

Measuring and Monitoring Poverty: The Case of Kenya

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1.0 Background and Context

1.1 Introduction

In 1997, the World Bank and the IMF endorsed the preparation and implementation of poverty reduction strategy papers (PRSPs) by borrower countries seeking to benefit from the enhanced HIPC (highly indebted poor countries) initiative. The PRSP framework entails governments working with their respective stakeholders to draw up poverty reduction strategy papers, which once approved by IMF and the World Bank, provide the basis for negotiations and agreements among these stakeholders on the planning and implementation of poverty interventions in a country. The PRSP replaced the policy framework paper (PFP) as the over-arching document that outlines the policy directions and resource allocation frameworks for IMF and World Bank lending in countries eligible for concessional assistance. Covering a three-year time frame, it is envisaged to become the centrepiece of policy dialogue in all countries receiving concessional lending flows from the World Bank and the IMF. The re-introduction of poverty reduction as a major thrust of the World Bank and International Monetary Fund policies in 1999 responded to a number of critical and accelerating pressures namely: the need for a tighter instrument to ensure that the HIPC debt relief benefited the populations at large, a global movement for an end to the debt burden, internal demands for Bank decentralization to country offices and a willingness by a critical mass of Bank/Fund staff and Board for reform, greater information disclosure and public participation.¹

In Kenya, the PRSP is the product of a broad based and inclusive consultation that took place at national, regional, district and divisional level in the country. The countrywide consultative process was launched in October 2000 at a National Stakeholders Forum held in Nairobi. It included all stakeholder categories with special attention to the civil society, vulnerable groups (women, youth, pastoralist groups and people with disabilities) and the private sector. To ensure inclusiveness and broad-based participation, the consultations were organized within a national framework consisting of: Divisional consultations; District Consultative Forums, Provincial Workshops; National Consultative and Stakeholders Forums; Thematic Groups; and Sector Working Groups.

The process received continuous policy guidance from Cabinet, the Cabinet Sub-Committee on Economic Management, the National Consultative Forum, a National Steering Committee comprising of Chairpersons of the various Sector Working Groups, Permanent Secretaries, Civil Society organizations and the private sector. The entire PRSP Consultative and Strategy development process was co-ordinated by a Technical PRSP Secretariat comprising of Kenyan professionals from the Government, civil society, private sector and the donor community.

¹PRSPs are documents whose preparation is mandatory for countries wishing to be considered for concessional lending and debt relief under the enhanced Highly Indebted Poor Countries (HIPC) Initiative. The Bretton Woods institutions have adopted the PRS as the primary tool for policy dialogue for all countries applying for concessional lending. Intended to cover a multi-year or three-year time frame, the PRS has replaced the “Policy Framework Paper” as the guiding instrument for policy setting and resource allocation. The significance of PRSs for low income countries can further be gauged from the fact that from July 2002 onwards, all World Bank Country Assistance Strategies (CAS) and Poverty Reduction Support Credits (PRSCs) as well as IMF Poverty Reduction and Growth Facility (PRGF) in International Development Association (IDA) countries are based on a PRS.

At the time the NARC government took over from KANU, the economy was right at the bottom and there was a feeling that the PRSP alone would not lead the economy back to a sustainable growth path. The new government therefore decided to develop a strategy that would give a short term remedy to the economic problems facing the country. This led to the PRSP being validated into an Economic Recovery Strategy for Wealth and Employment Creation (Republic of Kenya, 2003a). In this document, the government recognizes that the sector that would revive the economy is the Physical infrastructure sector and also recognized the need to identify with the PRSP priorities of agriculture and human resource development for the provision of basic needs.

Kenya's Poverty Reduction Strategy Paper (PRSP) outlines the priorities and measures necessary for poverty reduction and economic growth. These comprehensive consultations have ensured that the PRSP fosters national ownership that is necessary to support and implement poverty reduction and economic growth initiatives. This PRSP builds on past efforts aimed at poverty alleviation and in particular the Interim Poverty Reduction Strategy (IPRSP) which identified interim measures and strategies necessary for facilitating sustainable and rapid economic growth, improving governance; raising income opportunities of the poor; improving the quality of life; and improving equity and participation. These principles remain valid and relevant and for the basis of this PRSP.

The PRSP has the twin objectives of economic growth and poverty reduction. This is in recognition that economic growth is not a sufficient condition to ensure poverty reduction. In this regard, measures geared towards improved economic performance and priority actions that must be implemented to reduce the incidence of poverty among Kenyans have been identified. The paper identifies strategies that integrate sectoral objectives and ensure that priority actions are consistent with the goals of spurring growth and reducing poverty. Economic policies and strategies earmarked for implementation under the PRSP outline a three-year macro-economic framework aimed at promoting robust economic growth and poverty reduction.

The challenge facing Kenya today is to reduce poverty and achieve sustained economic growth for healthy national development. In 2000, the Government committed itself to addressing this challenge in consultation with key stakeholders in the economy, especially the private sector, civil society organizations and other development partners. Under the PRS this entails the participation and inclusion of all Kenyans, especially the poor, in the design and implementation of strategies aimed at tackling the challenges of poverty. This is in recognition of the fact that it is the poor who understand at first hand the causes, nature and extent of poverty. Through PRSPs, space for public participation in policy formulation has indeed opened up in Kenya. National, regional and district level PRS consultations have enabled a variety of voices and perspectives to be heard. These inclusive circles have, in varied degrees, allowed for frank exchange of policy concerns.

1.2 Poverty Reduction Strategy Cycle

The PRS is central to the development of a pro-poor and pro-growth Medium Term Expenditure Framework (MTEF) budget. The three year MTEF is designed to implement the priorities aimed at improving the quality of expenditure and the shifting of resources towards pro-poor activities and programmes. The monitoring and evaluation

component of the PRS seek to ensure effectiveness and efficiency in the allocation of economic resources to pro-poor development initiatives.

