in urban areas was estimated at 8.3 percent, that is, about one in ten Kenyans living in urban areas had adult equivalent consumption expenditure levels that were inadequate to meet basic food needs alone, even if the individual were able to forego all non-food consumption.

The incidence of hardcore poverty ranged from a low of 1.7 percent in the City of Mombasa to a high of about 14.2 percent in 'other urban'. Mombasa City in Coast province had the least incidence of hardcore poor, while 'other urban' had the highest incidence of hardcore poverty among urban areas.

The total contribution of all the urban areas to total national hardcore poverty is about 8.7 percent. With an estimated 597 thousand hardcore poor people, slightly over two-thirds (70.7%) of them are concentrated in 'other urban'; while a fifth (19.9%) of them are to be found in Nairobi city. Nakuru urban population accounts for 3.1% in total urban but contributes disproportionately to hardcore poverty (4.9%). The least contribution to the urban hardcore poverty comes from Kisumu city, accounting for only 1.8 percent.

In **summary,** the distribution of urban poverty indicates that there are substantial variations in poverty incidence and depth among urban areas of Kenya, with the category of 'other urban' portraying

the worst indicators of poverty. For instance, it contributes most to hardcore poor; and has the largest poverty gaps for food, overall and hardcore poverty. This category comprises all small towns/urban areas other than the main urban centres reported separately in this report. Since the small towns/urban centres are scattered all over Kenya, the category exhibits a high degree of heterogeneity in welfare. For instance, Wajir and Mandera are lumped together with Nyeri and Machakos, and it expected that the smaller urban centres may have quite different consumption levels and patterns.

4.7 Poverty Over Time and Space

Kenya is fortunate to have conducted several welfare surveys in the last 15 or so years. Table 4.7 presents food and overall poverty measures from WMS-I of 1992, WMS-II of 1994, WMS-III of 1997 and KIHBS of 2005/6. From the Table certain noticeable patterns emerge. Provincially, Central rural has retained its position of having the least prevalence of overall poverty since 1992 with approximately a third of its population being poor, while Coast rural has lost from rank 3 in 1992 to second last (rank 6) in 2005/6.

Table 4.7: **Ranking Overall Rural Poverty over Time and Space (%) (Rank 1=least poor)**

	WMS1		WMSII		WMIII		KIHBS	
Province	**1992**	**Rank**	**1994**	**Rank**	**1997**	**Rank**	**2005/06**	**Rank**
Central	35.8	1	31.9	1	31.4	1	30.4	1
Coast	43.5	3	55.6	5	62.1	5	69.7	6
Eastern	42.2	2	57.8	6	58.6	3	50.9	4
North Eastern	n.a.	n.a.	58.0	7	65.5	7	73.9	7
Nyanza	47.4	4	42.2	2	63.1	6	47.6	2
Rift Valley	51.5	5	42.9	3	50.1	2	49.0	3
Western	54.8	6	53.8	4	58.7	4	52.2	5

Source: **GoK poverty reports (1997, 2000), Mukui (1994)**

The most alarming poverty trends are displayed by Coast rural and North Eastern rural where overall poverty portrays an ever-increasing trend in all surveys. In Coast, rural poverty has increased consistently from 43.5 percent in 1992 to 55.6 percent in 1994 and further to 62.1 percent in 1997 before rising to 69.7 percent in 2005/6. In Nyanza province, except for 1997, overall poverty ranges between 42 percent and 48 percent, while in Western rural, every one in two persons has had a consumption level that is inadequate to meet his/her basic needs (food and non food). In Eastern rural, except for the 1992 WMS I when overall poverty was 42 percent, all later surveys have reported over half of the population being poor. Similarly, in Rift Valley rural, except for 1994 survey when poverty was estimated at 43 percent, one in every two rural persons is poor.

Table 4.8: **Regional Differentials in the Incidence of Food and overall Poverty 1992-2005/06 (%)**

Region	1992 WMS[1]		1994WMS[1]		1997 WMS[1]		2005/06 KIHBS[2]	
	Food Poverty	Overall Poverty	Food Poverty	Overall Poverty	Food Poverty	Overall Poverty	Food Poverty	Overall Poverty
Kenya	**n.a.**	**44.8**	**40.1**	**40.3**	**48.7**	**52.3**	**45.8**	**45.9**
Rural	**71.8**	**47.9**	**47.2**	**46.8**	**50.7**	**52.9**	**47.2**	**49.1**
Central	67.8	35.9	33.0	31.9	29.7	31.4	31.4	30.4
Coast	63.0	43.5	51.0	55.6	59.5	62.1	63.5	69.7
Eastern	62.3	42.2	59.5	57.8	56.8	58.6	45.2	50.9
North Eastern	n.a.	n.a.	56.6	58.0			66.0	73.9
Nyanza	70.7	47.4	41.3	42.2	58.2	63.1	46.0	47.6
Rift Valley	81.0	51.5	45.8	42.9	48.0	50.1	49.5	49.0
Western	78.4	54.8	52.3	53.8	58.6	58.8	51.1	52.2
Urban	**42.6**	**n.a.**	**29.2**	**29.0**	**38.3**	**49.2**	**40.5**	**33.7**
Nairobi	41.9	26.5	27.3	25.9	38.4	50.2	29.5	21.3
Mombasa	44.8	39.2	33.1	33.1	38.6	38.3	50.4	37.6
Kisumu	n.a.	n.a.	44.1	47.8	53.4	63.7	46.8	43.4
Nakuru	n.a.	n.a.	37.2	30.0	26.8	40.6	49.3	50.2
Other urban	n.a.	n.a.	27.1	28.7	37.9	43.5	46.8	42.3

Source: **(1)WMS Series 1992, 1994 and 1997; (2) KIHBS 2005/06**

In urban, one observes up and down movements in the incidence of overall urban poverty, but which seems to oscillate around a third of the total i.e. about one in every three persons is always poor in urban any time a survey is conducted.

In terms of food poverty, the overall trend shows that in 1992 rural food poverty was very high at 72 percent and later declined to oscillate at around 47 percent. In Central rural, the incidence of food poverty has been oscillating at around 30 percent. However, in other provinces, food poverty was very high in all provinces in 1992, but has been fluctuating from 41 percent to 66 percent over the period 1994 to 2005/6. Put differently, the prevalence of food poverty has remained over 40 percent any time a survey is conducted. This confirms that food poverty is an issue of major concern in most rural areas.

However, care should be exercised when comparing WMS series with KIHBS 2005/06, because of the following:

- Questionnaire differences – KIHBS collected more information and on more expenditure items.
- Timing of the surveys – KIHBS was one year long, while WMS were conducted over short periods.
- Poverty analysis – food basket has changed in KIHBS, while WMS series used a common food basket.
- WMS series used mean prices while KIHBS used median prices in determining the food poverty line.
- The derivation of the deflator for the WMS series used one region as a reference, while KIHBS used the national median as the reference.
- The methodologies of deriving the non-food component of the poverty line differ, as explained in Chapter 2.
- The geographical coverage of KIHBS was the entire country, while the WMS-series I and III excluded some northern districts.

4.8 International Comparisons

Kenya's decline in poverty compares well with that of some other African Countries. Box 4.2 compares Kenya with its African contemporaries. While the methodologies used in deriving the poverty numbers for different countries at different times may differ substantially, the important point of the comparison is the trend of poverty incidence.

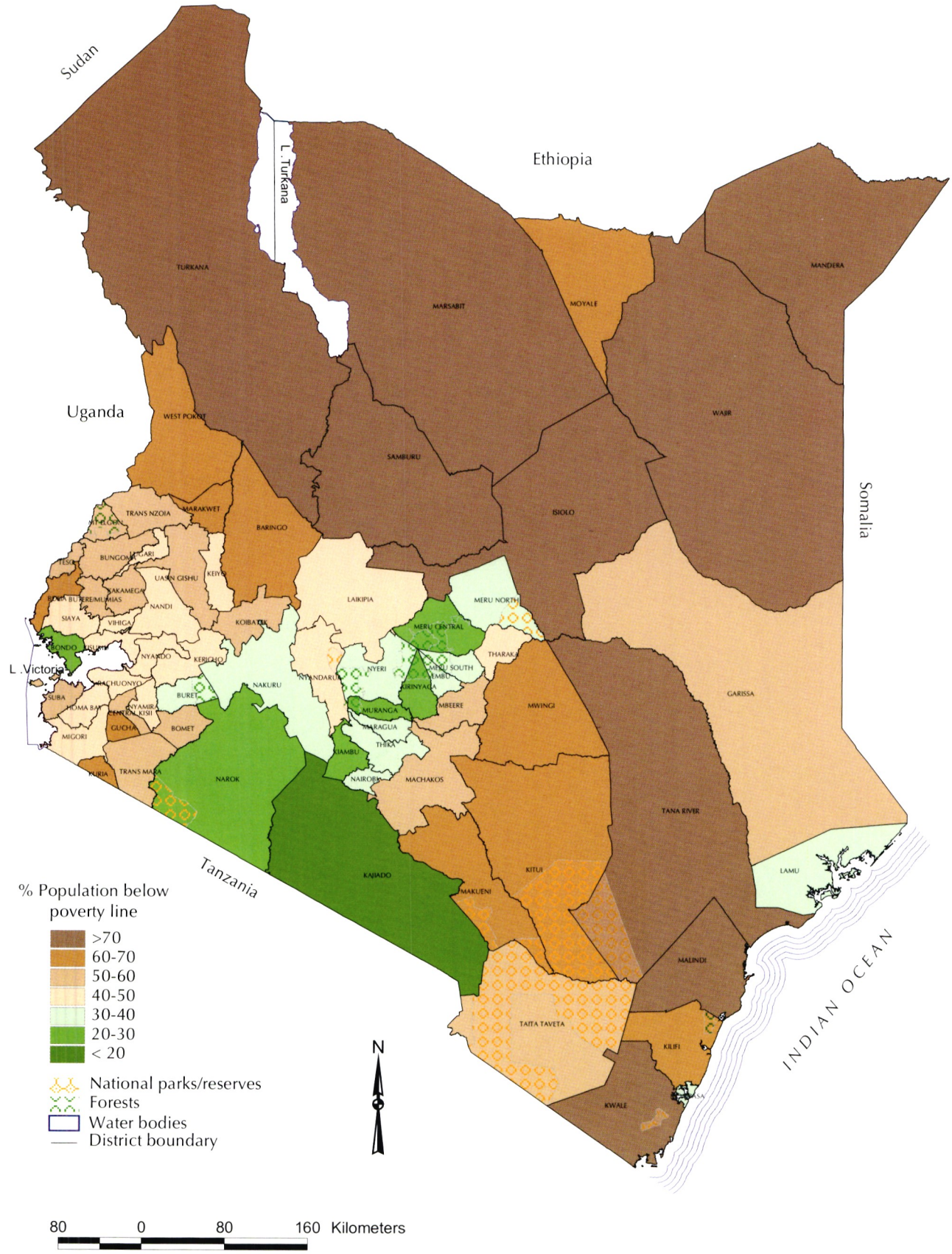
Box 4.2: **International Comparisons**

Region	National poverty line								International poverty line	
	Population below the poverty line				Population below the poverty line				Population below	
	Survey year	Rural %	Urban %	National %	Survey year	Rural %	Urban %	National %	Survey year	$1 a day %
Burundi	1998	61	22	55	2003	52	19	46	2003[a]	27.2
Cameroon	1996	60	41	53	2001	50	22	40	2001[a]	17.1
Ethiopia	1995-96	47	33	46	1999-2000	45	37	44	1999 - 2000[a]	23.0
Kenya	1997	53	49	52	2005-06	50	33	46	1997[a]	22.8
Nigeria	1985	50	32	43	1992-93	36	30	34	2003[a]	70.8
Tanzania	1991	41	31	39	2000-01	39	30	36	2000 - 01[a]	57.8
Uganda	1999-2000	37	10	34	2002-03	42	12	38	na.	na.
Zambia	1996	83	46	69	1998	83	56	73	2002 - 03[a]	75.8

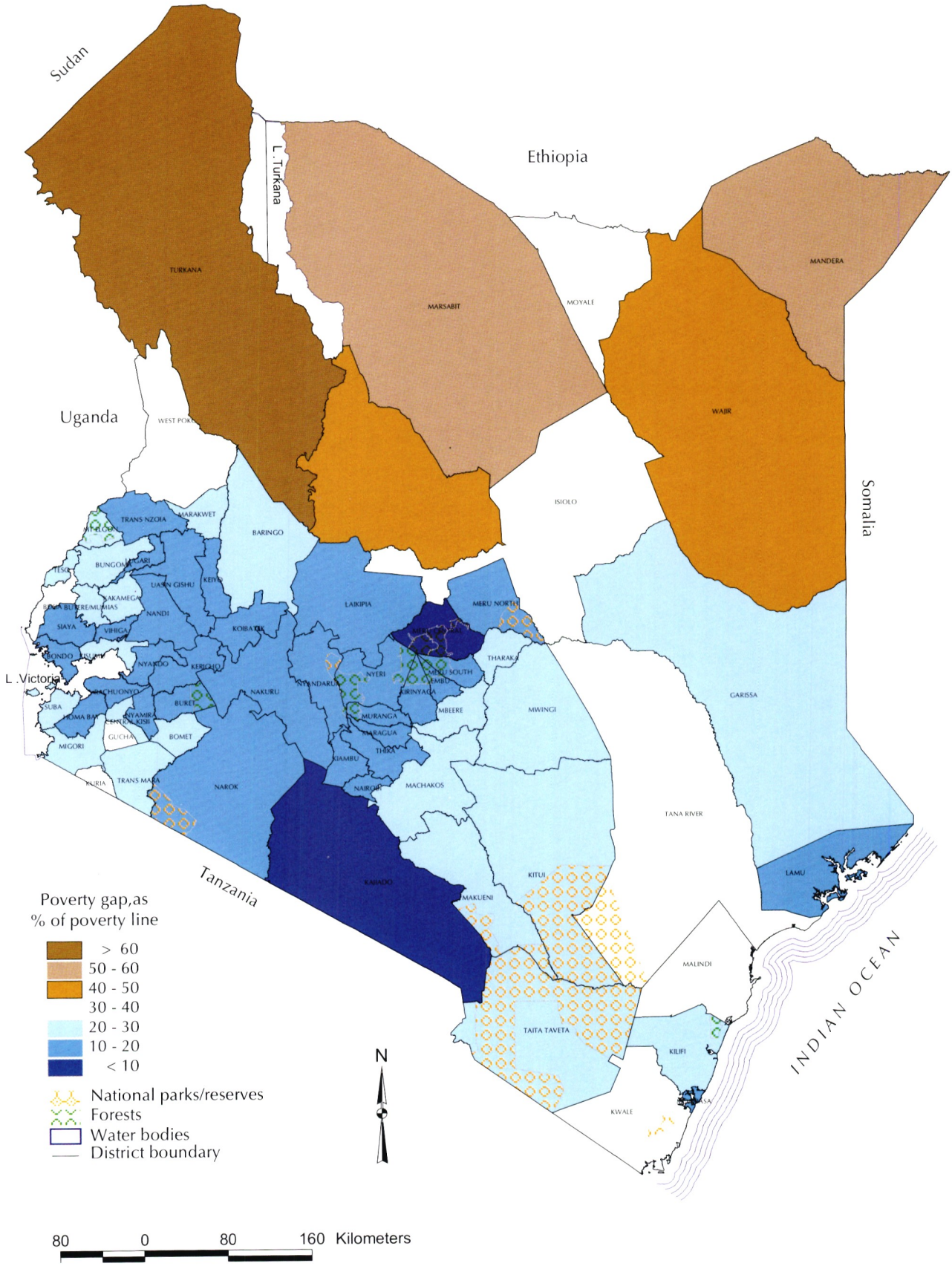
Source: **World Development Indicators, 2006** "a" Expenditure base
Note: **National poverty figures rounded.**

In 1997 WMS III, Kenya's national poverty incidence was estimated at 52.3 percent, which was comparable in magnitude to its African peers – Cameroon (53%), Burundi (55%) and Zambia (69%). Based on the 2005/6 KIHBS, Kenya's national poverty incidence dropped to 46.0 percent and once again this is comparable in absolute terms to Burundi's decline from 55 to 46 percent or that of Cameroon from 53 to 40 percent.

Map 1: **Poverty Map of Kenya – Overall Poverty Incidence by Rural Districts, Nairobi and Mombasa - 2005/06**



Map 2: **Poverty Map of Kenya – Poverty Gap by Rural Districts, Nairobi and Mombasa - 2005/06**



Annex Table 4.1a: **Rural Food Poverty 2005/06 (Food Poverty line=KShs 988)**

	Headcount						Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq (Std errors)		Pα = 0 Households (Std errors)		Pα = 0 Individuals (Std errors)		Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Total Rural	**47.2**	**(1.0)**	**38.5**	**(0.9)**	**47.2**	**(1.0)**	**16.2**	**7.9**	**100.0**	**100.0**	**100.0**	**100.0**
Central	**31.4**	**(2.5)**	**23.9**	**(2.0)**	**31.0**	**(2.5)**	**9.3**	**4.1**	**14.5**	**9.6**	**8.3**	**7.5**
Kiambu	25.1	(4.6)	19.1	(3.7)	24.8	(4.5)	6.2	2.3	3.3	1.8	1.3	1.0
Kirinyaga	30.2	(8.2)	23.3	(7.6)	29.3	(8.0)	7.9	3.1	1.9	1.2	0.9	0.8
Murang'a	28.9	(8.1)	22.8	(5.8)	27.5	(8.0)	8.2	4.1	1.4	0.8	0.7	0.7
Nyandarua	44.2	(6.6)	33.9	(4.7)	44.1	(6.3)	12.9	5.4	1.8	1.7	1.4	1.2
Nyeri	35.4	(7.5)	25.5	(5.5)	35.6	(7.7)	11.7	5.7	2.5	1.9	1.8	1.8
Thika	33.8	(6.4)	24.8	(5.1)	33.4	(6.5)	11.6	5.7	1.9	1.4	1.4	1.4
Maragua	24.7	(4.9)	20.0	(4.1)	24.4	(5.0)	7.8	3.2	1.7	0.9	0.8	0.7
Coast	**63.5**	**(4.1)**	**52.0**	**(4.0)**	**63.2**	**(4.2)**	**21.9**	**10.5**	**7.1**	**9.6**	**9.6**	**9.5**
Kilifi	66.6	(8.8)	50.0	(8.6)	66.1	(9.3)	21.2	10.0	1.8	2.5	2.3	2.3
Kwale	71.5	(8.4)	63.1	(9.1)	71.1	(8.4)	25.4	11.7	2.2	3.3	3.4	3.3
Lamu	30.5	(5.1)	22.8	(4.8)	28.9	(4.8)	6.6	2.1	0.2	0.1	0.1	0.1
Taita Taveta	48.3	(4.0)	40.3	(2.8)	48.0	(3.9)	14.5	6.1	1.0	1.0	0.9	0.8
Tana River	56.3	(9.2)	51.0	(8.3)	56.2	(9.0)	19.3	9.3	0.8	1.0	1.0	1.0
Malindi	68.1	(10.6)	57.3	(11.4)	67.5	(10.9)	27.6	15.2	1.1	1.6	1.9	2.1
Eastern	**45.2**	**(2.1)**	**38.1**	**(1.9)**	**45.2**	**(2.1)**	**15.8**	**7.6**	**19.6**	**18.8**	**19.1**	**18.9**
Embu	39.0	(4.3)	28.6	(3.9)	38.3	(4.3)	11.4	4.6	1.2	1.0	0.9	0.7
Isiolo	77.4	(3.8)	70.0	(4.2)	76.5	(4.0)	32.6	17.9	0.3	0.4	0.5	0.6
Kitui	51.2	(5.5)	41.4	(5.2)	50.7	(5.5)	18.7	9.0	2.2	2.3	2.5	2.5
Makueni	57.2	(8.2)	51.0	(7.4)	56.3	(8.2)	20.6	9.5	3.5	4.2	4.4	4.2
Machakos	53.1	(4.2)	47.8	(4.5)	54.0	(4.0)	19.3	9.8	3.9	4.4	4.7	4.9
Marsabit	82.8	(4.2)	79.5	(4.3)	82.5	(4.1)	43.0	28.7	0.4	0.8	1.2	1.6
Mbeere	55.9	(5.9)	45.5	(5.3)	55.1	(6.7)	18.9	9.4	0.7	0.9	0.8	0.9
Meru Central	15.8	(3.3)	11.6	(2.2)	15.6	(3.2)	4.4	1.4	2.0	0.7	0.6	0.4
Moyale	65.1	(5.4)	59.6	(5.4)	64.1	(5.8)	23.2	10.8	0.2	0.3	0.3	0.3

