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Acronyms

Adulteq	Adult Equivalent
ASAL	Arid and Semi Arid Lands
CBS	Central Bureau of Statistics
CLUSTER	Physical Area comprising 100 to 150 Households on average.
EA	Population Census Enumeration Area
ECSA	East, Central and Southern Africa
FAO	Food and Agricultural Organization
FGT	Foster, Greer and Thorbecke
GNP	Gross National Product
GOK	Government of Kenya
GTZ	German Technical Cooperation
HH	Household
HRSSD	Human Resources and Social Services Department
IRS	Integrated Rural Survey
K£	Kenya Pound (20 Shillings)
KDHS	Kenya Demographic and Health Survey
Kg.	Kilogramme
N/A	Not Applicable
NASSEP	National Sample Survey and Evaluation Programme
NHWMES	National Household Welfare Monitoring and Evaluation Survey
ODA	(British) Overseas Development Administration
$P_{\infty} = 0$	Head count ratio index
$P_{\infty} = 1$	Intensity index
$P_{\infty} = 2$	Severity index
PPA	Participatory Poverty Assessment

PSU	Primary Sampling Unit
RDA	Recommended Daily Allowance/Required Daily Allowance
RHBS	Rural Household Budget Survey
SAPs	Structural Adjustment Programmes
SDD	Social Dimensions of Development Programme
SSU	Secondary Sampling Unit
UHBS	Urban Household Budget Survey
UNICEF	United Nations Children's Fund
WHO	World Health Organization
WMS	Welfare Monitoring Survey
WMS I	Welfare Monitoring Survey I 1992
WMS II	Welfare Monitoring Survey II 1994
WMS III	Welfare Monitoring Survey III 1997
Kshs.	= Kenya Shillings
Expd	= Expenditure
1 Hectare (Ha)	= 2.47 Acres
1 US dollar	= Kshs. 61.18 (mean exchange rate as of 30 th June 1997)

Foreword

The single greatest challenge facing Kenyans today is to reduce the widespread problem of Absolute Poverty. Over half of Kenya's nearly 29 million people live below the Absolute Poverty Line. Despite the fact that for quite some time now poverty has been identified as a major challenge, progress in addressing the problem has been inadequate.

In an effort to monitor and evaluate progress and achievements made in the implementation of various policy measures, the Central Bureau of Statistics (CBS) developed a National Sample Survey and Evaluation Programme (NASSEP), which is now used as a tool for information gathering from a representative sample of households spread throughout the Republic. By 1994 two Welfare Monitoring Surveys (WMS) had been conducted and reports on welfare produced (the Basic report and the First report on Poverty). Information analysed from previous surveys, and particularly from the 1994 WMS II survey, has been widely and extensively used in formulating policy and designing poverty reduction programmes by both the Government and non-governmental institutions. In 1997, the third Welfare Monitoring Survey was conducted. This Report contains the findings of the survey.

More than 13.4 million Kenyans lived below the Absolute Poverty Line in 1997. The 1997 WMS confirms the two previous WMS (1992 and 1994) findings that poverty in Kenya is overwhelmingly a rural phenomenon. Household heads with no education at all reported the highest incidence of poverty in both urban and rural areas. The results show that poverty among households generally decreases as the head's level of education increases, while households with many members have higher rates of poverty in both rural and urban areas. Female-headed households exhibited a higher incidence of poverty.

Poor men and women apply enormous creativity, strength and dynamism on a daily basis to solve problems. The poor have assets in terms of their own skills, in their social institutions, in their values and cultures, and in their detailed and sophisticated knowledge of their own environment. Given the necessary support, the poor can be the main actors for, as well as the beneficiaries of, sustainable development. It is now widely recognised that the level of sustainable development required to eliminate poverty depends above all on solid, sustainable economic growth. This growth must not only be stable, it must also embrace the poor and allow them to share fully in the fruits of development. The Government is committed to creating the right political and economic framework through which the march out of poverty can gather tempo and recognises that economic growth must also outstrip the rate of population growth for a sustained period of time in order to have any meaningful effect.

In order to benefit and promote the participation of the poor, economic growth must therefore incorporate a sound and open macroeconomic framework in which resources are used productively, and which promotes the development of income and employment generating activities that specifically include poor people, and especially women, who are more vulnerable to poverty.

It is my hope that development agencies and all concerned will make use of the poverty statistics presented in this Report to design policies and programmes that will go a long way toward improving the living standards of the poor.

Hon. Gideon Ndambuki EGH, MP
Minister for Planning
Ministry of Finance and Planning

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EXECUTIVE SUMMARY

Since its inception in the early 1990s, the Welfare Monitoring Survey has played a crucial role as a tool for guiding policy decisions, and particularly those that are aimed at welfare improvements. Previous welfare monitoring surveys, for example, have shown that nearly half of the Kenyan population is living in Absolute Poverty, and that poverty in general is on the increase. This revelation has in the recent past led to a number of Government measures to curb the deterioration in welfare.

The latest poverty estimates date back to the second Welfare Monitoring Survey (WMSII) of 1994, in which rural poverty was estimated at 46% and urban poverty at 29%. Since current information on the nature of poverty is essential for designing more poverty-sensitive strategies, the purpose of this report is to update 1994 poverty levels through the findings of the third Welfare Monitoring Survey (WMSIII), carried out between March and May 1997.

Concepts and Definitions in Poverty Analysis

The report adopts a monetary measure of living standards, using consumption rather than income. Well-being is measured by expenditures on basic needs for survival: food, clothing, health, shelter and education. The poor are defined as those members of society who are unable to afford basic minimum needs. This report defines poverty in 'Absolute' rather than relative terms, referring to those who cannot meet the universally recommended minimum basic requirements for human survival

Definition of Food, Overall and Hardcore Poverty

This report bases its analyses on three basic definitions of poverty: Food, Overall and Hardcore Poverty. Food Poverty refers to those whose expenditures on food are insufficient to meet the FAO/WHO recommended daily allowance of 2,250 calories per adult. The Overall Poor are defined as those whose expenditures on both food and non-food items do not meet the recommended minimum. The Hardcore Poor are those who could not afford the minimum recommended food-energy requirements even if they devoted their entire incomes to food.

Measures of Poverty

The prevalence of poverty (whether of food, overall or hard-core poverty) is measured by the headcount ratio index represented by the $P_\alpha = 0$ (p-alpha) symbol. The index is the ratio of persons living in poverty to the total population sample. The intensity of poverty is captured by the intensity index represented by the $P_\alpha = 1$ symbol. The index measures the average difference between the poverty line and the actual expenditure of each poor household.

Equivalent Scales

Since food consumption levels differ by age and sex, household data must be adjusted to reflect some of these factors for a meaningful comparison of households. This report has taken account of age differences in consumption by applying the adult equivalent scales developed by Anzagi and Bernard, which cover age groups 0-4, 5-14 and 15 plus. Thus, reported household consumption is divided by the number of adult equivalents in the household to reach the per adult equivalent expenditure that forms the basis of analysis.

Regional Price Deflators

An important step in spatial and inter-temporal comparison of monetized variables is to inflate or deflate the data in order to bring them to a common denominator for purposes of comparison. WMS data is collected from different regions in Kenya where different prices prevail. In order to compare the regions, provincial price deflators are applied, (with the capital city, Nairobi, serving as the reference region) to adjust household consumption expenditure levels for regional price variations.

Determination of the Food Poverty Line

This report determines the Food Poverty Line using a similar approach to the one developed by Wasay (1977). Wasay applied the standard food weight-to-calorie ratios to the quantities consumed of each major food item in the budgets of low-income families, to derive the amount of calories produced by each item. The percentage of the total calorie intake attributable to each item was then applied to the FAO/WHO Recommended Daily Allowance (RDA) of 2,250 calories per day per adult) to calculate desired consumption levels of various food items. The minimum expenditure on each item was derived using commodity prices. This method ensures that the consumption basket corresponds with local consumption and production patterns.

Determination of Overall Poverty Line

To determine the Overall Poverty Line, it is necessary to add some minimum expenditure on non-food items to the recommended minimum food expenditure. This report takes the share of non-food items in total expenditure of household adult equivalents, in a band of -20% and +10% on either side of the Food Poverty Line, to determine minimum non-food expenditure.

Main Results

The Food Poverty Line for rural areas was estimated at Kshs. 927 per adult equivalent, while the Line for urban areas was drawn at Kshs. 1,254. The mean non-food expenditure for rural areas was estimated at Kshs. 312 per adult equivalent, and that of urban areas at Kshs. 1,394. This resulted in an Overall Poverty Line of Kshs. 1,239 for rural areas and Kshs. 2,648 for urban areas. The Hardcore Poverty Line was Kshs. 927 for rural areas and Kshs. 1,254 for urban areas.

The incidence of Food Poverty was 51% in rural areas and 38% in urban areas. Most rural regions had a prevalence higher than 55%. Only Central (30%) and Rift Valley (48%) reported Food Poverty prevalences below the overall rural Food Poverty prevalence. The prevalence of Absolute Poverty at the national level was 52% in 1997. At the regional level, the results indicate that Overall Poverty was highest in Nyanza Province (63%), followed by Coast with 62%. Nearly all provinces had prevalence levels above 50%. Central Province once again had the least prevalence (31%), far below the overall rural prevalence of 53%. Five districts had over 50% of their population living in Hardcore Poverty. These were West Pokot (60%), Makueni (59%), Homa Bay (54%), Nyamira and Busia (50%). The prevalence of Food and Overall Poverty in urban areas was 38% and 49% respectively.

Patterns of Consumption

The study reveals that expenditure for food accounts for the largest share (72%) of consumption in rural areas, while in urban areas non-food represents about 55% of total

consumption. Own-food consumption contributes to only 30% of food consumed in rural areas and a negligible 2% in urban areas. Since over 70% of food consumed is purchased and not own-produced, price increases on food (*ceteris paribus*) would have a disproportionately large negative impact on the welfare of the poor in the country. In urban areas, rent takes the largest share (19%) of non-food consumption, followed by education (12.6%) and transport (11.4%). Other non-food items have shares below ten percent.

Poverty and Socio-Economic Indicators

The study reveals that 75% of households in the survey were male-headed, but there was no significant difference in poverty levels by gender of the household head in rural areas (male-headed 53% and female-headed 54%). The prevalence gap between the two was however large in urban areas (46% and 63%). There is a marked difference in poverty levels between those with none or primary education and those with secondary and above levels. The former reported the highest incidence of poverty both in rural and urban areas. The population share of these households was larger in rural (80%) than in urban areas (46%).

Conclusion and Policy Implications

Poverty is still on the rise, and is increasing at a faster rate in urban areas. Poverty is caused by several factors, including poor economic performance, poor delivery of services, and corruption. Poor economic conditions between 1994 and 1997 were not conducive to improvements in living standards. Inflation rose from 1.6% in 1995 to 11.2% in 1997, and GDP recorded sluggish growth during the period. The poor performance in macro-economic indicators was the result of a combination of factors, including adverse weather conditions, rising input costs, high domestic interest rates, electricity shortages, dilapidated physical infrastructure (particularly roads) and pre-election violence in some parts of the country that affected tourism and related businesses.

The rise of poverty in urban areas could, in addition, have been hastened by the worsening poverty situation in rural areas, mainly attributable to spill-over effects of migration and declines in food production over the period. It is also possible that the growth in urban population may have outstripped available services and employment opportunities.

Poverty reduction strategies must therefore not only rely on higher economic growth, but should also incorporate deliberate and targeted pro-poor programmes and projects and fair distribution of scarce resources.

CHAPTER 1

INTRODUCTION

1.0 Background

One of the greatest challenges facing the Government of Kenya at independence, some 37 years ago, was how to reduce widespread poverty amongst Kenyans. Poverty, ignorance and disease were identified as the major constraints to social and economic development. While this concern has occupied a central place in Kenya's development priorities since 1963, the problem of poverty persists and is threatening the lives of more people than ever.

The Welfare Monitoring Survey series, initiated in the early 1990s to monitor the possible socio-economic effects of Structural Adjustment Programmes, has played a crucial role in creating awareness about Kenyans' living conditions. It was through the first and the second WMS series in 1992 and 1994 that the Government realised that the problem of Absolute Poverty was indeed widespread, and deepening. Absolute Poverty was then estimated at around 47 percent, meaning that almost half of all Kenyans were living beneath the poverty line. The Government has since developed mechanisms to curb the worsening poverty situation.

This report presents a more recent picture of the poverty situation based on the 1997 WMS III. The report is organised as follows: Survey methodology and conceptual issues are briefly discussed in Chapters one and two. Chapter three discusses the procedures used to estimate poverty lines, while Chapter four presents the main results and discussions. Chapter five presents a break down of the incidence of poverty by socio-economic group. Chapter six presents the macroeconomic conditions that prevailed between 1991 and 1997, and closes by offering some policy recommendations.

1.1 Survey Methodology

It is important to note that the variables included in welfare surveys are proxies for direct welfare measurement. The need for such proxies stems from the fact that comprehensive income and expenditure surveys are costly and require continuous monitoring of households over six months or more to be able to take into account seasonality and changes in consumption and expenditure patterns. The selection of such variables and the timing of execution present major challenges; the enquiries provide snapshot surveys of a complex and fluid situation. However, the variables included in the surveys do reflect to a certain extent the impact of adjustment or changes in the macro-economic framework. For example, the reasons for not completing or attending school could be a reflection of the household monetary situation, the opportunity cost of schooling, and/or the difficulties of maintaining assets in periods of stress. Changes in asset ownership are one of the important variables in evaluating trends in household welfare.

The National Sample Survey and Evaluation Programme (NASSEP) framework developed in the early 1990s provides guidelines for data collection on all household-based enquiries. The framework evolved through mapping and delineating approximately equal-size measures of contiguous households in an enumeration area, after the population census head count, in each of the administrative districts (strata). In determining the number of enumeration blocks to select from each stratum, consideration is given to population distribution and density and to

major economic activities carried out by the population. Strata with high population densities and a greater share of productive activity tend to have larger numbers of enumeration blocks sampled for routine visits, and vice versa. In the process of selecting enumeration blocks (clusters) per district, the survey attempts to generate a practical self-weighting sampling scheme. A detailed description of the sampling methodology adopted by the Central Bureau of Statistics is contained in the document entitled 'National Sample Surveys and Evaluation Programme (NASSEP 2), 1984'.

1.1.1 Proportional Allocation of Clusters

(a) Rural Frame

After carefully considering various options and taking into account the financing and staff position at CBS, a decision was made to have a maximum of 36 clusters and a minimum of 12 depending on the population of each district. Allocation of the number of clusters proportional to population was considered ideal so that sparsely populated districts would have fewer clusters and enumerators. A district with an estimated population of 500,000 and above had 36 clusters; 250,000-499,000 had 24 clusters; and 100,000-299,999 had 16 clusters. A district with less than 100,000 people had 12 clusters.

Estimation procedures

The selection probabilities were based on a three-stage sampling scheme, as described below:

First Stage	-	EA selection within the district
Second Stage	-	Cluster selection
Third Stage	-	Household selection

In the first stage, the 1989 Census Enumeration Areas (EAs) were selected with probability proportionate to size (PPS) as Primary Sampling Units (PSUs). In the second stage, each PSU was further divided into segments of about 100 households, following easily identifiable physical features on the ground such as roads, rivers, power lines, forest hedges, hills, market centres, schools, health facilities, footpaths and so on. Out of these delineated segments, one was randomly selected to constitute the cluster. Households falling within the cluster boundaries were then listed. On average, 12 households were selected per cluster for WMS III interviews, compared to 10 households in previous WMS surveys. Annex Table 13 presents a summary of the sample distribution by districts.

(b) Urban Frame

The urban frame consisted of all district headquarters and all towns that reported 10,000 persons and above during the 1989 population census. Nairobi had 120 clusters but only 30 were included in the survey. The same applies to Mombasa town, where only 25 of 50 clusters were covered. Clusters for other urban areas were allocated according to the proportion of that area's population to Nairobi. On the basis of this criteria, the number of clusters constituting the urban frame totalled 329.

Weighting Procedures

Weighing the data from WMS III took into account the sample selection probabilities at each stage of selection. In mathematical terms, the characteristics total Y_d in a given stratum is calculated as follows:

$$Y_d = \sum_{i=1}^d \sum_{j=1}^n D_i \times \frac{[H_j]}{[SH_j]} \times \frac{(NR_j + RH_j)}{RH_j} \times \frac{CS_d}{CO_d}$$

Where Y_d = characteristics total in the district (stratum).

i	=	1,d	-	number of selected clusters in the district.
j	=	1,n	-	number of households in cluster j .
D_i	=	The sample design cluster weight derived from cluster selection probabilities of the i th cluster.		
H_j	=	The total number of listed households in the j th cluster.		
SH_j	=	The number of selected households in the j th cluster.		
NR_j	=	The number of non-responding households in the j th cluster.		
RH_j	=	The number of responding households in the j th cluster.		
CS_d	=	The number of selected clusters in d th district.		
CO_d	=	The number of operational clusters in d th district.		

The latter factor (CS_d/CO_d) reduces to one if all selected clusters in the district are covered. Finally, estimates of totals for a particular characteristic (y_i) in a district are obtained by summing across weighted totals of the characteristic in all the clusters.

1.2 Survey Administration

The third round of WMS III was implemented in two phases to minimize respondents' fatigue. The training of enumerators for phase one was carried out from 9th to 15th February 1997. The survey was launched thereafter, lasting up to the first week of May 1997. Phase two personnel field training took place in last week of August, 1997 for a similar number of days. Field data collection activities started in early September, ending in the last week of November that year. As mentioned earlier, the survey was restricted to non-ASAL areas, where the majority of the population lives. The contents of WMS III were much broader than the earlier surveys but excluded the fertility module, which was to be covered in greater detail during the 1998 Kenya Demographic and Health Survey (KDHS III).

Questionnaires

Two sets of questionnaires were administered during the survey at different intervals. Phase one covered the core module; phase two administered Agriculture and non-agricultural income modules. The first set of questionnaires, referred to as the Core Welfare Indicators Questionnaire (CWIQ), had two sections as indicated below:

- a) Core Welfare Indicators
 - Section I Demographic and Social Amenities
 - Part I
 - Household Roster, covering demographics of household members.
 - Health and family insurance, covering employment of members aged 5 years and above.
 - Part II - Child roster (anthropometry).
 - Part III - Household amenities.

Part IV - Household assets

Section II Household Expenditure Module

(b) Agriculture Questionnaire and Non Agricultural Income

The second set of questionnaires covered agriculture activities for rural households and non-agricultural income for both rural and urban households. The module consisted of six parts, as outlined below:

Part 1	-	Farming and agricultural services
Part 2	-	Holding characteristics, crops and livestock production
Part 3	-	Non-agricultural income from informal sector activities
Part 4	-	Farm labour
Part 5	-	General farm productivity constraints
Part 6	-	Changes in agricultural production and food consumption.

Apart from the questionnaires administered during the survey, an additional module on prevailing rural/urban retail prices of essential commodities was also implemented. Supervisory duties during data collection were carried out by a team of 40 professionals drawn from Ministry headquarters, with support from respective district statistical officers. As previously mentioned, only non-ASAL districts were covered during the survey.

1.3 Effective Coverage

Out of the 1,048 rural and 210 urban clusters (in non-ASAL areas), only 2.3 percent were not covered due to operational and logistical constraints arising from desertion, insecurity or inaccessibility for lack of adequate transport. Household refusals were minimal, accounting for only 0.1 percent of the cases. All households found to have no responsible member to provide the required information were treated as non-responding households after three call-backs.

While WMSII covered the whole country, efforts to repeat the same in WMSIII were hampered primarily by lack of adequate resources and insecurity in some districts. It was only possible, for example, to capture urban clusters in Garissa and Wajir districts of North Eastern Province, while Mandera was not covered. In Rift Valley Province, Samburu and Turkana Districts were not covered and in Eastern Province, rural clusters in Isiolo were omitted. Tana River District was only partially covered partly due to insecurity problems, and because El Nino rains had made some parts of the district across River Tana inaccessible. These districts are among the worst off in terms of poverty because of frequent drought and problems of accessibility.

1.4 Some Notes on Welfare Monitoring Survey III

It should be noted that strict comparison of the results of the Welfare Monitoring Survey series (WMS I, II and III) may not be completely relevant. Differences in the results may not be strictly attributable to changes in living standards. Below are some methodological issues that may render comparisons untenable.

Sampling and non-sampling errors: The three surveys have been one-round or one-spot (single interview) surveys, which may make welfare measures imprecise both due to sampling and non-sampling errors. One example of a non-sampling error is under- or overestimation of household incomes and expenditures when reported weekly expenditures are used to estimate monthly expenditures. There is also the possibility of misunderstandings about expenditure between interviewer and respondent. One common misunderstanding has been noted in 'own-consumption', where respondents may report what they have in stock rather than what they consume of that stock in a week.

Timing of Welfare surveys: WMS I was carried out in the months of November and December 1992; WMS II between June and August 1994; and WMS III was conducted from April to June 1997. The season in which the survey was conducted had an effect on the results since the availability or non-availability of food is an important factor that determines prices and therefore the purchasing power of the poor. Indeed the season the survey is conducted definitely has a lot of impact particularly on food expenditures and income use as it affects their surpluses. It has however not been possible to conduct the surveys at one particular period of the year (e.g. June every year) due to non-availability of resources when required.

Questionnaire differences: Questionnaire differences may also bear much on the results of the survey series. There has been a deliberate attempt to improve on the questionnaires in between the three surveys. The questionnaire for WMS III gathered information on more non-food items consumed, (particularly by urban wage earners) than the 1994 WMSII. In 1994, for example, bathing soaps and detergents were combined into one category, but were differentiated in the 1997 survey in order to make it easier for interviewer and respondent to know exactly what they were reporting on.

Expenditures on transport were split up into car repairs, bicycle repairs, fares on taxis and buses/*matatus*, and other transport expenditures, whereas the previous survey lumped fares with other transport expenditures. Expenditures on home repairs were covered for the first time, while expenditures on domestic servants were this time divided into 'in cash' and 'in kind'.

Education expenditures in WMS III were also made more detailed, including primary, secondary and post secondary fees, uniforms, books, transport, feeding, boarding expenses, harambee, and other educational expenses. Medical expenses were also expanded to include doctor's fees, medicine bought over the counter, hospitalisation and other medical expenses. Expenditure on household assets covered expenditures on linen, furniture, cars, bicycles, carts, radios, televisions, kitchen equipment, lamps and torches, and other household assets. The previous survey limited itself only to bicycles, radios/TVs, cars and other assets.

Finally, the sampling frame used for the WMS series does not allow analysis to be broken down into smaller units of administration, such as division or location. The district classification that the frame lends itself to is not ideal for poverty analysis because districts are not internally homogeneous with respect to general living standards and conditions. Areas within a district endowed with say, good climatic conditions, may lead to imprecise identification of needy areas if the district is showing impressive results.¹

¹ See Crawford and Thorbecke ... The Analysis of food poverty: An illustration from Kenya... in The Pakistan Development Review Vol. XIX, No. 4 (Winter 1970)

It should also be noted that surveys like the WMS series cover only people living in 'households'. This means that some urban groups living in the most desperate conditions simply escape the sampling frame because they are either not living in identifiable households or are difficult to reach by the enumerators. This applies for example to beggars, street children and women in destitute conditions. Thus the urban poverty figures in this report are representative for people living in somewhat 'orderly' surroundings. As the 'non-household' cases are expected to be more frequent in an urban environment, computed urban poverty will, all other things being equal, remain somewhat understated compared to rural figures.