The PRSP is at the centre of the long-term vision outlined in the National Poverty Eradication Plan (NPEP). The NPEP proposes a fifteen (15) year time horizon to fight poverty and has adopted the Millennium Development Goals (MDGs), which aim at reducing global poverty by half. The IDGs provide the vision for this country to eradicate poverty. The PRSP on the other hand is a short-term strategy, which seeks to implement the NPEP in a series of three year plans. As such, it is an instrument to implement key national development strategies and plans. In between the PRSP and NPEP is the National Development Plan, which stipulates policies of a broader nature to be implemented over the medium-term.

Through the PRSP, there has been a shift in the national government's understanding of the causes of poverty and a realization of the need for multi-sectoral approach to eradicating poverty. To facilitate this, a number of strategies and policies have been adjusted, marking a departure from previous development strategies. For instance, demands for the collective rights of people with disabilities and pastoralists have since been realized with important affirmative policies built into the PRSPs; demands for a pro-poor progressive tax structure in the PRS were responded to with one of the harshest VAT policies in recent Kenyan history in the 2000/2001 National Budget. Further, although attempts have been made by the Government to make linkages between the PRS and the national budget, little progress has been made so far. In this regard, the Government, donors, and citizens must ensure the talk on poverty eradication is matched by the monetary allocations.

Budgetary policies have also been adjusted as a result of PRSPs. Strategies identified through the PRSP consultation formed the basis of the Medium Term Expenditure Framework budget for 2001/2002 and 2002/2003. It can be argued that despite this wide and comprehensive consultation the budget outlook did not change much. For example agriculture and rural development emerged as the highest priority nationally. The people indicated that this sector whose growth over the years had slowed down was one major contributor to the rising poverty levels. Some of the problems highlighted included non-availability of quality seeds, poor rural access roads, in appropriate production technologies especially for the small farmers and lack of credit to the farmers particularly the small holder farmer. However a review of the allocations to the Ministries in this sector for these priorities have been falling.

1.3 Measures to strengthen the PRS monitoring and evaluation

As part of the Government's commitment to improve transparency, accountability and responsibility of all stakeholders in the implementation of the PRS/Economic Recovery Strategy (ERS), the Ministry of Planning and National Development has been working with stakeholders in coming up with an integrated system for Monitoring and Evaluation (M&E). The aim of the integrated M&E is to provide the government and stakeholders with reliable mechanisms to measure the efficiency and the effectiveness of public policy in service delivery to the people. With appropriate links to the Medium-Term Expenditure Framework (MTEF) Budget, the M&E system will provide the required

feedback to track progress and for reallocating resources with special emphasis to areas that deliver the desired impact to the people. The system will also set the basis for a transparent and accountable process by which the government, donors and other stakeholders can undertake a shared appraisal of results and on that basis determine way forward in terms of any policy change and special interventions.

The need for Monitoring and Evaluation system was recognized and started during the preparation of the Poverty Reduction Strategy Paper (PRSP) in 2001. Several consultancies were undertaken and it is on the basis of these consultancies and the work done by the Monitoring and Evaluation Thematic Group, that a 2-day workshop was organized in February 2003 to deliberate and recommend the way forward in institutionalizing the M&E system. The outcome of the two-day workshop was the setting up of a Task Force comprising officers from the civil society and the government. Between February and December 2003, the Government concentrated on finalizing the ERS, the Interim Investment Program, hosting of the National Investment Conference, and the donors Consultative Group meeting. During this period the Ministry of Planning was given the official mandate of monitoring and evaluation of economic trends through a Presidential circular that defined core functions of various ministries and government departments.

The PRS/ERS process has triggered an increased demand for detailed poverty data and the monitoring and evaluation of poverty programmes. The Government has in turn responded to this demand by establishing two units in the Ministry of planning and National development, namely: The Poverty Analysis and Research Unit (PARU) in the central bureau of statistics and the Monitoring and Evaluation Unit (MEU). PARU is charged with the responsibility of undertaking research on poverty and related developments that are supposed to feed the PRS/ERS. Currently, it is spearheading collection of data through the Kenya Integrated Household Budget Survey that is going to provide the requisite indicators to monitor and evaluate the impact of PRSP/ERS programmes. MEU is responsible for monitoring the poverty programmes and to undertake impact evaluation in liaison with PARU/CBS. The unit is in the process of coming up with the structures that are necessary to monitor inputs, outputs and outcomes of the programmes under the investment programme.

2.0 Measuring Poverty

2.1 Concepts and Definitions used in Poverty Analysis in Kenya

Poverty is multidimensional and complex in nature and manifests itself in various forms making its definition difficult. 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 lack of things like freedom, spiritual well-being, civil rights and nutrition must also contribute to the definition of poverty. According to the Participatory Poverty Assessment surveys (PPAs), “poverty is hunger, lack of shelter; sickness and being unable to see a doctor (afford medical care). Poverty can also be defined as not being able to go to school, not knowing how to read, not being able to speak properly. Poverty is not having a job and fear for the future, living

one day at a time. Poverty is losing a child to illness brought about by malnutrition and unclean water. Poverty is powerlessness, lack of representation and freedom”

WMS analysis adopted the material well-being perception of poverty in which 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.

PRSP definition of poverty

The PRSP similarly recognized that poverty is multi-dimensional. It defines poverty to include inadequacy of income and deprivation of basic needs and rights, and lack of access to productive assets as well as to social infrastructure and markets.

The quantitative approach of measuring poverty defines the poor as those who cannot afford basic food and non-food items. The PRSP adopted the quantitative measures of poverty based on the 1997 WMS data. The 1997 Welfare Monitoring Survey estimated the absolute poverty line at Kshs 1,239 per person per month and Kshs 2,648 respectively for rural and urban areas. These poverty lines, together with poverty measures estimated from the WMSII data form the basis of PRSP and the biggest chunk of policy discussion reported in the PRSP utilized quantitative data from WMSI, WMSII and WMSIII, but also used qualitative data from PPA to complement and compare policy issues (Republic of Kenya, 2001; chapter 3).