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Annex Table 4.1a: **Contd.**

	Headcount						Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq (Std errors)		Pα = 0 Households (Std errors)		Pα = 0 Individuals (Std errors)		Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Mwingi	58.3	(5.8)	47.8	(5.0)	57.6	(5.6)	19.5	8.3	1.3	1.6	1.6	1.4
Meru North	23.3	(4.8)	20.1	(4.4)	23.3	(4.7)	6.6	2.7	2.5	1.2	1.0	0.9
Tharaka	47.9	(5.6)	41.7	(4.9)	46.7	(5.8)	15.2	7.2	0.4	0.4	0.4	0.4
Meru South	25.0	(4.8)	20.4	(4.3)	24.7	(4.8)	6.2	2.2	0.9	0.5	0.4	0.3
North Eastern	**66.0**	**(4.9)**	**57.7**	**(5.4)**	**65.3**	**(4.9)**	**24.9**	**12.3**	**3.1**	**4.3**	**4.7**	**4.8**
Garissa	44.3	(10.2)	35.5	(9.6)	43.1	(10.1)	12.7	5.4	1.0	1.0	0.8	0.7
Mandera	83.5	(4.3)	74.6	(6.4)	82.4	(4.6)	39.5	22.9	0.8	1.5	2.0	2.4
Wajir	72.6	(6.5)	66.3	(7.7)	72.0	(6.4)	25.3	11.0	1.2	1.8	1.9	1.7
Nyanza	**46.0**	**(2.3)**	**39.4**	**(2.1)**	**45.6**	**(2.3)**	**15.7**	**7.4**	**15.2**	**14.8**	**14.6**	**14.3**
Gucha	63.7	(6.8)	58.9	(5.4)	63.4	(6.9)	26.4	13.8	1.8	2.5	3.0	3.2
Homa Bay	49.5	(7.7)	42.7	(7.1)	48.5	(7.8)	16.0	7.2	0.9	1.0	0.9	0.8
Kisii	49.7	(9.1)	47.6	(8.2)	51.8	(9.2)	14.2	5.4	1.8	1.8	1.5	1.2
Kisumu	41.2	(9.1)	34.5	(7.4)	42.1	(9.0)	13.0	6.1	0.7	0.6	0.6	0.5
Kuria	55.0	(7.5)	45.4	(6.8)	54.4	(7.6)	23.5	12.9	0.6	0.7	0.9	1.0
Migori	38.4	(7.4)	34.2	(6.7)	37.1	(7.3)	14.9	7.7	1.7	1.4	1.6	1.7
Nyamira	51.9	(5.5)	45.0	(4.8)	50.3	(5.5)	16.2	7.2	1.9	2.1	1.9	1.8
Rachuonyo	44.3	(5.4)	39.1	(5.4)	43.0	(5.2)	15.2	7.2	1.4	1.3	1.3	1.3
Siaya	33.6	(7.3)	26.1	(6.3)	33.9	(7.3)	11.4	5.6	1.9	1.3	1.3	1.3
Suba	47.2	(8.1)	38.2	(7.8)	46.0	(8.5)	14.5	6.5	0.5	0.5	0.5	0.4
Bondo	24.3	(4.7)	19.4	(3.0)	23.9	(4.4)	5.2	1.6	0.9	0.4	0.3	0.2
Nyando	47.9	(7.5)	37.1	(6.5)	47.0	(7.6)	14.2	6.3	1.1	1.1	0.9	0.9
Rift Valley	**49.5**	**(1.9)**	**39.9**	**(1.9)**	**49.0**	**(1.8)**	**17.5**	**9.1**	**26.7**	**28.0**	**28.8**	**30.8**
Baringo	61.0	(7.6)	53.9	(8.7)	59.1	(8.0)	23.8	13.7	1.2	1.6	1.8	2.2
Bomet	48.7	(6.6)	41.1	(5.0)	48.0	(6.2)	14.8	6.1	1.6	1.6	1.4	1.2
Keiyo	39.8	(5.5)	29.9	(3.7)	39.7	(5.3)	11.0	4.8	0.7	0.6	0.5	0.4
Kajiado	10.0	(3.2)	8.9	(2.6)	9.8	(3.1)	3.0	1.3	1.4	0.3	0.3	0.2

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Annex Table 4.1a: **Contd.**

	Headcount						Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq (Std errors)		Pα = 0 Households (Std errors)		Pα = 0 Individuals (Std errors)		Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Kericho	38.7	(8.9)	29.5	(9.2)	39.0	(8.7)	10.6	3.9	1.5	1.2	1.0	0.7
Koibatek	54.1	(4.2)	41.7	(4.5)	53.6	(4.3)	17.6	7.8	0.5	0.6	0.6	0.5
Laikipia	39.2	(8.0)	31.4	(7.3)	39.7	(7.6)	12.3	6.2	1.3	1.1	1.0	1.0
Marakwet	70.3	(6.2)	58.4	(5.8)	69.5	(6.4)	19.4	7.9	0.6	0.9	0.7	0.6
Nakuru	35.7	(4.2)	26.0	(4.0)	36.1	(4.2)	8.5	3.1	3.3	2.5	1.7	1.3
Nandi	47.6	(7.7)	37.9	(7.5)	47.4	(7.5)	15.0	6.3	2.6	2.6	2.4	2.1
Narok	29.6	(7.2)	23.5	(5.6)	28.3	(6.9)	7.5	2.9	1.6	1.0	0.7	0.6
Samburu	67.9	(6.2)	62.3	(6.3)	67.4	(6.4)	31.3	19.4	0.5	0.7	1.0	1.3
Trans Mara	46.4	(7.0)	41.0	(6.5)	46.6	(7.0)	12.8	5.4	0.6	0.6	0.5	0.4
Trans Nzoia	61.6	(4.1)	51.6	(4.5)	60.7	(4.4)	18.9	8.1	3.0	3.9	3.5	3.1
Turkana	92.6	(3.7)	92.5	(3.7)	92.0	(4.1)	63.9	48.5	1.8	3.4	6.9	10.8
Uasin Gishu	65.1	(7.7)	54.2	(7.1)	64.2	(7.8)	18.8	7.6	1.9	2.7	2.3	1.9
West Pokot	62.2	(6.0)	54.1	(5.8)	60.9	(6.0)	24.2	11.9	1.2	1.6	1.9	1.9
Buret	34.4	(5.2)	27.0	(5.2)	34.2	(5.2)	8.4	2.8	1.4	1.0	0.7	0.5
Western	**51.1**	**(2.5)**	**43.2**	**(2.4)**	**51.4**	**(2.6)**	**17.4**	**8.0**	**13.8**	**15.0**	**14.8**	**14.2**
Bungoma	47.1	(5.5)	41.1	(5.8)	47.3	(5.7)	18.1	8.6	3.7	3.7	4.1	4.1
Busia	75.6	(8.6)	70.3	(8.6)	75.5	(9.0)	33.3	17.6	1.7	2.7	3.5	3.8
Mt Elgon	60.6	(4.3)	54.6	(4.3)	60.8	(4.2)	18.9	8.4	0.7	0.9	0.8	0.8
Kakamega	50.5	(6.3)	40.0	(6.0)	51.5	(6.3)	15.4	6.7	2.1	2.3	2.0	1.8
Lugari	54.5	(8.4)	50.1	(7.5)	55.7	(8.2)	16.0	6.5	0.9	1.0	0.9	0.7
Teso	49.4	(6.1)	44.2	(5.0)	50.3	(6.0)	17.4	9.3	0.8	0.8	0.8	0.9
Vihiga	38.2	(4.8)	29.3	(4.0)	37.8	(4.8)	9.9	4.0	2.1	1.7	1.3	1.1
Butere/Mumias	47.3	(3.6)	38.2	(2.9)	46.7	(3.5)	12.1	4.3	1.8	1.8	1.4	1.0

Annex Table 4.1b: **District Ranking of Rural Food Poverty 2005/06 (the least poor district is first)**

	Headcount			Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq	Pα = 0 Households	Pα = 0 Individuals	Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Kajiado	10.0	8.9	9.8	3.0	1.3	1.4	0.3	0.3	0.2
Meru Central	15.8	11.6	15.6	4.4	1.4	2.0	0.7	0.6	0.4
Meru North	23.3	20.1	23.3	6.6	2.7	2.5	1.2	1.0	0.9
Bondo	24.3	19.4	23.9	5.2	1.6	0.9	0.4	0.3	0.2
Maragua	24.7	20.0	24.4	7.8	3.2	1.7	0.9	0.8	0.7
Meru South	25.0	20.4	24.7	6.2	2.2	0.9	0.5	0.4	0.3
Kiambu	25.1	19.1	24.8	6.2	2.3	3.3	1.8	1.3	1.0
Muranga'a	28.9	22.8	27.5	8.2	4.1	1.4	0.8	0.7	0.7
Narok	29.6	23.5	28.3	7.5	2.9	1.6	1.0	0.7	0.6
Kirinyaga	30.2	23.3	29.3	7.9	3.1	1.9	1.2	0.9	0.8
Lamu	30.5	22.8	28.9	6.6	2.1	0.2	0.1	0.1	0.1
Siaya	33.6	26.1	33.9	11.4	5.6	1.9	1.3	1.3	1.3
Thika	33.8	24.8	33.4	11.6	5.7	1.9	1.4	1.4	1.4
Buret	34.4	27.0	34.2	8.4	2.8	1.4	1.0	0.7	0.5
Nyeri	35.4	25.5	35.6	11.7	5.7	2.5	1.9	1.8	1.8
Nakuru	35.7	26.0	36.1	8.5	3.1	3.3	2.5	1.7	1.3
Vihiga	38.2	29.3	37.8	9.9	4.0	2.1	1.7	1.3	1.1
Migori	38.4	34.2	37.1	14.9	7.7	1.7	1.4	1.6	1.7
Kericho	38.7	29.5	39.0	10.6	3.9	1.5	1.2	1.0	0.7
Embu	39.0	28.6	38.3	11.4	4.6	1.2	1.0	0.9	0.7
Laikipia	39.2	31.4	39.7	12.3	6.2	1.3	1.1	1.0	1.0
Keiyo	39.8	29.9	39.7	11.0	4.8	0.7	0.6	0.5	0.4
Kisumu	41.2	34.5	42.1	13.0	6.1	0.7	0.6	0.6	0.5
Nyandarua	44.2	33.9	44.1	12.9	5.4	1.8	1.7	1.4	1.2
Rachuonyo	44.3	39.1	43.0	15.2	7.2	1.4	1.3	1.3	1.3
Garissa	44.3	35.5	43.1	12.7	5.4	1.0	1.0	0.8	0.7
Trans Mara	46.4	41.0	46.6	12.8	5.4	0.6	0.6	0.5	0.4
Bungoma	47.1	41.1	47.3	18.1	8.6	3.7	3.7	4.1	4.1
Suba	47.2	38.2	46.0	14.5	6.5	0.5	0.5	0.5	0.4
Butere/Mumias	47.3	38.2	46.7	12.1	4.3	1.8	1.8	1.4	1.0
Nandi	47.6	37.9	47.4	15.0	6.3	2.6	2.6	2.4	2.1
Tharaka	47.9	41.7	46.7	15.2	7.2	0.4	0.4	0.4	0.4
Nyando	47.9	37.1	47.0	14.2	6.3	1.1	1.1	0.9	0.9
Taita Taveta	48.3	40.3	48.0	14.5	6.1	1.0	1.0	0.9	0.8

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Annex Table 4.1b: **Contd.**

	Headcount			Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq	Pα = 0 Households	Pα = 0 Individuals	Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Bomet	48.7	41.1	48.0	14.8	6.1	1.6	1.6	1.4	1.2
Teso	49.4	44.2	50.3	17.4	9.3	0.8	0.8	0.8	0.9
Homa Bay	49.5	42.7	48.5	16.0	7.2	0.9	1.0	0.9	0.8
Kisii	49.7	47.6	51.8	14.2	5.4	1.8	1.8	1.5	1.2
Kakamega	50.5	40.0	51.5	15.4	6.7	2.1	2.3	2.0	1.8
Kitui	51.2	41.4	50.7	18.7	9.0	2.2	2.3	2.5	2.5
Nyamira	51.9	45.0	50.3	16.2	7.2	1.9	2.1	1.9	1.8
Machakos	53.1	47.8	54.0	19.3	9.8	3.9	4.4	4.7	4.9
Koibatek	54.1	41.7	53.6	17.6	7.8	0.5	0.6	0.6	0.5
Lugari	54.5	50.1	55.7	16.0	6.5	0.9	1.0	0.9	0.7
Kuria	55.0	45.4	54.4	23.5	12.9	0.6	0.7	0.9	1.0
Mbeere	55.9	45.5	55.1	18.9	9.4	0.7	0.9	0.8	0.9
Tana River	56.3	51.0	56.2	19.3	9.3	0.8	1.0	1.0	1.0
Makueni	57.2	51.0	56.3	20.6	9.5	3.5	4.2	4.4	4.2
Mwingi	58.3	47.8	57.6	19.5	8.3	1.3	1.6	1.6	1.4
Mt Elgon	60.6	54.6	60.8	18.9	8.4	0.7	0.9	0.8	0.8
Baringo	61.0	53.9	59.1	23.8	13.7	1.2	1.6	1.8	2.2
Trans Nzoia	61.6	51.6	60.7	18.9	8.1	3.0	3.9	3.5	3.1
West Pokot	62.2	54.1	60.9	24.2	11.9	1.2	1.6	1.9	1.9
Gucha	63.7	58.9	63.4	26.4	13.8	1.8	2.5	3.0	3.2
Uasin Gishu	65.1	54.2	64.2	18.8	7.6	1.9	2.7	2.3	1.9
Moyale	65.1	59.6	64.1	23.2	10.8	0.2	0.3	0.3	0.3
Kilifi	66.6	50.0	66.1	21.2	10.0	1.8	2.5	2.3	2.3
Samburu	67.9	62.3	67.4	31.3	19.4	0.5	0.7	1.0	1.3
Malindi	68.1	57.3	67.5	27.6	15.2	1.1	1.6	1.9	2.1
Marakwet	70.3	58.4	69.5	19.4	7.9	0.6	0.9	0.7	0.6
Kwale	71.5	63.1	71.1	25.4	11.7	2.2	3.3	3.4	3.3
Wajir	72.6	66.3	72.0	25.3	11.0	1.2	1.8	1.9	1.7
Busia	75.6	70.3	75.5	33.3	17.6	1.7	2.7	3.5	3.8
Isiolo	77.4	70.0	76.5	32.6	17.9	0.3	0.4	0.5	0.6
Marsabit	82.8	79.5	82.5	43.0	28.7	0.4	0.8	1.2	1.6
Mandera	83.5	74.6	82.4	39.5	22.9	0.8	1.5	2.0	2.4
Turkana	92.6	92.5	92.0	63.9	48.5	1.8	3.4	6.9	10.8

Annex Table 4.2a: **Rural Absolute Poverty 2005/06, (Absolute Poverty line=Kshs 1,562)**

	Headcount						Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq (Std. errors)		Pα = 0 Households (Std. errors)		Pα = 0 Individuals (Std. errors)		Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Total Rural	**49.1**	**(1.0)**	**42.0**	**(0.9)**	**49.7**	**(1.0)**	**17.5**	**8.8**	**100.0**	**100.0**	**100.0**	**100.0**
Central	**30.4**	**(2.4)**	**24.3**	**(2.1)**	**30.7**	**(2.5)**	**9.5**	**4.5**	**14.5**	**9.0**	**7.9**	**7.4**
Kiambu	21.6	(4.1)	17.0	(3.6)	21.8	(4.0)	6.1	2.7	3.4	1.5	1.2	1.0
Kirinyaga	24.9	(7.5)	21.6	(6.7)	25.2	(7.6)	5.9	2.0	1.9	1.0	0.6	0.4
Muranga'a	29.4	(7.1)	24.6	(5.6)	28.5	(6.9)	8.4	3.9	1.4	0.8	0.7	0.6
Nyandarua	46.1	(7.0)	37.6	(6.1)	46.3	(6.7)	15.1	6.8	1.8	1.7	1.5	1.4
Nyeri	31.3	(7.0)	23.8	(5.6)	32.7	(7.4)	11.8	6.4	2.5	1.6	1.7	1.8
Thika	35.5	(6.4)	26.3	(6.2)	36.1	(6.6)	12.3	6.7	1.9	1.4	1.3	1.5
Maragua	31.2	(5.7)	25.3	(4.4)	31.0	(6.0)	8.8	3.4	1.7	1.1	0.8	0.7
Coast	**69.7**	**(3.8)**	**59.5**	**(3.6)**	**70.1**	**(3.8)**	**26.6**	**13.2**	**7.1**	**10.1**	**10.8**	**10.7**
Kilifi	67.7	(9.4)	54.3	(8.5)	68.5	(9.5)	24.5	11.6	1.8	2.5	2.5	2.4
Kwale	74.7	(7.6)	67.9	(7.9)	74.9	(7.4)	29.2	14.4	2.2	3.3	3.6	3.6
Lamu	32.9	(4.6)	26.7	(3.8)	31.6	(4.2)	6.7	1.8	0.2	0.2	0.1	0.0
Taita Taveta	57.2	(3.6)	46.8	(2.3)	56.9	(3.6)	18.6	8.3	1.0	1.1	1.0	0.9
Tana River	76.9	(7.1)	72.2	(8.1)	76.9	(6.9)	30.3	15.5	0.8	1.3	1.5	1.5
Malindi	75.7	(8.5)	66.9	(9.8)	76.0	(8.7)	33.3	18.4	1.1	1.7	2.1	2.3
Eastern	**50.9**	**(2.2)**	**45.1**	**(2.2)**	**51.5**	**(2.3)**	**17.8**	**8.7**	**19.6**	**20.3**	**19.9**	**19.5**
Embu	37.1	(3.4)	29.6	(3.5)	36.6	(3.4)	12.5	6.0	1.2	0.9	0.9	0.8
Isiolo	71.3	(5.0)	64.7	(4.4)	71.6	(5.2)	34.1	19.9	0.3	0.4	0.5	0.6
Kitui	63.7	(6.3)	55.1	(5.7)	63.7	(6.0)	23.0	10.8	2.2	2.8	2.8	2.7
Makueni	64.3	(5.9)	59.9	(5.5)	64.1	(5.8)	22.3	10.5	3.5	4.5	4.4	4.1
Machakos	58.8	(6.2)	53.7	(7.0)	59.6	(6.7)	20.9	10.7	3.9	4.7	4.7	4.8
Marsabit	91.9	(3.7)	91.5	(4.0)	91.7	(3.8)	54.1	37.9	0.4	0.8	1.4	1.9
Mbeere	49.7	(6.0)	43.2	(5.5)	50.2	(6.3)	18.1	8.6	0.7	0.7	0.7	0.7
Meru Central	23.5	(4.4)	18.8	(3.4)	23.3	(4.4)	4.2	1.2	2.0	1.0	0.5	0.3
Moyale	66.8	(5.1)	63.6	(5.7)	65.6	(5.4)	25.2	12.5	0.2	0.3	0.3	0.3
Mwingi	62.0	(5.7)	53.6	(5.1)	62.6	(5.4)	22.3	10.3	1.3	1.6	1.6	1.5
Meru North	29.9	(5.7)	28.1	(5.7)	30.8	(5.8)	7.6	3.0	2.5	1.5	1.1	0.9
Tharaka	48.9	(5.3)	46.5	(5.3)	48.7	(5.5)	18.1	9.4	0.4	0.4	0.4	0.4
Meru South	31.2	(6.3)	26.8	(5.9)	31.2	(6.2)	9.3	3.8	0.9	0.6	0.5	0.4