CHAPTER 2

POVERTY CONCEPTS

2.0 The Measure of Living Standard

Standard of living has traditionally been measured in terms of a person's ability to attain certain universally recommended basic needs for survival such as food, clothing, health, education and shelter. For example, the human body requires a minimum food-energy intake to maintain bodily functions at rest. In addition, different people require different levels of food energy-intake depending on the types of work they do, or their geographical location. However, food-energy intake alone cannot be a valid welfare indicator because there are some essential non-food goods and services that even the poorest person cannot do without. For example health is essential for most activities, and being healthy requires spending on clothing, shelter and health care. Total consumption of both food and non-food is therefore considered a better welfare indicator than food-energy intake. **Efforts to determine people's well-being have therefore concentrated on estimating the aggregate value of all goods and services considered necessary to satisfy an individual's basic needs. The WMS series collects information mainly on household consumption expenditures, which is then analysed to assess the welfare of households.**

Although the above approach is widely used as the measure of well-being, it should however be noted that it may ignore some peoples' perception (subjective view) of welfare. In an attempt to include the ordinary person's view of who is poor, the government of Kenya has carried out Participatory Poverty Assessments (PPAs) in some districts, which have been used to complement the statistical information from the WMS series. The last PPA (PPAII) was conducted between November and December 1996. Its result formed part of Volume 1 of the First Poverty Report in Kenya, based on the WMS II of 1994, which was released in August 1999.

2.1 Absolute versus Relative Poverty

Absolute Poverty is defined in terms of the requirements considered adequate to satisfy minimum basic needs; the Absolute Poor have no means to meet these needs. Specification of these minimum requirements is inspired by the universal valuation of human dignity. Those falling below the poverty lines (Food or Overall) derived in this manner are leading dehumanising lives according to universal norms of human dignity; facing starvation, lack of shelter, or the prospect of turning to immoral activities for survival.

Another characteristic of Absolute Poverty is that it has real value over time and space of welfare. What this means is that poverty lines defined in this way guarantees that poverty comparisons made are consistent in the sense that two individuals with the same level of welfare are treated the same.

Relative poverty line however is used to refer to a poverty line, which is proportional to the mean or median income or expenditure. For example, many studies have used two-thirds (2/3) and one-third (1/3) of the mean to define relative poverty, with the latter being similar to the Hardcore Poor. Some people have also used percentile cut-offs to define relative poverty line at, say, the bottom 20 percent of individuals in the distribution of income or expenditure.

2.2 Poverty Measures (prevalence and depth of poverty)

Poverty measures summarise information on the prevalence, depth and severity of poverty. The P-alpha class of poverty measures developed by Foster, Greer and Thorbecke (FGT) in 1984 will again be adopted for this report, as they were for the First Poverty Report in Kenya.

The **head-count ratio** showing poverty incidence and represented by $P_{\alpha=0}$ is the most widely used indicator of poverty. It tells us the proportion of total households classified as poor, or those with expenditures below the poverty line. It is the ratio of persons living in poor households to the total population, and is used chiefly for comparisons between different periods and areas – as in assessing overall progress in poverty reduction. It is often the starting point for social policy programming, sometimes used to obtain rough figures about the target population for some anti-poverty programmes.

The head-count indicator however may show no variation while the degree or intensity of poverty is rising or declining. The intensity of poverty is captured by the intensity index represented by $P_{\alpha=1}$, which measures the average difference between the poverty line and the actual income/expenditures of each poor household. This measure is useful in suggesting the amounts of money that would be contributed by every individual (under the assumptions of perfect targeting of the poor) to eradicate poverty.

2.3 The Concept of Adult Equivalent

Consumption per *adult equivalent* will be used in this report as the index of individual welfare. This index is preferred over other indices such as per capita consumption because it ensures that the differing needs of household members, and the economies of scale that may be beneficial to bigger households, are covered. The argument for the preference of this index is that not all members of the household have similar claims on the available goods and services, hence it is convenient to make all members of the household homogeneous by means of some equivalence scale.

Since life cycle stages are perhaps the most important single determinant of difference between the needs of members of the same household, various consumption levels according to age groups have been proposed. Two equivalent scales have been widely used, though exogenously derived. They differ according to age-group breakdown and consumption weights attached to age groups. The one developed by Anzagi and Bernard (1977a) gives age-groups 0-4 a consumption weight of 0.24, 5-14 a weight of 0.65, and ages 15+ a weight of one. The other equivalence scale that has also been widely used is that based on Sri Lankan and Indonesian data developed by Deaton and Muellbauer. In this scale, age groups 0-6 are given a weight of 0.2; 7-12 a weight of 0.3, 13-17 a weight of 0.5, and ages 18+ a weight of one. The construction of such a scale in an endogenous fashion, i.e. from the data, is a complex exercise fraught with conceptual and practical difficulties, hence there is no agreement in the literature on the best procedures. This report uses the equivalence scales produced by Anzagi and Bernard (1977a) to derive the individual welfare index.

2.4 Composition of the Food Basket

Since the WMS series started in 1992, attempts have been made to widen the coverage of the food items consumed by various communities in Kenya. Thus, WMS III gathered more information on food items consumed than did WMSII. Emphasis has been placed on collecting more information about the various non-purchased food items (own-food) consumed by households. It should however be admitted that some own-consumption food items have been left out because of the difficulty of finding their market value. Some Kenyan communities, for example, rely heavily on wild fruits, roots and even fresh blood for food, yet these items have no known market values. These food items could however be providing these communities with the minimum food-energy requirements. While the proportion of communities with these dietary patterns is small, (mainly nomadic communities) there is still need for research into this area to establish the nutritional values of these food items.

Food items gathered in WMSIII were grouped into the following food categories that formed the food basket. The breakdown of these grouped food items is contained in Box 1.

1. Bread	7. Maize	13. Cereal
2. Meat	8. Fish	14. Milk
3. Eggs	9. Oils & fats	15. Fruits
4. Vegetables	10. Beans	16. Roots
5. Sugar	11. Tea & coffee	17. Beverages
6. Baby food	12. Other foods	

2.5 Composition of Non-Food

The basic non-food items included in the analysis were grouped as follows:

1. Health	5. Non-durables	9. Personal care	13. Clothing
2. Footwear	6. Tobacco	10. Entertainment	14. Transport
3. Transfer	7. Insurance	11. Education	15. House rent
4. Durables	8. Water	12. Fuel	

The breakdown of these grouped non-food items is given in Box 2.

Box 1: Composition of food items

- Bread consisted of: wheat grain, wheat flour, prepared breads.
- Maize: maize grain and maize flour.
- Cereals: rice, sorghum grain, sorghum flour, millet grain, millet flour and other cereals.
- Meat: beef, chicken, sheep, pork, goat, other meat.
- Fish: various types of fish, including tinned fish.
- Milk: Fresh milk.
- Eggs.
- Oils and fats: groundnuts, coconuts, simsim, castor seed, other pulses, nuts and seeds, cooking fats, salads, lards from butcheries, margarines, other traditional oils, other oils, other fats.
- Fruits: pineapples, oranges, mangoes, avocados, pawpaws, ripe bananas, dates, other fruits;
- Vegetables: green bananas, cabbages, kales (*sukuma*), tomatoes, carrots, onions, french beans, other vegetables;
- Beans: beans, peas, cowpeas, green/black grams.
- Roots: English potato, sweet potato, cassava, arrowroots, yams and other roots.
- Sugar: sugar cane, manufactured sugar, honey, home-made and manufactured sweets.
- Tea, coffee and cocoa.
- Beverages: fruit juices, sodas, traditional and manufactured beers, wines, other beverages.
- Baby foods.
- Other foods: salt, ground pepper/curry, other spices, snacks tinned vegetables /fruits, and meals out.

Total expenditure includes both food and non-food. House rent is excluded in the computation of non-food for rural areas, as many rural people own the structures they live in. Baby food and other foodstuffs were excluded from the computation because of the difficulty of finding their calorie composition.

Box 2: Composition of non-food items

- Health expenditures included: doctors fees, medicine, hospital and other medical expenses.
- Non-durables: Toiletries, face soap, shampoo, washing detergents, shoe polish, lavatory cleaning, dishwashing, insecticides, cleaning equipment, home repairs, both cash and in-kind expenditures on domestic servants, matches/candles and expenditures on batteries/bulbs.
- Personal care: men and women's haircuts, beautician and other personal care expenditures.
- Clothing: Expenditures on men, women, boys and girls' clothing.
- Footwear: expenses on men, boys and girls' footwear.
- Expenditures on cigarettes and tobacco.
- Entertainment: leisure books, newspapers, stationery, entertainment (films and videos), and tapes/records.
- Transfers out: cash and in-kind transfers.
- Insurance: medical, education, life, car, house and other insurance cover expenditures.
- Education expenses: fees, uniform, food, transport, *harambee* contribution, and other education expenses for primary, secondary and post-secondary education.
- House rent.
- Durables: furniture, linens, tableware, kitchen equipment, cars, bicycles, carts, radios, televisions, lamps and torches and expenses on other household assets.
- Water: Water/sewer expenses.
- Transport: expenditures on petrol/diesel, taxis/buses/matatu fares, car and bicycle repairs, and other transport expenses.
- Fuel: electricity, gas, firewood, paraffin, and charcoal.

CHAPTER 3

MEASUREMENT OF POVERTY

3.1 The Adopted Definition of Poverty

No single definition can exhaustively capture all aspects of poverty. Poverty is perceived differently by different people, some limiting the term to mean a lack of material well-being and others arguing that a lack of things like freedom, spiritual well-being, civil rights and nutrition must also contribute to the definition of poverty. This report adopts the material well-being perception of poverty. According to this approach, **the poor are defined as those members of society who are unable to afford minimum basic human needs, comprised of food and non-food items.** Although the definition may seem simple, there are several complications in determining the minimum requirements and the amounts of money necessary to meet these requirements. Several assumptions must therefore be made, particularly in countries with shortages of information on various aspects of life, and these assumptions may reduce the accuracy of the analysis.

3.2 Setting up Poverty Lines/Benchmarks

Several methods have been used (including **The Cost-of-Basic Needs Approach**) for setting up benchmarks for minimum basic need requirements. The various methods have both weaknesses and strengths, but an in-depth review of these methods is beyond the scope of this report. The method adopted here is called the **Food-Energy Intake (FEI)** method, which aims at finding a monetary value at which basic needs are met. It should be pointed out that such a poverty line presents only the minimum levels of basic needs, below which a decent material lifestyle is not possible.

Food Poverty Line

The FEI method sets the minimum food requirement by finding the consumption expenditure level at which food energy intake is just sufficient to meet pre-determined average food energy requirements for normal bodily functions. The pre-determined food energy requirement used in this report is based on the minimum calorie intake of 2,250 calories per day per adult person recommended by the FAO and WHO. From the reported food consumption pattern in 1997, food expenditure level, which would bring about the required food energy intake of 67,500 (2250*30) calories was estimated at Kshs. 927 per adult person per month in rural areas. **This was the rural Food Poverty Line.** Annex Table 4 presents the computation of the Food Poverty Line.

Non-Food Allowance

Since minimum basic needs do not entail food-energy intake alone, some minimum basic non-food items such as health, shelter, and education are also necessary. There is no agreement to date in the literature on how to determine the non-food allowance component of minimum basic needs. In this report we adopt a method that is often used by other countries, where the mean non-food household spending in the neighbourhood of the Food Poverty Line has been used as the minimum non-food allowance. Although studies define the neighbourhood differently, in this report, the neighbourhood is defined by a band of -20% and +10% on the lower and upper sides of the food poverty line. This is designed purely to give more weight to

the non-food spending of the poor on the lower side of the Food Poverty Line. From this operation, a non-food expenditure allowance of Kshs 312 per month per adult person was derived for rural areas.

Overall Poverty Line

Basic minimum requirements are divided into food and non-food requirements. Thus, the Overall Poverty Line is derived from the summation of the food expenditure level that brought about the required food energy intake and the non-food expenditure allowance. In 1997 therefore, the Overall Rural Poverty Line was computed at Kshs. 1,239 per month per adult person (i.e. Kshs.927+312). Those whose total expenditure fell below this amount were considered absolute poor. It should be noted here that the term Absolute Poverty is often used interchangeably with the term Overall Poverty.

The Hardcore Poor

Further analysis of poverty has revealed that there is a 'hardest-hit' category of people consisting of those who could afford to meet the basic minimum food requirement even if they allocate all their spending on food. This group is commonly referred to as the **Hardcore Poor** in the literature of poverty. **The Hardcore Poverty Line** is normally set at the total expenditure equivalent to the Food Poverty Line. Thus the 1997 Hardcore Poverty Line was Kshs. 927 per month per adult person. Those whose total expenditure was less than this amount were considered Hardcore Poor.

Urban Poverty Lines

An approach similar to that described above is used for deriving the various poverty lines for urban areas. The only reason why urban poverty analysis has been considered separately is that expenditure on rent is included in the estimation of the basic non-food items in urban areas. For urban areas therefore, the Food Poverty Line was estimated at Kshs. 1,254, while the Overall Poverty Line was set at Kshs. 2,648. The Hardcore Poverty Line was therefore a total expenditure of Kshs. 1,254.

3.3 Regional Price Deflators

Households from various regions of the country pay different prices for commodities, and it is essential that such variations be reduced when utilising household expenditures as a welfare measure so that the regions are comparable. The reference *period* of a price index becomes the reference *region*. This can either be a national average, one particular province or the capital city, for which the most reliable prices are usually available. In the analysis of WMS I, II, & III, Nairobi is used as reference. Paasche's (price) cost-of-living index, recommended for such adjustment and, has been used to derive the regional deflators. The Paasche Price Index (I_p) for region 1 is given by the following formula,

$$I_{p1} = \frac{\sum_{i=1}^n (q_{1i} p_{1i})}{\sum_{i=1}^n (q_{1i} p_{0i})}$$

where p_{0i} and p_{1i} are the prices of commodity i ($i=1, \dots, n$) in the reference (0) and non reference (1) regions respectively, and q_{1i} is the quantity of commodity i in region 1.

WMS III gathered food prices from various centres in areas that were covered by the survey. The retail prices of non-food commodities from various urban centres gathered during the survey period for the purpose of updating the CPI (by CBS) were utilised to compute poverty deflators.

The commodities for which prices are collected for the CPI contain a number of food and non-food items. Each urban centre for which prices are collected represents a number of districts within its catchment area. For example, Meru Town prices are taken to represent prices in Eastern Province. Prices were collected from the following 13 urban centres. In some cases more than one market is covered in a district. Table 3.1 presents the centres by region.

Table 3.1: Market centres where prices were collected

Nairobi 9 Centres: Kibera, Kawangware, Westlands, South 'C', City Centre, Eastleigh, Dandora, Kangemi, Githurai, Kariobangi.	Central Province Nyeri Town	Coast Province Mombasa Town Kilifi Town Malindi Town	Eastern Province Meru Town
Nyanza Province Kisii Town Kisumu Town	Western Province Kakamega Town	Rift Valley Province Nakuru Town Kabarnet	North Eastern Garissa Town

The resulting price deflators were used to deflate the expenditures from the various regions.

The following table presents the deflators used in the last four welfare surveys. One of the bold assumptions made in the use of the price deflators is that large provinces like Eastern or Rift Valley have homogenous prices, and hence a single deflator is applied.

Table 3.2: Regional Food Price Deflators, 1981, 1992, 1994 and 1997

	1981/82	1992	1994	1997
Rural Deflators				
Coast	1.03	0.91	0.99	0.96
Eastern	0.97	0.83	0.95	0.96
Central	0.96	0.92	0.93	0.91
Rift Valley	0.96	0.81	0.93	0.93
Nyanza	0.91	0.78	0.91	0.97
Western	0.98	0.82	0.95	0.96
North Eastern	-	-	1.06	0.98
Nairobi	1.00	1.00	1.00	1.00

Box 3: Graphical illustration of the poverty concepts discussed above

Bar 1 in Chart 1 below depicts the situation of the Hardcore Poor. Their total expenditures, (i.e. the green and yellow bars added), are so low that such a household cannot even afford the required minimum food, i.e. reach the Food Poverty Line [technically this group is both Food Poor and Overall Poor].

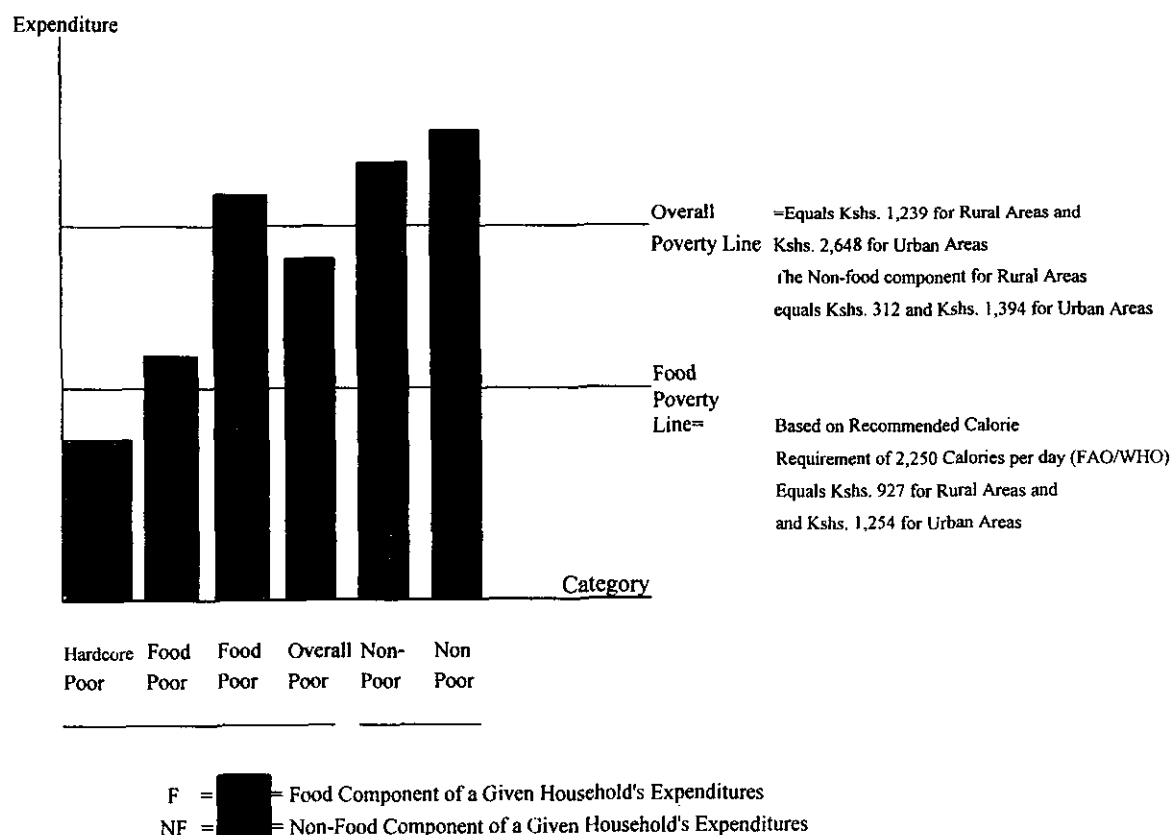
Bar 2 shows those whose total expenditures would enable them to buy enough food to avoid Food Poverty, but they actually do not buy enough food to avoid being categorised as Food Poor [note, they are also counted as Overall Poor].

Bar 3 presents an interesting and peculiar situation. These households, although their total household expenditures exceed the Overall Poverty Line (so that they are no longer considered Overall Poor), their expenditures on food are not even enough to satisfy the minimum food requirements. This group was therefore categorised as Food Poor. One can imagine the various reasons for such a situation. Some people may deny themselves adequate food in order to meet pressing non-food needs. The survey found for example that 50 to 60 percent of expenditures on non-food items went towards medical bills, education costs, clothing and fuel, for instance firewood, charcoal, paraffin, gas and electricity [Note, this group was not categorised as Overall Poor].

Bar 4 shows those who spend enough on food to avoid Food Poverty, but not enough on non-food to avoid Overall Poverty. These households were therefore classified as Overall Poor [but not Food Poor].

Finally, Bar 5 and Bar 6 represent the non-poor groups. They are neither Food- nor Overall Poor.

CHART 1: The Poverty Categories in Kenya-Based on Two Poverty Lines



NB. The group of Hardcore Poor is also included in the Food Poor and the Overall Poor and the first group of Food Poor is also included in the group of overall Poor

CHAPTER 4

MAIN RESULTS

4.1 Overview of Expenditure Patterns in WMSIII

Household expenditure patterns can give indications of household welfare. Table 4.1 shows the shares of purchased and own-produced food. In rural areas, households purchase 70 percent of their food requirements; only 30 percent is from their own produce. Regional disparities exist, with Coast Province having the lowest share (13%) of own-produce, followed by Central Province with 23 percent. Rift Valley and Nyanza Provinces had relatively higher shares of own produce. This pattern changes slightly with respect to urban areas, where the overall share of own produce is a negligible 2 percent. It is therefore justified to say that most Kenyans rely heavily on purchased food. The implication of this on the welfare of *Wanainchi* is that one has to have sufficient money in order to afford a minimum dignified life.

Table 4.1: Percentage Shares of Purchased and Own-Produced Food

Region/Town	Own-Food Produce	Purchased Food
Central	23	77
Coast	13	87
Eastern	29	71
Nyanza	35	65
Rift Valley	36	64
Western	31	69
Total Rural	30	70
Total Urban	2	98
Nairobi	1	99
Mombasa	1	99
Kisumu	2	98
Nakuru	1	99
Other Towns	4	96

4.2 Food and Non-Food Expenditure Shares

Table 4.2 presents mean per adult equivalent real expenditures (nominal expenditures deflated by price deflators) and their corresponding shares by regions. Expenditures on both food and non-food were lower in rural areas than in urban areas. Non-food expenditure in urban areas was almost five times that of the rural average. The overall non-food share in urban areas was about 55 percent, compared with 28 percent in rural areas. Food share was higher in rural areas (72%) than in urban areas (45%).

Table 4.2: Mean Monthly Adult Equivalent Food and Non-Food Expenditures and shares

Region/Town	Mean expenditures (Kshs)			Shares		Mean Adulteq
	Food	Non-Food	Total	Food	Non-food	
Central Rural	1,750.1	820.0	2,570.1	68.1	31.9	3.5
Coast Rural	1,218.2	698.0	1,916.2	63.6	36.4	4.1
Eastern Rural	1,174.2	415.8	1,590.0	73.8	26.2	4.2
Nyanza Rural	1,145.7	320.7	1,466.4	78.1	21.9	3.7
Rift Valley Rural	1,377.6	577.2	1,954.8	70.5	29.5	3.7
Western Rural	1,108.0	357.0	1,465.0	75.6	24.4	3.9
Total Rural	1,322.7	522.9	1,845.6	71.7	28.3	3.8
Total Urban	2,007.3	2,417.7	4,425.0	45.4	54.6	2.9
Nairobi	1,837.1	2,946.2	4,783.3	38.4	61.6	3.1
Mombasa	2,511.3	2,383.2	4,894.5	51.3	48.7	2.8
Kisumu	1,604.0	1,420.2	3,024.2	53.0	47.0	3.1
Nakuru	2,058.6	2,066.1	4,124.7	49.9	50.1	2.7
Other Towns	2,082.6	1,861.7	3,944.3	52.8	47.2	2.6

Non-food expenditure was high in urban areas because of the necessary addition of non-food items like house rent and transport. According to the 1997 Economic Survey, house rent takes a quarter of the household budget for lower income urban groups. Generally, households that allocate a large share of their income to food are considered to be poor. Although urban areas seem to be allocating a larger proportion of their income to non-food items, they may not necessarily be that well-off. It is possible that some households make the choice of foregoing eating, or eat cheap food, in order to meet unavoidable non-food expenditures like taking a sick child to the hospital or paying school expenses. Annex Tables 1a-3b presents the expenditures and shares by food and non-food items for urban and rural areas.