Using the qualitative approach based on various Participatory Poverty Assessments (PPAs) undertaken since 1994, the people define, view and experience poverty in different ways. In the third PPA of 2001, people mainly defined poverty as the inability to meet their basic needs. Poverty was associated with features such as lack of land, unemployment, inability to feed oneself and one's family, lack of proper housing, poor health and inability to educate children and pay medical bills. Though different people and communities defined poverty differently, poverty was invariably associated with the inability to meet/afford certain basic needs.

Given the multi-faceted nature of poverty, the nature and characteristics of poverty go beyond income measures alone. Certain aspects of poverty can be captured by quantitative surveys while others can be established by qualitative studies. In Kenya the two approaches have been used to generate information on the magnitude, extent, nature and characteristics of poverty.

From both the qualitative and the quantitative poverty assessments, the poor in Kenya tend to be clustered into certain social categories namely: the landless; people with disabilities; female headed households; households headed by people without formal education; pastoralists in drought prone ASAL districts; unskilled and semi-skilled casual labourers; AIDS orphans; street children and beggars; subsistence farmers; urban slum dwellers; and unemployed youth.

Measuring Living Standards

The standards of living have in many cases been measured in terms of a person's ability to attain certain recommended basic needs for survival such as food, clothing, health,

education and shelter. For instance, the 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.

In the Welfare Monitoring Survey analysis, efforts to determine people's well-being in Kenya 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 collected information mainly on household consumption expenditures, which are then analyzed to assess the welfare of households.

While 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 in collaboration with other institutions carried out Participatory Poverty Assessments (PPAs) in some districts, and the information has been used to complement the statistical information from the WMS series.

2.2 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 dehumanizing 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. In the analysis of WMS series (WMS I and II) an attempt has been made to analyze poverty using this concept of poverty for the purpose of comparisons only. Some of the poverty reports (WMSI and WMSII) also describe without detailed interpretation other variants of poverty line definitions (e.g. $2/3$ and $1/3$ of the mean total expenditure and the median expenditure) and their corresponding poverty levels for comparison with the absolute measures discussed above (Republic of Kenya, 2000).

Poverty Lines in Kenya

Poverty lines in Kenya have been based on both the Cost-of-Basic Needs (CBN) and the Food-Energy Intake (FEI) approaches. The Government however relies on the Food-Energy Intake (FEI) method. The method attempts to establish 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.

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 WMS analysis is based on the minimum calorie intake of 2,250 calories per day per adult person recommended by the FAO and WHO. A summary of food poverty lines estimated from the reported food consumption patterns is presented in table 1. The poverty lines are based on estimated calories required per adult person per month, estimated at 67,500 (2250*30).

In view of the fact that 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 one single way of determining the nonfood component. In the WMS analysis, a method that is frequently used by other countries was adopted. In this method, the mean non-food household spending in the neighbourhood of the Food Poverty Line has been used as the minimum non-food allowance. While different studies define the neighbourhood differently, the WMS takes a neighbourhood 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 for rural and urban areas is estimated. Hence, the overall poverty line is derived from the summation of the food expenditure level that brought about the required food energy intake and the mean non-food expenditure allowance.

Official poverty lines obtained from the WMS 1997 could be inaccurate for two reasons: first the food poverty lines uses a food basket obtained from the 1982 rural household budget survey and food consumption patterns are likely to have changed since then. Appropriate adjustment therefore needs to be made to the food basket for future surveys. Second, the -20 and 10 percent band is too wide a band for poverty line estimation. A preferred method is to take incremental percentage point expansions either side of the food poverty line and utilize the average set of mean total expenditures that are obtained. Using this approach, World Bank (2003) obtained a lower overall poverty line for urban areas, although the rural poverty line remained broadly the same (see table 1).

This analysis shows that methods matter and critically affect results and calls for the need for the Central Bureau of Statistics to review methodologies used in estimating household well-being and in deriving the poverty line. In so doing, the analysis and identification of appropriate poverty lines should be broadened to include all stakeholders (researchers, policy makers and civil society at large).

Hardcore Poverty: The analysis of poverty has revealed that there is a 'hardest-hit' category of people consisting of those who cannot afford to meet the basic minimum food requirements even if they allocated all their total spending on food. This group is

frequently referred to as the Hardcore Poor or the ultra poor in the literature of poverty. The Hardcore Poverty Line is normally set at the total expenditure equivalent to the Food Poverty Line. For example in WMS II, these are households whose total monthly expenditures are less than Kshs 702.99 per adult equivalent (Table 1). The rural overall poverty line is estimated to have increased from Kshs. 485 to Kshs. 1239 in 1992 and 1997 respectively, compared to a range of 1010 and 2648 for urban areas.

Table 1: Rural and Urban Poverty Lines: 1981/82-1997.

Year of Survey	Rural Poverty lines Kshs		Urban Poverty lines Kshs	
	Food	Overall	Food	Overall
1981/82 RHBS	87.90	105.94	--	--
1992 WMSI	404.66	484.98	514.25	1009.70
1994 WMSII	702.99	978.27	874.72	1489.63
1997 WMSIII	827.08	1239.00	1254.00	2648.00
World Bank (2003)	-	1244.53	--	2130.99

Source: Republic of Kenya (2000), World Bank (2003)

Poverty Measures

Poverty measures summarize 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 have been used in WMS series analysis. The head-count ratio showing poverty incidence and represented by $P_{\alpha=0}$ is the most widely used indicator of poverty. It gives 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 shortcoming of the head-count index is that it may remain the same even when the depth and severity of poverty are rising. The intensity of poverty is measured 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/household (under the assumptions of perfect targeting of the poor) to eradicate poverty. $P_{\alpha=2}$ is a measure of the square of the intensity of poverty and is often hard to interpret.