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Annex Table 4.2a: **Contd.**

	Headcount						Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq	(Std. errors)	Pα = 0 Households	(Std. errors)	Pα = 0 Individuals	(Std. errors)	Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
North Eastern	**73.9**	**(5.0)**	**66.1**	**(5.5)**	**73.5**	**(5.0)**	**32.9**	**17.8**	**3.1**	**4.6**	**5.8**	**6.2**
Garissa	49.7	(10.8)	39.6	(9.6)	49.2	(10.9)	16.8	7.5	1.0	1.0	1.0	0.9
Mandera	89.1	(4.1)	81.6	(6.3)	87.8	(4.8)	46.2	28.3	0.8	1.5	2.2	2.7
Wajir	84.3	(5.5)	79.6	(6.7)	84.0	(5.5)	37.7	19.5	1.2	2.1	2.6	2.7
Nyanza	**47.6**	**(2.3)**	**42.2**	**(2.2)**	**47.5**	**(2.3)**	**16.8**	**8.0**	**15.2**	**14.7**	**14.5**	**13.8**
Gucha	67.2	(5.9)	62.1	(5.4)	67.4	(6.1)	26.7	14.0	1.8	2.5	2.8	2.9
Homa Bay	45.0	(4.5)	39.9	(5.1)	43.7	(4.7)	15.2	7.1	0.9	0.8	0.8	0.7
Kisii	51.2	(9.2)	50.1	(7.9)	54.2	(8.8)	17.1	7.2	1.8	1.8	1.7	1.4
Kisumu	49.0	(7.1)	43.9	(5.8)	49.6	(6.9)	15.5	6.6	0.7	0.7	0.6	0.5
Kuria	60.5	(7.3)	50.7	(7.1)	58.9	(7.7)	27.6	15.4	0.6	0.7	0.9	1.0
Migori	43.1	(5.2)	40.4	(5.0)	42.5	(5.0)	16.7	8.7	1.7	1.5	1.7	1.7
Nyamira	47.2	(7.3)	43.2	(7.7)	46.6	(7.2)	14.4	5.9	1.9	1.9	1.6	1.3
Rachuonyo	40.4	(5.6)	39.8	(6.3)	40.5	(6.0)	14.1	6.6	1.4	1.1	1.1	1.0
Siaya	40.0	(7.6)	31.4	(7.0)	40.1	(7.7)	14.5	7.0	1.9	1.5	1.6	1.5
Suba	52.2	(7.6)	42.6	(7.6)	52.0	(7.8)	18.7	8.9	0.5	0.6	0.6	0.5
Bondo	25.0	(3.7)	20.3	(2.9)	24.6	(3.9)	5.9	2.0	0.9	0.4	0.3	0.2
Nyando	48.3	(6.9)	39.6	(6.6)	46.7	(7.2)	15.4	7.1	1.1	1.1	0.9	0.9
Rift Valley	**49.0**	**(1.9)**	**41.5**	**(1.8)**	**49.3**	**(1.8)**	**17.5**	**9.4**	**26.7**	**26.7**	**26.7**	**28.7**
Baringo	60.6	(7.8)	58.1	(7.6)	59.8	(7.7)	23.4	12.5	1.2	1.5	1.7	1.8
Bomet	59.0	(6.8)	53.9	(6.5)	58.7	(6.9)	15.8	6.9	1.6	1.9	1.4	1.2
Keiyo	45.7	(4.6)	37.6	(4.5)	45.3	(4.2)	12.1	4.4	0.7	0.6	0.5	0.3
Kajiado	11.6	(3.7)	8.8	(3.0)	11.6	(3.5)	2.1	0.8	1.4	0.3	0.2	0.1
Kericho	41.3	(7.3)	31.5	(6.6)	42.8	(7.2)	11.7	4.3	1.5	1.2	1.0	0.7
Koibatek	51.4	(5.0)	43.0	(5.5)	51.8	(5.2)	14.4	5.9	0.5	0.6	0.4	0.4
Laikipia	49.3	(10.4)	38.7	(9.4)	50.5	(10.4)	15.4	7.3	1.3	1.3	1.1	1.1
Marakwet	66.8	(7.2)	59.7	(7.0)	66.5	(6.9)	21.6	10.1	0.6	0.8	0.7	0.7
Nakuru	38.0	(5.4)	28.4	(4.5)	39.4	(5.5)	9.8	3.5	3.3	2.6	1.9	1.3
Nandi	46.9	(5.9)	39.7	(6.1)	47.4	(6.0)	13.7	5.7	2.6	2.5	2.0	1.7
Narok	27.2	(6.6)	22.7	(5.9)	26.7	(6.2)	7.6	3.3	1.6	0.9	0.7	0.6
Samburu	73.5	(4.9)	68.8	(5.5)	73.0	(5.1)	37.1	23.4	0.5	0.8	1.1	1.4
Trans Mara	51.7	(7.0)	45.2	(6.5)	50.9	(6.8)	16.7	7.9	0.6	0.7	0.6	0.6

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Annex Table 4.2a: **Contd.**

	Headcount						Poverty Gap	Severity of Poverty		Contribution to Poverty		
	Pα = 0 Adulteq (Std. errors)		Pα = 0 Households (Std. errors)		Pα = 0 Individuals (Std. errors)		Pα = 1 Adulteq	Pα = 2 Adulteq	% of Population	Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Trans Nzoia	49.5	(6.6)	44.6	(6.2)	50.2	(6.4)	15.3	6.3	3.0	3.0	2.6	2.2
Turkana	94.9	(2.0)	94.3	(2.4)	94.3	(2.4)	69.5	55.1	1.8	3.4	7.0	11.0
Uasin Gishu	49.7	(7.6)	41.8	(6.7)	49.6	(7.6)	12.4	5.1	1.9	2.0	1.4	1.1
West Pokot	68.5	(5.5)	66.9	(5.3)	69.4	(5.2)	26.3	14.2	1.2	1.7	1.9	2.0
Buret	32.6	(5.3)	26.5	(4.8)	32.8	(5.5)	8.1	3.2	1.4	0.9	0.6	0.5
Western	**52.2**	**(2.6)**	**47.0**	**(2.4)**	**53.1**	**(2.7)**	**18.3**	**8.6**	**13.8**	**14.7**	**14.4**	**13.6**
Bungoma	50.2	(6.9)	46.5	(6.7)	50.7	(7.1)	17.1	7.4	3.7	3.8	3.6	3.1
Busia	68.9	(7.2)	63.3	(6.7)	69.8	(7.1)	30.6	17.3	1.7	2.4	3.0	3.3
Mt Elgon	57.6	(4.6)	52.8	(4.5)	58.7	(4.3)	20.8	9.8	0.7	0.9	0.9	0.8
Kakamega	53.5	(5.9)	47.5	(5.5)	54.4	(6.0)	18.9	9.1	2.1	2.3	2.3	2.2
Lugari	45.9	(7.3)	45.0	(6.9)	47.0	(7.3)	15.3	6.5	0.9	0.8	0.8	0.7
Teso	59.5	(5.1)	55.4	(4.5)	59.8	(5.4)	19.5	9.3	0.8	0.9	0.9	0.8
Vihiga	40.1	(5.0)	33.6	(3.9)	41.1	(5.0)	11.8	5.2	2.1	1.7	1.4	1.2
Butere/Mumias	51.3	(5.0)	46.3	(4.7)	51.6	(4.8)	16.2	6.5	1.8	1.9	1.7	1.4

Annex Table 4.2b: **District Ranking of Rural Absolute Poverty 2005/06 (the least poor district is first)**

	Headcount			Poverty Gap	Severity of Poverty		Contribution to Poverty		
	Pα = 0 Adulteq	Pα = 0 Households	Pα = 0 Individuals	Pα = 1 Adulteq	Pα = 2 Adulteq	% of Population	Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Kajiado	11.6	8.8	11.6	2.1	0.8	1.4	0.3	0.2	0.1
Kiambu	21.6	17.0	21.8	6.1	2.7	3.4	1.5	1.2	1.0
Meru Central	23.5	18.8	23.3	4.2	1.2	2.0	1.0	0.5	0.3
Kirinyaga	24.9	21.6	25.2	5.9	2.0	1.9	1.0	0.6	0.4
Bondo	25.0	20.3	24.6	5.9	2.0	0.9	0.4	0.3	0.2
Narok	27.2	22.7	26.7	7.6	3.3	1.6	0.9	0.7	0.6
Muranga'a	29.4	24.6	28.5	8.4	3.9	1.4	0.8	0.7	0.6
Meru North	29.9	28.1	30.8	7.6	3.0	2.5	1.5	1.1	0.9
Meru South	31.2	26.8	31.2	9.3	3.8	0.9	0.6	0.5	0.4
Maragua	31.2	25.3	31.0	8.8	3.4	1.7	1.1	0.8	0.7
Nyeri	31.3	23.8	32.7	11.8	6.4	2.5	1.6	1.7	1.8
Buret	32.6	26.5	32.8	8.1	3.2	1.4	0.9	0.6	0.5
Lamu	32.9	26.7	31.6	6.7	1.8	0.2	0.2	0.1	0.0
Thika	35.5	26.3	36.1	12.3	6.7	1.9	1.4	1.3	1.5
Embu	37.1	29.6	36.6	12.5	6.0	1.2	0.9	0.9	0.8
Nakuru	38.0	28.4	39.4	9.8	3.5	3.3	2.6	1.9	1.3
Siaya	40.0	31.4	40.1	14.5	7.0	1.9	1.5	1.6	1.5
Vihiga	40.1	33.6	41.1	11.8	5.2	2.1	1.7	1.4	1.2
Rachuonyo	40.4	39.8	40.5	14.1	6.6	1.4	1.1	1.1	1.0
Kericho	41.3	31.5	42.8	11.7	4.3	1.5	1.2	1.0	0.7
Migori	43.1	40.4	42.5	16.7	8.7	1.7	1.5	1.7	1.7
Homa Bay	45.0	39.9	43.7	15.2	7.1	0.9	0.8	0.8	0.7
Keiyo	45.7	37.6	45.3	12.1	4.4	0.7	0.6	0.5	0.3
Lugari	45.9	45.0	47.0	15.3	6.5	0.9	0.8	0.8	0.7
Nyandarua	46.1	37.6	46.3	15.1	6.8	1.8	1.7	1.5	1.4
Nandi	46.9	39.7	47.4	13.7	5.7	2.6	2.5	2.0	1.7
Nyamira	47.2	43.2	46.6	14.4	5.9	1.9	1.9	1.6	1.3
Nyando	48.3	39.6	46.7	15.4	7.1	1.1	1.1	0.9	0.9
Tharaka	48.9	46.5	48.7	18.1	9.4	0.4	0.4	0.4	0.4
Kisumu	49.0	43.9	49.6	15.5	6.6	0.7	0.7	0.6	0.5
Laikipia	49.3	38.7	50.5	15.4	7.3	1.3	1.3	1.1	1.1
Trans Nzoia	49.5	44.6	50.2	15.3	6.3	3.0	3.0	2.6	2.2
Garissa	49.7	39.6	49.2	16.8	7.5	1.0	1.0	1.0	0.9
Uasin Gishu	49.7	41.8	49.6	12.4	5.1	1.9	2.0	1.4	1.1

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Annex Table 4.2b: **Contd.**

	Headcount			Poverty Gap	Severity of Poverty		Contribution to Poverty		
	Pα = 0 Adulteq	Pα = 0 Households	Pα = 0 Individuals	Pα = 1 Adulteq	Pα = 2 Adulteq	% of Population	Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Mbeere	49.7	43.2	50.2	18.1	8.6	0.7	0.7	0.7	0.7
Bungoma	50.2	46.5	50.7	17.1	7.4	3.7	3.8	3.6	3.1
Kisii	51.2	50.1	54.2	17.1	7.2	1.8	1.8	1.7	1.4
Butere/Mumias	51.3	46.3	51.6	16.2	6.5	1.8	1.9	1.7	1.4
Kobatek	51.4	43.0	51.8	14.4	5.9	0.5	0.6	0.4	0.4
Trans Mara	51.7	45.2	50.9	16.7	7.9	0.6	0.7	0.6	0.6
Suba	52.2	42.6	52.0	18.7	8.9	0.5	0.6	0.6	0.5
Kakamega	53.5	47.5	54.4	18.9	9.1	2.1	2.3	2.3	2.2
Taita Taveta	57.2	46.8	56.9	18.6	8.3	1.0	1.1	1.0	0.9
Mt Elgon	57.6	52.8	58.7	20.8	9.8	0.7	0.9	0.9	0.8
Machakos	58.8	53.7	59.6	20.9	10.7	3.9	4.7	4.7	4.8
Bomet	59.0	53.9	58.7	15.8	6.9	1.6	1.9	1.4	1.2
Teso	59.5	55.4	59.8	19.5	9.3	0.8	0.9	0.9	0.8
Kuria	60.5	50.7	58.9	27.6	15.4	0.6	0.7	0.9	1.0
Baringo	60.6	58.1	59.8	23.4	12.5	1.2	1.5	1.7	1.8
Mwingi	62.0	53.6	62.6	22.3	10.3	1.3	1.6	1.6	1.5
Kitui	63.7	55.1	63.7	23.0	10.8	2.2	2.8	2.8	2.7
Makueni	64.3	59.9	64.1	22.3	10.5	3.5	4.5	4.4	4.1
Marakwet	66.8	59.7	66.5	21.6	10.1	0.6	0.8	0.7	0.7
Moyale	66.8	63.6	65.6	25.2	12.5	0.2	0.3	0.3	0.3
Gucha	67.2	62.1	67.4	26.7	14.0	1.8	2.5	2.8	2.9
Kilifi	67.7	54.3	68.5	24.5	11.6	1.8	2.5	2.5	2.4
West Pokot	68.5	66.9	69.4	26.3	14.2	1.2	1.7	1.9	2.0
Busia	68.9	63.3	69.8	30.6	17.3	1.7	2.4	3.0	3.3
Isiolo	71.3	64.7	71.6	34.1	19.9	0.3	0.4	0.5	0.6
Samburu	73.5	68.8	73.0	37.1	23.4	0.5	0.8	1.1	1.4
Kwale	74.7	67.9	74.9	29.2	14.4	2.2	3.3	3.6	3.6
Malindi	75.7	66.9	76.0	33.3	18.4	1.1	1.7	2.1	2.3
Tana River	76.9	72.2	76.9	30.3	15.5	0.8	1.3	1.5	1.5
Wajir	84.3	79.6	84.0	37.7	19.5	1.2	2.1	2.6	2.7
Mandera	89.1	81.6	87.8	46.2	28.3	0.8	1.5	2.2	2.7
Marsabit	91.9	91.5	91.7	54.1	37.9	0.4	0.8	1.4	1.9
Turkana	94.9	94.3	94.3	69.5	55.1	1.8	3.4	7.0	11.0

Annex Table 4.3a: **Rural Hard Core Poverty 2005/06, (hard core poverty line= KShs 988)**

	Headcount						Poverty Gap	Severity of Poverty		Contribution to Poverty		
	Pα = 0 Adulteq	(Std. errors)	Pα = 0 Households	(Std. errors)	Pα = 0 Individuals	(Std. errors)	Pα = 1 Adulteq	Pα = 2 Adulteq	% of Population	Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Total Rural	**21.9**	**(0.8)**	**18.0**	**(0.7)**	**22.3**	**(0.8)**	**6.9**	**3.3**	**100.0**	**100.0**	**100.0**	**100.0**
Central	**11.4**	**(2.0)**	**7.9**	**(1.3)**	**11.6**	**(2.0)**	**3.4**	**1.5**	**14.5**	**7.6**	**7.2**	**6.7**
Kiambu	8.0	(3.2)	5.1	(2.2)	7.8	(3.1)	1.6	0.8	3.4	1.2	0.8	0.9
Kirinyaga	5.6	(3.3)	4.6	(2.8)	5.5	(3.3)	1.1	0.3	1.9	0.5	0.3	0.1
Murang'a	9.7	(4.7)	7.8	(3.3)	9.0	(4.4)	3.3	1.4	1.4	0.6	0.6	0.6
Nyandarua	18.5	(3.7)	12.5	(2.5)	19.2	(3.6)	4.9	1.7	1.8	1.5	1.3	0.9
Nyeri	14.6	(7.7)	9.1	(4.7)	15.3	(8.2)	5.6	2.8	2.5	1.7	2.0	2.2
Thika	15.2	(5.9)	9.7	(3.9)	15.8	(6.3)	6.1	3.0	1.9	1.3	1.7	1.7
Maragua	10.0	(3.7)	8.4	(3.0)	10.0	(3.8)	2.0	0.7	1.7	0.8	0.5	0.3
Coast	**35.4**	**(4.9)**	**28.7**	**(3.8)**	**35.6**	**(5.0)**	**10.5**	**4.5**	**7.1**	**11.5**	**10.7**	**9.6**
Kilifi	32.0	(10.1)	23.5	(7.2)	32.3	(10.3)	8.7	3.6	1.8	2.6	2.3	2.0
Kwale	39.2	(9.7)	33.5	(8.2)	38.7	(9.7)	10.9	4.8	2.2	3.9	3.5	3.2
Lamu	2.7	(1.9)	1.7	(1.1)	2.4	(1.7)	0.4	0.1	0.2	0.0	0.0	0.0
Taita Taveta	26.1	(6.8)	22.5	(5.4)	26.7	(7.1)	5.8	1.9	1.0	1.1	0.8	0.5
Tana River	42.1	(7.9)	37.7	(7.2)	42.2	(7.8)	13.0	5.4	0.8	1.6	1.6	1.4
Malindi	43.0	(17.0)	37.6	(14.3)	43.6	(17)	16.5	7.7	1.1	2.1	2.6	2.5
Eastern	**22.5**	**(1.6)**	**19.0**	**(1.4)**	**22.8**	**(1.7)**	**6.8**	**3.0**	**19.6**	**20.1**	**19.4**	**18.1**
Embu	18.0	(3.8)	13.3	(2.2)	17.6	(3.6)	4.8	1.8	1.2	1.0	0.9	0.7
Isiolo	47.5	(9.1)	40.8	(7.3)	47.6	(9.3)	18.6	9.2	0.3	0.5	0.7	0.7
Kitui	27.7	(5.5)	23.6	(4.6)	27.4	(5.6)	7.9	3.4	2.2	2.7	2.4	2.2
Makueni	29.3	(5.6)	25.2	(4.9)	29.3	(5.6)	7.9	3.1	3.5	4.6	3.9	3.3
Machakos	27.7	(4.1)	23.5	(3.5)	28.1	(4.4)	8.8	3.9	3.9	5.0	5.0	4.7
Marsabit	68.1	(8.4)	67.9	(7.0)	67.8	(8.4)	37.1	24.7	0.4	1.4	2.4	3.3
Mbeere	23.6	(5.7)	19.1	(4.2)	23.4	(6.0)	6.4	3.1	0.7	0.8	0.7	0.7
Meru Central	2.4	(1.5)	2.1	(1.3)	2.5	(1.6)	0.6	0.1	2.0	0.2	0.2	0.1
Moyale	34.2	(6.4)	30.0	(5.7)	33.7	(6.7)	9.8	4.2	0.2	0.3	0.3	0.3
Mwingi	31.8	(5.4)	26.4	(4.3)	32.5	(5.4)	7.5	2.6	1.3	1.9	1.4	1.0
Meru North	6.2	(2.5)	5.8	(2.2)	6.9	(2.9)	2.0	0.8	2.5	0.7	0.7	0.6
Tharaka	25.4	(4.0)	22.9	(3.4)	24.8	(4.2)	8.2	3.5	0.4	0.5	0.5	0.4
Meru South	10.3	(3.8)	8.8	(3.1)	10.2	(3.6)	2.3	0.7	0.9	0.4	0.3	0.2

