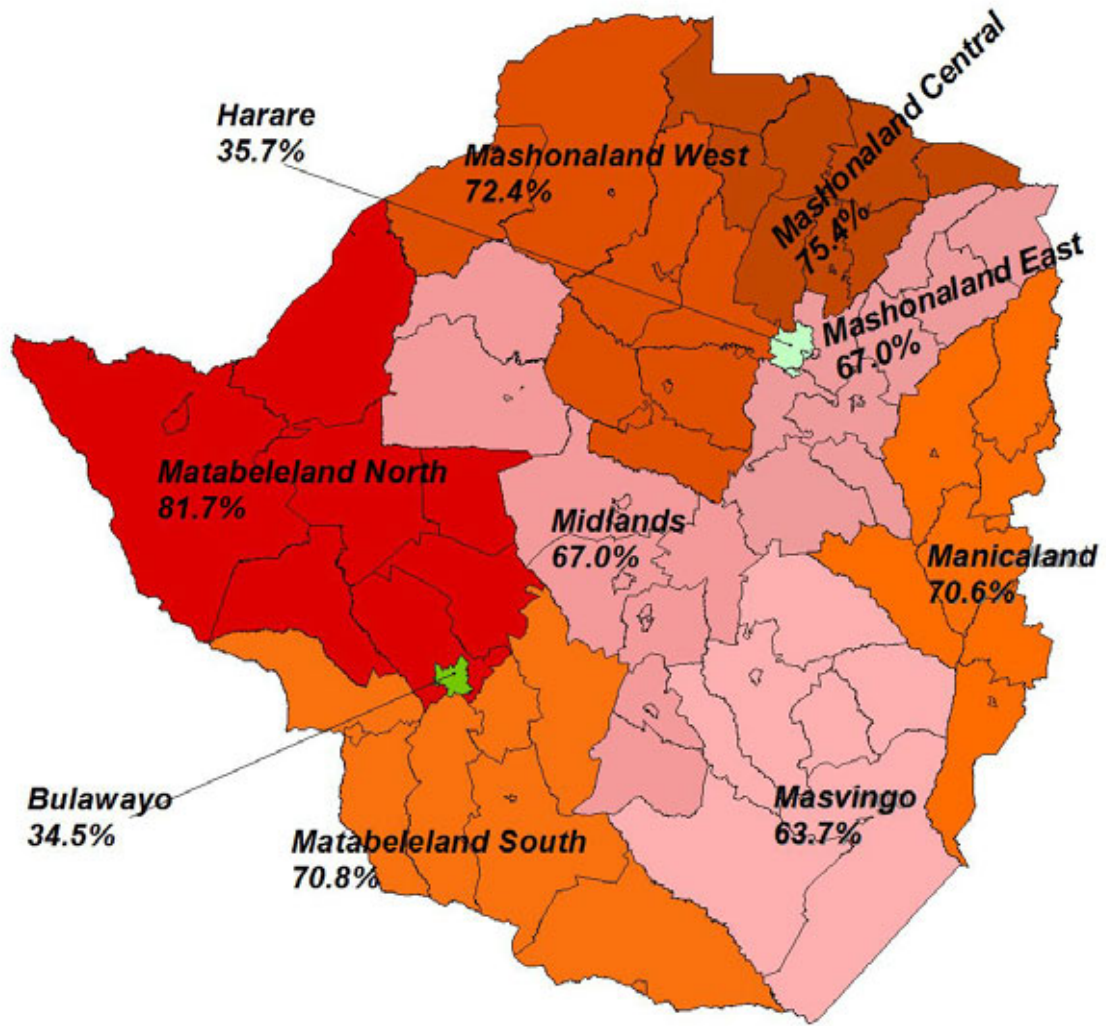# Poverty and Poverty Datum Line Analysis in Zimbabwe 2011/12

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Percent *Poverty Prevalence by Province in Zimbabwe PICES 2011/12*

Harare
35.7%

Mashonaland West
72.4%

Mashonaland Central
75.4%

Mashonaland East
67.0%

Matabeleland North
81.7%

Midlands
67.0%

Manicaland
70.6%

Bulawayo
34.5%

Matabeleland South
70.8%

Masvingo
63.7%

N

ZimStat Cartography Section

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Acronyms

ACBF	:	African Capacity Building Foundation
AfDB	:	African Development Bank
AIDS	:	Acquired Immuno Deficient Syndrome
ALS	:	Agriculture Livestock Survey
BEAM	:	Basic Education Assistance Module
CL	:	Communal Lands
CMR	:	Child Mortality Rate
CPS	:	Consumer Price Survey
CSO	:	Central Statistical Office
DFID	:	Department for International Development
ESAP	:	Economic Structural adjustment Programme
FAO	:	Food and Agricultural Organization
FGT	:	Foster, Greer and Thorbeckle
FPL	:	Food Poverty Line (the lower line)
GDP Per capita	:	Gross Domestic Product per person
GDP	:	Gross Domestic Product
GER	:	Gross Enrolment Ratio
HIV	:	Human Immuno Virus
ICDS	:	Intercensal Demographic Survey
ICES	:	Income Consumption and Expenditure Survey
ILO	:	International Labour Organization
IMR	:	Infant Mortality Rate
LSCF	:	Large Scale Commercial Farm (former large scale commercial farms)
MPSLSW	:	Ministry of Public Service, Labour and Social Welfare
MTP	:	Medium Term Plan
NER	:	Net Enrolment Ratio
PAAP	:	Poverty Alleviation Action Plan
PASS	:	Poverty Assessment Study Survey
PDL	:	Poverty Datum Line
PICES	:	Poverty Income Consumption and Expenditure Survey
RA	:	Resettlement Areas
RDC	:	Rural District Council
SDA	:	School Development Associations
SDA	:	Social Dimensions of Adjustment Programme
SDF	:	Social Development Fund
SER	:	School Entrance Ratios
SSCF	:	Small Scale Commercial Farms
STERP	:	Short Term Recovery Plan
STERP II	:	The 3 Year Macroeconomic Policy and Budget Framework
TCPL	:	Total Consumption Poverty Line (the upper line)
UNDP	:	United Nations Development Programme
UNICEF	:	United Nations Children's Fund
USD	:	United States Dollar
USAID	:	United States Agency for International Development