4.3 Overview of Poverty

Table 4.3 shows that the prevalence of poverty at the national level was 52.3 percent. What this means is that 52 percent of Kenyans could not achieve the minimum expenditure to acquire the basic food and non-food items. The data also showed that the incidence of rural Food Poverty was 51 percent, while the overall incidence of rural poverty was about 53.9 percent. In urban areas, Food Poverty was 38 percent, while Overall Poverty was 49 percent. Hardcore Poverty was much higher in rural areas (35%) than in urban areas (7.5%).

Table 4.3: A Summary of Poverty Results 1997

	Poverty Measures	$P_{\alpha}=0$ Adult Eq.	$P_{\alpha}=0$ Households	$P_{\alpha}=0$ Individuals
Rural poverty	Food Poverty	50.65	43.39	50.58
	Absolute Poverty	52.93	46.35	53.06
	Hardcore Poverty	34.82	30.10	34.88
Urban Poverty	Food Poverty	38.29	32.35	38.37
	Absolute Poverty	49.20	43.45	50.11
	Hardcore Poverty	7.58	5.89	7.70
National Absolute		52.32	45.76	52.60

About 46 percent of the households surveyed in 1997 were living below the Absolute Poverty Line. Rural Hardcore Poor households however, suffer from a substantially greater prevalence of poverty than their urban counterparts.

4.4 Extent of Rural Poverty

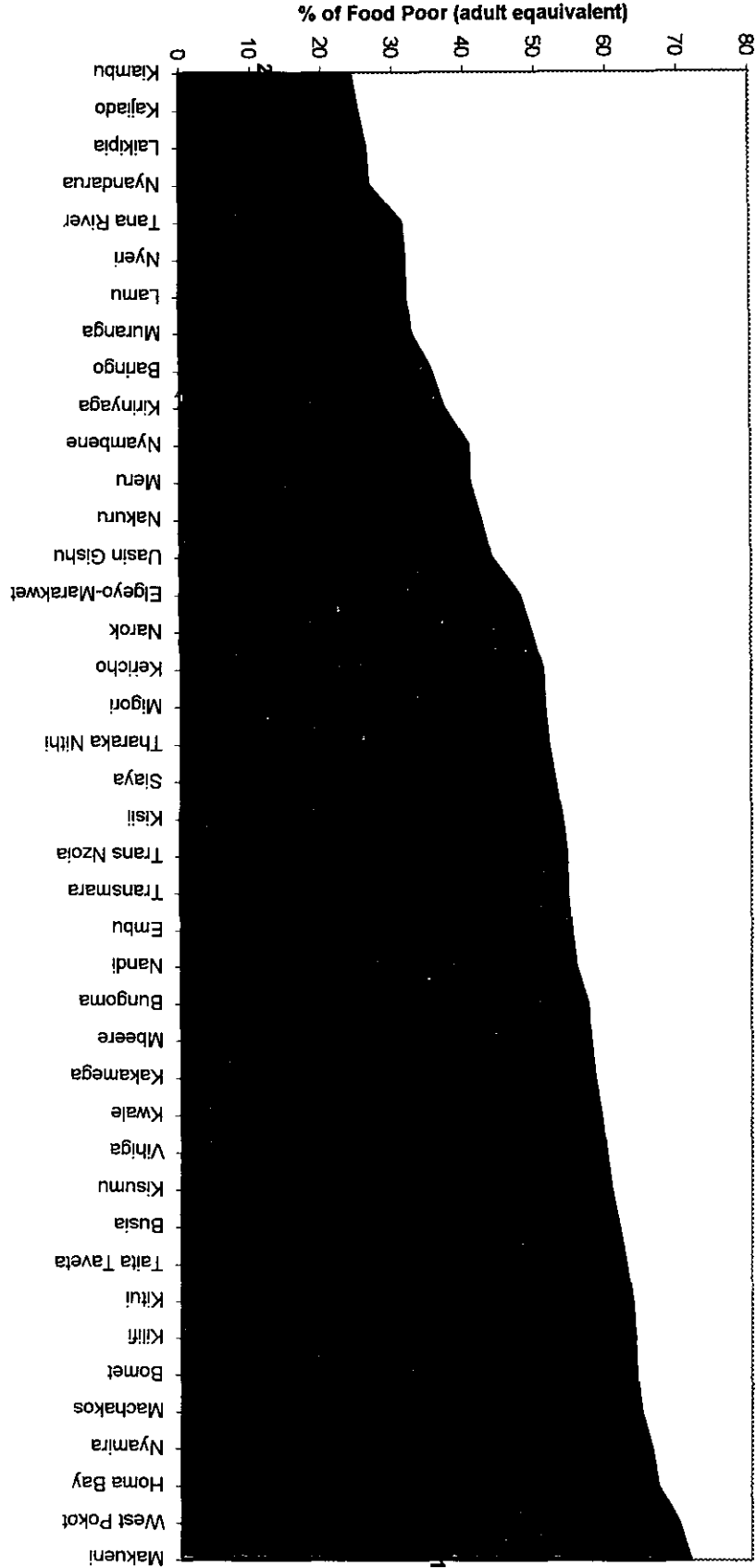
4.4.1 Mountain of Food Poverty

Chart 2 depicts the ranking of districts by Food Poverty. The rankings show that the prevalence of Food Poverty was over 50% in the majority of districts covered by WMS III. Makueni and West Pokot Districts scored the highest Food Poverty incidences, at over 70 percent each, while Kiambu, Kajiado, Laikipia and Nyandarua each had food poverty incidences of less than 30 percent.

4.4.2 Contribution of the Districts to Rural Food Poverty

The last three columns of Annex Table 5a present the contribution of various regions to rural poverty. Three provinces - Rift Valley, Nyanza and Eastern - contributed to over 66 percent of total rural Food Poverty, with each accounting for over 20 percent. Rift Valley alone contributed three times the share of Coast in rural food poverty with more than 23 percent, while rural Western and Central Provinces accounted for 16 and 10 percent respectively. Eastern and Western Provinces however depicted a somewhat peculiar pattern in their contribution to Food Poverty by districts. In Eastern, out of the total contribution of 20.39 percent, close to 13.5 percent came from three adjacent Ukambani Districts of Machakos, Makueni and Kitui, which together form a large contingent zone of Food Poverty. Similarly, in Western Province, Bungoma and Kakamega Districts contributed more than two-thirds of the Food Poor in the province.

CHART 2: The Mountain of Food Poverty -District Ranking



4.4.3 Overall Rural Poverty

The minimum recommended standard of living requires more than satisfaction of food needs. While food is important in poverty analysis, the measure of total consumption, including some basic non-food, is essential. CHART 4 gives the district ranks for this prime measure of poverty using the headcount index.

Generally, the plot begins on a rather gentle slope and escalates sharply toward the end. The poorest district in terms of Overall Poverty (Homa Bay) has *over three times* the poverty incidence of the least poor (Kiambu). Some individual districts have switched positions held in the Food Poverty ranking. Makueni and Homa Bay are the poorest districts, with over 70 percent of their populations living below the absolute poverty line. While Kiambu has retained its number one position in terms of being the least poor both in Food and Overall Poverty, Kajiado, Laikipia and Nyandarua have swapped positions. Annex Table 6a presents the Overall Rural Absolute Poverty.

Table 4.4 presents rural poverty decomposition by six geographical regions in Kenya. The table concentrates on the Absolute Poverty Line. Certain patterns emerge with respect to geographical regions. With respect to the poverty gap and severity index, Central Province has lowest values of $P_{\alpha}=1$ and $P_{\alpha}=2$ indices, while Coast has the highest.

Table 4.4: Overall Rural Poverty by Region

Region	Headcount Ratio						Contribution to Poverty		
	$P_{\alpha}=0$	$P_{\alpha}=0$	$P_{\alpha}=0$	Poverty	Severity of	% of	$P_{\alpha}=0$	$P_{\alpha}=1$	$P_{\alpha}=2$
	adult	HHs	Mem	Gap, $P_{\alpha}=1$	Poverty, $P_{\alpha}=2$				
Central	31.4	25.7	31.4	9.3	3.9	17.3	10.3	8.3	7.4
Coast	62.1	51.9	62.2	24.4	11.9	6.6	7.7	8.3	8.5
Eastern	58.6	53.1	58.2	22.4	10.7	18.2	20.1	21	21.2
Nyanza	63.1	56.7	62.9	23.4	11.4	19.9	23.7	24.1	24.7
Rift Valley	50.1	44.1	50.2	17.6	8.2	24.5	23.2	22.3	21.8
Western	58.8	53.6	59.3	22.8	11.2	13.5	15	15.9	16.4
Total	52.9	46.4	53.1	19.3	9.2	100	100	100	100

4.4.4 Contribution to Overall Poverty

Nyanza Province, with about a quarter of the rural poor, contributed most in 1997 to **Overall Poverty**, followed by Rift Valley. Eastern Province, which ranked second in 1994, comes third in 1997 - a factor that could depend on when the surveys were conducted. All the same, one glaring fact emerges from the WMS series so far conducted: whatever time of the year the survey is conducted, Eastern, Rift Valley and Nyanza Provinces invariably lead in contribution to overall poverty.

A glance at CHART 3 shows that there are four provinces - Coast, Western, Eastern and Nyanza - whose contribution to poverty is more than their share in population. Of course there may be very poor pockets of poverty masked by provincial aggregates. District contributions to Overall Poverty are presented in Annex Table 6a.

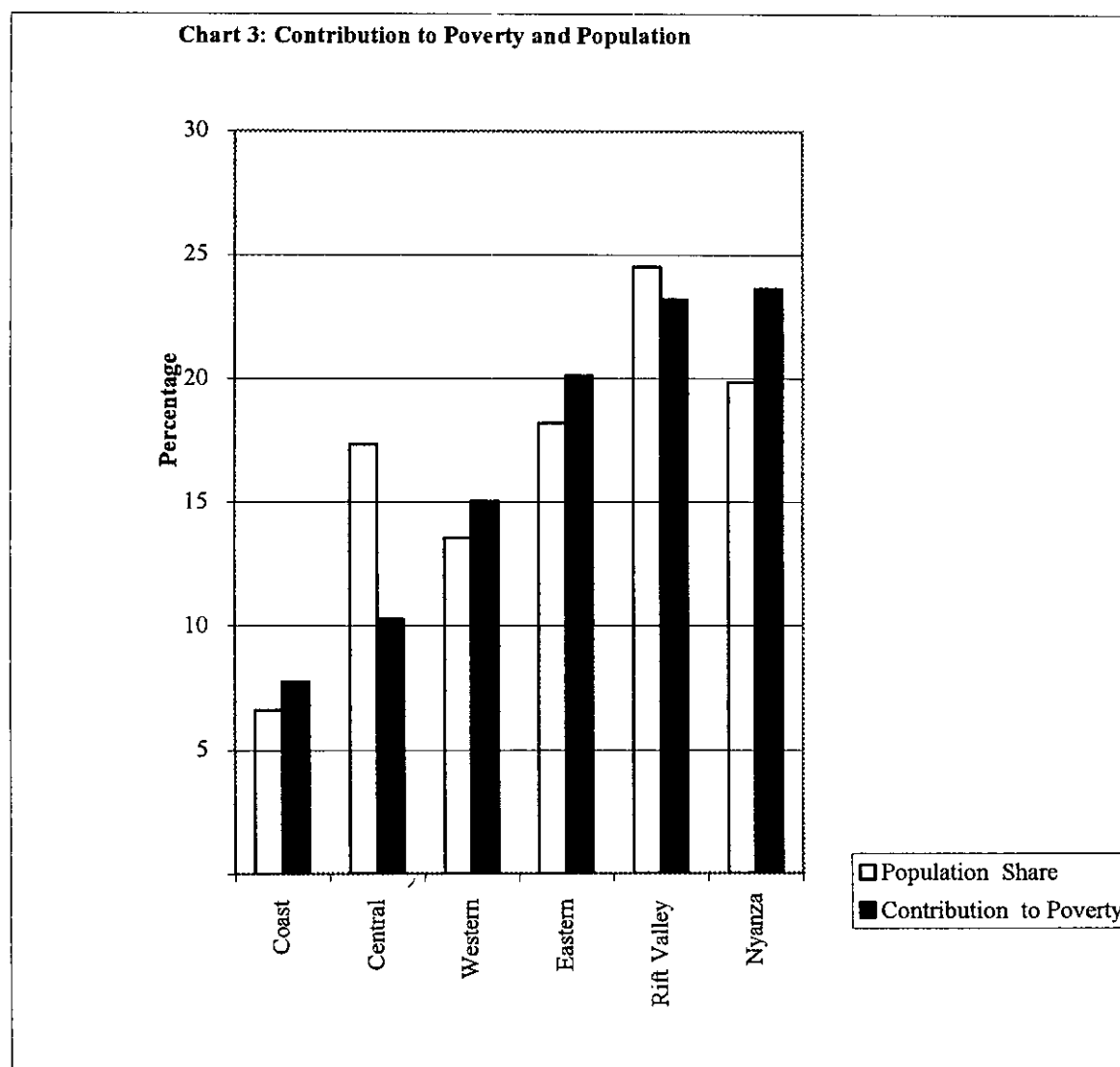


CHART 4: The Mountain Range of Absolute Poverty

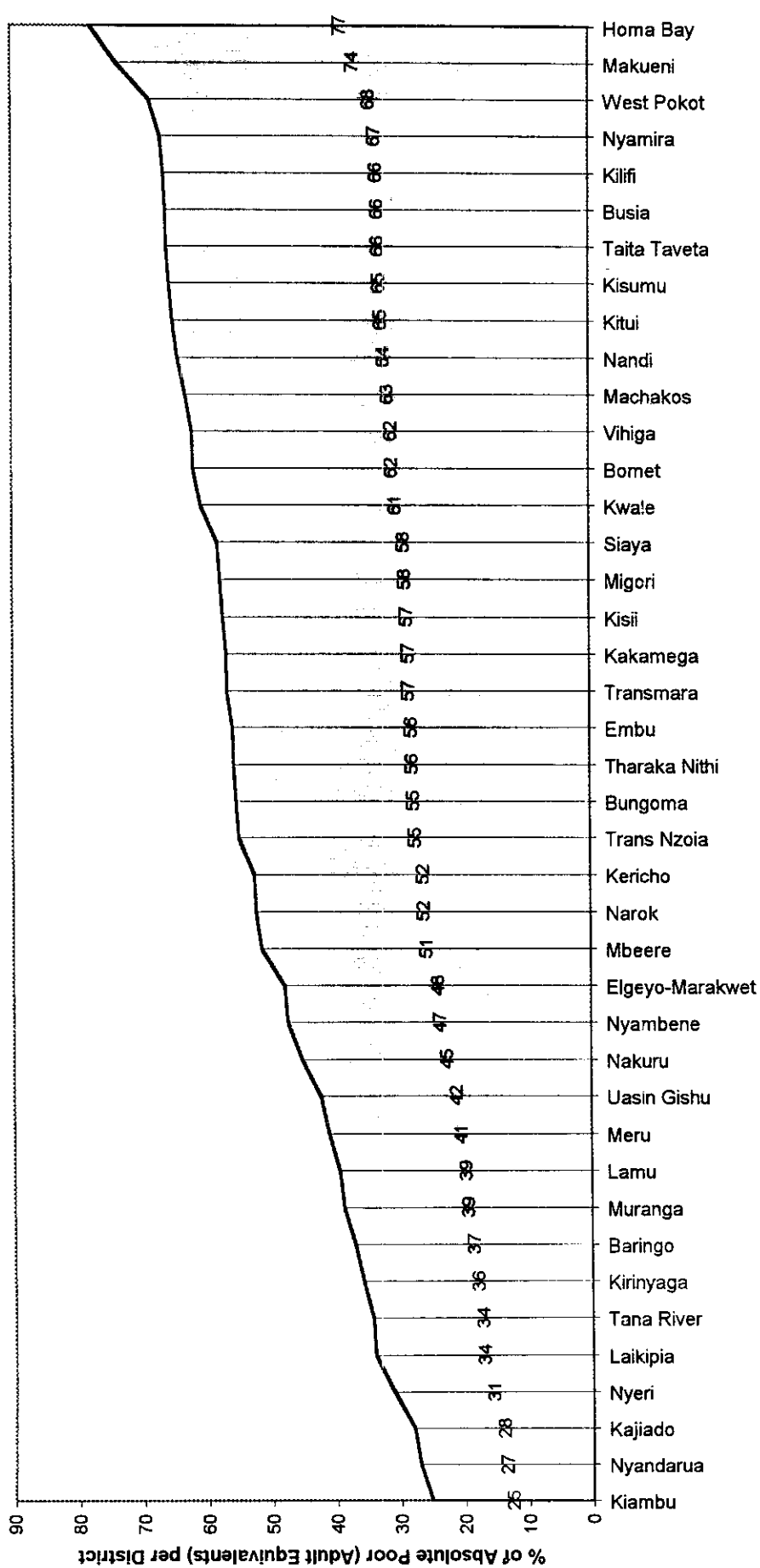
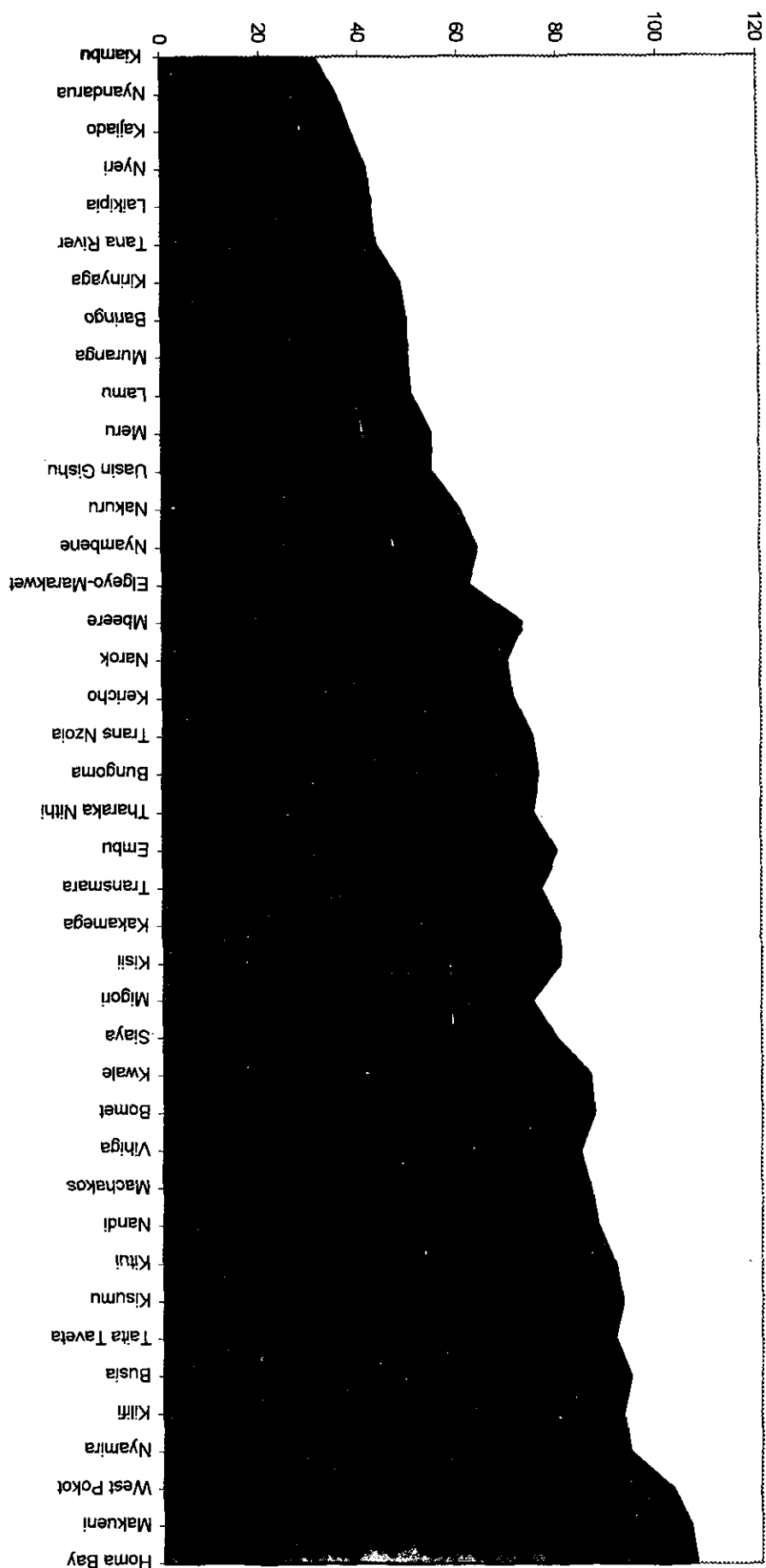


CHART 5: Absolute Poverty - Headcount and Income Gap in Comparison



4.4.5 Hardcore Poor in Rural Areas

Regionally, the relatively worst-hit provinces in terms of Hardcore Poverty were Coast, Eastern, Nyanza and Western, which had prevalence rates of 40 percent or more. Care should be exercised in making general conclusions based on aggregate regional poverty averages, as this may hide important differences in living standards within the province.

Table 4.5: Hardcore Rural Poverty by Region

Region	Headcount Ratio						Contribution to Poverty		
	$P_{\alpha}=0$ Adult Equi.	$P_{\alpha}=0$ HHs	$P_{\alpha}=0$ Individuals	Poverty Gap, $P_{\alpha}=1$	Severity of Poverty, $P_{\alpha}=2$	% of Population	$P_{\alpha}=0$	$P_{\alpha}=1$	$P_{\alpha}=2$
Central	15.6	12.8	15.6	4.0	1.4	17.4	7.8	6.7	6.0
Coast	44.8	36.8	45.1	13.5	5.4	6.6	8.5	8.6	8.7
Eastern	40.9	36.2	40.6	12.2	4.7	18.1	21.3	21.3	21
Nyanza	41.9	37.8	42.1	13.1	5.5	19.9	24.0	25.3	26.7
Rift Valley	31.7	27.4	31.5	9.1	3.5	24.6	22.3	21.7	21.1
Western	41.7	37.9	41.8	12.5	5.0	13.5	16.1	16.3	16.6
Total	34.8	30.1	34.9	10.3	4.1	100.0	100.0	100.0	100.0

The basic patterns are preserved when we look at Hardcore poverty. Poverty in the Coast province, for example, is seen to be much of the Hardcore type. Its contribution to national incidence of poverty is now 8.5%, compared to a contribution of 7.7% when we use absolute poverty. In fact with Hardcore Poverty Line and the index $P_{\alpha}=0$ (which emphasizes poverty gap), the Coast has the highest $P_{\alpha}=0$ which is 14% compared to that of the Central (which is only 4%). The same pattern occurs in Nyanza, Western and Eastern regions. At the other extreme, we have Central province, which also accounts for around 17% of the national population but contributes to only 6% ($P_{\alpha}=2$) of national poverty.

Three provinces - Rift Valley, Nyanza and Eastern - contributed to over 66 percent of total rural Food Poverty, with each accounting for over 20 percent. Rift Valley alone contributed three times the share of Coast in rural food poverty with over 23 percent, while Western and Central accounted for 16 and 10 percent respectively. Eastern and Western provinces however depicted a somewhat peculiar pattern in their contribution to rural food poverty by districts.

In Eastern, out of the total contribution of 20.4 percent, close to 13.5 percent came from three adjacent Ukambani Districts of Machakos, Makueni and Kitui which together form a large contingent zone of food poverty. Similarly in Western Province, Bungoma and Kakamega contributed to more than two-thirds of the Food Poverty in the province.

Annex Table 7a presents the results of Hardcore Poverty in Kenya in 1997 by district. Five districts reported over 50% of their population to be living below the hardcore poverty line with West Pokot (60%) leading followed closely by Makueni (59%), Homa Bay (54%), Nyamira (50%) and Busia (50%). This new nucleus of abject poverty in Kenya arises probably due to the omission in the coverage of the survey of all the 1994 districts which had the highest incidences of hardcore poor. In other words the highest incidence of hardcore poor would

probably have been the same districts as in 1994 were it not for the omission in WMS III of Marsabit, Isiolo, Samburu, and Turkana.