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Annex Table 4.3a: **Contd.**

	Headcount						Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq (Std. errors)		Pα = 0 Households (Std. errors)		Pα = 0 Individuals (Std. errors)		Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
North Eastern	**46.3**	**(5.4)**	**39.3**	**(5.3)**	**45.8**	**(5.4)**	**15.2**	**6.9**	**3.1**	**6.5**	**6.7**	**6.4**
Garissa	16.3	(7.3)	11.9	(6.1)	15.5	(6.9)	4.8	2.0	1.0	0.8	0.7	0.6
Mandera	65.3	(7.5)	57.3	(8.6)	64.1	(8.0)	26.4	14.2	0.8	2.5	3.2	3.6
Wajir	59.0	(7.9)	51.9	(8.1)	58.7	(7.6)	16.3	6.0	1.2	3.2	2.8	2.2
Nyanza	**21.1**	**(1.9)**	**18.6**	**(1.7)**	**20.9**	**(1.9)**	**6.0**	**2.6**	**15.2**	**14.6**	**13.1**	**11.9**
Gucha	38.2	(5.5)	35.4	(4.3)	38.2	(5.4)	11.6	5.4	1.8	3.2	3.1	3.0
Homa Bay	18.5	(4.7)	19.1	(4.5)	18.6	(4.7)	4.7	2.3	0.9	0.8	0.6	0.7
Kisii	22.8	(7.9)	21.9	(7.0)	23.9	(8.2)	4.3	1.4	1.8	1.8	1.1	0.7
Kisumu	21.6	(6.9)	17.9	(5.8)	22.0	(6.9)	4.2	1.3	0.7	0.7	0.4	0.3
Kuria	36.9	(8.4)	30.8	(7.3)	36.0	(8.1)	13.9	6.5	0.6	1.0	1.2	1.2
Migori	20.0	(4.7)	18.8	(4.9)	19.2	(4.6)	7.4	3.5	1.7	1.6	1.9	1.8
Nyamira	14.9	(5.2)	16.0	(5.2)	14.7	(5.2)	3.5	1.2	1.9	1.3	1.0	0.7
Rachuonyo	20.1	(4.6)	18.2	(3.9)	19.5	(4.5)	4.6	1.9	1.4	1.3	0.9	0.8
Siaya	15.3	(5.4)	11.1	(4.3)	15.3	(5.5)	5.3	2.6	1.9	1.3	1.5	1.5
Suba	22.9	(7.9)	19.6	(6.6)	22.6	(8.2)	6.9	2.9	0.5	0.6	0.5	0.5
Bondo	4.8	(2.8)	5.2	(2.6)	4.6	(2.7)	0.8	0.2	0.9	0.2	0.1	0.0
Nyando	18.2	(4.4)	12.5	(4.1)	17.4	(4.4)	5.4	2.2	1.1	0.9	0.8	0.7
Rift Valley	**20.6**	**(1.6)**	**17.4**	**(1.2)**	**20.9**	**(1.5)**	**7.8**	**4.5**	**26.7**	**25.1**	**30.2**	**36.3**
Baringo	28.9	(8.3)	27.8	(7.1)	28.9	(8.0)	10.3	5.5	1.2	1.6	1.9	2.1
Bomet	17.8	(4.7)	17.9	(4.4)	18.2	(4,8)	4.9	2.1	1.6	1.3	1.1	1.0
Keiyo	9.9	(2.5)	10.5	(2.2)	10.2	(2.5)	2.0	0.8	0.7	0.3	0.2	0.2
Kajiado	1.9	(1.3)	2.0	(1.3)	1.9	(1.3)	0.5	0.2	1.4	0.1	0.1	0.1
Kericho	10.7	(3.9)	7.9	(2.2)	11.4	(4.2)	2.4	0.6	1.5	0.7	0.5	0.3
Koibatek	15.3	(4.6)	13.5	(3.6)	15.6	(4.4)	3.9	1.4	0.5	0.4	0.3	0.2
Laikipia	14.0	(6.0)	11.4	(5.2)	14.2	(6.0)	5.3	3.2	1.3	0.8	1.0	1.2
Marakwet	29.1	(6.0)	23.1	(4.9)	28.7	(5.6)	7.3	2.9	0.6	0.8	0.6	0.5
Nakuru	9.1	(3.3)	7.1	(2.6)	9.5	(3.5)	1.5	0.4	3.3	1.4	0.7	0.4
Nandi	14.3	(5.1)	11.4	(4.1)	14.9	(5.2)	3.9	1.3	2.6	1.7	1.5	1.0
Narok	9.0	(4.2)	7.6	(3.7)	8.8	(4.2)	2.5	0.8	1.6	0.6	0.6	0.4

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Annex Table 4.3a: **Contd.**

	Headcount						Poverty Gap	Severity of Poverty		Contribution to Poverty		
	Pα = 0 Adulteq (Std. errors)		Pα = 0 Households (Std. errors)		Pα = 0 Individuals (Std. errors)		Pα = 1 Adulteq	Pα = 2 Adulteq	% of Population	Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Samburu	48.4	(8.7)	43.4	(8.3)	48.0	(8.6)	21.7	13.1	0.5	1.1	1.6	2.0
Trans Mara	21.3	(6.9)	18.2	(5.7)	20.9	(6.7)	6.3	2.5	0.6	0.6	0.6	0.5
Trans Nzoia	16.8	(5.6)	15.4	(4.3)	17.1	(5.4)	3.9	1.4	3.0	2.3	1.7	1.3
Turkana	86.9	(4.1)	84.4	(4.1)	85.9	(4.6)	56.4	41.5	1.8	7.0	14.3	22.1
Uasin Gishu	18.6	(4.5)	16.1	(4.4)	19.1	(4.7)	3.6	1.1	1.9	1.7	1.0	0.6
West Pokot	35.9	(5.4)	34.0	(4.4)	36.3	(5.5)	12.5	5.7	1.2	2.0	2.2	2.2
Buret	9.6	(3.2)	7.0	(2.5)	9.7	(3.4)	2.0	0.5	1.4	0.6	0.4	0.2
Western	**23.2**	**(2.1)**	**19.7**	**(1.8)**	**23.8**	**(2.2)**	**6.4**	**2.6**	**13.8**	**14.6**	**12.7**	**11.0**
Bungoma	21.0	(3.7)	17.8	(3.9)	21.1	(3.7)	4.8	1.8	3.7	3.6	2.6	2.0
Busia	40.0	(8.8)	37.5	(7.7)	41.6	(9.4)	15.3	7.6	1.7	3.1	3.8	3.9
Mt Elgon	27.2	(4.4)	22.2	(3.9)	27.8	(4.3)	7.5	2.8	0.7	0.9	0.8	0.6
Kakamega	22.4	(5.1)	19.1	(4.4)	23.3	(5.1)	7.2	3.0	2.1	2.1	2.2	1.9
Lugari	20.9	(5.3)	20.1	(5.2)	21.5	(5.3)	4.1	1.3	0.9	0.9	0.5	0.4
Teso	24.6	(4.3)	20.8	(3.0)	25.5	(4.5)	7.3	3.3	0.8	0.9	0.8	0.8
Vihiga	14.8	(4.0)	13.1	(3.1)	14.8	(4.1)	3.6	1.5	2.1	1.4	1.1	1.0
Butere/Mumias	21.3	(4.8)	15.8	(3.6)	21.6	(4.8)	3.6	1.0	1.8	1.8	1.0	0.5

Annex Table 4.3b: **District Ranking of Rural Hard Core Poverty 2005/06 (the least poor district is first)**

	Headcount			Poverty Gap	Severity of Poverty		Contribution to Poverty		
	Pα = 0 Adulteq	Pα = 0 Households	Pα = 0 Individuals	Pα = 1 Adulteq	Pα = 2 Adulteq	% of Population	Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Kajiado	1.9	2.0	1.9	0.5	0.2	1.4	0.1	0.1	0.1
Meru Central	2.4	2.1	2.5	0.6	0.1	2.0	0.2	0.2	0.1
Lamu	2.7	1.7	2.4	0.4	0.1	0.2	0.0	0.0	0.0
Bondo	4.8	5.2	4.6	0.8	0.2	0.9	0.2	0.1	0.0
Kirinyaga	5.6	4.6	5.5	1.1	0.3	1.9	0.5	0.3	0.1
Meru North	6.2	5.8	6.9	2.0	0.8	2.5	0.7	0.7	0.6
Kiambu	8.0	5.1	7.8	1.6	0.8	3.4	1.2	0.8	0.9
Narok	9.0	7.6	8.8	2.5	0.8	1.6	0.6	0.6	0.4
Nakuru	9.1	7.1	9.5	1.5	0.4	3.3	1.4	0.7	0.4
Buret	9.6	7.0	9.7	2.0	0.5	1.4	0.6	0.4	0.2
Murang'a	9.7	7.8	9.0	3.3	1.4	1.4	0.6	0.6	0.6
Keiyo	9.9	10.5	10.2	2.0	0.8	0.7	0.3	0.2	0.2
Maragua	10.0	8.4	10.0	2.0	0.7	1.7	0.8	0.5	0.3
Meru South	10.3	8.8	10.2	2.3	0.7	0.9	0.4	0.3	0.2
Kericho	10.7	7.9	11.4	2.4	0.6	1.5	0.7	0.5	0.3
Laikipia	14.0	11.4	14.2	5.3	3.2	1.3	0.8	1.0	1.2
Nandi	14.3	11.4	14.9	3.9	1.3	2.6	1.7	1.5	1.0
Nyeri	14.6	9.1	15.3	5.6	2.8	2.5	1.7	2.0	2.2
Vihiga	14.8	13.1	14.8	3.6	1.5	2.1	1.4	1.1	1.0
Nyamira	14.9	16.0	14.7	3.5	1.2	1.9	1.3	1.0	0.7
Thika	15.2	9.7	15.8	6.1	3.0	1.9	1.3	1.7	1.7
Koibatek	15.3	13.5	15.6	3.9	1.4	0.5	0.4	0.3	0.2
Siaya	15.3	11.1	15.3	5.3	2.6	1.9	1.3	1.5	1.5
Garissa	16.3	11.9	15.5	4.8	2.0	1.0	0.8	0.7	0.6
Trans Nzoia	16.8	15.4	17.1	3.9	1.4	3.0	2.3	1.7	1.3
Bomet	17.8	17.9	18.2	4.9	2.1	1.6	1.3	1.1	1.0
Embu	18.0	13.3	17.6	4.8	1.8	1.2	1.0	0.9	0.7
Nyando	18.2	12.5	17.4	5.4	2.2	1.1	0.9	0.8	0.7
Nyandarua	18.5	12.5	19.2	4.9	1.7	1.8	1.5	1.3	0.9
Homa Bay	18.5	19.1	18.6	4.7	2.3	0.9	0.8	0.6	0.7
Uasin Gishu	18.6	16.1	19.1	3.6	1.1	1.9	1.7	1.0	0.6
Migori	20.0	18.8	19.2	7.4	3.5	1.7	1.6	1.9	1.8
Rachuonyo	20.1	18.2	19.5	4.6	1.9	1.4	1.3	0.9	0.8
Lugari	20.9	20.1	21.5	4.1	1.3	0.9	0.9	0.5	0.4

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Annex Table 4.3b: **Contd.**

	Headcount			Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq	Pα = 0 Households	Pα = 0 Individuals	Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Bungoma	21.0	17.8	21.1	4.8	1.8	3.7	3.6	2.6	2.0
Butere/Mumias	21.3	15.8	21.6	3.6	1.0	1.8	1.8	1.0	0.5
Trans Mara	21.3	18.2	20.9	6.3	2.5	0.6	0.6	0.6	0.5
Kisumu	21.6	17.9	22.0	4.2	1.3	0.7	0.7	0.4	0.3
Kakamega	22.4	19.1	23.3	7.2	3.0	2.1	2.1	2.2	1.9
Kisii	22.8	21.9	23.9	4.3	1.4	1.8	1.8	1.1	0.7
Suba	22.9	19.6	22.6	6.9	2.9	0.5	0.6	0.5	0.5
Mbeere	23.6	19.1	23.4	6.4	3.1	0.7	0.8	0.7	0.7
Teso	24.6	20.8	25.5	7.3	3.3	0.8	0.9	0.8	0.8
Tharaka	25.4	22.9	24.8	8.2	3.5	0.4	0.5	0.5	0.4
Taita Taveta	26.1	22.5	26.7	5.8	1.9	1.0	1.1	0.8	0.5
Mt Elgon	27.2	22.2	27.8	7.5	2.8	0.7	0.9	0.8	0.6
Kitui	27.7	23.6	27.4	7.9	3.4	2.2	2.7	2.4	2.2
Machakos	27.7	23.5	28.1	8.8	3.9	3.9	5.0	5.0	4.7
Baringo	28.9	27.8	28.9	10.3	5.5	1.2	1.6	1.9	2.1
Marakwet	29.1	23.1	28.7	7.3	2.9	0.6	0.8	0.6	0.5
Makueni	29.3	25.2	29.3	7.9	3.1	3.5	4.6	3.9	3.3
Mwingi	31.8	26.4	32.5	7.5	2.6	1.3	1.9	1.4	1.0
Kilifi	32.0	23.5	32.3	8.7	3.6	1.8	2.6	2.3	2.0
Moyale	34.2	30.0	33.7	9.8	4.2	0.2	0.3	0.3	0.3
West Pokot	35.9	34.0	36.3	12.5	5.7	1.2	2.0	2.2	2.2
Kuria	36.9	30.8	36.0	13.9	6.5	0.6	1.0	1.2	1.2
Gucha	38.2	35.4	38.2	11.6	5.4	1.8	3.2	3.1	3.0
Kwale	39.2	33.5	38.7	10.9	4.8	2.2	3.9	3.5	3.2
Busia	40.0	37.5	41.6	15.3	7.6	1.7	3.1	3.8	3.9
Tana River	42.1	37.7	42.2	13.0	5.4	0.8	1.6	1.6	1.4
Malindi	43.0	37.6	43.6	16.5	7.7	1.1	2.1	2.6	2.5
Isiolo	47.5	40.8	47.6	18.6	9.2	0.3	0.5	0.7	0.7
Samburu	48.4	43.4	48.0	21.7	13.1	0.5	1.1	1.6	2.0
Wajir	59.0	51.9	58.7	16.3	6.0	1.2	3.2	2.8	2.2
Mandera	65.3	57.3	64.1	26.4	14.2	0.8	2.5	3.2	3.6
Marsabit	68.1	67.9	67.8	37.1	24.7	0.4	1.4	2.4	3.3
Turkana	86.9	84.4	85.9	56.4	41.5	1.8	7.0	14.3	22.1

Annex Table 4.4: **Urban Poverty 2005/06**

	Headcount						Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq (Std. errors)		Pα = 0 Households (Std. errors)		Pα = 0 Individuals (Std. errors)		Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Urban Food Poverty 2005/06, (Poverty line = 1474)												
Total Urban	**40.5**	**(1.8)**	**31.2**	**(1.5)**	**40.4**	**(1.8)**	**13.0**	**6.1**	**100.0**	**100.0**	**100.0**	**100.0**
Nairobi	29.5	(3.6)	24.6	(3.0)	29.7	(3.6)	8.2	3.6	39.5	28.8	24.8	23.5
Mombasa	50.4	(5.6)	37.3	(5.3)	49.3	(5.7)	15.7	6.9	12.5	15.6	15.1	14.2
Kisumu	46.8	(12.6)	38.6	(11.3)	45.9	(11.8)	13.1	4.9	3.5	4.0	3.5	2.8
Nakuru	49.3	(11.0)	40.9	(8.3)	47.8	(10.9)	15.0	6.3	3.1	3.8	3.6	3.3
Other Urban	46.8	(1.7)	34.7	(1.3)	46.8	(1.6)	16.7	8.3	41.4	47.8	53.0	56.2
Urban Absolute Poverty 2005/06, (Poverty line = 2913)												
Total Urban	**33.7**	**(2.1)**	**27.4**	**(1.7)**	**34.4**	**(2.1)**	**11.4**	**5.5**	**100.0**	**100.0**	**100.0**	**100.0**
Nairobi	21.3	(3.8)	19.6	(3.2)	22.0	(3.9)	6.9	3.1	39.5	25.0	24.0	22.8
Mombasa	37.6	(8.3)	28.2	(6.0)	37.6	(8.4)	8.7	2.9	12.5	14.0	9.5	6.7
Kisumu	43.4	(16.0)	38.6	(15.0)	44.4	(16.1)	12.4	4.6	3.5	4.5	3.8	2.9
Nakuru	50.2	(11.0)	41.4	(11.0)	50.1	(9.9)	18.3	8.4	3.1	4.6	5.0	4.8
Other Urban	42.3	(1.7)	33.1	(1.5)	43.1	(1.7)	15.9	8.3	41.4	51.9	57.7	62.8
Urban Hard Core Poverty 2005/06, (Poverty line = 1474)												
Total Urban	**8.3**	**(1.0)**	**5.9**	**(0.8)**	**8.3**	**(1.0)**	**2.5**	**1.1**	**100.0**	**100.0**	**100.0**	**100.0**
Nairobi	4.2	(1.8)	4.4	(1.8)	4.2	(1.9)	1.3	0.7	39.5	20.1	20.5	23.2
Mombasa	1.7	(1.0)	1.3	(0.8)	1.8	(1.0)	0.5	0.2	12.5	2.6	2.8	2.3
Kisumu	4.3	(3.8)	4.2	(3.8)	4.8	(4.2)	0.4	0.1	3.5	1.8	0.6	0.3
Nakuru	13.0	(9.9)	5.9	(5.2)	11.4	(9.3)	2.5	0.5	3.1	4.9	3.1	1.5
Other Urban	14.2	(1.4)	8.8	(0.9)	14.3	(1.3)	4.3	2.0	41.4	70.7	72.9	72.7

Annex Table 4.5: **National Poverty Measures by Region 2005/06, Respective Absolute Poverty Lines (Kshs 1,562 for Rural areas and Kshs 2,913 for Urban areas)**