USAID-SERA Project: United States Agency for International Development-Strategic Economic Research and Analysis
WHO: World Health Organization
ZDHS: Zimbabwe Demographic and Health Survey
ZIMPREST: Zimbabwe Programme for Economic and Social Transformation
ZIMSTAT: Zimbabwe National Statistics Agency

Glossary of Terms

Demography Definitions

Dependency Ratio is defined as the sum of all persons less than 15 years of age and over 64 years of age divided by the number of persons aged 15-64, multiplied by 100.

Infant Mortality Rate (IMR) is the number deaths of infants under one year old per 1000 live births.

Child Mortality Rate (CMR) is the probability of dying between exact age 1 and the fifth birthday expressed as deaths per 1,000 children surviving to the first birthday.

Nutrition refers to the relationship between diet and health. Nutrition includes the foods that provide energy and health, to people.

Nutritional Deficiency, occurs when a person's nutrition intake consistently falls below the recommended requirement.

Education Definitions

Gross Enrolment Ratio (GER) is an indicator of the overall participation in education by children who are within the official school-going age limits. This ratio is computed as the proportion of all children in school to the number of children of school-going age. GER is influenced by three factors: School Entrance Rates (SER), drop-out rates, and complete non enrolment of some children.

School Entrance Rates (SER) is defined as the proportion of children in the lower school-going age limit (6 and 13 years in Zimbabwe for primary and secondary school, respectively) who are enrolled in school compared to their total population in the age group. If there are significant numbers of over-age and under-age students at a given level of schooling, the GER can exceed 100 percent.

Net Enrolment Ratio (NER), computed as the proportion of children of school-going age in school to the total number of children of that age group in and out of school.

Poverty Definitions

Money-Metric Approaches allow quantification (in monetary terms) of the depth and severity of poverty and allow consistent comparisons to be made across subgroups of households and over time. For example, specific information can be generated about the size of the transfer to the poor necessary to eliminate poverty (the poverty gap). Alternatively, the level of income growth necessary to reduce poverty may be measured. Money-metric approaches also can be used to quantify the degree of inequality among household groups.

Non Money-Metric is a means of examining poverty which include the use of asset indices to assess relative well-being, measures of access to social services, qualitative

assessments, and participatory assessments. Non money-metric approaches can provide rich detail about the poor, the conditions they face, and some non-financial dimensions of poverty.

Prevalence (or Incidence) of Poverty (also known as the *headcount index*) represents the total population (either people or households) whose consumption expenditures fall below the poverty line as a proportion of the total population.

Poverty Gap Index is a measure of the intensity of poverty. It is defined as the average poverty gap in the population as a proportion of the poverty line. The poverty gap index is an improvement over the poverty measure headcount ratio which simply counts all the people below a poverty line, in a given population, and considers them equally poor. Poverty gap index estimates the depth of poverty by considering how far, on the average, the poor are from that poverty line. The greater the gap the deeper poverty or the more severe the poverty is.

Poverty Severity Index sometimes referred to as the *squared poverty gap index*, takes into account not only the distance separating the poor from the poverty line (the poverty gap), but also the inequality among the poor. That is, a higher weight is placed on those households who are further away from the poverty line. In other words, the poverty severity index is a weighted sum of poverty gaps as a proportion of the poverty line. This is in contrast to the poverty gap index where the poverty gaps are weighted equally.

A **Gini Index** measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. It is a measure of how well being is equally or unequally distributed. Thus a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality".

The **Gini Coefficient** and it provides an indication of the level at which income is equally or unequally distributed throughout a population. A gini coefficient of 1 is an indication of complete income inequality with one person having all the income, while a gini coefficient of 0 is indicative of complete equality with everybody earning an equal income.

The **Lorenz Curve** provides a complete summary of information about the distribution of well being. It is graphed as the cumulative percentage of consumption expenditures (the Y-axis controlled by the cumulative percentage of population (the X-axis).

Computation of the poverty lines
Poverty is generally defined as the inability to attain a level of well-being constituting a realistic minimum as defined by society.

A **Poverty Line** represents the cost of a given level of living which must be attained if a person is deemed not to be poor.

Food Poverty Line (FPL) represents the minimum consumption expenditure necessary to ensure that each household member can (if all expenditures were devoted to food) consume a minimum food basket representing 2100 calories. The **Food Poverty Line** (FPL) is computed by valuing the products in the minimum needs basket by the average prices across all the provinces of Zimbabwe. It is assumed that an individual whose total per capita consumption expenditures do not exceed the FPL is very poor. The FPL is sometimes referred to as the lower line.

Total Consumption Poverty Line (TCPL) is derived by computing the non-food consumption expenditures of households whose total expenditures per capita just equal the value of the FPL. The TCPL is sometimes referred to as the upper line.

Poverty refers to the prevalence of households or people in households whose consumption expenditures per capita are below the upper poverty line (the TCPL).

Extreme poverty represents households whose per capita consumption expenditures fall below the FPL or the lower poverty line.

Dependency ratios (in poverty) refer to the mean dependency ratio (i.e. number of dependants divided by the total number of household members) for households in a particular poverty group. For example, the rural poor dependence ratio is the sum of household dependency ratios (for poor households) divided by the number of poor households. This is somewhat different from the way demographers traditionally compute these ratios.