Concept of Adult Equivalent

To measure poverty, consumption per adult equivalent is used in all analysis 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 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.

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) for Kenya give 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 (1986). 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 WMS reports on poverty have used the equivalence scales produced by Anzagi and Bernard (1977a) to derive the individual welfare index.

2.3 Composition of the Food Basket

The three Welfare Monitoring Surveys have used slightly different food baskets. Attempts have been made to widen the coverage of the food items consumed by various communities in Kenya after every other survey. This means that the latest WMS III of 1997 gathered more information on food items consumed than did WMSII (see list of food items in the appendix).

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 WMS were grouped into several food categories that form the usual food basket (Table 2). The breakdown of the grouped non-food items is given in Box 1.

Table 2: Main Food Items constituting the usual Food Basket

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	

Source: Compiled from Republic of Kenya (1996)

Box 1: Composition of non-food Items

- Health expenditures: 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, taxi/buses/matatu fares, car and bicycle repairs, and other transport expenses

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

2.4 Description of Poverty Data/information since 1990

Poverty was identified at independence as one of the major barriers to human development in Kenya that required to be tackled in the post independence era. Though attempts were made to understand the regional causes of poverty in the 1980s (see for instance Greer and Thorbecke, 1986), it was not possible before the 1990s to clearly identify and locate the poor in Kenya. In the second half of 1980s Kenya introduced structural adjustment programmes (SAPS). One of the components of SAPs was stabilization, whose major objective was to reduce government spending and involvement in the economy. These entailed cutting expenditure on basic social services and introducing cost-sharing for many services.

By the end of 1980s it was realized that the policy changes introduced through SAPs were having adverse effects on some poor and vulnerable subgroups in the population and required safety nets. This led to the introduction of social dimensions of adjustment/development, which were aimed at mitigating the negative effects of SAPs. It was against this global policy change that urgent need to monitor welfare began in 1990. By 1991, the government in collaboration with World Bank launched the first Welfare Monitoring Survey (WMS) to track the impact of adjustment on the welfare of the people. So far three rounds of welfare monitoring surveys have been conducted between 1992 and 1997 to assess, monitor and establish the spread and depth of poverty in Kenya. From the analysis of the WMS data, poverty is now recognized as a major threat to a very significant section of Kenyan households, with worrying implications for the security and economic well being of those with surplus income and good services.

2.5 Data sources used in the measurement of poverty in Kenya *Income/expenditure based-data sources*

With regard to welfare assessments, Kenya has conducted at least four countrywide surveys to measure the living standards of its people since 1980. These are: the 1981/82 Rural Household Budget Survey, the 1992 Welfare Monitoring Survey I (WMSI), the 1994, Welfare Monitoring Survey II (WMSII) and the 1997 Welfare Monitoring Survey III (WMSIII).

The number of items and households covered by the three WMS are summarized in Table 3. These surveys covered both rural areas and urban areas. However, in a number of arid and semi arid districts of Northeastern province only accessible urban clusters were covered due to lack of funds. Sample data from these districts are therefore not representative of their rural areas. Only the 1994 covered all districts and was therefore more comprehensive in terms of both coverage and scope. The details of the distribution of the sample and the sampling scheme adopted are presented in the *WMS II Basic Report* (Republic of Kenya, 1996).

Table 3: Series of Welfare Monitoring Surveys Conducted in Kenya

Survey	Number of food items	No. of non-food Items	Total No. of items	Number of households	Number of districts	Year/month survey was conducted
WMS I	21	27	48	9,860	39	Nov/Dec 1992
WMS II	57	66	123	10,857	47	June/July 1994
WMS III	127	109	236	11,800	46*	April-July/Oct 1997

Source: Central Bureau of Statistics

Non -income data sources of poverty measurement

Since 1989 Kenya has been conducting a Demographic and Health survey every five years. The Last KDHS was conducted in 2003 and the following are some of the non-income measures of poverty. All series of DHS surveys have collected information on: household composition, age sex, and marital status; educational levels/school enrolment; housing characteristics and durable goods; women’s employment status; fertility levels, differentials and regulation; early childhood mortality and adult mortality; maternal and child health including nutrition, immunization, and antenatal care; prevalence of AIDS and other sexually transmitted diseases. .

In the last KDHS, HIV blood spots were collected from sampled respondents and these have been used to estimate the HIV prevalence in rural and urban Kenya. In addition, the last DHS 2003 has attempted to tabulate all the indicators by quintiles. The only disadvantage of this DHS type of information in the design of the sample is such that it gives indicators that are representative of the Province. This definitely masks huge sub province variations as many areas and living conditions of many communities are not homogenous. This notwithstanding the analysis provides a very good understanding of the interaction of variables. For example all the variables are cross tabulated by education levels and the impact of education is clearly seen in the emerging differentials.

In addition the Government in collaboration with other stakeholders has also conducted many smaller surveys on specific issues like the Household Budget Survey of 1993/94, Small Scale Enterprises Survey (1993/1995), the Labor Force Survey of 1998, the Multiple Indicator Cluster Survey (MICS 2000) and the Kenya Service Provision Assessment of 1999 to mention but a few. This wide range of non-income data give a clear picture of the nature of and interactions of covariates of poverty.

2.6 Regional and Temporal Price Deflators

Various households from different regions of the country are faced with different prices for commodities, and it is essential that such variations be reduced when utilizing household expenditures as a welfare measure so that the regions are comparable. From the literature, the reference *region* 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, has been used to derive the regional deflators.

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

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 4 -: Regional Food Price Deflators, 1981/82 - 1997

Year\region	1981/82	1992	1994	1997
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

Source: Republic of Kenya (2000).