	Headcount						Poverty Gap	Severity of Poverty		Contribution to Poverty		
	Pα = 0 Adulteq	(Std. errors)	Pα = 0 Households	(Std. errors)	Pα = 0 Individuals	(Std. errors)	Pα = 1 Adulteq	Pα = 2 Adulteq	% of Population	Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Kenya	**45.9**	**(0.9)**	**38.3**	**(0.8)**	**46.6**	**(0.9)**	**16.3**	**8.1**	**100.0**	**100.0**	**100.0**	**100.0**
Total Rural	**49.1**	**(1.0)**	**31.3**	**(0.9)**	**39.7**	**(1.0)**	**17.5**	**8.8**	**79.3**	**84.8**	**85.5**	**86.0**
Central	**30.4**	**(2.4)**	**24.3**	**(2.1)**	**30.7**	**(2.5)**	**9.5**	**4.5**	**11.5**	**7.6**	**6.7**	**6.4**
Kiambu	21.6	(4.1)	17.0	(3.6)	21.8	(4.0)	6.1	2.7	2.7	1.3	1.0	0.9
Kirinyaga	24.9	(7.5)	21.6	(6.7)	25.2	(7.6)	5.9	2.0	1.5	0.8	0.5	0.4
Murang'a	29.4	(7.1)	24.6	(5.6)	28.5	(6.9)	8.4	3.9	1.1	0.7	0.6	0.5
Nyandarua	46.1	(7.0)	37.6	(6.1)	46.3	(6.7)	15.1	6.8	1.4	1.4	1.3	1.2
Nyeri	31.3	(7.0)	23.8	(5.6)	32.7	(7.4)	11.8	6.4	2.0	1.4	1.5	1.6
Thika	35.5	(6.4)	26.3	(6.2)	36.1	(6.6)	12.3	6.7	1.5	1.2	1.1	1.3
Maragua	31.2	(5.7)	25.3	(4.4)	31.0	(6.0)	8.8	3.4	1.3	0.9	0.7	0.6
Coast	**69.7**	**(3.8)**	**59.5**	**(3.6)**	**70.1**	**(3.8)**	**26.6**	**13.2**	**5.6**	**8.5**	**9.2**	**9.2**
Kilifi	67.7	(9.4)	54.3	(8.5)	68.5	(9.5)	24.5	11.6	1.4	2.1	2.1	2.0
Kwale	74.7	(7.6)	67.9	(7.9)	74.9	(7.4)	29.2	14.4	1.7	2.8	3.1	3.1
Lamu	32.9	(4.6)	26.7	(3.8)	31.6	(4.2)	6.7	1.8	0.2	0.1	0.1	0.0
Taita Taveta	57.2	(3.6)	46.8	(2.3)	56.9	(3.6)	18.6	8.3	0.8	1.0	0.9	0.8
Tana River	76.9	(7.1)	72.2	(8.1)	76.9	(6.9)	30.3	15.5	0.7	1.1	1.2	1.3
Malindi	75.7	(8.5)	66.9	(9.8)	76.0	(8.7)	33.3	18.4	0.9	1.4	1.8	2.0
Eastern	**50.9**	**(2.2)**	**45.1**	**(2.2)**	**51.5**	**(2.3)**	**17.8**	**8.7**	**15.5**	**17.2**	**17.0**	**16.8**
Embu	37.1	(3.4)	29.6	(3.5)	36.6	(3.4)	12.5	6.0	1.0	0.8	0.8	0.7
Isiolo	71.3	(5.0)	64.7	(4.4)	71.6	(5.2)	34.1	19.9	0.2	0.3	0.4	0.5
Kitui	63.7	(6.3)	55.1	(5.7)	63.7	(6.0)	23.0	10.8	1.7	2.4	2.4	2.3
Makueni	64.3	(5.9)	59.9	(5.5)	64.1	(5.8)	22.3	10.5	2.7	3.8	3.8	3.6
Machakos	58.8	(6.2)	53.7	(7.0)	59.6	(6.7)	20.9	10.7	3.1	4.0	4.0	4.1
Marsabit	91.9	(3.7)	91.5	(4.0)	91.7	(3.8)	54.1	37.9	0.4	0.7	1.2	1.7
Mbeere	49.7	(6.0)	43.2	(5.5)	50.2	(6.3)	18.1	8.6	0.6	0.6	0.6	0.6
Meru Central	23.5	(4.4)	18.8	(3.4)	23.3	(4.4)	4.2	1.2	1.6	0.8	0.4	0.2
Moyale	66.8	(5.1)	63.6	(5.7)	65.6	(5.4)	25.2	12.5	0.2	0.3	0.3	0.3
Mwingi	62.0	(5.7)	53.6	(5.1)	62.6	(5.4)	22.3	10.3	1.0	1.4	1.4	1.3
Meru North	29.9	(5.7)	28.1	(5.7)	30.8	(5.8)	7.6	3.0	2.0	1.3	0.9	0.7
Tharaka	48.9	(5.3)	46.5	(5.3)	48.7	(5.5)	18.1	9.4	0.3	0.3	0.4	0.4
Meru South	31.2	(6.3)	26.8	(5.9)	31.2	(6.2)	9.3	3.8	0.7	0.5	0.4	0.3

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Annex Table 4.5: **Contd.**

	Headcount						Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq (Std. errors)		Pα = 0 Households (Std. errors)		Pα = 0 Individuals (Std. errors)		Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
North Eastern	**73.9**	**(5.0)**	**66.1**	**(5.5)**	**73.5**	**(5.0)**	**32.9**	**17.8**	**2.4**	**3.9**	**4.9**	**5.4**
Garissa	49.7	(10.8)	39.6	(9.6)	49.2	(10.9)	16.8	7.5	0.8	0.9	0.8	0.8
Mandera	89.1	(4.1)	81.6	(6.3)	87.8	(4.8)	46.2	28.3	0.7	1.3	1.9	2.3
Wajir	84.3	(5.5)	79.6	(6.7)	84.0	(5.5)	37.7	19.5	0.9	1.7	2.2	2.3
Nyanza	**47.6**	**(2.3)**	**42.2**	**(2.2)**	**47.5**	**(2.3)**	**16.8**	**8.0**	**12.0**	**12.5**	**12.4**	**11.9**
Gucha	67.2	(5.9)	62.1	(5.4)	67.4	(6.1)	26.7	14.0	1.4	2.1	2.4	2.5
Homa Bay	45.0	(4.5)	39.9	(5.1)	43.7	(4.7)	15.2	7.1	0.7	0.7	0.7	0.6
Kisii	51.2	(9.2)	50.1	(7.9)	54.2	(8.8)	17.1	7.2	1.4	1.6	1.5	1.2
Kisumu	49.0	(7.1)	43.9	(5.8)	49.6	(6.9)	15.5	6.6	0.5	0.6	0.5	0.5
Kuria	60.5	(7.3)	50.7	(7.1)	58.9	(7.7)	27.6	15.4	0.5	0.6	0.8	0.9
Migori	43.1	(5.2)	40.4	(5.0)	42.5	(5.0)	16.7	8.7	1.4	1.3	1.4	1.5
Nyamira	47.2	(7.3)	43.2	(7.7)	46.6	(7.2)	14.4	5.9	1.5	1.6	1.4	1.1
Rachuonyo	40.4	(5.6)	39.8	(6.3)	40.5	(6.0)	14.1	6.6	1.1	1.0	0.9	0.9
Siaya	40.0	(7.6)	31.4	(7.0)	40.1	(7.7)	14.5	7.0	1.5	1.3	1.3	1.3
Suba	52.2	(7.6)	42.6	(7.6)	52.0	(7.8)	18.7	8.9	0.4	0.5	0.5	0.5
Bondo	25.0	(3.7)	20.3	(2.9)	24.6	(3.9)	5.9	2.0	0.7	0.4	0.2	0.2
Nyando	48.3	(6.9)	39.6	(6.6)	46.7	(7.2)	15.4	7.1	0.8	0.9	0.8	0.7
Rift Valley	**49.0**	**(1.9)**	**41.5**	**(1.8)**	**49.3**	**(1.8)**	**17.5**	**9.4**	**21.2**	**22.6**	**22.8**	**24.7**
Baringo	60.6	(7.8)	58.1	(7.6)	59.8	(7.7)	23.4	12.5	1.0	1.3	1.4	1.5
Bomet	59.0	(6.8)	53.9	(6.5)	58.7	(6.9)	15.8	6.9	1.3	1.6	1.2	1.1
Keiyo	45.7	(4.6)	37.6	(4.5)	45.3	(4.2)	12.1	4.4	0.5	0.5	0.4	0.3
Kajiado	11.6	(3.7)	8.8	(3.0)	11.6	(3.5)	2.1	0.8	1.1	0.3	0.1	0.1
Kericho	41.3	(7.3)	31.5	(6.6)	42.8	(7.2)	11.7	4.3	1.2	1.0	0.8	0.6
Koibatek	51.4	(5.0)	43.0	(5.5)	51.8	(5.2)	14.4	5.9	0.4	0.5	0.4	0.3
Laikipia	49.3	(10.4)	38.7	(9.4)	50.5	(10.4)	15.4	7.3	1.0	1.1	1.0	0.9
Marakwet	66.8	(7.2)	59.7	(7.0)	66.5	(6.9)	21.6	10.1	0.5	0.7	0.6	0.6
Nakuru	38.0	(5.4)	28.4	(4.5)	39.4	(5.5)	9.8	3.5	2.6	2.2	1.6	1.1
Nandi	46.9	(5.9)	39.7	(6.1)	47.4	(6.0)	13.7	5.7	2.1	2.1	1.7	1.4
Narok	27.2	(6.6)	22.7	(5.9)	26.7	(6.2)	7.6	3.3	1.2	0.7	0.6	0.5
Samburu	73.5	(4.9)	68.8	(5.5)	73.0	(5.1)	37.1	23.4	0.4	0.7	0.9	1.2

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Annex Table 4.5: **Contd.**

	Headcount						Poverty Gap	Severity of Poverty		Contribution to Poverty		
	Pα = 0 Adulteq (Std. errors)		Pα = 0 Households (Std. errors)		Pα = 0 Individuals (Std. errors)		Pα = 1 Adulteq	Pα = 2 Adulteq	% of Population	Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Trans Mara	51.7	(7.0)	45.2	(6.5)	50.9	(6.8)	16.7	7.9	0.5	0.6	0.5	0.5
Trans Nzoia	49.5	(6.6)	44.6	(6.2)	50.2	(6.4)	15.3	6.3	2.4	2.5	2.2	1.9
Turkana	94.9	(2.0)	94.3	(2.4)	94.3	(2.4)	69.5	55.1	1.4	2.9	5.9	9.5
Uasin Gishu	49.7	(7.6)	41.8	(6.7)	49.6	(7.6)	12.4	5.1	1.5	1.7	1.2	1.0
West Pokot	68.5	(5.5)	66.9	(5.3)	69.4	(5.2)	26.3	14.2	1.0	1.5	1.6	1.7
Buret	32.6	(5.3)	26.5	(4.8)	32.8	(5.5)	8.1	3.2	1.1	0.8	0.6	0.4
Western	**52.2**	**(2.6)**	**47.0**	**(2.4)**	**53.1**	**(2.7)**	**18.3**	**8.6**	**11.0**	**12.5**	**12.3**	**11.7**
Bungoma	50.2	(6.9)	46.5	(6.7)	50.7	(7.1)	17.1	7.4	2.9	3.2	3.1	2.7
Busia	68.9	(7.2)	63.3	(6.7)	69.8	(7.1)	30.6	17.3	1.3	2.0	2.5	2.9
Mt Elgon	57.6	(4.6)	52.8	(4.5)	58.7	(4.3)	20.8	9.8	0.6	0.7	0.7	0.7
Kakamega	53.5	(5.9)	47.5	(5.5)	54.4	(6.0)	18.9	9.1	1.7	1.9	1.9	1.9
Lugari	45.9	(7.3)	45.0	(6.9)	47.0	(7.3)	15.3	6.5	0.7	0.7	0.7	0.6
Teso	59.5	(5.1)	55.4	(4.5)	59.8	(5.4)	19.5	9.3	0.6	0.8	0.7	0.7
Vihiga	40.1	(5.0)	33.6	(3.9)	41.1	(5.0)	11.8	5.2	1.6	1.4	1.2	1.1
Butere/Mumias	51.3	(5.0)	46.3	(4.7)	51.6	(4.8)	16.2	6.5	1.5	1.6	1.5	1.2
Total Urban	33.7	(2.1)	27.4	(1.7)	34.4	(2.1)	11.4	5.5	20.7	15.2	14.5	14.0
Nairobi	21.3	(3.8)	19.6	(3.2)	22.0	(3.9)	6.9	3.1	8.2	3.8	3.5	3.2
Mombasa	37.6	(8.3)	28.2	(6.0)	37.6	(8.4)	8.7	2.9	2.6	2.1	1.4	0.9
Kisumu	43.4	(16.0)	38.6	(15.0)	44.4	(16.1)	12.4	4.6	0.7	0.7	0.5	0.4
Nakuru	50.2	(11.0)	41.4	(11.0)	50.1	(9.9)	18.3	8.4	0.6	0.7	0.7	0.7
Other Urban	42.3	(1.7)	33.1	(1.5)	43.1	(1.7)	15.9	8.3	8.6	7.9	8.4	8.8

Annex Table 4.6: **Overall Poverty 2005/06 in absolute numbers**

	Total Population			The Poor		
	All Adult Equivalents	**All Households**	**All Individuals**	**Adult Equivalents**	**Households below poverty**	**Individuals below Poverty**
Kenya	**28,174,028**	**6,978,231**	**35,514,542**	**13,029,376**	**2,692,104**	**16,668,001**
Rural	**22,340,933**	**5,199,428**	**28,363,345**	**11,036,900**	**2,195,894**	**14,172,293**
Central	**3,246,112**	**853,852**	**3,928,751**	**987,877**	**207,873**	**1,210,064**
Kiambu	757,623	179,107	929,784	164,012	30,400	202,833
Kirinyaga	426,389	118,332	509,157	106,227	25,556	128,390
Murang'a	305,591	89,686	355,877	89,697	22,065	101,528
Nyandarua	395,401	98,333	485,457	182,427	36,995	224,869
Nyeri	561,972	155,216	667,737	175,982	36,975	218,660
Thika	425,923	116,862	531,588	153,050	31,494	194,391
Maragua	373,213	96,317	449,152	116,483	24,387	139,394
Coast	**1,586,653**	**315,141**	**2,054,236**	**1,105,803**	**187,496**	**1,439,892**
Kilifi	399,890	85,695	514,628	270,756	46,532	352,547
Kwale	488,616	87,836	645,201	364,991	59,601	483,090
Lamu	50,269	12,274	64,971	17,093	3,368	21,249
Taita Taveta	215,156	52,302	259,580	123,119	24,473	147,596
Tana River	188,464	37,261	249,367	144,886	26,895	191,856
Malindi	244,258	39,773	320,488	184,959	26,628	243,556
Eastern	**4,378,821**	**965,432**	**5,491,900**	**2,234,946**	**435,937**	**2,832,408**
Embu	275,696	63,893	322,568	102,382	18,936	118,012
Isiolo	56,527	12,390	75,094	40,803	8,129	54,531
Kitui	480,722	106,839	625,418	306,192	58,823	398,343
Makueni	773,557	149,599	965,925	497,175	89,561	619,148
Machakos	880,477	191,272	1,108,179	517,443	102,667	660,220
Marsabit	99,330	24,009	129,528	91,324	21,963	118,786
Mbeere	161,391	40,234	202,929	80,971	17,581	102,787
Meru Central	451,317	108,891	547,831	106,020	20,467	127,383
Moyale	48,505	8,622	62,344	32,414	5,483	40,888
Mwingi	289,377	60,054	372,123	180,726	32,502	235,171
Meru North	565,434	124,987	718,203	169,299	35,176	221,556
Tharaka	91,150	21,838	119,324	44,579	10,148	58,089
Meru South	205,338	52,804	242,436	65,619	14,501	77,495

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Annex Table 4.6: **Contd.**

	Total Population			The Poor		
	All Adult Equivalents	All Households	All Individuals	Adult Equivalents	Households below poverty	Individuals below Poverty
North Eastern	**683,721**	**153,813**	**922,444**	**505,089**	**101,694**	**678,092**
Garissa	231,026	53,816	306,620	114,706	21,312	150,859
Mandera	185,180	40,599	257,060	164,965	33,110	225,812
Wajir	267,515	59,398	358,764	225,418	47,272	301,422
Nyanza	**3,390,667**	**867,255**	**4,325,902**	**1,622,640**	**367,557**	**2,067,144**
Gucha	408,505	95,804	505,086	274,335	59,512	340,407
Homa Bay	205,727	58,917	268,118	92,673	23,529	117,127
Kisii	392,502	96,146	510,518	200,840	48,131	276,570
Kisumu	154,233	39,824	196,356	75,506	17,499	97,473
Kuria	132,705	32,063	174,496	80,339	16,263	102,846
Migori	389,466	99,017	512,759	167,782	40,023	218,058
Nyamira	431,390	106,047	546,057	211,566	46,982	262,688
Rachuonyo	305,658	69,683	387,909	125,782	28,335	159,944
Siaya	421,362	119,559	531,027	168,453	37,574	212,797
Suba	119,276	31,801	152,094	62,292	13,547	79,055
Bondo	190,604	55,548	237,357	47,608	11,300	58,274
Nyando	239,240	62,847	304,127	115,465	24,864	141,905
Rift Valley	**5,969,900**	**1,364,964**	**7,645,465**	**2,944,966**	**570,387**	**3,795,730**
Baringo	277,926	56,333	352,940	168,350	32,733	211,189
Bomet	353,873	73,464	456,946	208,691	39,565	268,019
Keiyo	151,261	34,607	188,598	69,137	13,022	85,369
Kajiado	305,914	77,604	402,421	35,456	6,812	46,578
Kericho	328,704	102,193	434,690	140,192	33,271	192,204
Koibatek	120,630	26,162	150,705	62,024	11,240	78,131
Laikipia	283,124	72,220	349,022	139,695	27,916	176,363
Marakwet	135,460	32,596	176,616	90,472	19,454	117,373
Nakuru	745,216	202,965	940,841	287,405	58,833	376,833
Nandi	582,272	131,817	734,630	273,003	52,299	348,280
Narok	347,011	76,569	465,368	94,465	17,373	124,167
Samburu	114,583	26,036	154,599	84,203	17,911	112,879
Trans Mara	140,259	32,062	192,374	73,039	14,776	98,385
Trans Nzoia	666,237	119,988	824,655	329,942	53,469	413,800

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Annex Table 4.6: **Contd.**

	Total Population			The Poor		
	All Adult Equivalents	**All Households**	**All Individuals**	**Adult Equivalents**	**Households below poverty**	**Individuals below Poverty**
Turkana	391,866	76,056	510,324	371,836	71,713	481,442
Uasin Gishu	433,357	86,612	541,347	223,439	37,104	277,684
West Pokot	277,956	64,666	364,261	191,321	43,561	254,301
Buret	314,252	73,014	405,130	102,296	19,335	132,734
Western	**3,085,059**	**678,972**	**3,994,646**	**1,635,579**	**324,950**	**2,148,962**
Bungoma	829,441	162,108	1,070,543	424,730	76,377	553,953
Busia	378,390	77,037	499,098	260,679	48,743	348,414
Mt Elgon	162,041	29,548	216,335	93,377	15,595	126,907
Kakamega	469,973	114,851	610,136	261,279	56,716	344,094
Lugari	201,102	43,404	253,991	92,237	19,524	119,392
Teso	172,395	37,006	226,429	102,505	20,496	135,389
Vihiga	462,027	113,456	585,246	189,204	39,722	244,528
Butere/Mumias	409,691	101,562	532,869	211,568	47,777	276,284
Urban	5,833,095	1,778,803	7,151,197	1,992,476	496,210	2,495,707
Nairobi	2,305,778	733,501	2,807,155	503,503	147,184	632,373
Mombasa	729,947	200,482	890,596	274,739	56,519	335,150
Kisumu	202,707	51,378	248,358	87,919	19,822	110,298
Nakuru	181,625	63,167	230,197	95,932	28,248	121,718
Other Urban	2,413,037	730,275	2,974,892	1,030,383	244,437	1,296,169

Chapter 5

POVERTY AND SOCIOECONOMIC INDICATORS

This chapter presents poverty and inequality measures in two sections. Section 5.1 presents poverty cross-tabulated by characteristics of the household head, notably gender, education, marital status, age cohort and household size. Section 5.2 briefly presents preliminary estimates of inequality in Kenya.