Another remarkable pattern appears when comparing the district contribution to rural Hardcore Poverty. Seven districts - Kilifi, Kitui, Machakos, Makueni, and Bungoma, Nyamira and Kakamega - contributed a total of 35 percent to Hardcore Poverty. It is crucial to note here that of the districts reporting over 50 percent in the incidence of Hardcore poverty, only Makueni and Nyamira contributed disproportionately, with more than four percent each. These two districts bear the brand of severe Hardcore Poverty.

4.5 Distribution of Urban Poverty

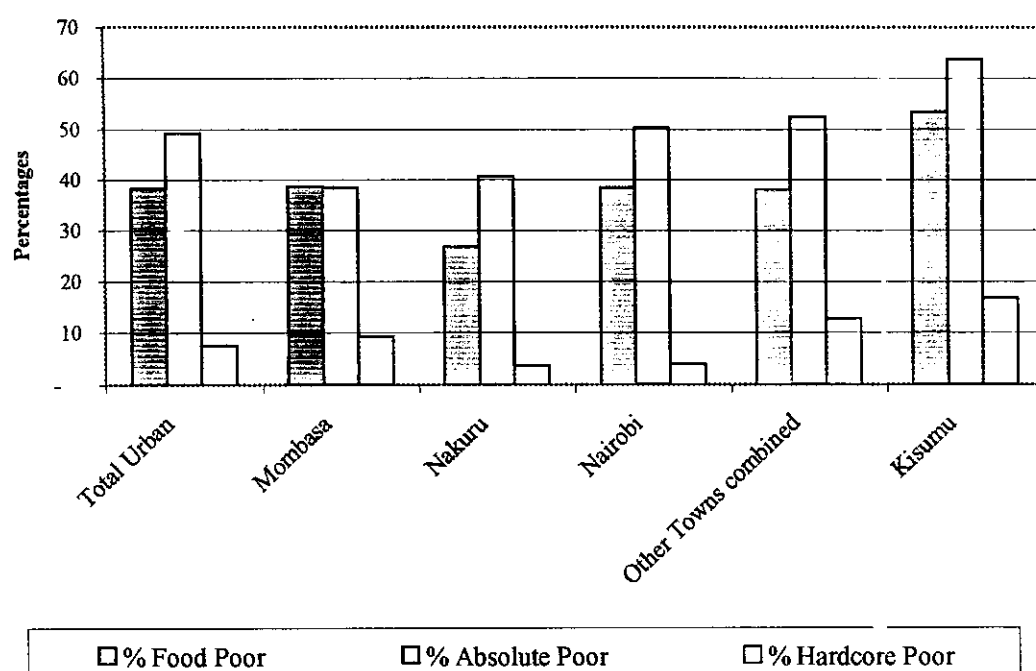
Data for urban poverty comes from Nairobi, Mombasa, Nakuru and Kisumu towns, while data from other small towns in the districts was combined, due to small samples, to form the 'Other Urban' category. The WMS urban sample was too small to allow individual detailed analysis of the small towns.

Chart 5 presents a summary of results on urban poverty, and details are given in Annex Table 8. Read from the left, the chart shows that **Urban Food Poverty** stood at an average of 38 percent, while Overall Poverty was 49 percent. In other words, almost half of the urban population was living below the Absolute Poverty Line. The incidence of urban Hardcore Poverty was very small (7.6%) compared to rural (35%). Absolute Poverty in 1994 was 29%. Assuming that poverty levels in both surveys are comparable (which is strictly not the case) there has been an enormous increase in urban poverty that requires serious investigation.

4.5.1 Food Poverty

Kisumu town reported the highest incidence of Food Poverty, with more than half (53.4%) of its population being below the Food Poverty Line, followed by Nairobi with 38.4% and Mombasa with 38.6 percent. Nakuru recorded the least incidence of Food Poverty with less than thirty percent. Chart 6 below summarises the incidence of Food, Overall and Hardcore Poverty in urban areas.

The urban Food Poverty Line was estimated at Kshs. 1,253.9, compared to a rural line of Kshs. 927.1. Although the WMS series does not report on the quality of food consumed by the households, there are several reasons why an urban food basket may be more expensive than that of their rural counterparts. Few people grow and process foodstuffs in urban areas, with demand high, this pushes up the prices of urban food commodities (as earlier indicated that own-produced food is a mere 2 percent in urban areas).

CHART 6 : Prevalence of Urban Poverty

One possible reason why urban food may have been expensive at the time of the survey (March-May 1997) is that there was a widespread drought in late 1996 that reduced the availability of basic foods. Consequently, staple items such as rice, maize flour, meat, milk, beans, fruits and vegetables recorded significant price increases following the dry weather conditions that prevailed in some parts of the country. Another possible factor that may have contributed to increased food prices was the rise in the variable duty on sugar by 75 percent and the gradual extension of Value Added Tax (VAT) to cover more consumer goods and services. In addition, since urban areas depend on the surrounding rural areas for foodstuffs, transportation and processing costs increase the price of food. Finally, urban business areas are subjected to various costs including high rents for business premises, licensing and cess.

4.5.2 Overall Urban Poverty

Based on the Absolute Poverty Line of Kshs. 2,648, it was estimated that 49 percent of urban dwellers were poor. This is a major shift in the level of urban poverty if we compare it with 1994 when the incidence was about 29 percent. One emerging fact of note is that Kisumu Town has consistently recorded the highest prevalence of Overall Poverty in the last two surveys. In 1994 urban Kisumu recorded 47 percent, while in 1997 about 63 percent of the town's population fell below the Absolute Poverty Line. Nairobi and the category of "Other towns" registered over fifty percent in 1997.

The apparently high prevalence of poverty in Kisumu town could be explained by several factors. Kisumu Town's economy is dominated mainly by *Jua Kali* activities that are prone to low earnings. Other reasons include lack of industrial activities, a big employable population

and the fact that the fish processing which could provide employment opportunities to the town people is partly done in Nairobi. In addition, the recent problem of water hyacinth in Lake Victoria has also rendered jobless many who depend on the lake, consequently swelling the number of people migrating to town in search of jobs.

The 1997 Overall Urban Poverty Line was Kshs. 2,648, an increase of 56 percent over 1994. Most of this increase can be attributed to increases in the price of non-food items, whose share of expenditure averaged over 50 percent. There are many possible reasons why urban poverty may have increased so sharply. One possible explanation is the increasing rate of rural-urban migration in search of work. Due to scarcity of employment opportunities in many urban areas, poor rural migrants often end up in slums, where they strive to survive under difficult circumstances. This fact cannot however be explored further due to small sample sizes at the cluster level.

The other possible reason for recent increases in urban poverty is the rising cost of living, especially for unavoidable expenditure items like school fees, rent, transport and basic commodities. On average, urban rent takes 25 percent of the urban household budget (*Economic Survey 1997*). It is a hard fact that rent, transport, schooling costs and medical services in urban areas are becoming increasingly burdensome.

Although public primary schools charge no official school fees, parents have had to reluctantly accept a host of other costs for books, pens and textbooks, not to mention illegal tuition fees. It is surprising to find that many schools require parents to purchase several versions of textbooks for each subject in every grade, so that 30 books might be required for ten subjects. For early childhood education, the cost of nursery/pre-school care consumes a huge chunk of the urban household budget because most of the institutions offering such services are private.

The cost of living in urban areas, especially during the survey period, also increased as measured by the consumer price index. The general inflation rate, computed as weighted average of price increases for 12 months, accelerated from 1.6 percent in 1994/95 to 9.0 percent in 1996 and to 11.2 percent in 1997. A number of factors influenced this trend.

The 1996 rise in inflation was attributed to an upward adjustment in the prices of petroleum products following tax increases on imported crude oil. At the same time, widespread drought in late 1996 contributed to scarcity and subsequent rapid increases in the prices of many consumer goods and services. Other factors included frequent increases in prices of petrol and petroleum related products, a slight increase of Value Added Tax (VAT) from 15% to 16% and the depreciation of the Kenya Shilling following the withholding of donor aid under the Enhanced Structural Adjustment Facility (ESAF).

The comprehensive economic reforms that Kenya has instituted since the beginning of the 1990s have also led to significant changes in the employment situation. Due to liberalisation and public sector rationalisation programmes, a large proportion of the labour force has and continues to join the precarious informal sector. The Government has also liberalised some policy aspects of the labour market, for example relaxing redundancy procedures and reviewing wage guidelines with a view to eliminating them, thus leaving market forces to determine appropriate wage levels. In 1997 the increase in wage employment was confined to the private sector as wage employment in the public sector registered zero growth in 1995 and 1996. This slow down was attributed to the continued implementation of Government policies

on right-sizing employment in public institutions and the privatisation of non-strategic public enterprises.

4.5.3 Hardcore Poverty

Surprisingly, the prevalence of Hardcore Poverty dropped from 10 percent in 1994 to 7.5 percent in 1997. The overall average in urban areas, however, masks major differences between towns. Kisumu recorded close to 17 percent followed by the category of 'Other towns'. Nairobi and Nakuru on the other hand recorded less than four percent each.

Care should be exercised when interpreting the urban Hardcore Poor, because a survey like the WMS series covers only people living in 'households'. This means that some groups living in the most desperate conditions in urban areas simply escape coverage because they are either not living in identifiable structures or are difficult to reach by the enumerators. This applies for instance to street beggars and children and women in destitute conditions. In 1997 street children were estimated to number 135,000, of which 60,000 were to be found in the streets of Nairobi. Mombasa had about 5,000, Kisumu an estimated 4,000, Kitale 2,000, Nakuru 2,000, Eldoret 600, Nyeri 600 and Thika 520.

Thus urban poverty figures are representative only for people living in somewhat 'orderly' surroundings. As the 'non-household' cases are expected to rise in urban areas, computed urban poverty will, all other things held constant, remain somewhat understated compared to rural figures.

4.6 Poverty in Absolute Numbers

Table 4.6 presents the summary of the total numbers of poor people, households and adult equivalents. Detailed information on the number of Absolute Poor Kenyans in the districts covered by the 1997 WMSIII is contained in Annex Table 9b. The summary table below shows that the absolute poor individuals numbered 13.3 million, comprising some 2.5 million households. Rural poor individuals numbered 11.4 million. In other words, about 80% of the national incidence of poverty is rural.

It should be pointed out again that the coverage of the 1997 survey was not complete. Most of the North Eastern Province - Mandera, Wajir and Garissa - was not covered. The survey only covered a few urban clusters in this province. In Eastern Province, rural clusters of Isiolo and Marsabit Districts were omitted. In Rift Valley, Samburu and Turkana were not surveyed. Given that these districts have a high prevalence of poor people and about 5% of the total population of the country, our rural figure of 11.4 million could be a slight underestimation. The prevalence of poverty in Kenya therefore poses real concern.

Table 4.6: Overall Poverty 1997 in Absolute Numbers

Place of Residence	The Poor		
	Adult equivalents below poverty	Households below Poverty	Individuals Below Poverty
Central Rural	915,150	216,047	1,126,826
Coast Rural	689,240	138,691	883,667
Eastern Rural	1,791,444	382,037	2,280,334
Nyanza Rural	2,106,269	507,720	2,678,518
Rift Valley Rural	2,066,441	485,182	2,691,909
Western Rural	1,339,152	315,074	1,739,131
Total Rural	8,907,696	2,044,751	11,400,385
Overall Urban	1,599,452	492,446	1,993,902
Nairobi	784,924	238,328	959,973
Mombasa	172,681	53,438	217,402
Kisumu	108,901	31,832	140,407
Nakuru	89,423	26,378	113,674
Other Towns combined	443,523	142,469	562,446
Nation	10,507,148	2,537,197	13,394,287

Thus the total number of poor people in Kenya would have been higher than 13.3 million if all districts were covered in 1997. In the first report on poverty in Kenya (1994), a projection was made for 1997, assuming constant growth in poverty. The total number of poor people was estimated at 12.6 million. Poverty however has increased at a higher rate, resulting in the 1997 figure of 13.3 million poor people.

4.7 Centres of Poverty

4.7.1 Centres of Food Poverty

The centres of Food Poverty were selected through a two-stage procedure. Those districts contributing to poverty more than the overall average were picked in stage one, with a mean contribution of 2.44. In stage two the mean prevalence rate was then calculated for those districts picked in stage one, estimated at 54 percent. The centres of rural Food Poverty were districts with over 54 percent headcount ratio and whose contribution to rural Food Poverty was over 2.44 percent. There were 12 out of a total of 41 districts that fit this classification. Table 4.7 shows the geographical location, prevalence, population share and contribution to rural Food Poverty of the selected districts.

Table 4.7: Centres of Rural Food Poverty

Province/District	Poverty Adult Equivalents $P_{\alpha}=0$	% Population share	Poverty Contribution $P_{\alpha}=0$
Rift Valley Province	48.02	24.51	23.24
Nandi	55.39	2.48	2.71
Bomet	63.86	2.52	3.17
Western Province	58.58	13.54	15.67
Bungoma	57.12	3.78	4.27
Vihiga	59.58	2.89	3.40
Kakamega	57.99	4.92	5.63
Coast Province	59.46	6.59	7.74
Kilifi	63.68	3.01	3.78
Eastern Province	56.82	18.18	20.39
Kitui	63.23	3.23	4.04
Makueni	71.43	2.91	4.10
Machakos	64.47	3.79	4.83
Nyanza Province	58.16	19.85	22.79
Homa Bay	66.94	2.42	3.20
Nyamira	66.03	4.43	5.77
Kisumu	60.33	2.47	2.94

The twelve districts forming the centres of rural food poverty contributed to 47 percent of total Food Poverty in 1997.

4.7.2 Centres of Hardcore Poor

The selection of the Hardcore Poor, defined earlier as those households whose members could not meet their minimum food requirements even if they allocated all their income to buying food, was done in three stages. In the first stage, all districts with a contribution to Hardcore Poverty of more than their share in population were selected. In the second stage, their mean contribution was computed, and districts with more than the mean share were picked. In the final stage, the mean prevalence rate of Hardcore Poor was calculated and the districts with more than the mean prevalence were selected to become the centres of hardcore poor. The mean prevalence rate calculated in this manner was 46.66 percent and the mean share in contribution was 3.57 percent.

The Hardcore Poor were found to be concentrated in some 5 districts. In total the five districts, with a total population share of 15%, contributed about 24 percent to Hardcore Poverty. Table 4.8 presents the poverty statistics for the five districts.

Table 4.8: Centres of Hardcore Poverty

District	Adult equivalents $P_{\alpha=0}$ %	Population Share %	Poverty Contribution $P_{\alpha=0}$ %
Kitui	47.04	3.24	4.37
Kilifi	48.98	3.03	4.26
Nyamira	50.14	4.46	6.43
Homa Bay	53.92	2.42	3.74
Makueni	58.59	2.82	4.75

The five districts cluster into two major zones: Three districts of Makueni, Kilifi and Kitui form the first zone and lie adjacent to each other, while Nyamira and Homa Bay form the second zone in Nyanza Province.

4.8 Poverty Over Time and Place

Table 4.9 shows that Overall Poverty remained at nearly the same levels between 1992 and 1994, a situation that seems to have changed dramatically in 1997 and more so in urban areas. The provinces with the highest prevalence of poverty in 1997 were Nyanza (63 percent) and Coast (62 percent), while Central Province reported the least incidence of rural poverty with about 31 percent. Only Central Province had less than half of its population below the Overall Poverty Line, and while it has retained its position of having the least prevalence of poverty (with a declining trend) since 1992, the other provinces have switched ranks, with some indicating rising trends.

Spatially, the largest fluctuation in the incidence of poverty was in Coast, where the incidence rose from 43.50 percent in 1992 to 55.63 percent in 1994, and 62.10 percent in 1997. Central Province depicted the least fluctuation in the rate of poverty for the three WMS series. The only emerging feature of urban poverty is one of dramatic rise in overall prevalence when compared with the status prevailing between 1992 and 1994.

The three WMS series confirm that Food Poverty is an issue of concern, and particularly in rural areas. The prevalence of rural Food Poverty has remained over 40 percent. In 1992 Food Poverty was 71.78%, dropping to 47.19% in 1994 and rising again slightly to over 50 percent in 1997.

Table 4.9: Regional Differentials in the Incidence of Poverty across the last three WMS series

Rural Areas	% of Food Poor			% of Overall Poverty		
	1992	1994	1997	1992	1994	1997
Central Rural	67.83	32.95	29.73	35.89	31.93	31.39
Coast	63.00	50.95	59.46	43.50	55.63	62.10
Eastern	62.31	59.50	56.82	42.16	57.75	58.56
Nyanza	70.72	41.31	58.16	47.41	42.21	63.05
Rift Valley	81.02	45.75	48.02	51.51	42.87	50.10
Western	78.41	52.25	58.58	54.81	53.83	58.75
North Eastern	-	56.55	-	-	58.00	-
Total Rural	71.78	47.19	50.65	47.89	46.75	52.93
Urban Areas						
Nairobi	41.92	27.26	38.38	26.45	25.90	50.24
Mombasa	44.84	33.12	38.57	39.17	33.14	38.32
Kisumu	-	44.09	53.39	-	47.75	63.73
Nakuru	-	37.18	26.81	-	30.01	40.58
Other Towns	-	27.07	37.91	-	28.73	43.53
Total Urban	42.58	29.23	38.29	29.29	28.95	49.20
Total Kenya				44.78	40.25	52.32

Source: WMS series 1992, 1994 and 1997

The national averages of course mask major differences in both regions and districts. The three surveys were undertaken at different times of the year, and although many parts of Kenya have different climatic potentials, consistently high Food Poverty levels obtained in the past in some districts justify the need to establish long-term solutions to the problems of food. Prevailing weather conditions several months prior to the survey conducted in the first half of 1997 may have contributed to higher poverty calculations. According to the Economic Survey of 1997, an increase in inflation, most pronounced in the first half of 1997, followed the shortfall in agricultural output caused by widespread drought in late 1996 and early 1997.

4.9 Poverty Gap in 1994 and 1997

Table 4.9.1 shows differences in the depth of poverty. The poverty gap has increased, implying that the depth of poverty has increased in both rural and urban areas.

Table 4.9.1: Trend in Overall Poverty and the Poverty Gaps

REGION	1997		1994	
	$P_{\alpha}=0$ Adult Eq.	$P_{\alpha}=1$ Adult Eq.	$P_{\alpha}=0$ Adult Eq.	$P_{\alpha}=1$ Adult Eq.
Rural poverty	52.93	19.33	46.75	18.01
Urban Poverty	49.20	15.67	28.95	9.69
National	52.32	18.74	40.25	14.93

Source: Welfare Monitoring Survey 1997

What this means is that poor people are much further below the poverty line than they were before. Thus, if we assume that the data sets are comparable, it can be concluded that poor people in Kenya were worse off in 1997 than they were in 1994, an indication of deepening poverty in the population.

CHAPTER 5

A GLANCE AT SOCIOECONOMIC INDICATORS

This section examines whether there is any difference in poverty levels with respect to gender, education, marital status and age of the household head. An attempt has also been made to compare poverty levels in households of different sizes.

Table 5.1: Poverty Measures by Socio-economic Groups, Rural and Urban Absolute Poverty 1997

Socio Economic Variable	Headcount ratio ($P_{\alpha}=0$) Adulteq		Depth of Poverty ($P_{\alpha}=1$) Adulteq		Population %		Contribution to Poverty ($P_{\alpha}=0$) Adulteq	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Overall Rural	52.9	49.2	19.3	15.7	100	100	100	100
Sex of Household Head								
Males	52.5	45.9	19.0	15.2	75	80.8	74.5	75.4
Females	54.1	63.0	20.2	17.9	25	19.2	25.5	24.6
Marital Status								
Male-married*	52.7	46.2	19.1	15.5	72.2	75.7	71.9	71.0
Male-other*	48.4	42.4	17.0	10.6	2.8	5.1	2.6	4.4
Female-married*	52.3	56.0	19.4	19.7	13	4.2	12.9	4.7
Female-other*	56.1	64.9	21.1	17.4	12	15.1	12.7	19.9
Education								
None	64.0	66.0	25.0	28.9	33.5	9.6	40.5	12.9
Primary	53.6	63.9	19.3	19.5	46.1	35.9	46.7	46.6
Secondary	33.4	38.8	10.2	11.7	19.3	44.7	12.2	35.2
Higher (form 5-university)	6.8	14.3	2.6	1.6	0.4	5.6	0.1	1.6
Other (Technical /informal)	38.9	42.4	14.9	14.0	0.8	4.2	0.6	3.6
Household Size								
1-3 persons	35.5	37.8	12.6	11.0	15.5	32.7	10.4	25.1
4-6 persons	49.6	53.7	17.5	16.3	38.9	43.8	36.4	47.8
7+ persons	61.7	56.7	23.2	21.1	45.7	23.5	53.2	27.1
Age Group of Head								
15-29	37.9	53.6	12.9	17.0	8.0	20.9	5.7	22.7
30-44	49.1	49.6	17.5	15.2	38.1	53	35.4	53.5
45-55	58.1	47.0	21.1	15.1	28.6	20.1	31.4	19.2
56+	57.7	37.8	22.1	17.0	25.3	6.1	27.5	4.7

*Male-married =Household head who is married

*Female-married=Household head who is female and married but husband was away for over 3 months.

*Male other= Male headed household (single, separated, divorced/widower).

*Female other=Female headed household (single, separated, divorced/ widowed)

5.1 Gender of Household Head

Table 5.1 shows that three-quarters (75%) of rural households were male-headed, and that 53 percent of these fell below the Absolute Poverty Line. Although female-headed households constituted only 25 percent of rural households, the prevalence and intensity of poverty among them was slightly higher (54% and 20% respectively) than those headed by men. Table 5.1 reveals a similar picture with respect to urban areas. The prevalence gap among the two sexes is however wider in urban areas than in rural.

Although rural areas reported slightly more female-headed households than urban areas, this could be due to the manner in which household members were defined in the survey. A household member was defined as a person who resided in that household during the last three months before the survey. Husbands were thus excluded if they had been away for three months. Distinction was therefore made between "de facto" female headed households i.e. females who were heading households because they were not living with their husbands, and "actual" female headed households, i.e. females who were heading households because they were not married. In both urban and rural areas, the majority of poor households were male headed although the depth of poverty was higher among female-headed households.

5.2 Marital Status of Household Head

Overall, women experience higher levels of poverty than do men. Table 5.1 shows that poverty levels among male and female-married households was almost the same in rural areas but female-married are higher in urban. The figures clearly show that poverty levels among single mothers are high both in rural and urban areas.

Based on gender and marital status, it can be concluded that women are more vulnerable to poverty than men. There are many reasons for this, for example, the preference of some cultures for male children when it comes to education. Other cultures also promote early marriage of girls in return for wealth in the form of dowry. Early marriage retards girls' education and puts them at a disadvantage when competing for job opportunities with men in the future. Many women end up becoming dependent on their spouses and have little opportunity to fend for themselves.

In terms of policy intervention, this means that more resources should be devoted to the alleviation of poverty within female-headed households. In absolute terms however, more resources should be allocated to the alleviation of poverty within male-headed households since they constitute three-quarters of all poor households in both urban and rural areas.

5.3 Education and Poverty

Lack of education is known to reduce people's ability to take advantage of the opportunities around them, and has often been associated with increased poverty. Table 5.1 also presents the results in terms of poverty levels and their relationship with the education of the household head. Household heads with no education at all reported the highest incidence of poverty in both urban and rural areas. Poverty among households generally decreases as the head's level of education increases. The only exception is in the category of "Other", which is a mixture of technical and informal types of education. It is possible that those who reported under this

category had only undergone informal training and education, which does not guarantee better opportunities. Since education can make a significant contribution to the reduction of poverty, interventions should use education as a major strategy. Education confers skills, knowledge and attitudes that increase the productivity of the poor's labour.