De-facto female headship means that the woman is head of the household because her husband is temporarily absent.

Dejure female household heads are the usual heads of the household normally identified by marital status such as divorced/separated or widowed.

The concepts "homogeneity" and "heterogeneity" are concepts relating to the uniformity in a substance. A material that is **homogeneous** is uniform in composition or character; one that is **heterogeneous** is distinctly non-uniform in one of these qualities.

Classification of concepts

Government workers include Central and Local government workers

Parastatals workers include cooperative employees

Formal sector workers mean workers in registered establishments

Informal sector workers mean workers in unregistered establishments.

Food share is total (market and non-market) value of food consumption divided by total consumption.

Maize share is the share of maize consumption in total food consumption

Own-production is the share of maize consumption in total food consumption

Non-market food is the share of own-production, gifts and transfers, and payments in kind in the total value of food consumption.

A **means test** is a determination of whether an individual or family is eligible for help from the government, based upon whether the individual or family possesses the means to do without that help.

Access to safe water refers to piped water inside and outside house, communal tap, protected well/borehole.

Unsafe water refers to water obtained from unsanitary places such as unprotected wells or boreholes, streams, dams and rivers.

International Labour Organization (ILO) definitions of unemployment

Unemployed persons (broad definition)

These are persons aged 15 years and above who, during the reference period are - without work and currently available for work. These will be referred to as broadly unemployed persons.

Unemployment rate
-Is the percentage of unemployed persons in the economically active population. The rate can be strict or broad depending on the definition of unemployment used.

Unemployed persons (strict definition)

These are persons aged 15 years and above who, during the reference period (e.g. 7 days) are:
- without work (are not in paid employment or self-employment),
- currently available for work;
- and actively seeking employment, i.e. have taken specific steps (registered or checked at any employment agency, applied to employers, responded or placed advertisements, enquired at farms or worksites or asked friends or relatives about work) in a specified recent period to seek paid employment or self employment.

Foreword

The Zimbabwe National Statistics Agency (ZIMSTAT) conducted the 2011/12 Poverty Income Consumption and Expenditure Survey (PICES) from June 2011 to May 2012. This report "Poverty and Poverty Datum Line Analysis in Zimbabwe 2011/12" is based on the data derived from the PICES 2011/12 survey results. Previously, this type of survey was called the Income, Consumption and Expenditure Survey (ICES). These surveys are carried out every 5 years. ZIMSTAT carried ICES surveys in 1990/91, 1995/96 and 2001. The ICES for 2007/08 was conducted during an unstable socio-economic period and could not be completed due to hyperinflation.

This report covers prevalence of poverty and other analytical issues. Poverty is a multi-disciplinary subject and as such ZIMSTAT worked closely with members of the PICES Technical Committee chaired by ZIMSTAT. The PICES technical committee was comprised of members from the United Nations Development Programme (UNDP), United Nations Children's Fund (UNICEF), African Capacity Building Foundation (ACBF), African Development Bank (AfDB), the Department for International Development (DFID), United States Agency for International Development (USAID), USAID-SERA project, World Bank and Ministry of Labour and Social Services and ZIMSTAT. The PICES Steering Committee provided policy guidance, and monitored progress of the project. The PICES Technical Committee provided technical guidance in the production of this report.

ZIMSTAT is particularly grateful to UNDP for initiating and coordinating financial support through basket funding to the 2011/12 PICES survey. Several development partners provided funding through a basket funding arrangement coordinated by UNDP, and these include: UNICEF, DFID, AfDB and ACBF. The World Bank provided technical assistance to the PICES project. The USAID Strategic Economic Research and Analysis (–SERA) project also provided financial support outside the basket funding. The Government of Zimbabwe provided some of the funding. The World Bank provided technical support through Professor Jeffrey Alwang.

I wish to express my profound gratitude to the Development Partners and the Government of Zimbabwe for their support throughout the survey. This survey owes its success to the collaborative and concerted efforts of these two parties. I also thank the respondents who provided the information and many others who were involved in making this exercise a success. Furthermore, my sincere gratitude also goes to the members of the PICES Steering committee and the PICES Technical Committee for successfully implementing the PICES 2011/12 project proficiently. Finally I wish to thank the ZIMSTAT field staff, supervisors and data capture operators for a job well done.

M. Dzinotizei
Director-General, Zimbabwe National Statistics Agency
Harare, April 2013

Executive Summary

Chapter 1 provides a background to many issues related to well-being, social and economic conditions in Zimbabwe. The developments in the economy with respect to the land issue, agriculture, education and health are highlighted. It was observed that the impact of economic decline experienced in the last decade negatively affected all the sectors of the economy. The introduction of Short Term Emergency Recovery Programme (STERP) and the 3 Year Macroeconomic Policy and Budget Framework (STERP11) and the crafting of the Medium Term Plan (MTP) have played a pivotal role to the return of macro-economic stability and putting economy on the path to recovery. There is, however, some fragility in the economy due to limited fiscal space which has led to low levels of public investment in social sectors thereby negatively impacting on poverty. Since independence, poverty reduction has been a primary objective and, over time, Zimbabwe has been relatively successful in addressing the needs of the poor. The macro economic crisis of the past decade has, however, increased the urgency of this challenge, and development of policy requires substantial analysis of correlates of poverty and how they change over time.