5.1 Poverty by characteristics of head of household

5.1.1 Poverty and Sex of Household head

Traditionally, Kenya is a paternal society where the man is expected to play the role of provider. However, women have made significant strides in terms of incomes earned and economic empowerment in decisions on the utilization of household resources.

The head count ratio of households below the absolute poverty line was 49.1 percent, where the ratio for male-headed households (48.8%) was only slightly lower than for female-headed households (50.0%) as presented in Table 5.1. The difference in head count, poverty gap and severity of poverty between male and female-headed households does not appear significant in rural areas.

A head of household is the senior-most member of the household resident in the household compound or, though residing elsewhere, returns at frequent intervals. The sex of household head was further broken down into "married" and "other" (single, separated, divorced, living together) so as distinguish *de facto* (temporary but long-term absence of a male spouse) from *de jure* (lack of an adult male spouse) woman-headed households (see Mukui, 1994). Female-married (*de facto* woman-headed households) showed almost identical levels of prevalence, depth and severity of poverty as de jure woman-headed households.

In the urban areas, the prevalence of poverty was 33.7 percent, with a lower ratio for male-headed households (30.0%) than female-headed households (46.2%). Unlike the rural areas, the female-married headed households in urban areas had lower incidence and depth of poverty compared with female-other headed households.

5.1.2 Poverty and Education

The results show the positive effects of education in reduction of poverty. In both rural and urban areas of Kenya, the level of education of the household head is inversely related with the incidence, depth and severity of poverty. In the rural areas, the incidence of poverty drops from 65.5 percent for household heads with no education, to 51.5 percent for those with primary education and 27.2 percent for household heads with secondary education.

In the urban areas, the same dramatic drop in incidence of poverty by education of household head was observed. The incidence of poverty drops from 68.7 percent for those with no education, to 47.9 percent for those with primary education and 22.0 percent for those with secondary education. In both rural and urban areas, there are dramatic shifts in depth and severity of poverty with increase in the level of education of the household head.

5.1.3 Poverty and Household size

The rural poor households were classified by household size, using three household size categories (1-3, 4-6 and 7+ persons). In rural areas, the incidence of poverty was highest for households with 7 or more members, and declined for households of smaller sizes. The depth and severity of poverty is also higher as household size increases. The same pattern was observed in urban areas, with the incidence, depth and severity of poverty increasing with household size.

Table 5.1: **Poverty measures by socio-economic groups**

Socio-Economic Variable	Headcount Pα = 0 Adulteq		Poverty Gap Pα = 1 Adulteq		% of Population		Contribution to Poverty Pα = 0 Adulteq	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Overall Rural	**49.1**	**33.7**	**17.5**	**11.4**	**100.0**	**100.0**	**100.0**	**100.0**
Sex of HH Head								
Male	48.8	30.0	17.1	9.8	72.5	77.3	72.0	68.9
Female	50.0	46.2	18.7	16.8	27.5	22.7	28.0	31.1
Marital Status								
Rural Male married	49.4	31.0	17.1	10.1	69.3	67.8	69.6	62.4
Rural Male other	37.6	23.0	15.8	7.8	3.2	9.5	2.5	6.5
Rural Female married	50.0	43.6	19.3	15.5	11.1	6.2	11.3	8.0
Rural Female other	49.9	47.2	18.4	17.3	16.5	16.5	16.7	23.1
Education								
None	65.5	68.7	27.5	31.4	26.2	8.9	34.8	18.1
Primary	51.5	47.9	17.1	16.6	49.0	33.7	51.3	47.9
Secondary	27.2	22.0	7.7	5.6	23.1	48.4	12.8	31.6
University	9.5	1.5	3.5	0.2	0.7	7.0	0.1	0.3
Other	26.0	4.6	9.2	2.0	0.6	1.2	0.3	0.2
Household Size								
1 -3 Persons	24.7	19.8	7.6	5.8	10.4	26.1	5.3	15.4
4 - 6 Persons	40.5	33.2	13.2	10.4	39.8	43.9	32.8	43.2
7 + Persons	61.2	46.5	23.1	17.7	49.8	30.0	62.0	41.4
Age Group of HH Head								
15 - 29 Yrs	34.3	22.6	11.7	6.7	7.7	64.4	5.4	12.6
30 - 44 Yrs	44.3	32.2	15.7	10.5	35.4	71.8	31.9	42.2
45 - 55 Yrs	53.1	37.0	18.6	12.8	28.0	58.6	30.3	25.9
56+ Years	55.2	48.2	20.2	18.6	28.9	55.1	32.4	19.3

5.1.4 Poverty and age of household head

The results show that the incidence and depth of rural poverty increases with age of household head. Although the same pattern is observed in urban areas, the increase in incidence of poverty with age of household head is not as dramatic as in rural areas.

5.2 Preliminary Findings on Inequality in Kenya

This report utilizes two methods of presenting inequality in Kenya using total expenditure (excluding rent): the Gini coefficient, and the shares of a region's decile expenditure to the regional total expenditure, where the expenditure limits for each decile are derived from the adult equivalent expenditures of all rural households. Each decile consists of a block of 10% of households with total household expenditure arranged in a monotonic order from the lowest to the highest.

The Gini coefficient is a non-negative fraction that takes on extreme values of 1 to represent extreme inequality and zero to represent extreme equality. In addition, if the incomes of all households (or persons, depending on the unit of analysis used) change by a common multiple, the Gini coefficient will not change.

Annex Table 5.3 shows the distribution of rural expenditure by rural population deciles. The results show that the lowest 10% of the rural households

control 1.63% of total expenditure, while the top 10% control an estimated 35.9% of total expenditure. Cumulatively, the bottom 90% of the households consumes 64.1% of total expenditure.

Annex Table 5.4 classifies rural households by national deciles, and computes the share of total expenditure per province by national rural deciles. The purpose is to show a province's or a district's expenditure distribution in relation to the national rural expenditure distribution. Unlike Annex Table 5.4 which shows the **proportions of expenditure** by national rural deciles, Annex Table 5.5 tabulates the **proportions of population** by region categorized using the national rural deciles.

The poor regions tend to have higher expenditure shares and higher proportions of their populations in the lower deciles compared with richer regions. For example, Central and Nyanza provinces have relatively low expenditure shares and low population shares in the lower deciles, while the converse is true in the poorer areas e.g. Coast and North Eastern provinces.

Gini coefficients were computed using per adult equivalent expenditure without rent, for both 1997 Welfare Monitoring Survey and KIHBS 2005/06. Expenditure is used as a proxy for income. For rural Kenya, the Gini coefficient of expenditure per adult equivalent declined from 0.417 in 1997 to 0.380 in 2005/06, while the urban Gini coefficient rose from 0.426 in 1997 to 0.447 in 2005/06. The decline in the rural Gini coefficient shows that income disparities in the rural areas have on average gone down, while the disparities in the urban areas have increased.

Annex Table 5.1: **Poverty Measures by Socio-Economic Groups, Rural absolute Poverty Levels (%)**

	Headcount						Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq (Std. errors)		Pα = 0 Households (Std. errors)		Pα = 0 Individuals (Std. errors)		Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Total Rural	**49.1**	**(1.0)**	**42.0**	**(0.9)**	**49.7**	**(1.0)**	**17.5**	**8.8**	**100.0**	**100.0**	**100.0**	**100.0**
Sex of HH Head												
Male	48.8	(1.1)	41.6	(1.1)	49.3	(1.1)	17.1	8.3	72.5	72.0	70.6	68.5
Female	50.0	(1.4)	42.7	(1.3)	50.7	(1.4)	18.7	10.0	27.5	28.0	29.4	31.5
Marital Status												
Male - Married	49.4	(1.1)	43.1	(1.1)	49.7	(1.1)	17.1	8.3	69.3	69.6	67.7	65.4
Male - Other	37.6	(3.5)	25.1	(2.4)	39.7	(3.7)	15.8	8.4	3.2	2.5	2.9	3.1
Female - Married	50.0	(2.2)	43.4	(2.0)	50.6	(2.2)	19.3	10.7	11.1	11.3	12.2	13.6
Female - Other	49.9	(1.7)	42.3	(1.5)	50.8	(1.7)	18.4	9.5	16.5	16.7	17.2	17.9
Education												
None	65.5	(1.5)	57.6	(1.4)	66.3	(1.5)	27.5	15.6	26.2	34.8	41.0	46.5
Primary	51.5	(1.1)	43.0	(1.1)	51.7	(1.1)	17.1	7.8	49.0	51.3	47.7	43.8
Secondary	27.2	(1.7)	22.9	(1.4)	28.3	(1.7)	7.7	3.3	23.1	12.8	10.2	8.7
University	9.5	(4.1)	6.9	(3.3)	9.8	(4.3)	3.5	1.4	0.7	0.1	0.1	0.1
Other	26.0	(10.7)	19.9	(7.6)	25.8	(10.9)	9.2	3.8	0.6	0.3	0.3	0.2
Household Size												
1 - 3 Persons	24.7	(1.4)	22.0	(1.3)	24.4	(1.4)	7.6	3.5	10.4	5.3	4.5	4.1
4 -6 Persons	40.5	(1.2)	39.4	(1.2)	40.5	(1.2)	13.2	6.1	39.8	32.8	29.9	27.7
7+ Persons	61.2	(1.3)	60.5	(1.3)	61.7	(1.3)	23.1	12.0	49.8	62.0	65.6	68.2
Age Group of HH Head												
15 - 29 yrs	34.3	(2.2)	27.1	(1.7)	34.9	(2.2)	11.7	6.0	7.7	5.4	5.1	5.3
30 - 44 yrs	44.3	(1.4)	38.8	(1.3)	45.0	(1.4)	15.7	7.8	35.4	31.9	31.8	31.7
45 - 55 yrs	53.1	(1.6)	47.2	(1.5)	54.4	(1.6)	18.6	9.2	28.0	30.3	29.8	29.5
56+ yrs	55.2	(1.5)	48.3	(1.4)	56.4	(1.5)	20.2	10.2	28.9	32.4	33.3	33.5

Annex Table 5.2: **Poverty Measures by Socio-Economic Groups, Urban absolute Poverty Levels (%)**

	Headcount						Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα = 0 Adulteq (Std. errors)		Pα = 0 Households (Std. errors)		Pα = 0 Individuals (Std. errors)		Pα = 1 Adulteq	Pα = 2 Adulteq		Pα = 0 Adulteq	Pα = 1 Adulteq	Pα = 2 Adulteq
Total Urban	**33.7**	**(2.1)**	**27.4**	**(1.7)**	**34.4**	**(2.1)**	**11.4**	**5.5**	**100.0**	**100.0**	**100.0**	**100.0**
Sex of HH Head												
Male	30.0	(2.0)	25.2	(1.8)	30.7	(2.0)	9.8	4.6	77.3	68.9	66.6	64.9
Female	46.2	(3.9)	34.9	(3.2)	47.2	(3.9)	16.8	8.4	22.7	31.1	33.4	35.1
Marital Status												
Male - Married	31.0	(2.1)	26.6	(1.9)	31.5	(2.1)	10.1	4.6	67.8	62.4	60.1	57.5
Male - Other	23.0	(4.8)	18.7	(3.7)	24.3	(5.2)	7.8	4.2	9.5	6.5	6.5	7.4
Female - Married	43.6	(5.1)	33.4	(4.4)	44.2	(5.2)	15.5	8.3	6.2	8.0	8.4	9.4
Female - Other	47.2	(5.0)	35.4	(4.0)	48.4	(5.0)	17.3	8.5	16.5	23.1	25.0	25.7
Education												
None	68.7	(4.2)	58.7	(4.3)	68.5	(4.2)	31.4	17.7	8.9	18.1	24.4	28.7
Primary	47.9	(3.0)	39.1	(2.6)	48.3	(3.0)	16.6	7.7	33.7	47.9	49.1	47.7
Secondary	22.0	(2.1)	17.5	(1.6)	22.7	(2.2)	5.6	2.3	48.4	31.6	23.9	20.4
University	1.5	(1.0)	2.5	(2.0)	1.4	(0.9)	0.2	0.1	7.0	0.3	0.1	0.1
Other	4.6	(3.2)	2.2	(1.5)	4.5	(3.2)	2.0	1.0	1.2	0.2	0.2	0.2
Household Size												
1 - 3 Persons	19.8	(1.8)	17.3	(1.5)	19.8	(1.8)	5.8	2.6	26.1	15.4	13.4	12.4
4 -6 Persons	33.2	(2.7)	32.7	(2.6)	33.5	(2.7)	10.4	4.7	43.9	43.2	40.2	37.9
7+ Persons	46.5	(3.7)	46.3	(3.4)	47.2	(3.7)	17.7	9.1	30.0	41.4	46.5	49.7
Age Group of HH Head												
15 - 29 yrs	22.6	(2.4)	18.7	(2.1)	23.9	(2.5)	6.7	3.0	64.4	12.6	11.0	10.4
30 - 44 yrs	32.2	(2.7)	28.0	(2.4)	33.0	(2.8)	10.5	4.8	71.8	42.2	40.7	39.1
45 - 55 yrs	37.0	(3.1)	31.4	(2.6)	38.0	(3.2)	12.8	6.4	58.6	25.9	26.4	27.5
56+ yrs	48.2	(5.0)	43.0	(4.0)	49.7	(5.0)	18.6	9.3	55.1	19.3	21.9	22.9

Annex Table 5.3: **Rural Deciles Limits and Expenditure Shares, 2005/ 06**

Decile Group	Expenditure Limit		% of Households	% of Population	Average expenditure	% of households Cumulative	share of Expenditure(%)	Cumulative %
1	UPTO	<= 696.0	10	10.2	479.3	10	1.6	1.6
2	> 696.1	<= 942.5	10	10.2	818.8	20	3.0	4.6
3	> 942.6	<= 1151.3	10	10.1	1,047.1	30	3.9	8.5
4	> 1151.4	<= 1355.9	10	10.0	1,257.1	40	4.9	13.4
5	> 1356.0	<= 1585.0	10	10.0	1,471.8	50	5.8	19.2
6	> 1585.1	<= 1884.4	10	10.0	1,741.8	60	7.8	27.0
7	> 1884.5	<= 2257.7	10	10.0	2,058.8	70	9.2	36.2
8	> 2257.8	<= 2792.9	10	10.0	2,508.9	80	11.7	47.9
9	> 2793.0	<= 3692.7	10	9.8	3,185.4	90	16.2	64.1
10	ABOVE	3692.8	10	9.6	5,858.0	100	35.9	100.0
				100				

Annex Table 5.4: **Expenditure Distribution by Household Deciles - Rural 2005/06 (Cumulative)**

Expenditure Deciles	1	2	3	4	5	6	7	8	9	10
Expenditure (KShs)	**696.0**	**942.5**	**1,151.3**	**1,355.9**	**1,585.0**	**1,884.4**	**2,257.7**	**2,792.9**	**3,692.7**	**41,441.7**
Total Rural	**1.6**	**4.6**	**8.5**	**13.4**	**19.2**	**27.0**	**36.2**	**47.9**	**64.1**	**100**
Central	**0.8**	**1.7**	**3.2**	**6.1**	**10.4**	**16.9**	**26.1**	**36.4**	**52.7**	**100**
Kiambu	0.1	0.5	1.8	3.0	5.3	8.4	13.4	21.0	35.1	100
Kirinyaga	.	1.0	2.1	4.8	9.1	15.7	22.5	31.4	48.4	100
Murang'a	0.6	1.7	2.2	6.3	9.6	16.1	24.3	34.5	52.8	100
Nyandarua	1.2	3.3	6.4	10.2	18.2	26.2	39.3	48.9	64.6	100
Nyeri	0.8	1.9	3.3	5.5	9.5	16.8	28.0	39.3	58.5	100
Thika	1.3	1.5	2.7	4.2	9.9	14.2	20.2	29.9	43.8	100
Maragua	0.4	2.2	3.9	8.3	11.4	20.6	34.6	49.8	65.7	100
Coast	**4.4**	**10.6**	**18.1**	**27.0**	**34.8**	**45.7**	**57.3**	**68.2**	**81.5**	**100**
Kilifi	1.7	9.1	12.9	25.2	32.2	43.5	52.6	63.5	77.0	100
Kwale	4.2	12.8	26.4	36.0	42.9	55.3	59.8	67.0	79.7	100
Lamu	.	0.6	2.0	9.3	15.1	18.3	34.1	46.9	70.6	100
Taita Taveta	1.3	6.4	12.7	16.1	23.8	36.4	51.4	61.3	73.5	100
Tana River	6.4	17.1	26.7	37.1	48.7	58.1	69.5	75.4	88.1	100
Malindi	8.5	17.5	27.7	38.4	46.2	62.7	76.4	95.2	100.0	.
Eastern	**4.6**	**8.9**	**14.9**	**21.9**	**28.9**	**37.8**	**48.9**	**60.3**	**75.4**	**100**
Embu	1.4	2.9	5.1	7.5	13.5	21.3	32.2	44.2	65.7	100
Isiolo	9.4	16.7	24.6	36.5	43.7	56.2	77.7	88.2	97.4	100
Kitui	2.0	8.8	17.5	26.1	34.6	48.0	58.5	77.0	92.9	100
Makueni	2.9	8.7	15.5	25.6	35.7	44.8	50.3	64.1	73.7	100
Machakos	2.8	7.1	13.1	18.2	28.3	37.6	48.2	58.3	68.9	100
Marsabit	23.1	35.1	51.5	66.2	73.0	82.0	83.4	84.9	93.0	100
Mbeere	1.9	5.5	8.8	17.6	21.1	29.7	44.3	57.8	74.1	100
Meru Central	.	0.5	1.4	4.4	7.6	13.4	22.0	31.4	53.3	100
Moyale	4.4	11.0	21.1	29.5	40.9	51.0	62.8	74.4	81.0	100
Mwingi	3.3	9.1	17.5	22.8	31.4	42.5	54.6	68.3	84.5	100
Meru North	0.5	1.4	2.6	6.7	11.5	15.9	24.2	37.1	60.0	100
Tharaka	3.4	6.1	10.0	15.6	23.0	32.8	46.7	57.7	70.8	100
Meru South	0.6	2.1	4.8	8.0	11.7	16.4	30.8	40.4	64.9	100