5.4 Household Size and Poverty

Mean household sizes were categorized for analysis into three classes: those with 1-3 members, those with 4-6 members and those with 7 and above members. A cross-classification of these household sizes by absolute poverty shows that in both rural and urban areas, households with large numbers of members have higher rates of poverty. Of all urban households with 1-3 members, only about 38 percent were poor, while more than half of those with 4 members and above were poor. The depth of poverty is also higher for those households with 7 or more members.

The dependency ratio (defined as ages <15 and >64 to the working population - ages >14 and <65) was 92% for Kenya implying that for every 100 people in the labour force there were 92 people who depended on them. The equivalent rural dependency ratio was 101 per every 100 people in the labour force, while the urban ratio was 56. The urban situation may be underestimated due to the fact that many urban dwellers have dependants in rural areas. In a typical developed country the dependency ratio is between 50 and 70 dependants per 100 active population. The proportion of the dependents to the total population was 48% overall, 50% rural and 36% urban.

5.5 Age of Household Head

The prevalence of poverty cross-tabulated by age of the household head shows different outcomes for urban and rural areas. In rural areas, poverty increases gradually from about 37% for the youngest heads, rising to about 58 percent for the retiring ages of 55 and tapering off again for ages above that. What this implies is that families with younger heads are still small and have fewer expenses. As heads mature, their families grow and demand higher expenditure for items like school costs. At about the age of 55, families with old and retiring heads have also matured, thus reducing dependence on the heads and reducing the prevalence of poverty. The depth of poverty is also highest for the heads in age group 30-44, when the families of these heads are likely to be fully dependent.

Among urban dwellers, a rather peculiar pattern emerges. The prevalence of poverty displays an inverse relationship with the age of household head. Younger heads in urban areas depict the highest incidence of poverty, averaging about 58 percent. Poverty gradually decreases as the age of the head increases. This urban scenario could possibly be explained by the life cycle of urban dwellers. Generally in Kenya, people complete their education and migrate to urban areas in search of jobs. On arrival, and probably after getting some initial work, young people settle and start their own households. At the early ages they are still poor, but as they age they begin to master urban survival, stabilize in better paying or more permanent jobs, and perhaps begin to invest. Those in slum areas with precarious jobs learn with time where opportunities arise and this enables them to find jobs with more ease.

CHAPTER 6

POLICY RECOMMENDATIONS

6.1 Prevailing Economic Conditions between 1994 and 1997

Overall, Kenya's economic record during the 1990's remained far below its potential despite the major economic reforms implemented during the decade.

The first half of the decade was characterised by declining growth in real GDP and per capita income, as illustrated by Table 6.1. In an attempt to address this worsening economic condition, the Government began implementing broad macroeconomic policy measures in 1993. Some of the key policy reforms implemented between July 1993 and June 1995 included removal of price controls, liberalisation of cereals markets, and removal of import licensing and controls. As a result, GDP growth picked up to 3 percent, 4.8 percent and 4.6 percent respectively in 1994, 1995 and 1996. However GDP growth fell again to 2.4 percent in 1997 and further to 1.8 percent in 1998.

Table 6.1: Macro-economic indicators 1991 to 1998

Term	1991	1992	1993	1994	1995	1996	1997	1998
Agriculture (%) growth	-1.1	-3.7	-4.1	-2.8	4.8	4.4	1.0	1.5
Manufacturing (%)growth	3.8	1.2	1.8	1.9	3.9	3.7	1.9	1.4
Private Households(%)D. services)gr.	11.0	8.9	10.9	8.3	11.2	9.6	5.8	5.7
Government Services (%)growth	3.6	2.4	2.1	1.6	1.8	1.6	1.1	0.8
Finance and Real Estates(%)growth	6.1	6.9	7.2	6.1	6.9	7.1	5.3	3.2
Other Services (%)growth	3.8	2.4	0.8	2.6	6.3	6.0	2.1	1.8
Gross Domestic Product (%)growth	2.1	0.5	0.2	3.0	4.8	4.6	2.4	1.8
Domestic Savings a s% of GDP	18.2	16	19.3	23.6	16.6	18.1	12.5	11.1
GDP per Capita (K£) 1982 prices	188	183	178	167	170	174	173	172.0
Trade Balance (K £million)	-1,094.0	-1,213.0	-1,378.0	-1,472.0	-2,890.0	-2,514.0	-3,511.0	-3,830.0
Balance of Payments Overall (K£M)	-143.3	-433	1,284.1	264.8	-368.9	1,155.30	336.2	228.7
Overall Fiscal Deficit (K £million)	-206.5	-467.7	-1,006.8	164.4	-198.5	-220.2	386.5	-261.7
Population (million)	22.7	23.4	24.0	24.8	25.2	26.3	27.1	27.9
Education: Primary Enrolment (000)	5,456.0	5,530.0	5,429.0	5,557.0	5,536.0	5,598.0	5,677.0	5,920.0
Wage Employment (000)	1,442.0	1,462.0	1,475.0	1,505.0	1,557.0	1,619.0	1,647.0	16665.0
Inflation Rate (% change in CPI)	19.6	27.3	46.0	28.8	1.6	9.0	11.2	6.6

Source: Economic survey, various issues

Agriculture, the sector that most Kenyans depend on in terms of food and employment, and that contributes between 25 and 30 percent to overall GDP, plays a critical role in poverty reduction. The sector performed poorly during the WMS I survey in 1992, registering a growth rate of -3.7 percent, which then improved to +2.8 percent in 1994, and dropped again to +1.0 percent in 1997. It is also worth noting that the domestic savings ratio was high in 1994 (23.6 percent) compared to 16.0 percent recorded in 1992 and the 12.5 percent registered in 1997, which further fell to 11.1 percent in 1998.

The declining trend in macroeconomic indicators was as a result of a combination of factors, including adverse weather conditions, rising input costs, high domestic interest rates, power shortages, dilapidated physical infrastructure, and pre-election violence, which caused a decline in investments, tourism and trade opportunities and thereby worsened the poverty situation in Kenya.

6.1.1 Consumer Price Index

The general inflation rate, computed as weighted average of price increases for 12 months accelerated from 1.6 percent in 1994/95 to 9.0 percent in 1996 and 11.2 percent in 1997.

Table 6.2: Percentage increases in Nairobi Consumer Prices for 1992/93-1996/97

Income Group	1993/92	1993/94	1994/95	1995/96	1996/97
Nairobi Lower Income Index	45.8	29.0	0.8	8.8	12.0
Nairobi Middle Income Index	45.9	27.9	4.0	9.8	8.4
Nairobi Upper Income Index	53.3	30.6	3.9	8.9	10.9
12 months weighted average (inflation rates)	46.0	28.8	1.6	9.0	11.2

Source: Economic Survey 1998

NB: The Lower income group comprises households with monthly earnings below Kshs 2,000.

The Middle income group comprise households with monthly earnings between Kshs 2,000-7,999

The Upper income group comprise households with monthly earnings of Kshs 8,000 Plus.

Weights for annual averages are 0.768 for lower, 0.209 for middle and 0.023 for upper group.

Table 6.2 shows that inflationary pressures were more pronounced in the lower income group, whose price index rose to 12.0 percent above 1996 levels. This increase was caused primarily by widespread drought in late 1996. Other factors included frequent increases in the price of petrol and petroleum-related products, a slight increase of Value Added Tax (VAT) from 15% to 16% and the depreciation of the Kenya Shilling following the withholding of donor aid under the Enhanced Structural Adjustment Facility (ESAF). Increases in transportation and production costs led to general increases in prices of consumer goods.

6.2 Observations

Over half of Kenya's nearly 29 million people live below the Absolute Poverty Line. The last three welfare surveys have now confirmed that poverty in Kenya is persistent and on the increase. While poverty in Kenya is still a rural phenomenon (with a prevalence of Hardcore Poor of over 35% and the contribution of rural to national poverty remaining over 80 percent), poverty in urban centres is also becoming a major concern. WMSIII confirms that the prevalence of poverty in urban areas has shown a dramatic increase in the recent past.

Based on the last three Welfare Monitoring Surveys, the poor lack access to opportunities and services. They lack information, access to health, education, productive assets and markets for their goods and/or labour.

The number of people living below the poverty line has increased substantially in the mid-1990s and is still on the rise. If current trends continue, Kenya will have to intensify its efforts to achieve the challenging goal of halving the number of poor by the year 2015, as set out in National Poverty Eradication Plan (NPEP).

6.3 Recommendations

Except for 1982, investigations of poverty in Kenya have tended to focus on the incidence of poverty at a particular point in time. If the incidence of poverty increases, there is no information about how many new poor have joined the existing poor and how many have escaped poverty. The magnitude of chronic poverty can therefore only be established through panel surveys that captures households expenditure patterns for a longer period of time. The only problem with panel surveys is that they are too costly to undertake regularly.

While Kenya has developed a plan that addresses the most serious aspects of poverty, much more attention needs to be paid to implementation. The challenge for the Government is to make hard decisions today in order to avoid a much costlier situation tomorrow. Increasing poverty has coincided with a rapidly growing population, declining economic growth and an overburdened Government resource envelope. In policy terms this calls for partnership in the implementation of poverty action programmes, with emphasis on the following:

- (i) Primary redistribution, enabling poor households to produce and earn more, in order for them to be able to fend for themselves rather than being perpetually dependent on relief and handouts. This must be the core of a proper poverty-reducing strategy with the ultimate objective of eradicating poverty altogether.
- (ii) Secondary redistribution, providing basic health services, safe water, nutrition, education and extension services to poor households to raise their present and future productive capacities.
- (iii) Tertiary redistribution, building and reinforcing safety nets of cash or kind (especially on food) transfers to alleviate consumption shortfall due to unpredictable shocks such as droughts, floods or other natural or manmade calamities (e.g. civil strife and war).
- (iv) Enacting an organised social protection fund to protect Kenyans from cases of starvation.

A strategy must be designed to break the vicious circle of poverty, in which the lack of education, health services and adequate diet limit both the quantity and quality of work possible, and thus reduces the capacity for income and wage earning. Instead, a virtuous circle should be created, through which productive capacities are successively expanded to ensure ultimate self-reliance.

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Mean Monthly Food and Non-Food Consumption (Kshs.)
Annex Table 1a

	Central	Coast	Eastern	Nyanza	Rift Valley	Western	Total Rural	Total Urban	Nairobi	Mombasa	Kisumu	Nakuru	Other Towns
Bread	268.1	330.7	137.5	104.1	192.9	139.2	181.3	489.0	497.6	639.8	433.3	473.1	415.2
Maize	1,026.5	1,325.0	1,237.6	679.3	968.9	761.6	958.8	599.3	635.1	698.9	377.7	668.5	515.0
Cereals	278.8	201.1	263.0	340.0	232.6	156.9	256.1	312.0	299.1	373.0	251.5	275.9	321.5
Meat	454.9	446.3	364.6	433.8	583.8	450.9	467.0	742.4	766.2	851.1	560.6	779.9	673.3
Fish	6.5	166.2	4.6	221.6	23.5	134.6	80.9	124.7	123.1	185.7	233.5	93.8	86.7
Milk	461.0	163.0	269.1	223.6	566.4	262.8	363.3	432.2	464.5	420.6	340.8	473.7	392.5
Eggs	73.4	29.8	31.9	47.0	67.6	38.6	52.5	125.9	130.1	147.3	134.5	134.3	105.3
Oils & fats	273.8	312.4	164.5	257.7	206.9	170.3	224.5	374.3	368.1	527.8	332.3	338.0	325.1
Fruits	112.9	31.4	97.0	78.3	48.1	66.9	76.0	168.2	197.5	185.6	115.5	157.2	125.7
Vegetable	639.6	333.2	434.3	569.9	471.1	638.1	531.2	775.6	821.8	707.2	780.9	814.9	726.2
Beans	637.3	365.4	815.3	256.5	437.9	309.5	479.1	377.2	341.6	562.9	277.3	274.2	384.4
Roots	512.2	105.2	332.4	217.7	185.4	329.9	292.6	225.3	219.4	257.4	122.4	201.3	242.0
Sugar	273.9	277.6	198.2	221.4	292.3	263.8	254.4	249.6	239.5	278.0	284.8	236.1	248.8
Tea/coffee	146.3	66.5	82.8	52.6	104.0	75.3	92.1	128.6	140.3	113.9	60.4	110.1	133.4
Beverage	109.8	104.1	161.9	61.2	135.3	97.2	112.8	383.7	468.3	380.3	258.2	241.5	309.1
Baby food	2.3	5.4	0.7	1.1	1.8	2.8	1.9	28.0	33.3	60.8	10.8	8.6	11.3
Other food	134.4	103.0	106.1	62.6	101.0	73.1	96.8	347.2	423.2	216.1	227.6	307.1	322.1
Food	5,411.6	4,366.2	4,701.5	3,828.3	4,619.4	3,971.5	4,521.3	5,883.1	6,168.6	6,606.3	4,802.1	5,588.1	5,337.8
Fuel	234.3	107.0	88.0	77.1	120.5	72.9	120.9	473.7	552.9	506.9	440.2	403.2	356.8
Water	6.9	41.3	5.8	1.9	3.6	2.3	6.4	133.7	121.5	268.2	322.6	56.0	74.8
Nondurables	272.7	279.4	214.7	154.3	209.4	162.1	209.1	558.1	730.3	560.2	341.6	475.2	344.5
Transport	385.1	158.3	131.1	114.1	213.2	158.4	201.8	798.1	1,152.1	551.6	404.6	401.3	528.2
Clothing	239.7	222.0	185.2	154.4	219.2	91.0	187.5	548.4	663.5	567.5	295.8	399.4	438.1
Footwear	71.8	36.3	48.1	36.5	50.1	15.5	45.7	109.2	135.9	69.2	77.6	101.7	94.1
													cont.

	Central	Coast	Eastern	Nyanza	Rift Valley	Western	Total Rural	Total Urban	Nairobi	Mombasa	Kisumu	Nakuru	Other Towns
House Rent	30.4	37.7	26.7	9.1	15.7	3.3	18.6	1,200.9	1,627.3	1,432.4	556.9	957.6	589.2
Durables	71.7	54.3	50.7	61.2	60.7	69.9	62.1	459.3	775.1	206.9	206.1	263.8	179.1
Personal care	30.0	6.4	18.3	9.4	14.9	7.4	15.7	99.6	138.3	45.8	47.6	98.0	74.5
Recreation	42.1	33.8	48.1	30.1	38.0	39.8	38.8	178.5	250.4	184.7	111.1	120.1	88.7
Transfers	114.5	203.3	90.7	115.5	185.7	187.3	143.7	378.3	289.6	579.9	388.3	507.0	385.4
Education	481.5	238.3	280.9	202.5	288.5	247.5	298.0	808.9	1,203.9	425.6	514.8	509.4	500.9
Health	536.0	89.2	201.3	133.2	260.3	167.9	254.7	584.8	860.7	257.6	353.5	688.2	326.3
Insurance	34.5	7.3	23.5	11.3	22.5	15.1	20.8	219.6	393.7	62.6	68.3	152.9	65.7
Tobacco	67.9	55.9	40.4	6.4	23.2	19.2	32.5	90.6	127.6	64.6	17.4	58.9	65.3
Non-food	2,619	1,570	1,454	1,117	1,725	1,260	1,656	6,642	9,023	5,784	4,147	5,193	4,112
Total Expd	8,031	5,937	6,155	4,945	6,345	5,231	6,178	12,525	15,192	12,390	8,949	10,781	9,449

Source: Welfare Monitoring Survey III, 1997 database

Mean Monthly Food and Non-Food Consumption Shares (%)
Annex Table 1b

Item	Central	Coast	Eastern	Nyanza	Rift Valley	Western	Total Rural	Total Urban	Nairobi	Mombasa	Kisumu	Nakuru	Other Towns
Bread	3.3	5.6	2.2	2.1	3.0	2.7	2.9	3.9	3.3	5.2	4.8	4.4	4.4
Maize	12.8	22.3	20.1	13.7	15.3	14.6	15.5	4.8	4.2	5.6	4.2	6.2	5.4
Cereals	3.5	3.4	4.3	6.9	3.7	3.0	4.1	2.5	2.0	3.0	2.8	2.6	3.4
Meat	5.7	7.5	5.9	8.8	9.2	8.6	7.6	5.9	5.0	6.9	6.3	7.2	7.1
Fish	0.1	2.8	0.1	4.5	0.4	2.6	1.3	1.0	0.8	1.5	2.6	0.9	0.9
Milk	5.7	2.7	4.4	4.5	8.9	5.0	5.9	3.5	3.1	3.4	3.8	4.4	4.2
Eggs	0.9	0.5	0.5	1.0	1.1	0.7	0.9	1.0	0.9	1.2	1.5	1.2	1.1
Oils & fats	3.4	5.3	2.7	5.2	3.3	3.3	3.6	3.0	2.4	4.3	3.7	3.1	3.4
Fruits	1.4	0.5	1.6	1.6	0.8	1.3	1.2	1.3	1.3	1.5	1.3	1.5	1.3
Vegetable	8.0	5.6	7.1	11.5	7.4	12.2	8.6	6.2	5.4	5.7	8.7	7.6	7.7
Beans	7.9	6.2	13.2	5.2	6.9	5.9	7.8	3.0	2.2	4.5	3.1	2.5	4.1
Roots	6.4	1.8	5.4	4.4	2.9	6.3	4.7	1.8	1.4	2.1	1.4	1.9	2.6
Sugar	3.4	4.7	3.2	4.5	4.6	5.0	4.1	2.0	1.6	2.2	3.2	2.2	2.6
Tea/coffee	1.8	1.1	1.3	1.1	1.6	1.4	1.5	1.0	0.9	0.9	0.7	1.0	1.4
Beverage	1.4	1.8	2.6	1.2	2.1	1.9	1.8	3.1	3.1	3.1	2.9	2.2	3.3
Baby food	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.5	0.1	0.1	0.1
Other food	1.7	1.7	1.7	1.3	1.6	1.4	1.6	2.8	2.8	1.7	2.5	2.8	3.4
Food	67.4	73.5	76.4	77.4	72.8	75.9	73.2	47.0	40.6	53.3	53.7	51.8	56.5
Fuel	2.9	1.8	1.4	1.6	1.9	1.4	2.0	3.8	3.6	4.1	4.9	3.7	3.8
Water	0.1	0.7	0.1	0.0	0.1	0.0	0.1	1.1	0.8	2.2	3.6	0.5	0.8
Non-durables	3.4	4.7	3.5	3.1	3.3	3.1	3.4	4.5	4.8	4.5	3.8	4.4	3.6
Transport	4.8	2.7	2.1	2.3	3.4	3.0	3.3	6.4	7.6	4.5	4.5	3.7	5.6
Clothing	3.0	3.7	3.0	3.1	3.5	1.7	3.0	4.4	4.4	4.6	3.3	3.7	4.6
Footware	0.9	0.6	0.8	0.7	0.8	0.3	0.7	0.9	0.9	0.6	0.9	0.9	1.0

cont.

Item	Central	Coast	Eastern	Nyanza	Rift Valley	Western	Total Rural	Total Urban	Nairobi	Mombasa	Kisumu	Nakuru	Other Towns
House Rent	0.4	0.6	0.4	0.2	0.2	0.1	0.3	9.6	10.7	11.6	6.2	8.9	6.2
Durables	0.9	0.9	0.8	1.2	1.0	1.3	1.0	3.7	5.1	1.7	2.3	2.4	1.9
Personal care	0.4	0.1	0.3	0.2	0.2	0.1	0.3	0.8	0.9	0.4	0.5	0.9	0.8
Recreation	0.5	0.6	0.8	0.6	0.6	0.8	0.6	1.4	1.6	1.5	1.2	1.1	0.9
Transfers	1.4	3.4	1.5	2.3	2.9	3.6	2.3	3.0	1.9	4.7	4.3	4.7	4.1
Education	6.0	4.0	4.6	4.1	4.5	4.7	4.8	6.5	7.9	3.4	5.8	4.7	5.3
Health	6.7	1.5	3.3	2.7	4.1	3.2	4.1	4.7	5.7	2.1	4.0	6.4	3.5
Insurance	0.4	0.1	0.4	0.2	0.4	0.3	0.3	1.8	2.6	0.5	0.8	1.4	0.7
Tobacco	0.8	0.9	0.7	0.1	0.4	0.4	0.5	0.7	0.8	0.5	0.2	0.5	0.7
Non-food	33	26	24	23	27	24	27	53	59	47	46	48	44
Total Expd	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Welfare Monitoring Survey III, 1997 database.

Mean Monthly Adult Equivalent Food and Non-Food Consumption (Kshs.)
Annex Table 2a

	Central	Coast	Eastern	Nyanza	Rift Valley	Western	Total Rural	Total Urban	Nairobi	Mombasa	Kisumu	Nakuru	Other Towns
Bread	94.5	105.2	39.7	33.1	65.8	41.3	59.5	182.9	168.6	252.0	158.4	193.9	172.9
Maize	327.1	348.5	300.5	209.3	288.8	212.0	275.2	235.6	221.6	303.5	162.0	258.9	230.8
Cereals	96.9	53.6	75.9	110.0	69.5	48.3	80.2	113.8	98.8	142.7	86.6	105.2	129.8
Meat	165.1	142.8	109.3	132.5	192.0	127.7	149.7	294.8	260.0	353.9	194.6	322.2	330.6
Fish	2.9	50.9	1.7	75.2	8.3	42.9	27.0	46.3	40.1	84.2	84.8	31.8	34.8
Milk	149.3	52.5	69.6	63.6	164.1	75.0	106.8	169.6	167.4	181.2	122.7	200.6	167.8
Eggs	26.4	11.3	9.1	14.4	23.3	11.9	17.5	54.7	50.5	67.3	54.5	65.7	52.5
Oils & fats	100.5	85.3	47.8	80.0	71.8	52.2	73.2	148.0	128.2	219.0	126.0	146.2	148.6
Fruits	35.4	11.7	23.9	23.0	16.4	21.7	23.0	64.1	66.6	83.3	40.1	64.0	54.8
Vegetable	221.2	106.9	118.6	172.4	155.9	191.6	167.4	310.3	299.5	315.9	278.7	339.3	322.7
Beans	211.7	113.5	208.0	76.2	133.5	85.8	141.3	138.3	106.5	226.5	116.8	107.7	156.1
Roots	168.4	31.3	87.0	68.2	58.7	96.0	89.5	88.9	78.6	111.4	46.9	76.3	104.1
Sugar	93.8	82.6	57.7	70.5	93.4	77.7	80.3	100.4	91.0	118.8	103.5	98.2	106.2
Tea/coffee	55.7	20.2	24.2	16.7	36.2	23.1	31.3	53.7	53.9	48.5	28.5	48.7	61.5
Beverage	49.8	45.1	43.9	22.2	51.0	39.6	41.9	181.8	184.8	205.0	78.2	132.3	195.2
Baby food	1.1	2.2	0.1	0.3	0.5	1.0	0.7	7.3	7.8	16.7	2.7	3.8	3.5
Other food	58.2	59.8	35.6	23.3	36.6	32.3	38.7	189.7	195.8	130.8	116.6	167.2	226.6
Food	1,750.1	1,218.2	1,171.2	1,145.7	1,377.6	1,108.0	1,322.7	2,007.3	1,837.1	2,511.3	1,604.0	2,058.6	2,082.6
Fuel	79.1	37.0	27.7	24.8	44.2	25.5	41.3	167.0	170.4	187.7	154.6	151.7	157.6
Water	2.3	9.9	2.6	0.6	1.5	0.7	2.1	46.7	37.2	114.3	101.1	17.9	26.6
Non-durables	98.6	156.0	61.4	49.7	66.7	48.3	71.4	196.5	227.8	207.5	113.5	185.3	158.9
Transport	113.8	47.4	36.0	34.5	70.0	46.4	61.1	275.8	359.8	250.5	131.9	146.7	212.7
Clothing	92.1	77.1	58.2	47.6	69.6	27.0	62.3	210.3	245.0	198.8	113.0	173.9	186.7
Footware	25.3	20.3	14.2	9.5	16.0	3.1	14.7	44.3	54.2	27.3	23.4	52.0	38.8

cont.