Chapter 2 discusses the measures of well being and welfare. The per capita consumption expenditure approach is adopted in measuring poverty incidence in Zimbabwe. This approach mainly uses per capita consumption expenditure indices combined with other measures of well being such as household characteristics, asset ownership and access to social services in measuring well being. The analysis of poverty has revealed that poverty is far worse in rural areas than in urban areas of Zimbabwe. It is also observed that 62.6 percent of Zimbabwean households are deemed poor whilst 16.2 percent of the households are in extreme poverty. The key finding is that poverty is more widespread and prevalent in the rural areas of Zimbabwe. About 76.0 percent of the rural households are poor compared to 38.2 percent in urban areas. The results also indicate that 30.4 percent of rural people in Zimbabwe are extremely poor compared to only 5.6 percent in urban areas.

Poverty also varied significantly among households across provinces and within provinces. The study shows that Matabeleland North province has the highest percent of households in poverty (81.7 percent) and extreme poverty (36.9 percent). Poor households in Zimbabwe are characterised by high dependency ratios, and, on average, older heads of households are associated with higher prevalence of poverty than younger heads of households. It is also highlighted that the prevalence of poverty among male-headed and female-headed households is almost the same at 62.9 percent and 62.0 percent respectively. Notably, female-headed households are worse off on average, but there is substantial poverty among male-headed households and heterogeneity (non-uniformity) of poverty among female-headed households. Access to employment for the household head is closely associated with household poverty status. In rural and urban areas, households headed by an own-account worker are most likely to be affected by a high poverty incidence. Casual or temporary employees, similarly suffer from high rates of poverty. Households headed by a permanent paid employee or by an employer have the lowest likelihood of being poor. Households headed by someone who is employed in the private sector or

formal sector are less likely to be poor than households headed by an informal sector worker in both rural and urban areas.

Chapter 3 deals with differential access to productive assets, attainment of education, access to public services such as educational services and health care which distinguish the poor from others. When all the rural provinces are compared, Matabeleland North province has the highest prevalence of poverty as 87.0 percent of households in the province are deemed poor. It is also shown that rural poverty is most prevalent in communal lands (79.4 percent), followed by resettlement areas with 76.4 percent. It is also important to note that rural poor households are characterised by much higher dependency ratios compared to non-poor households. Dependency is highest for the poorest households. Furthermore, although households in resettlement areas are fairly well-endowed with productive assets, such as ploughs, scotch carts and wheel barrows the high poverty prevalence in these areas can be explained by lack of adequate financial and material resources.

In rural areas, communal and resettlement farmers and unpaid family workers constitute 84.1 percent of the economically active population. These economic activities, found mostly in rural areas, are most likely to be associated with higher levels of poverty rates. A household whose head has communal or resettlement farming as a main activity is much more likely to be poor or extremely poor when compared to a household headed by a permanent or even casual employee. Households headed by a communal farmer have the highest prevalence of poverty (83.0 percent) compared to other heads of households across land use sectors.

About 50.5 percent of the poorest people, who were ill, used public health facilities for treatment, while 43.7 percent of the non-poor went to such facilities. Cost is indicated as the most significant barrier to accessing treatment when household members are ill. The worst living conditions are in resettlement areas with 42.9 percent of the households having no toilet facilities at all while 42.8 percent receive their water from unprotected wells or a surface water supply such as rivers, streams or dams.

It is also shown that the incidence of poverty declines as the household head's educational attainment rises. This implies that prevalence of poverty falls as the education level rises. Despite the adoption of the free primary school tuition, most extremely poor households still hesitate to enroll their children in schools because they find difficulties in mobilizing financial resources to pay for other school costs like uniforms and levies. It is also noted that, the differences in primary school entrance rates between children from extremely poor and non-poor households are relatively high, representing 18 percentage points in favour of the non-poor children. The secondary school enrolment ratios of 39.0 percent for the extremely poor girls, represent a disparity of 28.5 percentage points, when compared to girls from non-poor households.

Chapter 4 deals with the recommendations made to policy makers about the poverty situation in Zimbabwe.

1 Zimbabwe in Context

1.1 Overview of the Country

Zimbabwe is situated in the southern part of Africa. It borders with Mozambique, South Africa, Botswana and Zambia to the east, south, west and north, respectively. The country is land locked with a total area of approximately 390,757 square kilometres, and, it has a population of 12,973,808 persons according to the preliminary results of the 2012 Population Census. The country has an average inter-censal annual population growth rate of 1.1 percent for the period 2002 to 2012.

The country became independent in 1980, and is classified as a low-income country by the World Bank. Initially, a model of central planning was followed in the 1980s, but the economy began to be liberalized in the early 1990s. Through trade liberalization, controls on the goods and foreign exchange markets were removed so that free market forces would determine prices. The free market forces on the foreign exchange market led to the crash of the dollar on the "Black Friday" of 14 November 1997 due to speculative attacks of the Zimbabwe dollar on the market. Thereafter, the rate of inflation soared to unprecedented levels reaching an all time record high of 231 million percent in July 2008. These inflationary pressures were eventually curbed on the 30th of January, 2009 with the introduction of multi-currencies in Zimbabwe and that brought respite to many in the economy. The Zimbabwean economy is currently on a recovery path.

In September 2008, the three major political parties in Zimbabwe agreed upon and signed the Global Political Agreement (GPA) which provided for the formulation and subsequent inauguration of the inclusive Government. Subsequently, the new Government launched the Short Term Emergency Recovery Programme (STERP) for the period, February to December 2009. The Government also developed fiscal and monetary policy statements and implemented the Three Year Rolling Macroeconomic and Budget Framework, 2010-2012 (STERP II). At the same time the Government Developed a Medium Term Plan (MTP) for the period 2011-2015. All the three policies are aimed at stimulating sustained economic recovery and growth.

Zimbabwe is divided into 10 provinces of which two, Harare (the capital city) and Bulawayo, are essentially urban provinces whilst the rest of the provinces are mixed. There are four main rural land use sectors and five ecological regions. The main land use sectors are large scale commercial farms, small scale commercial farms, resettlement areas and communal lands. The other land use sectors are national parks, state land, forest land, urban areas etc.