Annex Table 5.4: **Contd.**

Expenditure Deciles	1	2	3	4	5	6	7	8	9	10
Expenditure (KShs)	**696.0**	**942.5**	**1,151.3**	**1,355.9**	**1,585.0**	**1,884.4**	**2,257.7**	**2,792.9**	**3,692.7**	**41,441.7**
North Eastern	**8.7**	**21.3**	**31.7**	**39.9**	**48.0**	**59.0**	**67.3**	**75.6**	**89.7**	**100**
Garissa	1.5	2.9	10.2	13.6	19.1	27.4	35.0	48.5	73.7	100
Mandera	13.7	28.8	39.5	52.6	60.0	71.3	80.1	84.3	100.0	.
Wajir	10.8	32.2	45.5	53.7	65.1	78.5	86.7	94.0	95.4	100
Nyanza	**1.9**	**5.8**	**10.2**	**16.0**	**21.1**	**30.2**	**40.5**	**54.4**	**71.6**	**100**
Gucha	4.1	12.5	17.7	28.4	34.9	46.4	54.3	62.0	77.0	100
Homa Bay	1.1	5.9	9.4	14.2	20.5	27.7	35.8	58.7	76.0	100
Kisii	2.1	7.5	16.7	21.3	28.7	40.2	50.2	61.9	79.0	100
Kisumu	0.8	5.9	10.0	17.7	23.0	32.2	45.6	59.7	74.9	100
Kuria	5.0	9.4	14.0	19.7	22.7	31.0	42.5	50.1	68.1	100
Migori	2.4	5.1	8.6	14.1	17.6	26.3	37.7	50.2	64.9	100
Nyamira	1.8	4.4	10.6	16.2	21.2	28.9	36.3	48.3	65.9	100
Rachuonyo	1.6	5.7	9.7	14.2	20.9	36.0	49.9	64.3	75.9	100
Siaya	1.1	2.6	6.7	11.2	13.7	26.9	38.1	46.4	71.8	100
Suba	1.4	5.7	10.2	16.4	21.5	30.0	41.9	64.3	85.8	100
Bondo	0.3	1.4	2.8	5.1	8.8	11.8	21.0	36.7	50.8	100
Nyando	0.8	3.5	6.5	13.4	19.7	25.5	33.1	50.2	68.8	100
Rift Valley	**3.8**	**8.0**	**12.6**	**18.0**	**25.1**	**32.6**	**41.5**	**53.5**	**67.1**	**100**
Baringo	2.8	8.4	13.7	19.8	26.2	32.3	37.2	49.0	61.6	100
Bomet	1.8	6.3	11.8	20.2	36.6	48.6	65.1	81.1	90.1	100
Keiyo	0.8	2.4	7.7	13.3	20.8	27.2	41.2	55.2	69.9	100
Kajiado	0.2	0.4	0.6	1.4	3.3	5.5	10.9	22.0	36.3	100
Kericho	0.2	2.1	4.0	8.7	12.4	16.4	22.8	33.9	45.8	100
Koibatek	1.4	2.9	7.0	13.1	20.3	27.1	39.8	60.1	66.6	100
Laikipia	0.6	2.4	5.6	11.4	14.6	19.3	23.3	32.1	46.0	100
Marakwet	1.4	7.4	14.3	20.1	31.2	41.6	50.9	56.9	64.3	100
Nakuru	0.3	1.3	5.1	8.1	13.0	17.7	30.4	40.5	62.0	100
Nandi	1.4	3.2	7.1	13.6	18.7	28.0	35.3	47.8	63.4	100
Narok	0.7	1.7	2.5	4.5	7.9	12.1	17.0	28.9	51.6	100
Samburu	8.1	18.3	27.7	37.8	44.3	53.5	67.2	78.6	97.7	100
Trans Mara	1.9	6.2	11.3	17.5	26.1	39.5	52.0	67.2	86.4	100

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Annex Table 5.4: **Contd.**

Expenditure Deciles	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Expenditure (KShs)	**696.0**	**942.5**	**1,151.3**	**1,355.9**	**1,585.0**	**1,884.4**	**2,257.7**	**2,792.9**	**3,692.7**	**41,441.7**
Trans Nzoia	1.0	4.2	10.0	16.1	23.1	34.5	40.9	50.6	70.7	100
Turkana	38.8	55.9	66.8	73.0	76.4	77.6	83.7	94.2	98.7	100
Uasin Gishu	1.1	5.1	6.0	11.2	22.6	33.4	40.5	58.4	66.6	100
West Pokot	5.5	13.2	22.3	29.4	43.9	54.9	65.4	73.4	80.8	100
Buret	0.1	1.8	2.8	5.1	10.8	16.9	24.3	33.3	48.4	100
Western	**2.3**	**6.7**	**12.6**	**19.6**	**27.1**	**37.1**	**48.0**	**61.8**	**76.9**	**100**
Bungoma	1.2	6.3	13.9	20.5	26.7	35.6	48.2	64.2	86.2	100
Busia	7.7	13.6	22.8	29.9	39.1	49.9	60.0	71.6	85.0	100
Mt Elgon	1.9	7.7	14.7	24.3	30.1	42.6	54.0	64.6	78.0	100
Kakamega	2.5	5.1	9.6	15.2	25.6	35.9	44.9	54.0	71.8	100
Lugari	1.4	5.9	12.4	19.3	22.8	33.8	48.7	62.9	75.2	100
Teso	2.3	6.9	9.9	18.8	29.6	35.8	43.8	56.8	68.0	100
Vihiga	0.8	3.0	6.0	10.0	17.1	25.5	36.8	58.5	75.4	100
Butere/Mumias	0.7	5.2	11.6	18.6	26.1	37.6	47.5	61.8	75.9	100

Annex Table 5.5: **Population Distribution by Household Expenditure Deciles - Rural 2005-06 (cumulative)**

Expenditure Deciles	1	2	3	4	5	6	7	8	9	10
Expenditure (KShs)	**696.0**	**942.5**	**1,151.3**	**1,355.9**	**1,585.0**	**1,884.4**	**2,257.7**	**2,792.9**	**3,692.7**	**41,441.7**
Total Rural	**10.2**	**20.4**	**30.5**	**40.5**	**50.6**	**60.6**	**70.6**	**80.6**	**90.4**	**100**
Central	**6.4**	**10.4**	**16.7**	**24.9**	**34.6**	**46.6**	**57.4**	**69.7**	**84.0**	**100**
Kiambu	0.9	3.9	10.2	15.0	22.9	32.5	41.4	53.9	67.7	100
Kirinyaga	.	5.0	12.1	18.4	27.5	43.7	50.8	66.2	82.6	100
Murang'a	5.4	9.3	12.7	23.9	32.3	42.7	54.3	66.2	80.6	100
Nyandarua	8.0	16.8	27.8	39.1	48.7	62.3	70.8	79.2	92.5	100
Nyeri	8.8	14.6	19.0	24.4	34.6	45.5	57.9	72.8	88.0	100
Thika	12.7	13.8	19.8	26.7	39.3	49.4	57.9	72.2	85.2	100
Maragua	2.4	9.6	15.6	26.5	36.6	49.8	68.5	77.2	91.4	100
Coast	**15.6**	**29.6**	**44.0**	**56.9**	**69.1**	**77.9**	**85.3**	**90.7**	**96.2**	**100**
Kilifi	11.3	32.0	45.3	60.7	75.3	81.9	88.6	92.4	97.9	100
Kwale	15.0	35.4	60.4	67.7	80.6	87.4	90.0	92.1	96.1	100
Lamu	.	2.7	12.3	27.8	39.2	47.4	59.8	76.8	90.2	100
Taita Taveta	5.3	23.5	35.7	45.4	59.6	76.0	85.3	89.1	95.2	100
Tana River	20.1	41.4	54.7	68.0	80.5	87.1	92.2	94.9	97.8	100
Malindi	26.3	42.4	55.7	72.1	79.5	87.6	95.6	99.1	100.0	.
Eastern	**15.7**	**25.2**	**36.4**	**47.8**	**57.6**	**66.9**	**76.4**	**86.0**	**93.5**	**100**
Embu	8.1	15.4	20.6	28.8	42.5	55.4	62.4	80.9	91.7	100
Isiolo	31.1	44.2	56.9	69.5	75.1	85.6	93.6	97.0	100.0	.
Kitui	9.7	26.5	43.6	60.8	69.3	76.8	84.3	94.1	99.5	100
Makueni	11.9	27.5	38.6	57.9	66.9	76.5	78.4	89.6	92.5	100
Machakos	14.3	25.8	39.2	47.1	61.0	68.9	77.9	84.8	92.2	100
Marsabit	53.5	65.6	82.1	90.6	92.8	96.6	97.0	99.0	99.6	100
Mbeere	10.0	21.1	32.4	47.8	54.3	65.6	78.4	85.8	93.6	100
Meru Central	.	2.4	7.5	16.9	24.5	39.4	53.1	66.7	84.3	100
Moyale	15.8	32.1	45.8	60.6	70.0	78.3	86.6	91.8	95.4	100
Mwingi	13.6	28.7	44.0	53.8	68.2	74.5	85.3	92.3	96.9	100
Meru North	3.3	6.2	12.8	22.8	33.1	42.7	55.3	74.2	89.7	100
Tharaka	15.0	23.1	31.0	40.4	56.1	64.9	79.1	88.3	93.4	100
Meru South	2.6	9.5	18.7	24.9	34.9	44.8	61.9	73.5	87.3	100

Annex Table 5.5: **Contd.**

Expenditure Deciles	1	2	3	4	5	6	7	8	9	10
Expenditure (KShs)	**696.0**	**942.5**	**1,151.3**	**1,355.9**	**1,585.0**	**1,884.4**	**2,257.7**	**2,792.9**	**3,692.7**	**41,441.7**
North Eastern	**24.1**	**45.1**	**62.2**	**70.2**	**77.0**	**83.5**	**87.5**	**92.0**	**97.8**	**100**
Garissa	9.1	14.2	36.2	43.0	52.4	63.0	69.3	79.7	95.6	100
Mandera	37.6	62.2	77.4	86.4	90.8	93.2	96.8	97.5	100.0	.
Wajir	25.6	59.0	73.0	81.1	87.8	94.2	96.5	98.9	.	100
Nyanza	**8.6**	**19.8**	**31.3**	**42.2**	**51.1**	**61.6**	**73.6**	**83.9**	**93.4**	**100**
Gucha	16.5	34.6	47.2	58.9	70.0	79.3	82.6	90.8	96.2	100
Homa Bay	4.3	17.4	30.2	40.6	49.1	57.9	68.0	84.1	93.6	100
Kisii	6.1	20.7	36.0	47.6	54.0	66.0	75.5	85.0	94.4	100
Kisumu	3.7	20.5	28.8	41.5	56.4	63.6	83.7	90.5	94.6	100
Kuria	25.8	35.1	47.2	57.9	62.4	74.0	80.9	86.4	95.0	100
Migori	10.7	20.0	29.8	39.5	43.4	58.1	76.3	83.7	92.1	100
Nyamira	5.9	14.3	28.0	42.0	52.8	62.6	70.7	79.3	93.7	100
Rachuonyo	6.9	18.0	27.0	35.4	46.4	64.2	80.3	89.4	95.3	100
Siaya	8.1	13.3	26.7	36.8	45.5	58.1	71.0	77.4	93.6	100
Suba	7.6	20.6	36.3	47.2	55.1	62.2	70.8	86.7	98.0	100
Bondo	0.9	4.8	12.0	19.7	26.5	33.8	49.8	69.4	81.9	100
Nyando	6.5	18.2	26.7	39.8	51.2	59.5	73.5	83.7	92.4	100
Rift Valley	**11.5**	**21.1**	**31.6**	**43.1**	**55.1**	**64.2**	**72.9**	**83.4**	**91.7**	**100**
Baringo	14.0	28.9	41.9	54.1	63.0	71.6	80.0	85.3	95.2	100
Bomet	7.0	15.6	26.2	41.2	66.4	77.9	89.6	94.0	97.9	100
Keiyo	2.9	7.7	23.2	39.3	52.5	62.5	79.6	87.6	93.5	100
Kajiado	1.1	1.9	3.5	7.4	15.2	25.8	34.9	54.5	70.8	100
Kericho	2.0	10.7	21.1	37.2	45.9	54.2	65.4	78.2	85.9	100
Koibatek	6.7	13.6	27.8	40.1	54.9	61.7	79.9	92.6	95.2	100
Laikipia	5.8	13.8	29.0	42.5	52.7	58.1	65.9	73.0	85.3	100
Marakwet	8.6	27.8	42.2	51.6	70.0	81.9	87.0	94.7	96.9	100
Nakuru	1.3	6.7	19.4	31.7	41.0	53.6	68.1	78.1	90.1	100
Nandi	7.6	13.3	27.4	41.1	51.0	62.4	72.9	83.5	90.1	100
Narok	4.5	9.0	12.0	23.7	29.8	36.2	50.2	61.1	85.6	100
Samburu	30.3	47.3	61.5	69.3	76.6	82.4	92.8	94.4	100.0	.

Annex Table 5.5: **Contd.**

Expenditure Deciles	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Expenditure (KShs)	**696.0**	**942.5**	**1,151.3**	**1,355.9**	**1,585.0**	**1,884.4**	**2,257.7**	**2,792.9**	**3,692.7**	**41,441.7**
Trans Mara	8.3	20.5	29.5	43.5	57.9	66.7	77.7	89.5	96.7	100
Trans Nzoia	5.6	16.1	32.8	43.6	54.1	65.3	70.0	82.2	93.7	100
Turkana	77.2	86.9	91.6	93.3	95.4	97.2	.	98.6	100.0	100
Uasin Gishu	5.5	17.2	19.7	37.2	54.2	66.2	78.2	90.0	91.1	100
West Pokot	17.6	34.2	46.6	55.5	71.5	78.4	85.1	89.1	92.6	100
Buret	0.5	9.6	13.8	23.3	39.6	53.5	62.6	75.2	89.8	100
Western	**9.3**	**22.4**	**34.9**	**46.8**	**58.8**	**69.8**	**78.5**	**88.6**	**95.1**	**100**
Bungoma	6.2	18.9	35.4	46.3	54.2	62.6	74.0	86.7	96.9	100
Busia	25.5	39.0	53.4	61.6	74.3	81.3	88.0	92.1	97.2	100
Mt Elgon	9.6	26.7	39.0	52.7	62.9	73.9	82.8	89.3	95.7	100
Kakamega	11.0	21.7	31.9	45.9	62.9	73.3	82.5	90.5	97.9	100
Lugari	4.6	17.8	30.9	42.1	53.6	65.3	74.4	85.4	93.6	100
Teso	9.9	24.6	32.9	47.1	62.5	71.5	79.5	90.8	91.6	100
Vihiga	4.7	13.2	20.9	32.0	45.7	60.3	67.7	86.2	94.6	100
Butere/Mumias	2.5	17.5	34.8	46.9	54.2	70.0	79.0	88.2	92.9	100

Chapter 6

MACRO AND SOCIO-ECONOMIC ENVIRONMENT, 1997-2005/06

6.1 Background

The Kenyan economy has faced major challenges over the past decade. The year 1997 presented one of the worst economic conditions in the country that led to slowed GDP growth of only 0.3 percent. These conditions included a severe drought that reduced agricultural output and disrupted electricity generation, and the El Nino floods. Between 1997 and 2003, the performance of the economy was dismal, with an annual average growth rate of 1.8%, but picked up to reach 4.9% and 5.8% in 2004 and 2005, respectively.

Since 2003, the Government has been implementing a reform programme whose main objectives are to stabilize the economy and promote growth, strengthen institutions of good governance and the rule of law, rehabilitate and expand the physical infrastructure, and improve human capital especially among the poor.

6.2 Performance of Economic Sectors

Since 2002, the economy has recorded recovery in a number of key sectors after a long period of poor performance. During the period 2003-2005, agriculture, manufacturing and construction sectors have shown marked improvement in comparison with the period 1997-2002.

Moreover, while the government tax revenues grew at a slow pace between 1997 and 2001, it almost doubled between 2002 and 2005, enabling the government to provide essential public services. The increase in tax revenues is also attributed to an expanded tax base and increased efficiency in the tax collection system.

The commercial bank interest rates on loans and advances dropped from 30.4 percent per annum in 1997 to 13.2 percent in 2005. Reduced bank interest rates and increased lending from the financial sector has enabled farmers, traders and other players in rural areas to access credit more affordably, thereby spurring economic growth through increased entrepreneurial activities.

Horticultural production stagnated between 1999 and 2000 before recovering in 2001 and increased by about 23 percent between 2002 and 2005. Key contributions to this performance were the high value products and favourable market conditions. The number of holiday/business visitors increased from 819,124 in 2002 to 1,269,200 in 2005. The production of major food crops has recorded favourable improvement over the same period.

Milk deliveries dropped to approximately 130 thousand tonnes in 1998 and remained below 150 thousand tonnes between 2000 and 2002. Favourable farm prices as a result of improved market systems and the revival of Kenya Cooperative Creameries (KCC) have led to a doubling of milk deliveries from 150 thousand tonnes in 2001 to 330 thousand tonnes in 2005.

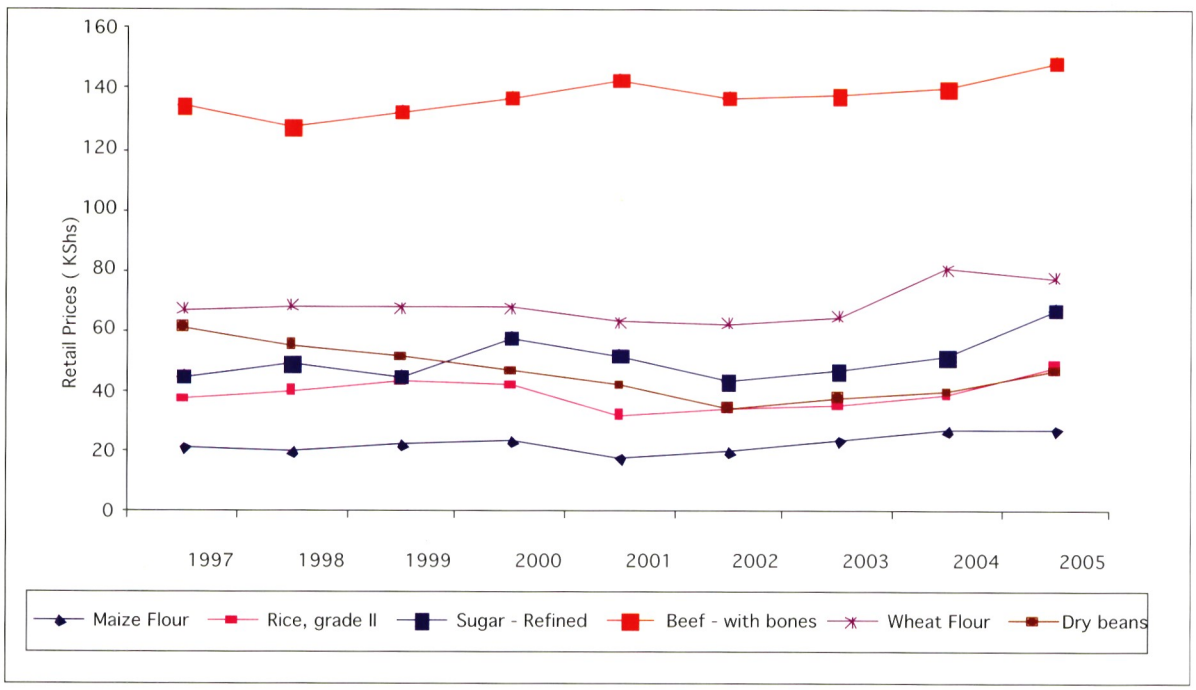
The Consumer Price Index (CPI) rose from 100 in October 1997 to 214.1 in December 2006, with a larger increase in the index for food and non-alcoholic drinks to 261.0. This translates to annual increase in the CPI of 8.8 percent over the nine-year period.