3.0 Monitoring Poverty in Kenya

3.1 Periodicity of surveys

The welfare monitoring surveys conducted in 1992, 1994 and 1997 attempted to monitor the welfare of the people of Kenya. The WMSII was based on a Core Welfare Indicators Questionnaire (CWIQ). No other quantitative survey based on income/expenditure poverty has been undertaken since 1997, but plans are underway to conduct a national survey (Kenya Integrated Household Budget Survey (KIHBS) 2004/05. After this long year survey, there are plans to conduct a CWIQ type of survey once every five years and

a smaller core sample survey every two and a half years. The CWIQ type survey comprises 5 modules: a household roster that collects information on household characteristics; a child roster, collecting information on anthropometry; household amenities; household assets and poverty predictors. However, World Bank (2003) strongly recommends improvement of the current survey instruments. The key recommendations include improvements in consumption information, inclusion of a community questionnaire and use of global positioning devices in locating households. The instruments should also collect information for monitoring and evaluating the PRSP.

3.2 Comparability of Welfare Monitoring Survey Series

The comparison of the results of the Welfare Monitoring Survey series (WMS I, II and III) may not be completely appropriate. Discrepancies in the results from one year to another may not be strictly attributable to changes in living standards. Below are some methodological concerns 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. Further the longer the recall period the larger the non-sampling error due to memory lapse. Some of the expenditure data has been collected using a recall period of one week, one month and one year depending on the assumed procurement/regularity of expenditure on such items. A number of respondents also find it difficult to maintain or record daily transactions in a diary. 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/Seasonal effects: WMS I was carried out in the months of November and December 1992; WMS II between June and August 1994; and WMS III were 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 in Kenya. 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 contribute to the differences in survey results. There has been concerted effort to improve on the questionnaire design and content based on experiences gained from each of the rounds. For instance, the questionnaire for 1997 WMS III gathered information on more non-food items, (particularly by urban wage earners) than the 1994 WMSII. Expenditures on transport were split up into various categories, whereas the previous 1994 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 was also broken down into broader categories. As a result the volume of data collected for analysis more than doubled between the two surveys.

Finally, the sampling frame used for the WMS series does not lend it-self to analysis below the district level such as the division or location. Although the district is used as the lowest unit of data dis-aggregation (stratum), it is important to note that 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 (Crawford and Thorbecke, 1970).

It should also be noted that surveys like the WMS series cover only people living in 'dwelling structures'. 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 dwellings or are difficult to reach. This applies for example to beggars, street children and women in destitute conditions. Thus the urban poverty figures presented in WMS reports are representative for people living in somewhat 'orderly' surroundings. As the 'non-residential' cases are expected to be more frequent in an urban environment, estimated urban poverty measures will, all other things being equal remain somewhat understated compared to rural figures.

In the calculation of regional deflators, low income item weights and prices for the reference region (Nairobi) are used for all rural districts and urban areas. This method of deriving regional deflators has a limitation in that Nairobi's low-income consumption patterns are imposed on other regions whose expenditure budget shares may be quite different. This is done because there are no current regional item consumption weights/patterns for rural households. During the computation, the rural deflators have excluded items such as rent and transport which tend to have high weights only in urban areas.

Despite these limitations, the surveys have provided benchmark data for poverty analysis in the country that has led to more informed and focused debate on how the challenges ahead may be tackled. The findings from the surveys have contributed to the development of the National Poverty Eradication Plan 1999-2015, that is currently the main government document that attempts to expound on short, medium and long term strategies for combating poverty in the country and formed the basis for drawing our PRSP/ERS policies.

The findings from the surveys have also led to re-evaluation of the development process and planning. The need for community based poverty assessment studies has now

become an integral part of the development agenda with particular emphasis being placed on community's initiatives and action plans to uplift their living standards. For this reason, a number of donors and NGOs have found that the most effective way of combating poverty is to empower communities and to mobilize resources and initiatives through the communities themselves.

3.3 Robustness of poverty trends based on repeated surveys

Based on the four quantitative surveys, poverty lines and poverty measures have been estimated both at the national and regional (provincial) level. Assuming that all districts face either the provincial or national poverty line, poverty measures for the 1990s have also been estimated at the district level (see Mwabu et al. (2000), Republic of Kenya, (2003). A summary of estimated rural poverty rates by province are presented in Table 5.

Table 5: Rural Absolute Poverty Ranking by Province

Year\ Region	1982		1992		1994		1997	
	Headcount %	Rank	Headcount %	Rank	Headcount %	Rank	Headcount %	Rank
Coast	54.55	5	43.50	3	55.63	5	62.1	5
Eastern	47.73	2	42.16	2	57.75	6	58.6	3
Central	25.69	1	35.89	1	31.93	1	31.4	1
Rift Valley	51.05	3	51.51	5	42.87	3	50.1	2
Nyanza	57.88	6	47.41	4	42.21	2	63.1	6
Western	53.79	4	54.81	6	53.83	4	58.8	4
North Eastern	-	-	-	-	58.00	7	-	-
Total	47.89		46.33		46.75		52.9	

Source: Republic of Kenya (2000).

The estimates show that Central province has consistently emerged the least poor region in all the four surveys. Coast province was ranked number 5 in three of the four surveys and similarly Western region has been ranked 4 in three of the four surveys. This indicates that the poverty trends are somewhat robust in spite of the difficulties of comparing surveys discussed above. Though information for North Eastern province is not adequate to estimate poverty measures for most survey periods, estimates for 1994 indicate that it is likely to be the poorest province. The districts with the worst cases of depth and severity of poverty also came from this province (Mwabu et al. 2000). However, the design and timing of welfare surveys may have contributed to the poverty dynamics apparent in the table above where some regional poverty rankings have changed over repeated surveys. From the table and due to the nature of the surveys one is unable to tell whether the observed changes are real or whether they are statistical artifacts. Similarly the three WMS data sets cannot strictly speaking be used as a panel and it becomes very hard for the analyst to distinguish those households who are transiently poor from those that are chronically poor. This factor could also explain the implied modest increase in the headcount index between 1981/82 and 1997.