Agriculture is the mainstay of the Zimbabwean economy. Most of the agriculture in Zimbabwe is dependent on rainfall and the economy is susceptible to weather or climate variations that include droughts and floods. Tobacco is the largest foreign currency earner while cotton is the second major cash crop. The main staple food is maize and is widely grown by both commercial and communal farmers. The mining and manufacturing industries play a major role in foreign trade.

Zimbabwe's formal education system is divided into primary, secondary and tertiary schools. The health sector consists of primary level care provided by clinics, secondary care provided by district hospitals, tertiary services provided by provincial and general or referral hospitals. Finally the quaternary level is catered for by six central hospitals in Chitungwiza, Bulawayo, Mutare and Harare. Government, church missions, local governments and private players (predominantly in urban areas) are also involved in the provision of health services.

1.2   Historical Background of Poverty in Zimbabwe

Poverty in Zimbabwe is linked to the country's colonial history. The pre-independence social, economic and political climate bestowed economic and political benefits on whites as opposed to blacks. Blacks were settled on poor quality and small portions of land whilst whites occupied vast tracts of fertile land. Blacks were denied equal education and employment opportunities and even salaries for the same job differed with race. These policies introduced great inequalities and also perpetuated poverty among blacks.

These inequalities culminated into a prolonged liberation struggle from the mid 1960s through to 1980 when Zimbabwe eventually became independent. The war had, however, adverse effects on the entire population and the resulting economic hardships were felt most severely in rural areas. The imposition of sanctions on the then Rhodesian regime by the international community grossly affected the entire country including the poor.

At independence on 18 April 1980, Government gave first priority to the reduction of poverty. Although some industries were nationalized, the private sector remained in the hands of minority whites and multi-national companies. Government embarked on policies of rapid expansion of rural infrastructure (education, health and transport systems), and of narrowing the gap between rich and poor by setting up minimum wages and effecting real wage increases. The Government made an attempt to address issues of poverty through a number of home-grown initiatives, such as "Growth with Equity" strategy published in 1981, the Zimbabwe Transitional National Development Plan (1982-1985) and the Zimbabwe first five year National Development Plan (1986-1990).

After independence, government accorded a high proportion of its expenditure to social sectors. Social sector spending (in the ministries of Health and Child Welfare; Education Sports and Culture; Higher Education; Public Service, Labour and Social Welfare; and Public Construction and National Housing) as a share of total Government expenditure rose from 25.7 percent in 1980/81 to 34.9 percent in 1990/91. Similar expenditure patterns were followed into the years thereafter. During the 1990's, total real expenditure by Government was increasing. This expenditure resulted in dramatic improvements in health and education accessibility and availability and better indicators of health, education and nutrition.

The above notwithstanding, the imbalances between central government expenditure and revenue compromised the sustainability of the spending programme. Central government expenditure as a share of the national economy was always high by international

standards, and revenue fell short of expenditure through the 1980s to the early 1990s. At independence, central government expenditure accounted for about 35 percent of GDP, and partially due to the social sector investments of the 1980s, this share rose to 47.4 percent by 1988/89. The gap between public expenditures and revenues grew throughout the 1980s, and interest payments on the national debt began to consume a greater share of the budget. Budget deficits also crowded out private investment and created inflationary pressures in the economy.

The policies of the 1980s were also not conducive to sustained economic growth, and the Zimbabwean economy began to stagnate in the mid to late 1980s. Government recognised the need for a strong economy that could provide resources necessary to combat poverty and redress the imbalances of the past. As a result of deteriorating economic growth, high inflation rates, high levels of unemployment, and increasing fiscal budget deficits, Zimbabwean authorities fell under pressure to abandon the interventionist policies of the early-1980s in pursuit of market-oriented reforms.

1.3   The Economic Reform Programme

The Zimbabwe Programme for Economic and Social Transformation (ZIMPREST) was launched as the second phase of the social and economic reforms in (1996 – 2000) after Economic Structural Adjustment Programme (ESAP) (1991-1995) that ran concurrently with the Second Five Year Development Plan. Whilst ESAP was aimed at promoting economic growth by de-regulation of the domestic economy, de-regulation of prices and wages, reduction of public spending and central government's budget deficit, ZIMPREST intended to provide the economy with a firm basis for sustainable growth, greater employment and equitable distribution of incomes.

 A review of the first phase of the reforms (1991-1995) indicates that much was accomplished in areas such as dismantling and removal of controls relating to the fixing of commodity prices, determination of wages in both public and private sector and the remittability of profits and dividends. The government also deregulated transport to allow for greater competition and pursued financial sector liberalization. Financial sector liberalization allowed new players to participate in the financial markets while interest rates and the exchange rates were determined by market forces.

With the significant progress having been made in defining and promoting the associated roles of Government and private sector, ZIMPREST sought to elevate the importance of the private sector in the production and distribution of goods and services with the primary role of government being that of a facilitator enabling the private sector to play a leading role in economic growth and employment creation.

In line with the market economies principles, the Government policy goal was to improve the conditions that enable new firms, particularly the small and medium sized enterprises to enter all sectors of the economy through the removal of the then existing barriers and provision of incentives.

Government increased the share of social sectors from 30 percent of *discretionary* funds in 1990/91 to 38 percent as of 1996. The share of discretionary budget going to health and education has never been higher than it was in 1996. However, a shrinking total resource pool (i.e., fewer real discretionary resources) during the same period led to a 40 percent decline in real per capita and real per pupil resources in the health and education sectors, respectively. During ESAP, interest payments on central government debt rose to 22 percent of *total* government expenditure, more than expenditure on health and education combined.