	Central	Coast	Eastern	Nyanza	Rift Valley	Western	Total Rural	Total Urban	Nairobi	Mombasa	Kisumu	Nakuru	Other Towns
House Rent	17.1	21.1	14.6	4.3	9.7	1.8	10.5	451.5	542.2	597.7	204.9	390.0	295.0
Durables	28.9	27.6	18.2	19.3	25.4	25.2	23.8	149.4	211.3	124.1	70.8	103.3	89.5
Personal care	12.5	2.2	5.3	3.3	5.1	2.5	5.7	37.8	46.2	22.6	14.1	42.9	34.7
Recreation	13.7	11.5	11.1	7.2	14.7	10.8	11.7	66.8	84.0	88.7	36.5	49.1	38.8
Transfers	50.2	135.5	35.4	34.4	85.2	59.4	59.7	209.2	165.8	293.6	162.1	296.5	222.3
Education	118.1	108.1	63.4	45.9	74.0	49.9	73.8	304.6	462.2	127.1	151.5	155.5	207.1
Health	129.3	24.5	49.9	34.5	75.8	42.1	65.8	161.6	206.4	77.7	113.7	214.9	127.2
Insurance	10.7	1.6	5.6	3.0	8.2	6.3	6.5	56.7	91.0	20.4	22.2	59.4	25.8
Tobacco	28.2	18.2	12.2	2.1	11.2	8.0	12.7	39.4	42.5	45.4	7.0	27.1	40.2
Non-food	820	698	416	321	577	357	523	2,418	2,946	2,383	1,420	2,066	1,862
Total Expd	2,570	1,916	1,590	1,466	1,955	1,465	1,846	4,425	4,783	4,895	3,024	4,125	3,944
Per adultteq	3.5	4.1	4.2	3.7	3.7	3.9	3.8	2.9	3.1	2.8	3.1	2.7	2.6

Source: Welfare Monitoring Survey III, 1997 database.

Mean Monthly Adult Equivalent Food and Non-Food Consumption Shares (%)
Annex Table 2b

	Central	Coast	Eastern	Nyanza	Rift Valley	Western	Total Rural	Total Urban	Nairobi	Mombasa	Kisumu	Nakuru	Other Towns
Bread	3.7	5.5	2.5	2.3	3.4	2.8	3.2	4.1	3.5	5.1	5.2	4.7	4.4
Maize	12.7	18.2	18.9	14.3	14.8	14.5	14.9	5.3	4.6	6.2	5.4	6.3	5.9
Cereals	3.8	2.8	4.8	7.5	3.6	3.3	4.3	2.6	2.1	2.9	2.9	2.5	3.3
Meat	6.4	7.5	6.9	9.0	9.8	8.7	8.1	6.7	5.4	7.2	6.4	7.8	8.4
Fish	0.1	2.7	0.1	5.1	0.4	2.9	1.5	1.0	0.8	1.7	2.8	0.8	0.9
Milk	5.8	2.7	4.4	4.3	8.4	5.1	5.8	3.8	3.5	3.7	4.1	4.9	4.3
Eggs	1.0	0.6	0.6	1.0	1.2	0.8	0.9	1.2	1.1	1.4	1.8	1.6	1.3
Oils & fats	3.9	4.5	3.0	5.5	3.7	3.6	4.0	3.3	2.7	4.5	4.2	3.5	3.8
Fruits	1.4	0.6	1.5	1.6	0.8	1.5	1.2	1.4	1.4	1.7	1.3	1.6	1.4
Vegetable	8.6	5.6	7.5	11.8	8.0	13.1	9.1	7.0	6.3	6.5	9.2	8.2	8.2
Beans	8.2	5.9	13.1	5.2	6.8	5.9	7.7	3.1	2.2	4.6	3.9	2.6	4.0
Roots	6.6	1.6	5.5	4.6	3.0	6.6	4.8	2.0	1.6	2.3	1.6	1.8	2.6
Sugar	3.6	4.3	3.6	4.8	4.8	5.3	4.3	2.3	1.9	2.4	3.4	2.4	2.7
Tea/coffee	2.2	1.1	1.5	1.1	1.9	1.6	1.7	1.2	1.1	1.0	0.9	1.2	1.6
Beverage	1.9	2.4	2.8	1.5	2.6	2.7	2.3	4.1	3.9	4.2	2.6	3.2	4.9
Baby food	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.3	0.1	0.1	0.1
Other food	2.3	3.1	2.2	1.6	1.9	2.2	2.1	4.3	4.1	2.7	3.9	4.1	5.7
Food	68.1	63.6	73.8	78.1	70.5	75.6	71.7	45.4	38.4	51.3	53.0	49.9	52.8
Fuel	3.1	1.9	1.7	1.7	2.3	1.7	2.2	3.8	3.6	3.8	5.1	3.7	4.0
Water	0.1	0.5	0.2	0.0	0.1	0.1	0.1	1.1	0.8	2.3	3.3	0.4	0.7
Non-durables	3.8	8.1	3.9	3.4	3.4	3.3	3.9	4.4	4.8	4.2	3.8	4.5	4.0
Transport	4.4	2.5	2.3	2.4	3.6	3.2	3.3	6.2	7.5	5.1	4.4	3.6	5.4
Clothing	3.6	4.0	3.7	3.2	3.6	1.8	3.4	4.8	5.1	4.1	3.7	4.2	4.7
Footware	1.0	1.1	0.9	0.6	0.8	0.2	0.8	1.0	1.1	0.6	0.8	1.3	1.0

cont.

	Central	Coast	Eastern	Nyanza	Rift Valley	Western	Total Rural	Total Urban	Nairobi	Mombasa	Kisumu	Nakuru	Other Towns
House Rent	0.7	1.1	0.9	0.3	0.5	0.1	0.6	10.2	11.3	12.2	6.8	9.5	7.5
Durables	1.1	1.4	1.1	1.3	1.3	1.7	1.3	3.4	4.4	2.5	2.3	2.5	2.3
Personal care	0.5	0.1	0.3	0.2	0.3	0.2	0.3	0.9	1.0	0.5	0.5	1.0	0.9
Recreation	0.5	0.6	0.7	0.5	0.8	0.7	0.6	1.5	1.8	1.8	1.2	1.2	1.0
Transfers	2.0	7.1	2.2	2.3	4.4	4.1	3.2	4.7	3.5	6.0	5.4	7.2	5.6
Education	4.6	5.6	4.0	3.1	3.8	3.4	4.0	6.9	9.7	2.6	5.0	3.8	5.2
Health	5.0	1.3	3.1	2.4	3.9	2.9	3.6	3.7	4.3	1.6	3.8	5.2	3.2
Insurance	0.4	0.1	0.4	0.2	0.4	0.4	0.4	1.3	1.9	0.4	0.7	1.4	0.7
Tobacco	1.1	0.9	0.8	0.1	0.6	0.5	0.7	0.9	0.9	0.9	0.2	0.7	1.0
Non-food	32	36	26	22	30	24	28	55	62	49	47	50	47

Source: Welfare Monitoring Survey III, 1997 database

Composite Food Prices by Regions 1997
Annex Table 3a

Food Item	Central	Coast	Eastern	Nyanza	Rift Valley	Western	Overall		Nakuru	Towns	Other Urban
							Rural	Mombasa			
Bread	37.9	39.1	37.8	40.2	38.7	39.2	38.8	36.8	38.7	38.7	38.0
Maize	23.7	22.2	24.2	22.5	22.8	21.3	22.9	22.5	22.8	22.9	22.6
Cereal	37.3	37.4	39.2	39.7	39.6	39.0	38.9	37.5	39.6	38.9	38.1
Meat	129.5	138.5	135.7	139.7	134.8	126.8	134.1	149.0	134.8	134.6	141.9
Fish	145.0	117.5	80.0	95.7	117.8	115.0	111.9	108.4	117.8	113.8	111.3
Milk	32.0	33.6	33.7	32.0	34.4	36.2	33.5	34.7	34.4	33.8	34.2
Eggs	106.2	115.2	100.8	102.6	100.8	99.0	102.8	97.2	100.8	104.5	102.3
Oils & fats	127.2	132.9	129.2	130.9	132.1	128.2	130.0	125.2	132.1	130.6	128.6
Fruits	33.1	30.6	35.3	33.5	33.9	37.9	34.2	31.4	33.9	34.1	32.3
Vegetable	18.3	20.0	21.4	23.2	20.2	20.5	20.7	18.3	20.2	20.6	19.6
Beans	68.6	65.0	60.7	65.1	66.8	72.4	66.5	64.0	66.8	66.9	65.2
Root	15.6	17.2	17.9	14.6	14.6	13.4	15.3	18.2	14.6	15.5	16.9
Sugar	43.9	43.6	43.8	43.8	44.6	43.6	44.0	44.0	44.6	44.3	44.1
Tea & coffee	223.3	222.0	227.0	240.8	244.1	244.5	235.4	226.7	244.1	235.7	230.6

Mean Monthly Per Capita Food Consumption Shares (%)
Annex Table 3b

	Central	Coast	Eastern	Nyanza	Rift Valley	Western	Total Rural	Total Urban	Nairobi	Mombasa	Kisumu	Nakuru	Other Towns
Bread	3.5	5.1	2.4	2.2	3.2	2.6	3.1	3.7	3.2	4.6	4.9	4.4	3.8
Maize	12.1	16.5	17.5	13.7	13.9	13.7	14.0	4.8	4.2	5.6	5.2	5.9	5.2
Cereals	3.6	2.5	4.5	7.3	3.3	3.1	4.1	2.3	1.8	2.6	2.6	2.3	2.9
Meat	6.2	6.9	6.6	8.7	9.4	8.3	7.8	6.1	5.0	6.7	6.0	7.3	7.6
Fish	0.1	2.5	0.1	5.1	0.4	2.7	1.4	0.9	0.7	1.6	2.6	0.7	0.8
Milk	5.5	2.5	4.1	4.1	7.9	4.9	5.5	3.5	3.2	3.4	3.8	4.5	3.8
Eggs	1.0	0.6	0.5	0.9	1.1	0.8	0.9	1.2	1.0	1.3	1.7	1.5	1.2
Oils & fats	3.8	4.0	2.9	5.3	3.5	3.4	3.8	3.1	2.4	4.1	3.9	3.3	3.4
Fruits	1.3	0.6	1.4	1.5	0.8	1.4	1.2	1.3	1.3	1.6	1.2	1.5	1.2
Vegetable	8.2	5.2	7.1	11.4	7.7	12.4	8.7	6.4	5.8	6.0	8.7	7.7	7.3
Beans	7.9	5.5	12.2	5.1	6.4	5.4	7.2	2.8	2.0	4.1	3.7	2.4	3.5
Roots	6.2	1.5	5.2	4.6	2.8	6.1	4.6	1.8	1.5	2.1	1.5	1.7	2.3
Sugar	3.5	3.9	3.5	4.7	4.5	5.0	4.1	2.1	1.8	2.2	3.2	2.2	2.4
Tea/coffee	2.1	1.0	1.5	1.1	1.8	1.5	1.6	1.1	1.0	0.9	0.9	1.1	1.4
Beverage	1.9	2.3	2.7	1.5	2.6	2.8	2.3	4.0	3.7	4.0	2.5	3.1	4.7
Baby food	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.3	0.1	0.1	0.1
Other food	2.3	3.2	2.2	1.6	1.8	2.3	2.1	4.2	4.0	2.7	3.9	4.0	5.6
Food	69.3	63.6	74.4	79.0	71.1	76.4	72.3	49.4	42.8	54.0	56.7	53.7	57.1
Fuel	2.9	1.8	1.7	1.7	2.2	1.7	2.2	3.4	3.3	3.6	4.7	3.4	3.6
Water	0.1	0.5	0.2	0.0	0.1	0.0	0.1	1.0	0.7	2.2	3.0	0.4	0.6
Non-durables	3.7	8.4	3.8	3.3	3.2	3.1	3.8	4.1	4.4	3.9	3.4	4.1	3.6
Transport	4.1	2.3	2.2	2.3	3.6	3.1	3.2	5.8	7.1	4.9	4.1	3.2	4.7
Clothing	3.4	3.8	3.5	3.0	3.3	1.7	3.2	4.3	4.6	3.7	3.4	4.0	4.2
Footware	0.9	1.1	0.9	0.6	0.8	0.2	0.8	0.9	1.1	0.5	0.7	1.2	0.9

cont.

	Central	Coast	Eastern	Nyanza	Rift Valley	Western	Total Rural	Total Urban	Nairobi	Mombasa	Kisumu	Nakuru	Other Towns
House Rent	0.7	1.1	1.0	0.3	0.5	0.1	0.6	9.3	10.2	11.6	6.4	8.7	6.9
Durables	1.1	1.5	1.1	1.2	1.3	1.7	1.3	3.2	4.1	2.5	2.1	2.3	2.1
Personal care	0.5	0.1	0.3	0.2	0.3	0.2	0.3	0.8	0.9	0.4	0.4	1.0	0.8
Recreation	0.5	0.6	0.7	0.5	0.8	0.7	0.6	1.4	1.7	1.7	1.1	1.1	0.9
Transfers	1.9	7.4	2.3	2.4	4.5	4.1	3.3	4.6	3.4	5.8	4.9	7.4	5.4
Education	4.4	5.8	4.0	3.1	3.7	3.3	3.9	6.6	9.5	2.4	4.8	3.6	4.9
Health	4.9	1.1	2.9	2.2	3.7	2.7	3.4	3.2	3.9	1.4	3.2	4.0	2.7
Insurance	0.4	0.1	0.3	0.2	0.4	0.4	0.3	1.2	1.7	0.4	0.7	1.3	0.6
Tobacco	1.1	0.9	0.8	0.1	0.6	0.6	0.7	0.8	0.8	0.9	0.2	0.6	1.0
Non-food	30.7	36.4	25.6	21.0	28.9	23.6	27.7	50.6	57.2	46.0	43.3	46.3	42.9
Total Expd	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

Source: Welfare Monitoring Survey III, 1997 database

Calculation of Rural Poverty Line per Adult Equivalent, 1997

Annex Table 4

FOOD ITEM	Monthly consumption Kshs./ Adult	Monthly consumption Kg./ Adult	Calories per 100g	Calories produced by each item per month	Calories produced as a ratio of total intake	Calories required from each per month to meet the 2250*30	Quantity needed to meet requirement (Kg./month)	Prices (Kshs./ kg)	Food expenditure per month at poverty line (Kshs.) 1982	Prices (Kshs./ kg)	Food expenditure per month at poverty line (Kshs.) 1994	Prices (Kshs./ kg)	Food expenditure per month at poverty line (Kshs.) 1997
Bread	2.35	0.54	240	1,287.69	0.02	1,111.00	0.46	4.38	2.03	29.35	13.59	38.79	17.95
Maize	24.46	13.36	340	45,436.68	0.58	39,202.05	11.53	1.83	21.1	16.95	195.43	22.9	264
Cereal	4.66	1.73	330	5,721.26	0.07	4,936.21	1.50	2.69	4.02	29.59	44.26	38.92	58.22
Meat	11.10	0.81	224	1,812.36	0.02	1,563.67	0.70	13.72	9.58	113.51	79.24	134.08	93.59
Fish	2.11	0.16	230	362.74	0.00	312.97	0.14	13.40	1.82	80.44	10.95	111.93	15.23
Milk	13.43	4.07	80	3,255.94	0.04	2,809.17	3.51	3.30	11.59	27.15	95.34	33.53	117.76
Eggs	1.05	0.13	140	185.76	0.00	160.27	0.11	7.88	0.90	93.93	10.75	102.83	11.77
Oils & fats	5.69	0.35	880	3,077.98	0.04	2,655.64	0.30	16.27	4.91	82.03	24.75	129.98	39.23
Fruits	3.74	1.20	90	1,082.57	0.01	934.02	1.04	3.11	3.23	13.57	14.08	34.24	35.53
Vegetable	6.99	3.12	40	1,247.48	0.02	1,076.30	2.69	2.24	6.03	14.63	39.37	20.67	55.60
Beans	9.31	1.87	310	5,782.86	0.07	4,989.36	1.61	4.99	8.03	34.12	54.92	66.46	106.96
Roots	5.95	2.39	140	3,344.04	0.04	2,885.19	2.06	2.49	5.13	12.88	26.54	15.34	31.61
Sugar	8.15	1.50	375	5,610.76	0.07	4,840.87	1.29	5.45	7.04	48.61	62.75	44	56.80
Tea/coffee	2.14	0.11	24	26.97	0.00	23.27	0.10	19.06	1.85	302.30	29.31	235.39	22.82
Total				78,235.09	1.00	67,500.00			87.25		702.99		927.08

Rural Food Poverty 1997, (Kshs. 927.08)
Annex Table 5a

	Headcount			Poverty Gap		Severity of Poverty		% of Population		Contribution to Poverty		
	P _{α=0} Adulteq	P _{α=0} Households	P _{α=0} Individuals	P _{α=1} Adulteq	P _{α=1} Adulteq	P _{α=2} Adulteq	P _{α=2} Adulteq	Population		P _{α=0} Adulteq	P _{α=1} Adulteq	P _{α=2} Adulteq
Central Rural	29.73	23.38	29.63	8.58	3.58	17.32	10.17	8.47	7.72			
Kiambu	24.19	17.58	23.91	6.19	2.70	5.48	2.62	1.93	1.84			
Kirinyaga	37.10	31.50	37.01	13.06	5.86	2.18	1.60	1.62	1.59			
Muranga	32.50	25.48	32.63	9.37	3.72	4.71	3.02	2.51	2.18			
Nyandarua	26.75	22.37	26.78	7.58	2.62	1.76	0.93	0.76	0.58			
Nyeri	31.77	24.40	31.49	8.99	3.85	3.20	2.01	1.64	1.53			
Coast Rural	59.46	50.25	59.32	21.83	10.04	6.59	7.74	8.21	8.25			
Kilifi	63.68	51.91	63.10	23.02	10.33	3.01	3.78	3.95	3.87			
Kwale	58.94	49.52	59.41	22.65	10.77	2.08	2.42	2.69	2.79			
Lamu	31.86	24.56	32.64	9.70	4.15	0.30	0.19	0.17	0.16			
Taita Taveta	62.44	58.69	62.46	22.89	10.67	0.98	1.21	1.28	1.31			
Tana River	31.23	25.93	29.77	9.82	4.29	0.22	0.14	0.12	0.12			
Eastern Rural	56.82	51.00	56.42	19.75	9.04	18.18	20.39	20.47	20.47			
Mbeere	57.42	45.40	55.17	20.01	9.41	0.76	0.86	0.86	0.89			
Embu	54.77	50.95	55.12	21.29	10.48	0.91	0.98	1.10	1.18			
Kitui	63.23	59.66	62.98	22.90	10.51	3.23	4.04	4.22	4.24			
Machakos	64.47	58.14	64.58	20.52	8.90	3.79	4.83	4.44	4.21			
Meru	40.68	35.73	40.55	13.24	5.97	1.70	1.37	1.28	1.27			
Makueni	71.43	62.44	71.64	29.32	14.77	2.91	4.10	4.86	5.35			
Tharaka Nithi	51.65	41.76	51.08	18.00	8.50	1.47	1.50	1.51	1.55			
Nyambene	40.48	38.47	38.53	11.30	4.19	3.41	2.72	2.19	1.78			

cont.

	Headcount			Poverty		Severity of		% of		Contribution to Poverty		
				Gap		Poverty		Population				
	P _{a=0} Adulteq	P _{a=0} Households	P _{a=0} Individuals	P _{a=1} Adulteq	P _{a=2} Adulteq	P _{a=1} Adulteq	P _{a=2} Adulteq	P _{a=1} Adulteq	P _{a=2} Adulteq	P _{a=0} Adulteq	P _{a=1} Adulteq	P _{a=2} Adulteq
Nyanza Rural	58.16	50.84	58.15	20.55	9.43			19.85		22.79	23.25	23.34
Kisii	53.49	46.82	52.71	19.00	8.98			3.33		3.51	3.60	3.72
Kisumu	60.33	54.99	59.89	23.25	11.47			2.47		2.94	3.27	3.53
Siaya	52.61	43.64	53.01	17.61	7.85			3.30		3.43	3.31	3.23
Homa Bay	66.94	62.78	66.80	25.45	12.28			2.42		3.20	3.51	3.70
Migori	51.09	41.12	51.48	14.52	5.70			3.91		3.94	3.24	2.78
Nyamira	66.03	58.81	66.67	25.05	11.57			4.43		5.77	6.32	6.38
Rift Valley Rural	48.02	41.13	47.61	16.53	7.55			24.51		23.24	23.10	23.06
Kajiado	25.17	22.24	25.36	9.63	4.84			1.28		0.64	0.70	0.77
Kericho	50.88	43.95	50.02	16.90	7.98			2.77		2.79	2.67	2.76
Laikipia	26.34	19.49	25.81	7.10	2.68			1.24		0.65	0.50	0.41
Nakuru	42.26	33.92	42.10	13.51	5.95			4.06		3.39	3.13	3.01
Nandi	55.39	53.05	55.76	21.34	10.28			2.48		2.71	3.01	3.17
Narok	49.24	40.99	48.68	14.53	5.53			1.14		1.11	0.94	0.79
Bomet	63.86	56.58	63.84	24.21	11.62			2.52		3.17	3.47	3.65
Transmara	54.26	50.43	53.32	16.57	7.16			1.03		1.11	0.98	0.92
Baringo	35.32	30.95	34.66	11.65	5.09			1.66		1.16	1.10	1.05
Elgeyo-Marakwet	47.57	38.61	46.54	14.37	5.79			1.25		1.18	1.03	0.90
Trans Nzoia	54.21	49.02	54.02	18.76	8.47			1.98		2.11	2.11	2.09
Uasin Gishu	43.62	37.10	42.92	12.46	5.04			1.99		1.72	1.42	1.25
West Pokot	69.74	62.78	68.63	32.32	16.59			1.10		1.52	2.03	2.28
Western Rural	58.58	52.45	58.69	21.39	10.16			13.54		15.67	16.52	17.16
Bungoma	57.12	50.58	56.74	20.42	9.57			3.78		4.27	4.40	4.51
Busia	61.40	55.84	61.77	24.91	12.11			1.95		2.37	2.77	2.95
Kakamega	57.99	50.09	58.25	22.60	11.10			4.92		5.63	6.34	6.81
Vihiga	59.58	56.26	59.95	18.24	8.02			2.89		3.40	3.01	2.89
Total Rural	50.65	43.39	50.58	17.55	8.02			100.00		100.00	100.00	100.00

Source: Welfare Monitoring Survey, 1997 database.