Another possible reason for the differentials is the use of unrepresentative prices. The prices used for computing regional deflators were collected from the so called representative centres comprising 16 urban markets. Some rural areas such as Lamu or Witu in Tana-River District were represented by centres such as Malindi and Mombasa

which are far away and somewhat totally different in terms of prices from the rural areas in question. The resulting deflators and poverty estimates may have under or over estimated the real situation. It is however noted that strict temporal adjustment and comparison of prices when analysing the various survey datasets has not been carried out and that Kenya has not collected panel data for poverty analysis and monitoring. The available data cannot be manipulated to form a panel easily given questionnaire and household differentials. It would also be difficult to match the households in successful surveys as new household listing is constantly done and sampling for a new survey based on new listing. Perhaps it is time that the government thought seriously about panel data for monitoring poverty.

3.4 Between the Surveys

Survey vs. National Accounts Based Trends

Poverty estimates in Kenya are based on periodic surveys. It is however very difficult to establish profiles and trends of poverty between surveys because of survey non-comparability and welfare measurement problems (World Bank, 2003). This report presents a revised set of poverty estimates based on national account estimates of the GDP and population growth rates during the 1990s to back cast poverty to the 1990s and also to forecast poverty to 2001. First, the authors adjusted the available poverty measures by omitting housing expenditures to make the poverty measure consistent and comparable across households. Following this approach, the authors estimate the head count index to have risen from 48.8% in 1990 to 55.4% in 2001. Their estimates further show that poverty increased sharply during the early 1990s, declined during the mid 1990s and has risen steadily since 1997.

This exercise of revising poverty estimates was very important because the estimated rate of 48.8% is used as a benchmark by which to assess progress towards attaining the Millennium Development Goal of halving poverty from its 1990 level by 2015. Furthermore, the report gives a number of recommendations for improving the quality of data collected and for estimating poverty lines, poverty measures and profiles in the future.

Monitoring and Evaluation: The Government has recognized that the success of PRSP/ERS will depend on how well the activities are funded, implemented, monitored and evaluated. It has therefore undertaken to establish an M&E system that can provide a feedback mechanism and ensure continuous participation of key stakeholders, communities and the poor in monitoring and evaluation of goals, objectives, inputs, outputs and outcomes. This feedback informs the next round of PRSP/ERS/MTEF resource allocation, hence ensuring efficiency in the way development resources are deployed both for economic growth, wealth creation and poverty reduction.

The preliminary assessment of the first year of the implementation of the IPRSP indicated that the growth enhancement objectives were not met while the outcome of poverty reduction efforts has been less than satisfactory. However, one year is an extremely short period to assess the full achievements of growth and poverty reduction initiatives. This is further complicated by the difficulties experienced at the implementation stage. These challenges included: the severe drought which adversely

affected electricity and water supplies and negatively impacted on all sectors of the economy; the delays in disbursement of donor funds, which affected the implementation of various projects and programmes; the reduction of the overall resource envelope associated with (ii) above, which forced the Government to cut some expenditures by about 50 per cent; and the introduction of new financial accounting procedures, which resulted in the slow disbursement of funds to priority activities.

Assessing the impact of policy measures requires thorough monitoring and evaluation, including undertaking surveys to generate relevant data. These measurement approaches require resources and the institutionalization of the principles of M&E. The strategies in the PRSP emphasize the establishment of a stakeholder monitoring and Evaluation Committee, as well as provision of resources to closely monitor progress of implementation and impact assessment. The MEU recently established under the Ministry of Planning and National Development is spearheading this process of having a viable M&E system in Kenya.

4.0 Experience with Participatory Poverty Assessments

Kenya has conducted three major Participatory Poverty Assessments (PPAs) since 1994. PPA1 (1994), PPA2 (1996), PPA3 (2001). In addition, several people and the Government have done studies through interviews with the poor with the aim of trying to establish what they lack, their needs, and how they could get access of basic needs. These studies are also similar to the PPAs, because in these studies, people give their own perceptions of poverty. Since the PPAs are concerned with what the people think about poverty, two main findings of PPAs that are of immediate concern for policy include the causes of poverty and coping strategies adopted by the poor. We discuss these two below:

4.1 Perceived Causes of Poverty

Diverse communities had different perceptions of the causes of poverty. During the preparation for PRSP, findings from the PPAs were used to identify the main causes of poverty as identified by various communities: The major causes are discussed in details in Republic of Kenya, 2001; Chapter 3 and include:

- Low agricultural productivity and poor marketing
- Insecurity
- Unemployment and low wages
- Bad governance
- Landlessness
- Poor physical infrastructure
- High cost of basic social services
- Gender Imbalance

4.2 Coping Strategies

The PPAs reveal that several strategies have been adopted by the poor to cope with poverty. Some of the strategies have been described as negative and others as positive. Negative coping strategies include:

- Petty theft especially on farms
- Prostitution
- Child labour
- Street families and children
- Corruption
- Drug abuse
- Suicide
- Illicit brewing

Positive coping strategies include:

- Growth of slums
- Cheap Clothes
- Non-formal Schools
- Harambee self-help spirit
- Begging and borrowing
- Bursaries
- Merry-go-rounds
- Petty business
- Seasonal adjustments
- Food credit facilities
- Family planning.