ESAP was successful in liberalising the economy, removing foreign trade and foreign exchange restrictions. However, some government fiscal targets were not met and continuing budget deficits may have contributed to the slowdown in growth in late 1997 and early 1998. The intended macro-economic stability was not achieved as evidenced by the increase in the rate of inflation, interest rates and a falling exchange rate and falling real GDP. Consequently government discontinued the ESAP programme in the late 1990s.

1.4   Poverty Analysis in Zimbabwe

There have been two broad types of poverty studies at the national level in Zimbabwe. The first type has concerned itself with determining the level of income or consumption below which a household is deemed poor. These studies construct a poverty datum line (PDL), and households whose incomes and consumptions fall below this line are deemed poor. These estimates have been used by policy makers to target specific assistance to the poor and to determine appropriate wage and price policies. These studies have not generally attempted to quantify national poverty, and have not been based on representative data. The second type of study often begins by constructing a PDL, and uses the PDL to measure and analyse poverty by examining the characteristics of poor households. These studies help quantify national levels of poverty, and are also useful in developing policy interventions that target and benefit the poor.

Known efforts of the first type of poverty study date back to 1944 when a study was conducted by Professor Baston of Cape Town University. This study was followed by a study by Bettison of Rhodes Livingstone Institute of Lusaka in 1958. Studies by Verity Cubitt and Roger Ridell cover the years 1974, 1979 and 1994 and were designed to construct and update the PDL.

A fully documented study by Verity Cubit in 1994 entitled *The Urban Poverty Line in Zimbabwe: A Study of the Minimum Consumption Needs of Families* focused on the urban poverty datum line. The study paid particular attention to low-income groups in urban areas. The main emphasis of the study was updating earlier research by re-calibrating the PDL; the methodology was consistent with earlier studies of 1974 and 1979. McGarry (1996) employed the Cubitt and Ridell methodologies to create a poverty datum line for a variety of rural areas.

A number of studies have attempted to quantify and analyse poverty but few have been national in scope. Studies by Stenflo and Namfua (1994) represent the first known attempts to systematically measure and analyse national poverty. These efforts were hampered by incomplete analysis, and their results were difficult to replicate. In 1995 the Ministry of Public Service, Labour and Social Welfare (MPSLSW) conducted the Poverty Assessment Study Survey (PASS) which was carried out with the express purpose of measuring and analysing poverty in Zimbabwe. The PASS data was collected from August to November 1995. Another PASS survey was conducted in 2001 and also coincided with the 2001 Income Consumption and Expenditure Survey. The PASS provided abundant detail on the poor that is disaggregated to the district level.

ZIMSTAT published the *1998 Poverty in Zimbabwe*, which builds on these earlier studies to create a comprehensive profile of the poor. This report was based on the 1995/96 Income Consumption and Expenditure Survey. The ZIMSTAT analysis uses consumption expenditures to rank individuals and households along the welfare distribution, and analyses in greater detail some of the determinants of poverty.

Before the 1990s, analysis of poverty in Zimbabwe was not progressive in nature. The results of studies cannot be easily compared because of differences in definitions and methodologies. It is not known, for example, whether poverty has increased or decreased over time because of differences in survey methodologies. However, the studies provide insights into important questions such as:

- How is poverty distributed throughout the country, and which areas suffer from the worst poverty?
- What are the characteristics of the poor?
- How good is the access of the poor to public services and facilities?

The studies beginning in 1998 and published by ZIMSTAT partially alleviate this problem by using a comparable data set—the ICES. Another poverty study report for 2001, published in 2007 has been the latest source of poverty information prior to the current report. The 2011/12 poverty report derived from the Poverty Income Consumption and Expenditure Survey (PICES) aims to give an update on the poverty situation in Zimbabwe and is expected to be a useful policy tool in the dollarized economy. The data is representative at province and district levels.

1.5   Institutional Efforts to Alleviate Poverty

In the 1980s and 1990s, Zimbabwe faced a major challenge in dealing with the problem posed by poverty because it inherited distorted social and economic structures from the previous colonial imbalances. In fact, the challenge faced by the country was to formulate poverty-sensitive policies. At the same time, it was recognised that long-term poverty reduction is difficult without a strong and growing economy.

As noted above, government spending was dramatically reoriented towards social sectors following independence. This reorientation helped the country achieve commendable improvements in health and education indicators during the 1980s. Some of these policies were changed with the advent of ESAP in 1991, and government was faced with the dilemma of formulating poverty-reduction strategies within the context of a liberalised economy and a sustained fiscal imbalance.

1.6 The Poverty Alleviation Action Plan (PAAP)

During the early 1990's the Zimbabwe Government adopted the programme of economic reform with a formal commitment to protect the poor and the vulnerable groups from the negative impacts of ESAP via the Social Dimensions of Adjustment Programme (SDA). A surveillance programme (Sentinel Site Surveillance) was put in place in mid 1990s to monitor SDA, whose centerpiece was a direct transfer programme – the Social Development Fund (SDF) under the Ministry of Public Service, Labour and Social Welfare.

The SDF aimed to protect the poor from the negative impact of subsidy removal and re-introduction of school and health fees that were a part of ESAP. Retrenchment of public and parastatal workers during the period led to increasing unemployment. The SDF had two components, namely:

- direct transfers to support health and school fees payment for target households; and
- employment and training programmes to retrain retrenched workers.

The Social Dimensions of Adjustment Programme was narrow in its approach. A broad concept of poverty alleviation was, therefore, developed through the Poverty Alleviation Action Plan (PAAP) that was launched by the MPSLSW in February 1994, in conjunction with United Nations Development Programme (UNDP). The PAAP includes reform of SDF, and also more systematic efforts to monitor poverty and undertake analysis of causes and consequences of poverty in Zimbabwe. These efforts include building the capacity of communities to generate income and tap more benefits from the public service provision system. PAAP encourages the integration and participation of vulnerable groups into main stream economic activities.