**District Ranking of Rural Food Poverty
Annex I Table 5b**

	Headcount			Poverty Gap		Severity of poverty		% of Population		Contribution to Poverty		
	P α =0 Adulteq	P α =0 Households	P α =0 Individuals	P α =1 Adulteq	P α =2 Adulteq	P α =1 Adulteq	P α =2 Adulteq	P α =0 Adulteq	P α =1 Adulteq	P α =2 Adulteq		
1	Kiambu	24.19	17.58	23.91	6.19	2.70	5.48	2.62	1.93	1.84		
2	Kajiado	25.17	22.24	25.36	9.63	4.84	1.28	0.64	0.70	0.77		
3	Laikipia	26.34	19.49	25.81	7.10	2.68	1.24	0.65	0.50	0.41		
4	Nyandarua	26.75	22.37	26.78	7.58	2.62	1.76	0.93	0.76	0.58		
5	Tana River	31.23	25.93	29.77	9.82	4.29	0.22	0.14	0.12	0.12		
6	Nyeri	31.77	24.40	31.49	8.99	3.85	3.20	2.01	1.64	1.53		
7	Lamu	31.86	24.56	32.64	9.70	4.15	0.30	0.19	0.17	0.16		
8	Muranga	32.50	25.48	32.63	9.37	3.72	4.71	3.02	2.51	2.18		
9	Baringo	35.32	30.95	34.66	11.65	5.09	1.66	1.16	1.10	1.05		
10	Kirinyaga	37.10	31.50	37.01	13.06	5.86	2.18	1.60	1.62	1.59		
11	Nyambene	40.48	38.47	38.53	11.30	4.19	3.41	2.72	2.19	1.78		
12	Meru	40.68	35.73	40.55	13.24	5.97	1.70	1.37	1.28	1.27		
13	Nakuru	42.26	33.92	42.10	13.51	5.95	4.06	3.39	3.13	3.01		
14	Uasin Gishu	43.62	37.10	42.92	12.46	5.04	1.99	1.72	1.42	1.25		
15	Elgeyo-Marakwet	47.57	38.61	46.54	14.37	5.79	1.25	1.18	1.03	0.90		
16	Narok	49.24	40.99	48.68	14.53	5.53	1.14	1.11	0.94	0.79		
17	Kericho	50.88	43.95	50.02	16.90	7.98	2.77	2.79	2.67	2.76		
18	Migori	51.09	41.12	51.48	14.52	5.70	3.91	3.94	3.24	2.78		
19	Tharaka/Nithi	51.65	41.76	51.08	18.00	8.50	1.47	1.50	1.51	1.55		
										cont.		

20	Siaya	52.61	43.64	53.01	17.61	7.85	3.30	3.43	3.31	3.23
21	Kisii	53.49	46.82	52.71	19.00	8.98	3.33	3.51	3.60	3.72
22	Trans Nzoia	54.21	49.02	54.02	18.76	8.47	1.98	2.11	2.11	2.09
23	Transmara	54.26	50.43	53.32	16.57	7.16	1.03	1.11	0.98	0.92
24	Embu	54.77	50.95	55.12	21.29	10.48	0.91	0.98	1.10	1.18
25	Nandi	55.39	53.05	55.76	21.34	10.28	2.48	2.71	3.01	3.17
26	Bungoma	57.12	50.58	56.74	20.42	9.57	3.78	4.27	4.40	4.51
27	Mbeere	57.42	45.40	55.17	20.01	9.41	0.76	0.86	0.86	0.89
28	Kakamega	57.99	50.09	58.25	22.60	11.10	4.92	5.63	6.34	6.81
29	Kwale	58.94	49.52	59.41	22.65	10.77	2.08	2.42	2.69	2.79
30	Vihiga	59.58	56.26	59.95	18.24	8.02	2.89	3.40	3.01	2.89
31	Kisumu	60.33	54.99	59.89	23.25	11.47	2.47	2.94	3.27	3.53
32	Busia	61.40	55.84	61.77	24.91	12.11	1.95	2.37	2.77	2.95
33	Taita Taveta	62.44	58.69	62.46	22.89	10.67	0.98	1.21	1.28	1.31
34	Kitui	63.23	59.66	62.98	22.90	10.51	3.23	4.04	4.22	4.24
35	Kilifi	63.68	51.91	63.10	23.02	10.33	3.01	3.78	3.95	3.87
36	Bomet	63.86	56.58	63.84	24.21	11.62	2.52	3.17	3.47	3.65
37	Machakos	64.47	58.14	64.58	20.52	8.90	3.79	4.83	4.44	4.21
38	Nyamira	66.03	58.81	66.67	25.05	11.57	4.43	5.77	6.32	6.38
39	Homa Bay	66.94	62.78	66.80	25.45	12.28	2.42	3.20	3.51	3.70
40	West Pokot	69.74	62.78	68.63	32.32	16.59	1.10	1.52	2.03	2.28
41	Makueni	71.43	62.44	71.64	29.32	14.77	2.91	4.10	4.86	5.35

Source: Welfare Monitoring Survey, 1997 database.

Overall Rural Poverty 1997, (Kshs. 1,238.86)
Annex Table 6a

	Headcount			Poverty Gap		Severity of Poverty		% of Population		Contribution to Poverty		
	P α =0	P α =0	P α =0	P α =1	P α =2	P α =1	P α =2	P α =1	P α =2	P α =0	P α =1	P α =2
	Adulteq	Households	Individuals	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq
Central Rural	31.39	25.72	31.37	9.25	3.94	17.32	10.27	8.29	7.42			
Kiambu	25.08	19.61	25.06	6.08	2.46	5.48	2.60	1.72	1.47			
Kirinyaga	35.70	31.19	35.60	12.43	5.62	2.18	1.47	1.40	1.33			
Muranga	38.62	32.15	38.58	11.02	4.47	4.71	3.44	2.68	2.29			
Nyandarua	26.95	22.41	26.96	8.51	3.44	1.76	0.90	0.78	0.66			
Nyeri	31.05	24.29	30.95	10.35	4.81	3.20	1.88	1.71	1.67			
Coast Rural	62.10	51.97	62.19	24.40	11.87	6.59	7.74	8.33	8.52			
Kilifi	66.30	53.01	66.00	26.14	12.40	3.01	3.77	4.07	4.06			
Kwale	60.55	51.45	61.20	25.25	13.14	2.08	2.38	2.72	2.97			
Lamu	39.35	29.36	39.38	11.04	4.09	0.30	0.23	0.17	0.13			
Taita Taveta	65.82	60.54	66.30	24.88	11.82	0.98	1.22	1.26	1.26			
Tana River	34.22	28.55	32.71	8.97	3.77	0.22	0.14	0.10	0.09			
Eastern Rural	58.56	53.08	58.24	22.37	10.71	18.18	20.11	21.04	21.17			
Mbeere	51.36	44.80	49.98	21.14	10.50	0.76	0.73	0.83	0.86			
Embu	55.76	53.94	56.19	23.47	11.69	0.91	0.95	1.10	1.15			
Kitui	64.91	60.58	64.58	25.80	12.48	3.23	3.97	4.32	4.39			
Machakos	62.96	58.75	63.25	22.85	10.53	3.79	4.51	4.49	4.35			
Meru	40.96	36.44	40.53	13.37	6.20	1.70	1.32	1.18	1.15			
Makueni	73.51	63.06	73.72	32.24	16.94	2.91	4.04	4.85	5.35			
Tharaka Nithi	55.58	46.79	55.05	18.92	8.52	1.47	1.54	1.44	1.36			
Nyambene	47.29	44.65	45.47	16.13	6.90	3.41	3.04	2.84	2.56			

cont.

Nyanza Rural	63.05	56.68	62.89	23.43	11.43	19.85	23.65	24.06	24.67
Kisii	57.22	52.67	56.87	22.50	11.65	3.33	3.60	3.87	4.22
Kisumu	65.44	61.08	65.16	26.70	13.87	2.47	3.05	3.41	3.72
Siaya	58.02	50.41	57.93	20.92	9.78	3.30	3.62	3.57	3.51
Homa Bay	77.49	72.16	77.25	29.54	14.63	2.42	3.54	3.70	3.85
Migori	57.63	48.19	57.41	16.57	6.74	3.91	4.26	3.35	2.87
Nyamira	66.74	60.43	67.20	26.92	13.52	4.43	5.58	6.17	6.51
Rift Valley Rural	50.10	44.08	50.17	17.58	8.17	24.51	23.20	22.30	21.79
Kajiado	27.87	24.33	28.26	10.41	4.91	1.28	0.68	0.69	0.69
Kericho	52.42	48.10	52.41	18.11	8.50	2.77	2.75	2.60	2.56
Laikipia	33.88	24.47	33.37	8.33	3.36	1.24	0.79	0.53	0.45
Nakuru	45.08	36.45	45.10	14.75	6.25	4.06	3.46	3.10	2.76
Nandi	64.15	59.11	65.16	23.08	11.12	2.48	3.00	2.96	3.00
Narok	52.17	44.35	52.28	17.12	6.95	1.14	1.12	1.01	0.86
Bomet	61.80	58.40	62.53	24.80	12.54	2.52	2.94	3.23	3.43
Transmara	56.59	53.67	57.12	19.26	8.77	1.03	1.11	1.03	0.99
Baringo	36.95	31.85	36.91	12.49	5.69	1.66	1.16	1.07	1.03
Elgeyo-Marakwet	47.82	40.87	46.61	13.83	5.37	1.25	1.13	0.90	0.73
Trans Nzoia	54.83	53.07	55.03	19.53	9.11	1.98	2.05	2.00	1.96
Uasin Gishu	42.22	37.54	41.86	12.05	4.92	1.99	1.59	1.24	1.07
West Pokot	68.46	63.69	67.96	33.98	18.86	1.10	1.43	1.94	2.26
Western Rural	58.75	53.56	59.32	22.81	11.16	13.54	15.03	15.98	16.43
Bungoma	55.21	49.40	55.36	20.42	9.49	3.78	3.95	4.00	3.90
Busia	65.99	60.85	66.63	27.90	14.30	1.95	2.43	2.82	3.04
Kakamega	56.69	49.98	57.47	23.15	11.68	4.92	5.27	5.89	6.25
Vihiga	61.97	59.25	62.84	21.91	10.33	2.89	3.38	3.28	3.25
Total Rural	52.93	46.35	53.06	19.33	9.19	100.00	100.00	100.00	100.00

Source: Welfare Monitoring Survey III, 1997 database

District Ranking Overall Rural Poverty
Annex Table 6b

		Headcount				Poverty Gap	Severity of Poverty	% of Population	Contribution of Poverty		
		P α =0 Adulteq	P α =0 households	P α =0 Individuals	P α =1 Adulteq	P α =2 Adulteq			P α =0 Adulteq	P α =1 Adulteq	P α =2 Adulteq
1	Kiambu	25.08	19.61	25.06	6.08	2.46	5.48		2.60	1.72	1.47
2	Nyandarua	26.95	22.41	26.96	8.51	3.44	1.76		0.90	0.78	0.66
3	Kajiado	27.87	24.33	28.26	10.41	4.91	1.28		0.68	0.69	0.69
4	Nyeri	31.05	24.29	30.95	10.35	4.81	3.20		1.88	1.71	1.67
5	Laikipia	33.88	24.47	33.37	8.33	3.36	1.24		0.79	0.53	0.45
6	Tana River	34.22	28.55	32.71	8.97	3.77	0.22		0.14	0.10	0.09
7	Kirinyaga	35.70	31.19	35.60	12.43	5.62	2.18		1.47	1.40	1.33
8	Baringo	36.95	31.85	36.91	12.49	5.69	1.66		1.16	1.07	1.03
9	Muranga	38.62	32.15	38.58	11.02	4.47	4.71		3.44	2.68	2.29
10	Lamu	39.35	29.36	39.38	11.04	4.09	0.30		0.23	0.17	0.13
11	Meru	40.96	36.44	40.53	13.37	6.20	1.70		1.32	1.18	1.15
12	Uasin Gishu	42.22	37.54	41.86	12.05	4.92	1.99		1.59	1.24	1.07
13	Nakuru	45.08	36.45	45.10	14.75	6.25	4.06		3.46	3.10	2.76
14	Nyambene	47.29	44.65	45.47	16.13	6.90	3.41		3.04	2.84	2.56
15	Elgeyo-Marakwet	47.82	40.87	46.61	13.83	5.37	1.25		1.13	0.90	0.73
16	Mbeere	51.36	44.80	49.98	21.14	10.50	0.76		0.73	0.83	0.86
17	Narok	52.17	44.35	52.28	17.12	6.95	1.14		1.12	1.01	0.86
18	Kericho	52.42	48.10	52.41	18.11	8.50	2.77		2.75	2.60	2.56
19	Trans Nzoia	54.83	53.07	55.03	19.53	9.11	1.98		2.05	2.00	1.96
20	Bungoma	55.21	49.40	55.36	20.42	9.49	3.78		3.95	4.00	3.90
21	Tharaka Nithi	55.58	46.79	55.05	18.92	8.52	1.47		1.54	1.44	1.36
22	Embu	55.76	53.94	56.19	23.47	11.69	0.91		0.95	1.10	1.15

cont.

23	Transmara	56.59	53.67	57.12	19.26	8.77	1.03	1.11	1.03	0.99
24	Kakamega	56.69	49.98	57.47	23.15	11.68	4.92	5.27	5.89	6.25
25	Kisii	57.22	52.67	56.87	22.50	11.65	3.33	3.60	3.87	4.22
26	Migori	57.63	48.19	57.41	16.57	6.74	3.91	4.26	3.35	2.87
27	Siaya	58.02	50.41	57.93	20.92	9.78	3.30	3.62	3.57	3.51
28	Kwale	60.55	51.45	61.20	25.25	13.14	2.08	2.38	2.72	2.97
29	Bomet	61.80	58.40	62.53	24.80	12.54	2.52	2.94	3.23	3.43
30	Vihiga	61.97	59.25	62.84	21.91	10.33	2.89	3.38	3.28	3.25
31	Machakos	62.96	58.75	63.25	22.85	10.53	3.79	4.51	4.49	4.35
32	Nandi	64.15	59.11	65.16	23.08	11.12	2.48	3.00	2.96	3.00
33	Kitui	64.91	60.58	64.58	25.80	12.48	3.23	3.97	4.32	4.39
34	Kisumu	65.44	61.08	65.16	26.70	13.87	2.47	3.05	3.41	3.72
35	Taita Taveta	65.82	60.54	66.30	24.88	11.82	0.98	1.22	1.26	1.26
36	Busia	65.99	60.85	66.63	27.90	14.30	1.95	2.43	2.82	3.04
37	Kilifi	66.30	53.01	66.00	26.14	12.40	3.01	3.77	4.07	4.06
38	Nyamira	66.74	60.43	67.20	26.92	13.52	4.43	5.58	6.17	6.51
39	West Pokot	68.46	63.69	67.96	33.98	18.86	1.10	1.43	1.94	2.26
40	Makueni	73.51	63.06	73.72	32.24	16.94	2.91	4.04	4.85	5.35
41	Homa Bay	77.49	72.16	77.25	29.54	14.63	2.42	3.54	3.70	3.85

Source: Welfare Monitoring Survey III, 1997 database.

Rural Hard Core Poverty 1997, (Kshs. 927.08)
Annex Table 7a

	Headcount			Poverty Gap		Severity of Poverty		% Of Population		Contribution to Poverty		
	P α =0	P α =0	P α =0	P α =0	P α =1	P α =2	P α =2	P α =2	P α =2	P α =0	P α =1	P α =2
	Adulteq	Households	Individuals	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq
Central Rural	15.56	12.81	15.57	4.00	1.41	17.36	7.76	6.73	6.00			
Kiambu	7.78	6.58	7.63	2.09	0.73	5.47	1.22	1.11	0.98			
Kirinyaga	21.45	17.98	20.64	5.94	2.24	2.18	1.34	1.25	1.19			
Muranga	20.70	16.33	21.05	4.96	1.68	4.76	2.83	2.29	1.96			
Nyandarua	17.32	14.92	17.44	3.91	1.15	1.78	0.89	0.68	0.50			
Nyeri	16.23	12.84	16.28	4.55	1.76	3.18	1.48	1.40	1.37			
Coast Rural	44.78	36.83	45.14	13.54	5.39	6.58	8.47	8.64	8.67			
Kilifi	48.98	36.88	49.02	14.72	5.64	3.03	4.26	4.32	4.18			
Kwale	44.80	38.24	45.72	14.26	6.08	2.04	2.63	2.82	3.03			
Lamu	18.44	13.61	18.45	4.19	1.37	0.31	0.16	0.12	0.10			
Taita Taveta	47.25	45.13	47.91	13.49	5.27	0.98	1.33	1.28	1.27			
Tana River	12.77	9.87	11.85	4.16	1.71	0.22	0.08	0.09	0.09			
Eastern Rural	40.95	36.18	40.57	12.15	4.74	18.12	21.31	21.32	21.01			
Mbeere	42.38	34.58	40.80	12.35	5.08	0.76	0.92	0.90	0.94			
Embu	43.22	39.53	43.45	14.09	5.78	0.92	1.14	1.25	1.30			
Kitui	47.04	44.71	46.35	14.57	5.71	3.24	4.37	4.57	4.52			
Machakos	42.76	37.16	42.65	11.97	4.55	3.81	4.68	4.42	4.24			
Meru	23.83	21.44	23.66	6.53	2.55	1.70	1.16	1.07	1.06			
Makueni	58.59	46.96	58.91	19.47	8.33	2.82	4.75	5.33	5.76			
Tharaka Nithi	32.48	28.20	32.16	9.32	3.62	1.47	1.38	1.33	1.30			
Nyambene	29.79	28.55	28.28	7.42	2.27	3.40	2.91	2.45	1.89			

cont.

	Headcount				Poverty		Severity of % Of		Contribution to Poverty		
	Pα=0 Adulteq	Pα=0 Households	Pα=0 Individuals	Pα=1 Adulteq	Pα=2 Adulteq	Population	Pα=0 Adulteq	Pα=1 Adulteq	Pα=2 Adulteq		
Nyanza Rural	41.98	37.77	42.09	13.13	5.47	19.91	24.00	25.32	26.65		
Kisii	38.82	35.26	39.00	13.40	5.96	3.33	3.71	4.32	4.85		
Kisumu	46.06	42.62	45.41	15.97	7.18	2.45	3.25	3.80	4.31		
Siaya	37.52	31.41	37.75	10.66	4.07	3.29	3.54	3.40	3.28		
Homa Bay	53.92	48.20	54.15	16.84	7.19	2.42	3.74	3.94	4.25		
Migori	29.30	26.11	29.99	7.26	2.69	3.95	3.33	2.78	2.60		
Nyamira	50.14	46.07	50.59	16.38	6.74	4.46	6.43	7.08	7.36		
Rift Valley Rural	31.67	27.35	31.50	9.14	3.51	24.55	22.33	21.73	21.08		
Kajiado	21.15	16.96	21.70	6.02	2.18	1.30	0.79	0.76	0.69		
Kericho	32.26	30.42	32.22	9.28	3.53	2.76	2.56	2.48	2.39		
Laikipia	15.83	10.47	16.18	3.67	1.32	1.25	0.57	0.45	0.41		
Nakuru	29.15	21.38	29.00	6.57	2.20	4.07	3.40	2.59	2.19		
Nandi	40.65	38.60	40.82	13.00	5.36	2.49	2.91	3.14	3.27		
Narok	34.03	27.88	34.28	7.91	2.43	1.15	1.13	0.88	0.69		
Bomet	42.68	39.20	42.40	14.46	6.05	2.51	3.07	3.51	3.71		
Transmara	34.04	34.95	32.99	8.38	2.90	1.01	0.99	0.82	0.72		
Baringo	22.76	19.00	22.26	6.37	2.42	1.67	1.09	1.03	0.99		
Elgeyo-Marakwet	26.01	21.85	25.78	5.89	1.87	1.27	0.95	0.72	0.58		
Trans Nzoia	32.33	30.10	32.14	10.62	4.26	2.00	1.85	2.05	2.08		
Uasin Gishu	20.73	18.49	20.72	5.44	1.88	2.01	1.20	1.06	0.92		
West Pokot	59.66	53.91	58.29	21.73	9.44	1.06	1.82	2.23	2.45		
Western Rural	41.67	37.91	41.84	12.45	5.03	13.48	16.13	16.25	16.59		
Bungoma	39.04	32.51	39.12	10.57	3.89	3.77	4.23	3.86	3.58		
Busia	50.64	45.82	50.98	17.08	7.28	1.96	2.85	3.25	3.49		
Kakamega	40.64	35.60	40.76	12.89	5.39	4.87	5.68	6.08	6.42		
Vihiga	40.77	42.28	41.00	11.01	4.39	2.87	3.36	3.06	3.08		
Total Rural	34.82	30.10	34.88	10.32	4.09	100.00	100.00	100.00	100.00		

Source: Welfare Monitoring Survey III, 1997 database

District Ranking of Rural Hard Core Poverty
Annex Table 7b

		Headcount			Poverty Gap		Severity of Poverty		% of Population		Contribution to Poverty		
		P α =0 Adulteq	P α =0 Households	P α =0 Individuals	P α =1 Adulteq	P α =2 Adulteq	P α =0 Adulteq	P α =1 Adulteq	P α =2 Adulteq	P α =0 Adulteq	P α =1 Adulteq	P α =2 Adulteq	
1	Kiambu	7.78	6.58	7.63	2.09	0.73	5.47	1.22	1.11	0.98			
2	Tana River	12.77	9.87	11.85	4.16	1.71	0.22	0.08	0.09	0.09			
3	Laikipia	15.83	10.47	16.18	3.67	1.32	1.25	0.57	0.45	0.41			
4	Nyeri	16.23	12.84	16.28	4.55	1.76	3.18	1.48	1.40	1.37			
5	Nyandarua	17.32	14.92	17.44	3.91	1.15	1.78	0.89	0.68	0.50			
6	Lamu	18.44	13.61	18.45	4.19	1.37	0.31	0.16	0.12	0.10			
7	Muranga	20.70	16.33	21.05	4.98	1.68	4.76	2.83	2.29	1.96			
8	Uasin Gishu	20.73	18.49	20.72	5.44	1.88	2.01	1.20	1.06	0.92			
9	Kajiado	21.15	16.96	21.70	6.02	2.18	1.30	0.79	0.76	0.69			
10	Kirinyaga	21.45	17.98	20.64	5.94	2.24	2.18	1.34	1.25	1.19			
11	Baringo	22.76	19.00	22.26	6.37	2.42	1.67	1.09	1.03	0.99			
12	Meru	23.83	21.44	23.66	6.53	2.55	1.70	1.16	1.07	1.06			
13	Elgeyo-Marakwet	26.01	21.85	25.78	5.89	1.87	1.27	0.95	0.72	0.58			
14	Nakuru	29.15	21.38	29.00	6.57	2.20	4.07	3.40	2.59	2.19			
15	Migori	29.30	26.11	29.99	7.26	2.69	3.95	3.33	2.78	2.60			
16	Nyambene	29.79	28.55	28.28	7.42	2.27	3.40	2.91	2.45	1.89			
17	Kericho	32.26	30.42	32.22	9.28	3.53	2.76	2.56	2.48	2.39			
18	Trans Nzoia	32.33	30.10	32.14	10.62	4.26	2.00	1.85	2.05	2.08			
19	Tharaka Nithi	32.48	28.20	32.16	9.32	3.62	1.47	1.38	1.33	1.30			
20	Narok	34.03	27.88	34.28	7.91	2.43	1.15	1.13	0.88	0.69			

Cont.