4.3 Recommended Action towards Poverty Reduction

Through PPAs, it has been established that all communities know what poverty is and describe it in all forms of lacking, but of most importance is that they have clear suggestions about what the government and NGOs should do to reduce poverty. They know it can be eradicated. This is in fact the first positive move - that they have hope. Results from PPAs highlight a number of tasks for the Government and NGOs in poverty reduction. These include:

- Credit facilities
- Information and access to markets
- Subsidies and technological development
- Community participation
- Step up water facilities
- Expansion of health services
- Infrastructure
- Training
- Extension Services
- Security
- Family Planning
- Prohibitive laws
- Cultural and Traditional Practices

4.4 The Relationship between Qualitative and Quantitative Evidence

Many times, statistical assessments always run the risk of not getting public acceptance because they might not correspond with the general *perception* of poverty and also due to the inability of the public to understand quantitative statistical assessments. Generally and depending on the observer's own social position, poverty may appear over- or understated. Ordinary people's own perception of whom and how many are poor, if obtained in an orderly and non-biased manner, is therefore an important means of cross-checking results of purely statistical analysis. PPAs draw upon the earlier experience with methods of participatory rural appraisal, such as social mapping, problem ranking, wealth ranking/poverty ranking etc. Under the responsibility of the Ministry of Planning and National Development, the first PPA in Kenya was carried out in rural locations of seven districts and in parts of Nairobi in 1994, the second one in six rural districts and in Mombasa in December 1996 and the last one in 12 districts in 2001. Despite the fact that PPAs are carried out only on a limited scale, they are nevertheless representative for their respective districts. If we assume that the districts are homogeneous, then, comparison of figures is in order. As pointed out in the World Bank's 1995 Poverty Assessment, the qualitative and quantitative sources seem to match quite well and several issues need to be considered while comparing these two sources of poverty information.

To begin with it is questionable whether PPAs aim at *absolute* wealth measures at all. Although they make reference to some absolute indicators of poverty (as is the foundation of *every* reasonable poverty measure), the PPA process rather tries to position households compared to the others in the community, and this is why cut-off points between the poor and the non-poor are rather sought from the focus group discussions rather than from a priori considerations on what a minimum diet is.² In this respect, participatory wealth ranking rather belongs to the family of relative poverty measures and it is interesting to compare PPA results with absolute poverty ranking.

In Kenya an attempt was made to compare the participatory poverty assessment of 1994 (PPA I) with the WMS II, 1994. From the comparison, five points clearly emerge: one, compared to *all* other available sources, participatory assessment gives higher poverty figures than the statistical one. Second, even within the money-metric poverty definition, the public may disagree with statisticians/economists. The fact that poor people have to forego considerable non-food consumption expenditure they consider essential even by modest standards of living is only partly captured in the statistical definition. Third it has been reported from various poverty ranking exercises that people are initially somewhat reluctant to characterize themselves and their neighbours as poor, let alone very poor. On the other hand, when people associate a participatory survey with possible government cum donor spending to follow, they may overstate their distress.

Fourth, probably the most important explanation, in particular for the striking difference between PPAI and WMS II that was carried out only a few months later, is that people in the beginning of 1994 were still looking back to the drought period of 1992/93 whereas

² Although this minimum food intake contains relative elements too, as we have seen. But at least, the necessary calorie intake is fixed in somewhat physical terms. - All the - intrinsically relative - notions of wealth and poverty in PPAs are exposed, with ample reference to Kenya, in: Grandin, B. (1988), *Wealth Ranking in Smallholder Communities: A Field Manual*, London.

later in the year, positive results of 1994 were already finding their reflection in spending figures.

Fifth, methodological problems arise in the PPA. Due to the absence of an appropriate translation of “middle class” or “average” in vernacular language, people are normally asked to classify themselves only as either ‘rich’, ‘poor’ or ‘very poor’. The absence of an average man - or woman - renders comparison all but impossible: for instance, 2.9 % of the households in PPA II were ranked ‘rich’, 55.4 % ‘poor’ and 41.7 percent ‘very poor’. This might reflect wide-spread perception among Kenyans that everyone is poor except a few.

5.0 Conclusion and Recommendations

It would seem from the discussions above that the following changes would be critical to improving the content of policies and programmes flowing from the Poverty Reduction Strategies/Economic Recovery Strategy and the power relationships and process of formulating and realizing policy targets and public obligations.

First and foremost it should be noted that, the measure of poverty defined in most of Kenya’s quantitative poverty is a lack of command over marketable goods and services (both purchased and own produced). Although this measurement is undeniably important, it is clearly not the only dimension of well-being. Command over non-market goods, such as some publicly provided services, may be an important omission in conventional poverty measures.

Secondly, apart from the survey errors, welfare measures may vary depending on the season the survey is conducted. Spreading of interviews over an entire calendar generally helps to average out some of the seasonal fluctuations in income or expenditure data if a household is visited only once in every season. Again, with one round survey, if poverty incidence is for example observed to increase, it will not be known whether this is due to new poor having joined the existing poor, or whether it is the net outcome of a dynamic process whereby some people escape poverty and others become poor, or purely seasonal. Whether poverty is chronic or temporary can therefore best be established by longer period surveys of same households. However, year-long surveys like the 1981/82 Rural Household Budget survey, are costly and cannot be carried out regularly as required for use in poverty analysis, particularly in a developing country like Kenya.

There are also differences in the questionnaires used for Welfare Monitoring Surveys, which may have implications on the comparability of household welfare. In fact, the WMS II (1994) questionnaire captured more expenditure items than that of 1992 which might produce higher consumption figures and hence, if all other things were kept equal, lower poverty figures. The WMS III (1997) also collected information on more non-food items than the WMS II (1994). A standard questionnaire for living standards surveys should be adopted in future. Sampling variations and timing of surveys should be harmonized in future. Representative market prices should also be collected alongside the survey. Given the incomparability of various WMS data sets, an effort should be made to collect panel data to assist in analyzing the dynamics of poverty. However, resource constraints present a formidable obstacle to panel data collection. Availability of secure financing would

enable the Central Bureau of statistics to design and implement panel data surveys and also to broaden and improve the survey instruments as recommended in the Bank's Country Economic Memorandum. Though the Central Bureau of Statistics has made an important departure from past CWIQ type surveys by designing the forthcoming KIHBS survey, resource constraints would hinder implementation and improvement of such surveys in future.