1.7 The Economy of Zimbabwe

The Zimbabwean economy experienced unprecedented macro-economic decline from 2000 to 2008 in real terms. The entire productive sector experienced a sharp drop in production between 2000 and 2008. Most firms, be they in the manufacturing sector, distribution, agriculture, mining, tourism and other industries faced viability problems. There were also foreign currency shortages leading to fuel and basic commodity shortages that in turn led to a rampant parallel market in both the goods and exchange rate markets. After dollarization at the beginning of 2009 the economy went on a recovery path as GDP at constant 2009 prices rose from US$6.1 billion in 2009 to US$7.4 billion in 2011, see figure 1.1.

Figure 1.1: Real GDP at Market Prices, Constant 2009 Prices (US$ Billions)
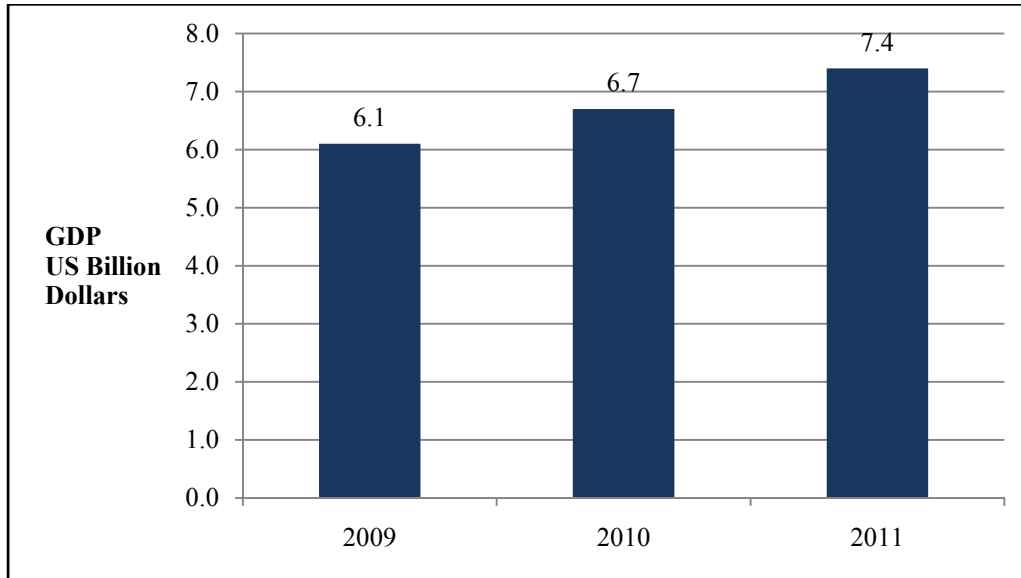
Source: ZIMSTAT 2012

Stability in Zimbabwe came about when the government introduced the multi-currency system in order to combat the hyperinflationary trends in the economy. This policy was also meant to restore stability in prices and credibility in the monetary system. The currencies which were adopted as legal tender in Zimbabwe were the United States Dollar, the British Pound, the South African Rand and the Botswana Pula. Most of the transactions in the country are in US dollars. Consequently, the persistent inflationary pressures prevalent in Zimbabwe were put to an abrupt end and since March 2010 the rate of inflation measured year on year averaged about 4 percent, see figure 1.2. Local capacity utilization, went up from 10 percent at the beginning of 2009 to around 50 percent in 2012. The rest of the demand for goods and services is satisfied through imports which emanate mainly from South Africa, Zimbabwe's major trading partner. The recovery programme was activated by the Short Term Emergency Recovery Programme (STERP).

Figure 1.2: Inflation Rate in Zimbabwe Year-on Year from Jan 2010 to December 2012
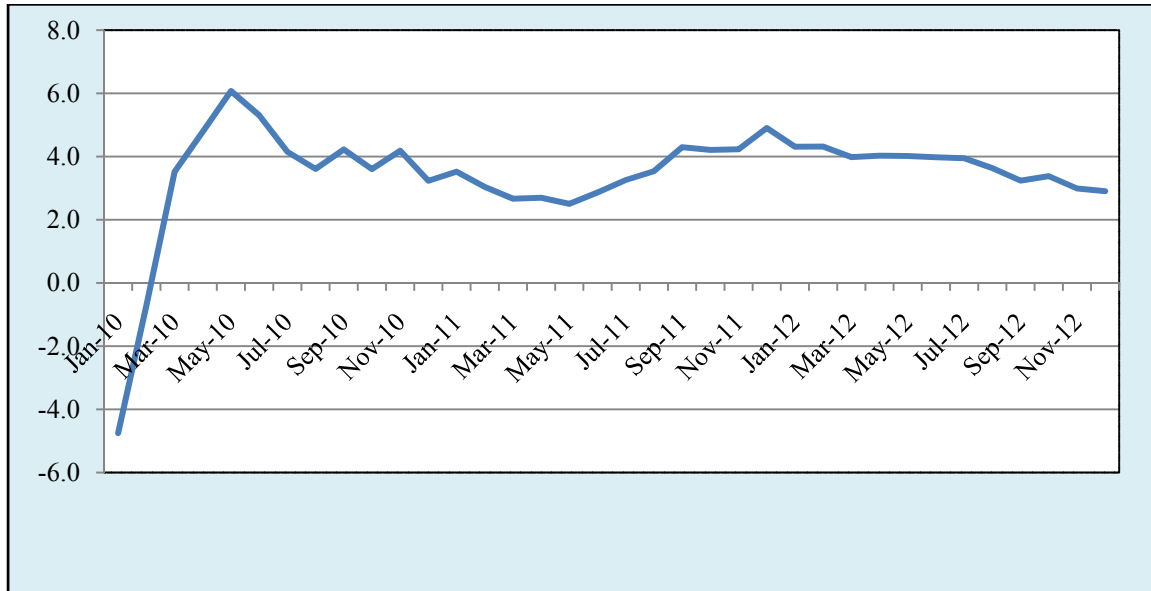
Source: ZIMSTAT 2012

Box 1: **The Short Term Emergency Recovery Programme**

The Short Term Emergency Recovery Programme is part of the implementation of the Global Political Agreement (GPA) and sought to address the key issues of economic stabilization and national healing. The key priority areas of STERP were political and governance issues, social protection and stabilization.