Within the food consumption basket of the rural poor, maize and maize flour contributes about 45.3% of the calorie intake and about 23.4% of the food budget. Sugar contributes about 9.2% of calories and 10.5% of food budget, while beans contribute 8.9% of calories and 7.7% of food budget. The retail prices and consistency of supply of the major food items of the poor has therefore a great bearing on the prevalence and depth of food poverty.

As shown in Table 5.1, the retail prices of the major commodities that form the food consumption

basket of most Kenyans have recorded very low average annual increases. For example, the price of maize flour per kg increased from KShs 21.50 in 1997 to 27.70 in 2005, bread (white, 1/2 kg) increased from KShs 20 to 24.4, sugar-refined from KShs 44.80 to 67.04, while that of dry beans declined from KShs 61.4 to 47.0 over the same period. In contrast, the price of kerosene used in food preparation increased from KShs. 21.80 to 51.18 over the same period.

Figure 6.1: **Price changes for key Commodities**



6.3 Performance of the Social Sectors

The increase in government revenue and increased proportionate allocation to education and health has led to considerable increase in spending in the social sectors. The implementation of the free primary education (FPE) programme in all public primary schools has led to an increase in primary school enrolment from 6.1 million children in 2002 to 7.2 million in 2003 and further accelerated to 7.6 million in 2005. Moreover, the transition rate from primary to secondary education has increased from 47% in 2002 to 57% in 2005.

Since the inception of free primary education programme, the GoK allocates Kshs 1,020 per child per year. In secondary schools, the bursary fund kitty for needy students was increased to cater for more students. These benefits translate into more access to education and lead to increases in disposable incomes for the households.

Further, reforms in the health sector have led to improved access to quality health care by the poor. These include access to antiretroviral drugs (ARV), free treatment of TB, and free treatment of malaria and other illnesses targeting children under the age of 5 years. In 2005, the Government switched to artemisinin-based combination drugs as the first-line drug of treating malaria, thus offering the population more effective therapies for malaria, the most common outpatient health problem in Kenya.

In summary, several Government initiatives have enhanced the welfare of Kenyans at the grassroots, including the FPE. It is expected that private costs that would otherwise have been used on primary education have now been channelled to other household expenditures, thereby improving living standards. The increased access to quality health services, especially targeting major diseases like AIDS, malaria and TB and children under-five years, more reduced burden of disease and are a prerequisite

for a healthier and more productive population. The increased pace of rural electrification will act as a catalyst to the emergence of medium and small enterprises that rely on electric power.

6.4 The Increased Use of Devolved Funds

The Government of Kenya created a number of alternative funding windows that allow for allocation of resources directly to the districts and communities. These include the Constituency Development Fund (CDF), the District Roads Fund, the Constituency AIDS Fund, the Local Authority Transfer Fund (LATF), and the Constituency Education Bursary Fund. Other ongoing initiatives aimed at improving the welfare of families and communities include the activities of the Poverty Eradication Commission and the Government and donor-funded activities in the arid and semi arid lands. The total amount to each constituency from all the devolved funds is at least Kshs 80 million per year. The direct disbursement of these funds is intended to provide all communities with the opportunity to make spending decisions that maximise social welfare.

The targeting of devolved funds at the local level, if successfully implemented, could optimise the amount of resources reaching the poor while minimizing leakages to the non-poor. There are indications that the devolved funds enhance service provision to communities that for many years did not benefit substantially from Government services. There is therefore a great potential for devolved funds to achieve the desired development outcomes if funds are efficiently utilized.

Table 6.1: **Summary of Macro and Socio-economic Statistics 1997 - 2005**

Calendar year	1997	1998	1999	2000	2001	2002	2003	2004	2005
Population (million)	27.1	27.9	28.7	30.1	31.1	32.1	33.1	34.2	35.5
GDP per capita (constant 2001 prices)	32,647	34,149	33,868	33,280	32,776	31,940	32,845	33,764	35,045
Gross Domestic Product growth (%)	0.3	3.4	2.1	0.5	4.5	0.6	3.0	4.9	5.8
Agriculture growth (%)	-3.40	8.84	6.67	-1.27	11.05	-3.15	2.68	1.68	6.91
Manufacturing growth (%)	0.02	-1.79	-2.33	1.01	1.60	0.12	6.00	4.46	5.01
Tourism earnings (KSh. Million)	22,640	17,509	21,367	21,553	24,256	21,735	26,382	38,457	48,874
Interest rate on commercial bank loans and advances	30.4	26.2	25.2	19.6	19.5	18.3	13.5	12.3	13.2
Formal sector Employment (000's)	1,712	1,743	1,754	1,761	1,743	1,765	1,793	1,830	1,875
Informal sector Employment (000's)	2,987	3,354	3,739	4,151	4,669	5,108	5,546	5,993	6,407
Total employment	4,698.4	5,096.7	5,492.6	5,911.6	6,411.2	6,873.5	7,339.4	7,822.8	8,281.7
Primary School Enrolment (000's)	5,765	5,974	6,064	6,078	5,942	6,063	7,160	7,395	7,592
Agricultural Production									
Maize (million bags)	20.6	27.3	25.0	25.0	30.6	26.00	28.00	29.00	32.30
Beans (million bags)	1.6	3.0	4.0	3.7	4.1	4.00	4.00	3.20	4.30
Fresh Horticulture Exports (tons)	84.2	78.4	99.0	99.2	98.9	121.10	133.20	145.60	163.20
Tea ('000 tons)	220.7	294.2	248.7	236.3	294.6	287.10	293.70	324.60	328.50
Coffee ('000 tons)	68.0	53.4	68.1	100.7	51.9	51.90	55.40	48.40	45.20
Irish Potatoes (million tons)	1.1	0.9	1.6	1.1	1.5	0.90	1.00	1.10	1.00
Sorghum (million bags)	0.7	0.9	1.2	0.9	1.2	0.80	0.80	0.80	1.70
Milk intake (million litres)*	240.0	126.0	180.0	137.0	148.0	178.00	203.00	274.00	332.00
Fish Landed ('000 tons)	172.8	172.8	213.4	202.6	164.3	128.20	119.70	135.60	143.30
** Intake by milk processing factories*									
Annual Average Retail Prices (Kshs)									
Maize Flour (kg)	21.5	20.1	22.1	23.2	18.1	20.04	23.78	26.97	27.67
Maize Grain (kg)	19.3	16.7	19.8	20.5	15.6	15.44	17.96	20.51	21.29
Rice, grade II (kg)	37.5	40.5	43.4	42.2	32.4	34.46	35.35	39.13	48.24
Sugar - Refined (kg)	44.8	48.9	44.8	57.8	51.8	43.22	46.99	51.65	67.04
Bread, White (1/2 kg)	20.0	20.2	21.8	22.4	23.0	20.60	21.14	23.17	24.39
Beef - with bones (kg)	134.2	127.5	132.4	137.4	142.8	137.33	138.03	139.90	149.01
Wheat Flour (2 kg)	67.3	68.2	67.5	67.5	63.1	62.50	64.55	80.68	77.96
Cooking Bananas (kg)	32.1	38.4	33.9	38.5	43.6	32.50	33.31	27.85	31.12
Dry beans (kg)	61.4	55.7	51.2	46.5	41.9	34.45	37.82	39.54	47.00
English Potatoes (kg)	17.6	22.0	18.7	17.0	17.3	21.10	21.23	19.91	27.22
Green Grams (kg)	79.2	64.9	69.3	65.1	56.2	50.03	52.31	53.74	59.04
Kales - Sukumawiki (kg)	18.6	14.2	13.9	15.0	13.2	18.82	21.23	23.35	23.09
Cabbages (kg)	13.5	14.5	14.0	13.5	10.7	17.44	18.45	18.13	21.92
Eggs (dozen)	67.5	71.2	66.5	64.4	66.8	72.40	73.77	72.90	81.44
Tea leaves (100 grams)	22.8	29.2	30.8	30.2	31.9	31.38	31.47	31.69	31.89
Kerosene (litre)	21.8	22.0	24.8	31.8	34.7	34.19	35.41	40.18	51.18
Petrol Super (litre)	38.1	39.5	48.2	57.3	56.0	55.72	57.11	63.99	71.74
Fiscal Year	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2004/2005
Government expenditure (Ksh million)	315,137	242,741	223,643	268,430	307,715	310,825	376,285	423,436	492,958
Education Expenditure (Ksh million)	46,226	47,225	47,737	49,868	54,653	66,806	78,139	84,727	100,905
Health Expenditure (Ksh million)	12,884	10,450	9,189	11,898	14,337	13,989	15,304	15,599	32,592
Education Expenditure (%)	14.7	19.5	21.3	18.6	17.8	21.5	20.8	20.0	20.5
Health Expenditure (%)	4.1	4.3	4.1	4.4	4.7	4.5	4.1	3.7	6.6
CPI Index (Oct 1997=100)	Dec 1998	Dec 1999	Dec 2000	Dec 2001	Dec 2002	Dec 2003	Dec 2004	Dec 2005	Dec 2006
Food & Non Alcoholic Drinks	102.6	117.1	136.4	134.8	142.4	161.7	195.7	212.9	261.0
ALL GROUPS	104.5	115.4	129.0	131.1	136.7	148.1	172.2	185.2	214.1
Annual change in CPI	4.5	10.5	11.8	1.6	4.2	8.3	16.3	7.6	15.6

Source: **KNBS, Economic Survey and Statistical Abstracts, various issues**

Chapter 7

SUMMARY AND CONCLUSION

7.1 Summary of the Main Findings

The Kenya Integrated Household Budget Survey (KIHBS) 2005/06 was motivated by the Kenya Government's commitment to the principle of evidence-based policy making as well as the urgent need for current statistics on the welfare of Kenyans. Unlike the previous welfare monitoring surveys (1992, 1994, 1997), the survey was conducted over a period of 12 months (to account for the effect of seasonality on the estimates) based on 17 cycles of 3 weeks each, and combined diary and recall methods. The survey was also more comprehensive in its coverage of expenditure items, a factor that could lead to a shift in the food share compared to previous surveys.

For the first time, the survey utilized a household-specific price deflator (Paasche index) for food items. The previous surveys used region-specific price deflators e.g. a common price deflator for a food item for a whole province, which may not have adequately reflected the actual prices faced by different households in the province. Even for contiguous households facing the same prices, the weights for the Paasche price index are the quantities consumed by the household itself and therefore differ from one household to another.

A comparison of the results from the 1997 Welfare Monitoring Survey and the KIHBS 2005/06 shows that during that period absolute poverty declined by about 6 percent, with a bigger decline in urban than in rural areas. In terms of the proportion of the poor and the incidence of poverty, poverty is largely a rural phenomenon. However, there was about a 10 percent decline in hard core poverty, and the decline was more pronounced in the rural areas.

The regional ranking of rural poverty incidence shows that the proportion of the population below the absolute poverty line was lowest in Central province, followed by Rift Valley, Nyanza, Eastern, Western, Coast and North Eastern provinces. A comparison with the previous surveys shows that poverty incidence has been increasing over time in Coast and North Eastern provinces, which indicates there is a need to ensure that adequate internal and external targeted mechanisms are put in place to prevent the population from slipping into poverty.

Secondary data tends to support the results that poverty has been on the decline in the last few years. First, there has been a gradual recovery in economic growth, which has positively affected several key sectors of the economy. Secondly, the retail prices of key food commodities (e.g. maize grain/flour, beans, bread, meat, cooking fat and wheat flour) have registered low annual increases over the last nine years, while real output of the same commodities has been on the increase.

A comparison of the KIHBS 2005/06 and previous surveys conducted by the Kenya National Bureau of Statistics (KNBS) shows that the item composition of the rural food basket has been fairly stable. There has, however, been an increase in the share of non-foods in the consumption basket partly due to better survey coverage and new non-food products e.g. cell phones and air time.

7.2 Conclusion

Considering the current population growth rate of about 2.5 percent per annum, there is need for a general menu of policies to boost economic growth, and measures to ensure food security to the majority of Kenyans. This should be combined with promotion of family planning to ensure that economic gains and reduced burden on households as a result of free or subsidized services (e.g. in education and health) do not translate to higher population growth. There is also need for targeted investments in infrastructure such as roads, rural electrification, safety net programmes, and provision of water, especially in the marginal areas.

The findings also show that the degree of inequality, as measured by the Gini coefficient, has not registered significant change in the last decade. This calls for policies that spread the benefits of economic growth to most Kenyans, including improved targeting and utilization of devolved funds and measures to boost the human capital of the poor through increased access to quality health and education.

The disparity in the price deflators across regions shows the need to link food deficit and food surplus regions through appropriate transport infrastructure (mainly roads) and food marketing systems. It is noteworthy that prices of utilities (especially electricity) and some non-food items (e.g. alcohol and tobacco) have pan-territorial (common) prices as a result of the costing policy of major private sector firms.

An analysis of the food basket and the cost of calories for various food items underline the need for nutrition information to improve the efficiency of conversion of food expenditures to food attributes (especially calorie and protein units). As a first step, the KNBS in collaboration with other relevant institutions should combine the findings of the KIHBS 2005/06 with recent micronutrient malnutrition surveys that could guide the development of a national nutrition policy that promotes the production and consumption of inexpensive food items rich in food nutrients.

7.3 Implications for KNBS Survey Infrastructure and Work Plan

The district ranking of incidence of poverty in some cases shows results that may be contrary to popular perceptions. One example is Kajiado district. Some of the clusters covered in Kajiado district were urban and peri-urban clusters, many of which are inhabited by households who derive their incomes from working in Nairobi city and urban settlements along the Nairobi-Mombasa highway. These issues will be taken into consideration in revision of the National Sample Survey and Evaluation Programme (NASSEP) and development of appropriate stratification methods during survey sampling. In addition, future revisions of NASSEP will endeavour to allow for provincial estimates of rural and urban areas separately. Currently, the category of 'other urban' contains many urban centres spread across the country, and the towns therefore have varying consumption patterns and income/ expenditure levels.

It also appears that regions where households spend relatively higher proportions of their food budget on animal products tended to have lower poverty incidence contrary to popular perceptions. Such households require a higher than average food expenditure to attain the minimum recommended daily allowance of food energy since their diets are richer in proteins than calories. This calls for improvement in analytical methodologies since the current food-to-energy intake methods focus on calorie availability and ignores other food nutrients e.g. proteins, vitamins and mineral content.

The findings show that the item composition of the food basket has been fairly stable over the last 15 years or so. This implies that KNBS can regularly update projections of poverty estimates using detailed regional price data and less expensive priority surveys.

The analysis has used the same equivalence scales as those used on the 1982 Rural Household Budget Survey and the 1992, 1994 and 1997 welfare monitoring surveys to make the results comparable. However, the equivalence scales used may not reflect the current actual allocation of household expenditures categorized by age and gender profiles. The KNBS will in collaboration with other stake holders undertake detailed micro-level studies to estimate child costs and equivalence scales based on current intra-household distribution of resources by age and gender.

The survey used both diary and recall (retrospective) methods in collecting data on food consumption. The analysis in this report only used food data collected using the recall method. KNBS will undertake an analysis of the data collected using the diary method in order to compare estimates of welfare based on the diary method with those in this report, and to compile lessons learnt for future survey design.

The KNBS will conduct a post-enumeration survey in selected districts using a smaller questionnaire to gain in-depth knowledge of the districts whose poverty rates have registered big upward or downward changes between 1997 and 2005/06. However, it should be noted that the use of household-specific price deflators may have had a profound impact on the changes in the poverty estimates for some regions during the period. The KNBS will undertake sensitivity analysis of the KIHBS database to confirm this and other findings in this report.

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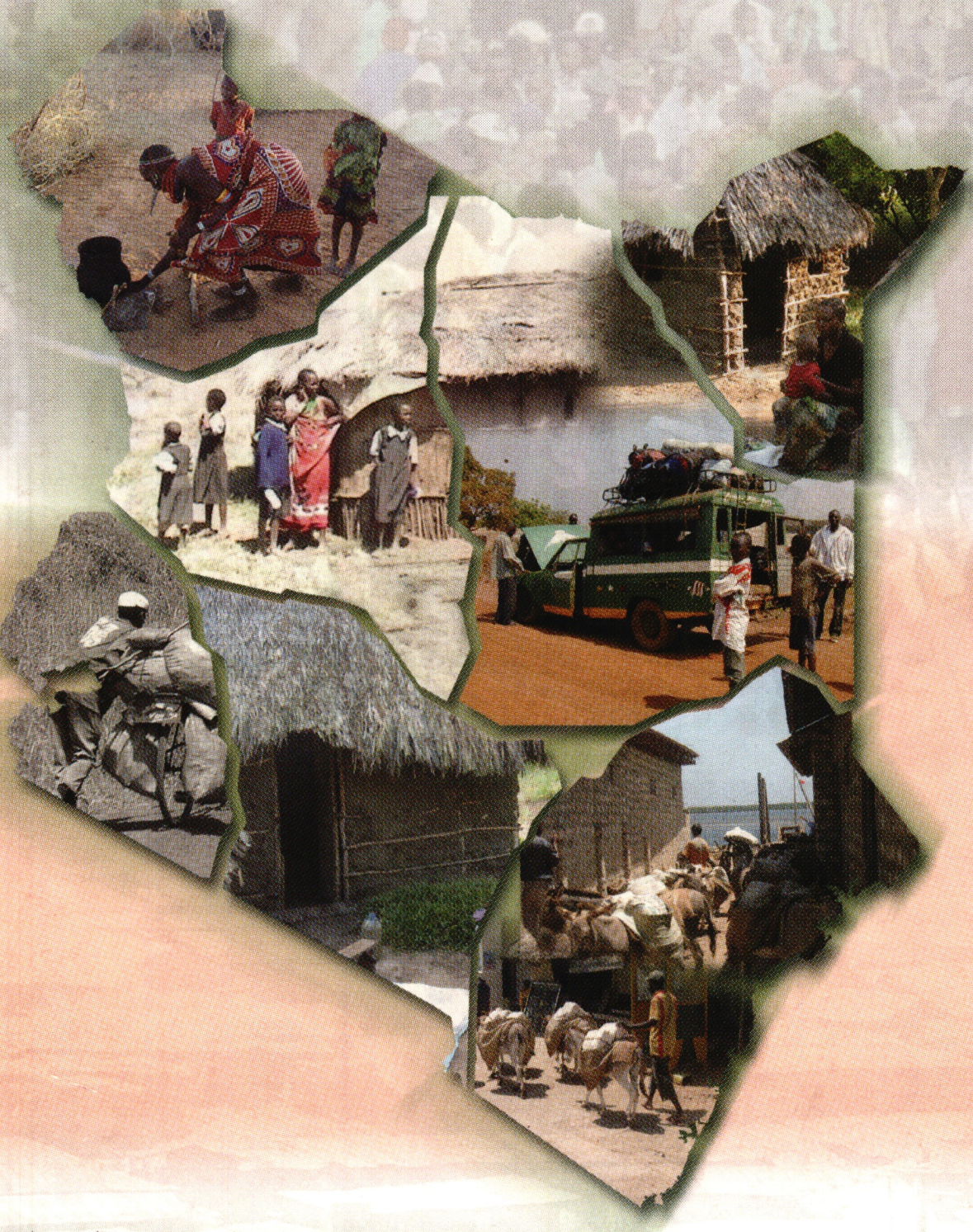

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