WMS series does not capture quality of food items. Thus expenditures can be varied even in one area due to the differences of quality or place of purchase. For instance, steak meat in high cost areas may cost Kshs. 300 per kilogram, yet in a middle or low cost area the same meat may cost Kshs 190.

To conclude, in spite of the shortcomings of the surveys on poverty conducted in the last decade in Kenya, these surveys form not only a good benchmark for poverty monitoring, but also a springboard for further poverty diagnostics and feedback into the data collection systems. In addition, the consultation of PRS processes represent a good entry point for opening up the policy making process and improving the deficit in governance that exists in Kenya. However, there is urgent need to develop structures that will enable or allow the communities to fully participate in the planning, implementation and monitoring of poverty programmes and projects. Although the PRS consultative process relied more on virtual forums, we believe that it has been a step in the right direction. Currently, all policy documents are disseminated upto the district level for easy access and consultation by all stakeholders. However, raw data is now made available to the research community upon request, unlike in the past when access was restricted.

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Appendix

Table A1: Welfare Monitoring Survey I (WMS I of 1992)

Questionnaire Type	Description	Number of Variables
SDA192	Household Characteristics	26
SDA292	Household Expenditures (Last week and last month)	53
SDA392	Household Incomes (Last month and last year)	37
SDA492	Assets, Amenities and land utilization (Now and 12 months ago)	98
Total Number of variables		214

Table A2: Welfare Monitoring Survey II (WMS II of 1994)

Questionnaire Type	Description	Number of Variables
WMS1/94	Basic Characteristics and Employment	23
WMS2/94	Education	20
WMS3/94	Health	22
WMS4/94	Fertility	20
WMS5(a)/94	Non-Wage Household Income	21
WMS5(b)/94	Crop Production and Sales (long and short rains)	16
WMS6/94	Holding Consumption and Expenditure (last 7 days)	155
WMS7/94	Holding Consumption and Expenditure (last month)	146
WMS8/94	Holding Consumption and Expenditure	74
WMS9/94	Holding, Amenities and Housing Characteristics	30
WMS10/94	Child survival	30
WMS11/94	Anthropometry	14
Total number of Variables		571

Table A3: Welfare Monitoring Survey III (WMS III of 1997)

Questionnaire Type	Description	Number of Variables
A. Core Welfare Indicators	Household Rooster	41
	Child Rooster	31
	Household Amenities	18
	Household Assets	19
	Family Insurance cover : (Working Adults aged 15 years and above and medical insurance contributors only)	46
B. Consumption and Expenditure Module	Household Consumption and Expenditure (last 7 days)	268
	Household Consumption and Expenditure (last month)	112

	Household Consumption and Expenditure (last year)	106
C. Agriculture Module**	Farming and Agricultural Services	18
	Holding Characteristics, Crop and Livestock Production, Sales and Disposal	88
	Non-agricultural income	36
	Farm Labour	6
	Farm Labour and Productivity Constraints	30
	Changes in Production and Food Patterns	74
	Agricultural Training	15
Total number of Variables		915

**The cleaning of this module has not yet been finalized and so the corresponding data set is not yet available.

Table A4: **Food and non food basket items: 1981/82, 1992, 1994 and 1997 Surveys.**

1981/82 RHBS	1992 WMSI	1994 WMSII	1997 WMSI II
	Food Items	Food Items	Food Items
	Maize and products	Bread Maize (grain and flour)	Bread : wheat grain, wheat flour, prepared breads
	Cereals and products	Rice Wheat (grain and flour) Millet (grain and flour) Sorghum (grain and flour)	Meat: beef, chicken, sheep, pork, goat, other meat
	Meat	Beef	Fish: various types of fish, including tinned fish
	Fish	camel meat	
	Chicken	Goat meat	
	Diary products e.g. milk, ghee	sheep meat	Milk: Fresh milk
	Oils and Fats	Pork	Eggs
		Fish	Oils and fats: groundnuts, coconuts, simsim, castor seed, other
	Fruits	Chicken	pulses, nuts and seeds, cooking fats, salads, lards from
	Vegetables	Milk	butcheries, margarines, other
		Eggs	traditional oils, other
	Pulses	Cooking Oils	oils, other fats
		Cooking Fats	Fruits: pineapples, oranges, mangoes, avocados, pawpaws,
		Other Oils and Fats	ripe bananas, dates, other fruits
		Butter (Margarine)	
	Sugar	Fruits	
		Cabbages, sukumawiki, onion, Tomatoes,	
		French beans, carrots, Other vegetables	
		Beans	
	Beverages	Potatoes, Sweet potatoes, Arrowroot	
	Tobacco		
	Other foodstuffs e.g.	Cassava, Other roots	

	eggs, nuts Own consumption <u>Non Food Items</u> Clothing Footwear Rent (for Urban) Cooking fuel Household durables Transport Health Education Recreation Utility Nondurables Salaries Durables Transfer Other expenses	Sugar white Sugar white and brown Jaggery Beverages Coffee Instant Coffee grain Tea leaves Tea bags Cocoa Beverages Tobacco Livestock products Livestock Other foodstuffs <u>Non Food Items</u> Clothing Footwear Fuel Furniture Transport Medical care Personal care Recreation Transfer Water Beverage Educate Insurance Washing Rent (for Urban) Harambee Assets Servant	Vegetables: green bananas, cabbages, kales (<i>sukuma</i>), 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 <u>Non Food Items</u> <i>See Box 1</i>
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