	Headcount				Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty					
	Pα=0		Households	Pα=0 Individuals	Pα=1		Pα=2	Pα=0		Pα=1		Pα=2	
	Adulteq				Adulteq	Adulteq		Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq
21	Transnara	34.04	34.95	32.99	8.38	2.90	1.01	0.99	0.82	0.72			
22	Siaya	37.52	31.41	37.75	10.66	4.07	3.29	3.54	3.40	3.28			
23	Kisii	38.82	35.26	39.00	13.40	5.96	3.33	3.71	4.32	4.85			
24	Bungoma	39.04	32.51	39.12	10.57	3.89	3.77	4.23	3.86	3.58			
25	Kakamega	40.64	35.60	40.76	12.89	5.39	4.87	5.68	6.08	6.42			
26	Nandi	40.65	38.60	40.82	13.00	5.36	2.49	2.91	3.14	3.27			
27	Vihiga	40.77	42.28	41.00	11.01	4.39	2.87	3.36	3.06	3.08			
28	Mbeere	42.38	34.58	40.80	12.35	5.08	0.76	0.92	0.90	0.94			
29	Bomet	42.68	39.20	42.40	14.46	6.05	2.51	3.07	3.51	3.71			
30	Machakos	42.76	37.16	42.65	11.97	4.55	3.81	4.68	4.42	4.24			
31	Embu	43.22	39.53	43.45	14.09	5.78	0.92	1.14	1.25	1.30			
32	Kwale	44.80	38.24	45.72	14.26	6.08	2.04	2.63	2.82	3.03			
33	Kisumu	46.06	42.62	45.41	15.97	7.18	2.45	3.25	3.80	4.31			
34	Kitui	47.04	44.71	46.35	14.57	5.71	3.24	4.37	4.57	4.52			
35	Taita Taveta	47.25	45.13	47.91	13.49	5.27	0.98	1.33	1.28	1.27			
36	Kilifi	48.98	36.88	49.02	14.72	5.64	3.03	4.26	4.32	4.18			
37	Nyamira	50.14	46.07	50.59	16.38	6.74	4.46	6.43	7.08	7.36			
38	Busia	50.64	45.82	50.98	17.08	7.28	1.96	2.85	3.25	3.49			
39	Homa Bay	53.92	48.20	54.15	16.84	7.19	2.42	3.74	3.94	4.25			
40	Makueni	58.59	46.96	58.91	19.47	8.33	2.82	4.75	5.33	5.76			
41	West Pokot	59.66	53.91	58.29	21.73	9.44	1.06	1.82	2.23	2.45			

Source: Welfare Monitoring Survey III, 1997 database

**Urban Poverty
Annex Table 8**

	Headcount				Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty		
	Pα=0 Adulteq	Pα=0 Households	Pα=0 Individuals	Pα=2 Adulteq				Pα=0 Adulteq	Pα=1 Adulteq	Pα=2 Adulteq
Food Poverty Line (Kshs.1,253.90)										
Overall Urban	38.29	32.35	38.37	4.04	10.65	100.00	100.00	100.00	100.00	100.00
Nairobi	38.38	34.68	38.17	3.90	10.40	48.06	48.18	46.94	46.39	46.39
Mombasa	38.57	31.02	39.78	4.07	10.96	13.86	13.96	14.26	13.97	13.97
Kisumu	53.39	45.77	53.64	6.88	16.61	5.26	7.33	8.20	8.95	8.95
Nakuru	26.81	19.75	26.31	2.50	6.52	6.78	4.75	4.15	4.20	4.20
Other Towns combined	37.91	30.19	37.98	4.11	10.82	26.05	25.79	26.46	26.49	26.49
Absolute Poverty Line (Kshs.2,648.04)										
Overall Urban	49.20	43.45	50.11	6.86	15.67	100.00	100.00	100.00	100.00	100.00
Nairobi	50.24	46.59	51.17	5.47	14.07	48.06	49.07	43.14	38.33	38.33
Mombasa	38.32	33.52	39.44	6.96	14.29	13.86	10.80	12.64	14.08	14.08
Kisumu	63.73	58.11	63.97	11.42	23.09	5.26	6.81	7.75	8.76	8.76
Nakuru	40.58	32.84	41.06	3.84	10.58	6.78	5.59	4.58	3.79	3.79
Other Towns combined	52.38	43.53	53.30	9.22	19.20	26.05	27.73	31.90	35.04	35.04
Hard Core Poverty Line (Kshs.1,253.90)										
Overall Urban	7.58	5.89	7.70	0.68	1.91	100.00	100.00	100.00	100.00	100.00
Nairobi	3.83	3.33	3.82	0.45	1.18	48.06	24.32	29.76	32.15	32.15
Mombasa	9.31	6.55	9.47	0.85	2.36	13.86	17.04	17.07	17.29	17.29
Kisumu	16.77	11.22	17.42	1.70	4.40	5.26	11.63	12.09	13.19	13.19
Nakuru	3.68	2.93	3.21	0.17	0.76	6.78	3.29	2.70	1.65	1.65
Other Towns combined	12.72	9.41	12.83	0.93	2.82	26.05	43.72	38.38	35.72	35.72

Source: Welfare Monitoring Survey 1997 database

**National Poverty Measures by Region 1997: Respective Absolute Poverty Lines
(Kshs. 1,238.86 for Rural Areas and Kshs. 2,648.04 for Urban Areas)
Annex Table 9a**

	Headcount			Poverty Gap		Severity of poverty		% of Population			Contribution to Poverty		
	P _{α=0} Adulteq	P _{α=0} households	P _{α=0} Individuals	P _{α=1} Adulteq	P _{α=2} Adulteq	P _{α=0} Adulteq	P _{α=1} Adulteq	P _{α=2} Adulteq	P _{α=0} Adulteq	P _{α=1} Adulteq	P _{α=2} Adulteq	P _{α=0} Adulteq	P _{α=1} Adulteq
Central Rural	31.39	25.72	31.37	9.25	3.94	14.52			8.71	7.17	6.48		
Kiambu	25.08	19.61	25.06	6.08	2.46	4.59			2.20	1.49	1.28		
Kirinyaga	35.70	31.19	35.60	12.43	5.62	1.83			1.25	1.21	1.16		
Muranga	38.62	32.15	38.58	11.02	4.47	3.95			2.91	2.32	2.00		
Nyandarua	26.95	22.41	26.96	8.51	3.44	1.48			0.76	0.67	0.58		
Nyeri	31.05	24.29	30.95	10.35	4.81	2.68			1.59	1.48	1.46		
Coast Rural	62.10	51.97	62.19	24.40	11.87	5.53			6.56	7.20	7.44		
Kilifi	66.30	53.01	66.00	26.14	12.40	2.52			3.19	3.52	3.55		
Kwale	60.55	51.45	61.20	25.25	13.14	1.74			2.02	2.35	2.60		
Lamu	39.35	29.36	39.38	11.04	4.09	0.25			0.19	0.15	0.12		
Taita Taveta	65.82	60.54	66.30	24.88	11.82	0.82			1.03	1.09	1.10		
Tana River	34.22	28.55	32.71	8.97	3.77	0.18			0.12	0.09	0.08		
Eastern Rural	58.56	53.08	58.24	22.37	10.71	15.23			17.05	18.19	18.51		
Mbeere	51.36	44.80	49.98	21.14	10.50	0.63			0.62	0.72	0.75		
Embu	55.76	53.94	56.19	23.47	11.69	0.76			0.81	0.95	1.01		
Kitui	64.91	60.58	64.58	25.80	12.48	2.71			3.36	3.73	3.84		
Machakos	62.96	58.75	63.25	22.85	10.53	3.18			3.83	3.88	3.80		
Meru	40.96	36.44	40.53	13.37	6.20	1.43			1.12	1.02	1.00		
Makueni	73.51	63.06	73.72	32.24	16.94	2.44			3.42	4.19	4.68		
Tharaka Nithi	55.58	46.79	55.05	18.92	8.52	1.23			1.31	1.24	1.19		
Nyambene	47.29	44.65	45.47	16.13	6.90	2.86			2.58	2.46	2.23		

cont.

	Headcount			Poverty Gap		Severity of poverty		% of Population		Contribution to Poverty		
	P α =0 Adulteq	P α =0 households	P α =0 Individuals	P α =1 Adulteq	P α =2 Adulteq	P α =0 Adulteq	P α =1 Adulteq	P α =2 Adulteq	P α =0 Adulteq	P α =1 Adulteq	P α =2 Adulteq	
Total Urban	49.20	43.45	50.11	15.67	6.86	16.19	15.22	13.54	12.59			
Nairobi	50.24	46.59	51.17	14.07	5.47	7.78	7.47	5.84	4.83			
Mombasa	38.32	33.52	39.44	14.29	6.96	2.24	1.64	1.71	1.77			
Kisumu	63.73	58.11	63.97	23.09	11.42	0.85	1.04	1.05	1.10			
Nakuru	40.58	32.84	41.06	10.58	3.84	1.10	0.85	0.62	0.48			
Other Towns combined	52.38	43.53	53.30	19.20	9.22	4.22	4.22	4.32	4.41			
National	52.32	45.76	52.60	18.74	8.81	100.00	100.00	100.00	100.00			

Source: Welfare Monitoring Survey III, 1997 database

Overall Poverty 1997 in Absolute Numbers
Annex Table 9b

	The Total Population			The Poor		
	All Adult equivalents	All Households	All Individuals	Adult equivalents Below poverty	Households Below Poverty	Individuals below Poverty
Central Rural	2,915,789	840,100	3,591,926	915,150	216,047	1,126,826
Kiambu	921,991	246,265	1,122,598	231,225	48,286	281,281
Kirinyaga	366,642	106,716	447,558	130,895	33,287	159,340
Muranga	792,269	225,870	988,415	305,980	72,627	381,363
Nyandarua	296,748	85,499	374,201	79,972	19,158	100,867
Nyeri	538,139	175,751	659,154	167,078	42,689	203,975
Coast Rural	1,109,815	266,877	1,420,975	689,240	138,691	883,667
Kilifi	506,278	114,762	652,082	335,661	60,838	430,355
Kwale	350,261	86,640	447,417	212,088	44,578	273,812
Lamu	50,970	12,598	65,532	20,056	3,699	25,809
Taita Taveta	165,226	45,260	208,329	108,746	27,401	138,114
Tana River	37,080	7,617	47,614	12,688	2,175	15,576
Eastern Rural	3,059,202	719,757	3,915,177	1,791,444	382,037	2,280,334
Mbeere	127,302	37,318	161,260	65,387	16,717	80,601
Embu	152,533	39,050	188,152	85,046	21,061	105,732
Kitui	544,452	126,582	717,828	353,423	76,687	463,547
Machakos	638,614	141,301	819,285	402,068	83,016	518,165
Meru	286,523	73,010	342,796	117,373	26,608	138,949
Makueni	489,094	116,338	626,809	359,546	73,363	462,109
Tharaka Nithi	247,138	68,325	309,467	137,371	31,968	170,376
Nyambene	573,547	117,833	749,579	271,231	52,615	340,856

cont.

	The Total Population			The Poor		
	All Adult equivalents	All Households	All Individuals	Adult equivalents Below poverty	Households Below Poverty	Individuals below Poverty
Nyanza Rural	3,340,675	895,753	4,259,215	2,106,269	507,720	2,678,518
Kisii	559,851	125,726	717,120	320,369	66,222	407,860
Kisumu	415,157	120,658	536,599	271,690	73,699	349,636
Siaya	555,462	187,258	687,822	322,301	94,391	398,421
Homa Bay	406,880	114,701	504,481	315,309	82,764	389,734
Migori	658,149	157,626	874,754	379,268	75,961	502,213
Nyamira	745,175	189,785	938,439	497,331	114,682	630,654
Rift Valley Rur	4,124,984	1,100,604	5,365,744	2,066,441	485,182	2,691,909
Kajiado	216,137	58,489	283,221	60,232	14,228	80,038
Kericho	467,009	128,557	604,533	244,794	61,835	316,832
Laikipia	208,766	59,527	271,271	70,740	14,567	90,523
Nakuru	683,052	223,447	872,327	307,912	81,451	393,381
Nandi	416,791	104,274	532,551	267,355	61,637	346,989
Narok	192,008	49,328	264,051	100,175	21,876	138,052
Bomet	423,493	95,865	548,244	261,737	55,982	342,807
Transmara	174,006	44,967	237,805	98,467	24,135	135,831
Baringo	279,663	76,472	372,291	103,345	24,354	137,430
Elgeyo-	210,577	53,200	269,720	100,697	21,744	125,721
Marakwet						
Irans Nzoia	332,515	85,362	429,499	182,310	45,305	236,338
Uasin Gishu	335,298	72,935	437,961	141,559	27,379	183,327
West Pokot	185,669	48,183	242,270	127,117	30,690	164,639
Western Rural	2,279,593	588,236	2,931,551	1,339,152	315,074	1,739,131
Bungoma	636,738	141,629	839,821	351,525	69,971	464,912
Busia	328,504	91,828	426,623	216,796	55,876	284,258
Kakamega	827,927	226,292	1,049,288	469,379	113,100	602,986
Vihiga	486,424	128,486	615,820	301,452	76,127	386,975
Total Rural	16,830,058	4,411,328	21,484,588	8,907,696	2,044,751	11,400,385

	The Total Population			The Poor		
	All Adult equivalents	All Households	All Individuals	Adult equivalents Below poverty	Households Below Poverty	Individuals below Poverty
Overall Urban	3,251,099	1,133,352	3,978,750	1,599,452	492,446	1,993,902
Nairobi	1,562,464	511,531	1,875,927	784,924	238,328	959,973
Mombasa	450,611	159,442	551,189	172,681	53,438	217,402
Kisumu	170,892	54,779	219,486	108,901	31,832	140,407
Nakuru	220,350	80,335	276,816	89,423	26,378	113,674
Other Towns combined	846,782	327,264	1,055,332	443,523	142,469	562,446
Nation	20,081,157	5,544,679	25,463,338	10,507,148	2,537,197	13,394,287

Source: Welfare Monitoring Survey III, 1997 database

Poverty Measures by Socio-economic Groups (rural absolute poverty)

Annex Table 10

Annex Table 10

	Headcount			Poverty Gap	Severity of poverty	% of Population	Contribution to Poverty			
	Pα=0		Pα=1 Adulteq	Pα=2 Adulteq	Pα=0 Adulteq	Pα=1 Adulteq	Pα=2 Adulteq	Pα=0 Adulteq	Pα=1 Adulteq	Pα=2 Adulteq
	Adulteq	households								
	Overall Rural	52.93	46.35	53.06	19.33	9.19	100.00	100.00	100.00	100.00
Sex of Head										
Males	52.53	45.88	52.66	19.04	9.01	75.01	74.46	73.88	73.52	
Female	54.11	47.42	54.27	20.21	9.74	24.99	25.54	26.12	26.48	
Marital Status										
Male-married	52.70	46.82	52.75	19.11	9.06	72.18	71.87	71.38	71.10	
Male-other	48.37	35.24	50.06	17.01	7.85	2.83	2.59	2.49	2.42	
Female-married	52.27	46.16	52.32	19.42	9.28	13.04	12.88	13.10	13.17	
Female-other	56.11	48.48	56.60	21.07	10.25	11.95	12.67	13.02	13.32	
Education										
None	64.03	57.54	64.28	24.96	12.28	33.48	40.51	43.24	44.74	
Primary	53.64	47.08	54.13	19.26	9.06	46.05	46.67	45.89	45.39	
Secondary	33.39	26.52	33.59	10.21	4.42	19.30	12.18	10.19	9.29	
Higher (Form 5 -	6.75	1.94	6.46	2.56	0.97	0.35	0.05	0.05	0.04	
University)	38.89	28.27	41.35	14.87	6.14	0.82	0.60	0.63	0.55	
Other										
(Technical/informal)										
Household Size										
1-3 persons	35.54	32.26	32.26	12.58	5.95	15.45	10.38	10.06	10.01	
4-6	49.57	48.26	48.26	17.53	8.18	38.87	36.41	35.25	34.57	
7+	61.67	61.23	61.23	23.15	11.16	45.67	53.21	54.69	55.43	
										cont.

Sector**	Headcount			Poverty Gap	Severity of poverty	% of Population	Contribution to Poverty		
	$P_{\alpha=0}$ Adulteq	$P_{\alpha=0}$ households	$P_{\alpha=0}$ Individuals	$P_{\alpha=1}$ Adulteq	$P_{\alpha=2}$ Adulteq		$P_{\alpha=0}$ Adulteq	$P_{\alpha=1}$ Adulteq	$P_{\alpha=2}$ Adulteq
Not stated	61.01	54.98	61.16	23.40	11.40	33.01	38.05	39.97	40.92
Public Sector	26.57	20.57	26.90	7.55	3.08	7.62	3.82	2.97	2.55
Semi-Public	42.15	33.48	42.01	14.46	6.59	1.47	1.17	1.10	1.05
Private Formal	41.11	31.91	41.81	14.82	6.84	10.02	7.78	7.68	7.45
Private Informal	54.35	48.20	54.46	19.49	9.22	47.89	49.18	48.28	48.03

Notes:

** 81 percent of those who did not state were Unpaid family worker/homeworker, 13.3 percent were Unemployed, 5 percent Sick/handicapped, 0.1 percent Pensioners and 0.3 percent were student/apprentice, 53.2 percent of the homeworkers were in Agriculture, 44.6 percent had no job, 1.6 percent, Sales/Service, 0.1 percent in manufacturing and transport while 0.2 percent were in construction.

Source: Welfare Monitoring Survey III, 1997 database

Poverty Measures by Socio-economic Groups (urban absolute poverty)
Annex Table 11

Annex Table 11										
	Headcount			Poverty Gap	Severity of Poverty	% of Population	Contribution to Poverty			
	Pα=0	Pα=0	Pα=0	Pα=1	Pα=2		Pα=0	Pα=1	Pα=2	
	Adulteq	households	Individuals	Adulteq	Adulteq		Adulteq	Adulteq	Adulteq	
Overall Urban	49.20	43.45	50.11	15.67	6.86	100.00	100.00	100.00	100.00	
Sex										
Males	45.92	41.07	47.22	15.15	6.67	80.79	75.41	78.07	78.60	
Female	62.99	52.69	62.50	17.89	7.64	19.21	24.59	21.93	21.40	
Marital Status										
Male-married	46.16	41.95	47.49	15.46	6.85	75.65	70.98	74.61	75.61	
Male-other	42.37	35.00	42.31	10.57	3.99	5.14	4.42	3.46	2.99	
Female-married	56.04	49.46	56.17	19.73	10.18	4.15	4.72	5.22	6.15	
Female-other	64.90	53.38	64.35	17.38	6.94	15.06	19.87	16.71	15.24	
Education										
None	65.98	60.75	67.39	28.86	15.44	9.62	12.91	17.72	21.68	
Primary	63.85	54.90	65.03	19.51	8.28	35.92	46.61	44.70	43.41	
Secondary	38.80	34.53	39.68	11.67	4.81	44.68	35.24	33.27	31.37	
Higher (Form 5 - University)	14.29	9.71	13.71	1.58	0.47	5.58	1.62	0.56	0.38	
Other (Technical/informal)	42.39	38.23	41.33	13.98	5.17	4.20	3.62	3.75	3.17	
Household Size										
1-3 persons	37.78	33.92	33.92	10.95	4.41	32.71	25.12	22.84	21.05	
4-6	53.69	53.82	53.82	16.30	6.93	43.76	47.76	45.52	44.24	
7+	56.71	58.34	58.34	21.07	10.11	23.53	27.13	31.64	34.71	
									cont.	

Sector**	Headcount			Poverty Gap		Severity of Poverty		% of Population		Contribution to Poverty		
	P α =0	P α =0	P α =0	P α =0	P α =1	P α =2	P α =2	P α =2	P α =2	P α =0	P α =1	P α =2
	Adulteq	households	Individuals	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq	Adulteq
Not stated	59.51	53.84	60.69	25.29	14.37	6.87	8.31	11.08	14.40			
Public Sector	38.31	32.33	38.92	10.74	4.77	14.75	11.49	10.11	10.27			
Semi-Public	28.76	27.12	29.42	8.98	3.95	5.94	3.48	3.40	3.43			
Private Formal	35.91	32.79	37.32	10.48	4.15	28.80	21.02	19.27	17.42			
Private Informal	62.81	53.37	63.47	20.17	8.56	43.63	55.70	56.13	54.48			

Notes:

** 53 percent of those who did not state who they work for were Unpaid family worker/homeworker, 33 percent were Unemployed, 8 percent Sick/handicapped, 0.8 percent Pensioners 4.5 percent were student/apprentice and 0.8 percent Casual employees. 38.6 percent of the homeworkers had in the past 12 months worked in Agriculture, 50 percent had no job and 11.4 percent worked in Sales/Service.

Source: Welfare Monitoring Survey III, 1997 database

Deciles Limits and Expenditure Shares, 1997
Annex Table 12

Decile Group	Expenditure limit	% of hhholds	% of Population	Average Expenditure	% of hhholds cumulative	Share of expenditure (%)	Cumulative %
1	UP TO 567.47	10	11.5	463.1	10	2.5	2.5
2	> 567.47 <= 742.87	10	12.1	658.3	20	3.5	6.0
3	> 742.87 <= 925.28	10	11.3	831.0	30	4.5	10.5
4	> 925.28 <= 1114.29	10	11.0	1017.8	40	5.5	16.0
5	> 1114.29 <= 1334.79	10	11.0	1221.7	50	6.6	22.6
6	> 1334.79 <= 1614.37	10	10.4	1465.3	60	7.9	30.5
7	> 1614.37 <= 1956.04	10	9.7	1776.6	70	9.6	40.0
8	> 1956.04 <= 2494.76	10	9.1	2199.4	80	11.8	51.9
9	> 2494.76 <= 3576.09	10	7.9	2964.8	90	16.0	67.9
10	ABOVE 3576.09	10	6.0	5963.5	100	32.1	100.0
			100.0				

Annex Table 15: Welfare Monitoring Survey Sample Size 1997

	Number of clusters			No. of households			Total No. of Members		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Nairobi	0	30	30	0	285	285	0	1,008	1,008
Kiambu	34	10	44	355	86	441	1,616	205	1,821
Kirinyaga	24	1	25	258	8	266	1,064	9	1,073
Murang'a	36	2	38	382	20	402	1,676	35	1,711
Nyandarua	23	2	25	246	16	262	1,112	56	1,168
Nyeri	36	5	41	369	39	408	1,390	82	1,472
Kilifi	23	5	28	230	42	272	1,394	207	1,601
Kwale	23	1	24	229	8	237	1,199	30	1,229
Lamu	9	1	10	99	10	109	515	24	539
Mombasa	0	25	25	0	226	226	0	803	803
Taita Taveta	23	3	26	208	19	227	934	56	990
Tana River	5	1	6	50	10	60	308	24	332
Mbeere	11	0	11	106	0	106	470	0	470
Embu	13	4	17	138	43	181	651	147	798
Isiolo	0	2	2	0	23	23	0	81	81
Kitui	35	1	36	325	8	333	1,871	10	1,881
Machakos	18	8	26	177	79	256	1,030	292	1,322
Meru	13	5	18	141	55	196	659	158	817
Makueni	18	1	19	160	12	172	907	30	937
Tharaka Nithi	9	1	10	102	12	114	463	44	507
Nyambene	11	0	11	126	0	126	764	0	764
Garissa	0	2	2	0	16	16	0	66	66
Wajir	0	1	1	0	12	12	0	56	56
Kisii	36	4	40	382	37	419	2,131	165	2,296
Kisumu	36	19	55	330	181	511	1,456	761	2,217
Siaya	36	2	38	359	17	376	1,339	59	1,398
Homa Bay	19	1	20	165	7	172	708	26	734
Migori	17	1	18	170	12	182	908	29	937
Nyamira	24	1	25	239	12	251	1,163	42	1,205
Kajiado	22	4	26	170	32	202	830	65	895
Kericho	19	3	22	204	35	239	947	120	1,067
Laikipia	20	3	23	202	25	227	924	73	997
Nakuru	34	20	54	355	210	565	1,467	719	2,186
Nandi	35	1	36	352	9	361	1,859	28	1,887
Narok	11	2	13	118	21	139	646	68	714
Bomet	17	1	18	164	10	174	951	23	974
Transmara	7	0	7	70	0	70	376	0	376
Baringo	22	1	23	235	10	245	1,139	40	1,179
Elgeyo Marakwet	23	1	24	250	10	260	1,272	32	1,304
Trans Nzoia	24	4	28	215	33	248	1,139	134	1,273
Uasin Gishu	23	10	33	226	87	313	1,345	300	1,645
West Pokot	17	2	19	144	11	155	747	55	802
Bungoma	36	6	42	344	45	389	2,049	154	2,203
Busia	24	2	26	220	17	237	1,025	92	1,117
Kakamega	24	5	29	227	50	277	1,057	187	1,244
Vihiga	12	1	13	120	11	131	554	55	609
Total	902	205	1,107	8,962	1,911	10,873	44,055	6,650	50,705

Source: WMS III '97