Under stabilization the objectives of STERP were:
- Implementation of a growth oriented recovery programme
- Restoring the value of the local currency and guaranteeing its stability
- Increasing capacity utilization in all sectors of the economy and hence creation of jobs
- Ensuring adequate availability of essential commodities such as food, fuel and electricity
- Rehabilitation of collapsed social, health and education sectors
- Ensuring adequate water supply

Under social protection STERP aimed at improvement in:
- Food and humanitarian assistance
- Education
- Health
- Strategically targeted vulnerable sectors

One of the major achievements of STERP was macro-economic stability.

Source: Short Term Emergency Recovery Programme (2009)

Box 2: The Medium Term Plan (MTP): 2011-2015

The Medium Term Plan (MTP) is the premier economic and social policy framework set out to support the restoration of economic stability and growth in Zimbabwe. This framework has been developed on the foundations laid down by the STERP from February to December 2009 and the 3 year Macroeconomic Policy and Budget Framework (STERP 11). The MTP is to guide all other Government policy documents and set out clearly the national priorities and investment programmes for 5 years, from 2011 to 2015. The main target of the MTP is to ensure that the economy remains on a sustainable growth path averaging 7.1 percent per annum for the period 2011-2015. The focus of the plan is on inclusive growth and balanced development. The Ministry of Economic Planning and Investment Promotion is the lead coordinating Ministry implementing agent and is working closely with other ministries to ensure effective implementation of the plan.

Strategies of the medium plan
- To make the private sector the engine of economic recovery and growth in Zimbabwe being driven by key sectors such as agriculture, manufacturing, mining, tourism and finance.
- The key target of the plan is to create an enabling and conducive environment for sustainable employment creation.
- The plan target to achieve average employment creation rate of 6 percent per annum.
- The marginalized and vulnerable groups such as women, youths, people living with disabilities and the retrenched are to be integrated into the mainstream economy in an effort to achieve poverty reduction.
- The plan focuses on improving the social indicators including education and health as they are fundamental for sustainable development of the country.
- Priority is given to social protection, and empowerment of marginalized members of the society.
- The plan identifies investment as critical for growing and transforming Zimbabwe to a globally competitive economy, reducing poverty, increasing job opportunities and achieving high growths and achieving the Millennium Development Goals (MDGs).

Source: Zimbabwe Medium Term Plan 2011-2015, Ministry of Economic Planning and Investment Promotion (MEPIP), Republic of Zimbabwe

Real GDP per capita measured at 2009 prices rose from US$501 in 2009 to US$ 573 in 2011 as the economy showed signs of recovery, (figure 1.3).

Figure 1.3: Average Real GDP Per Capita; at Constant 2009 Prices, from 2009-2011
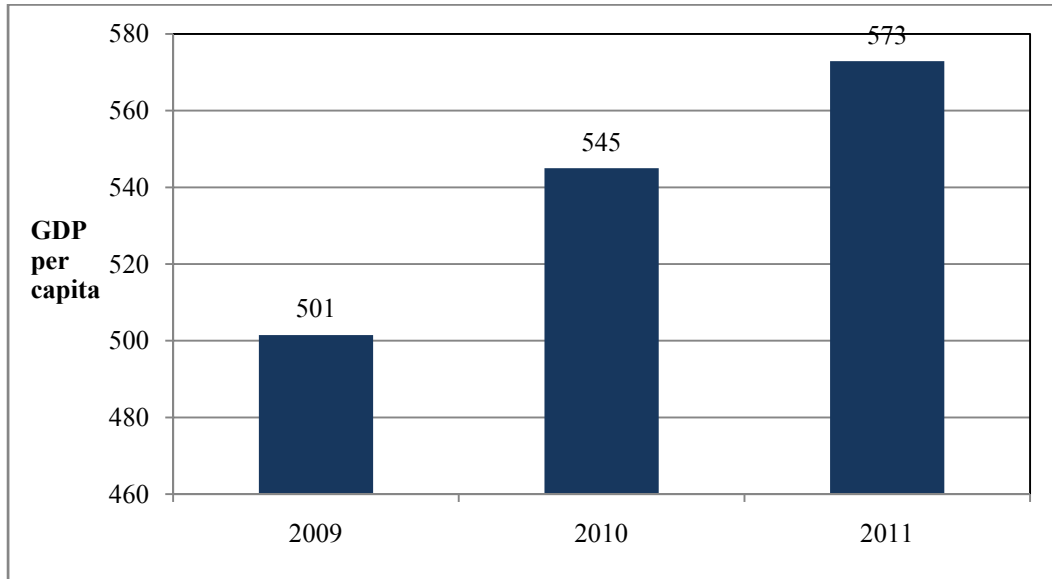
Source: ZIMSTAT 2012

The real GDP per capita depicted negative growth from 2001 to 2008 and only recovered after the dollarization period (see figure 1.4).

Figure 1.4: Real GDP Per Capita Growth Rates 2001-2011 at Constant 2009 Prices
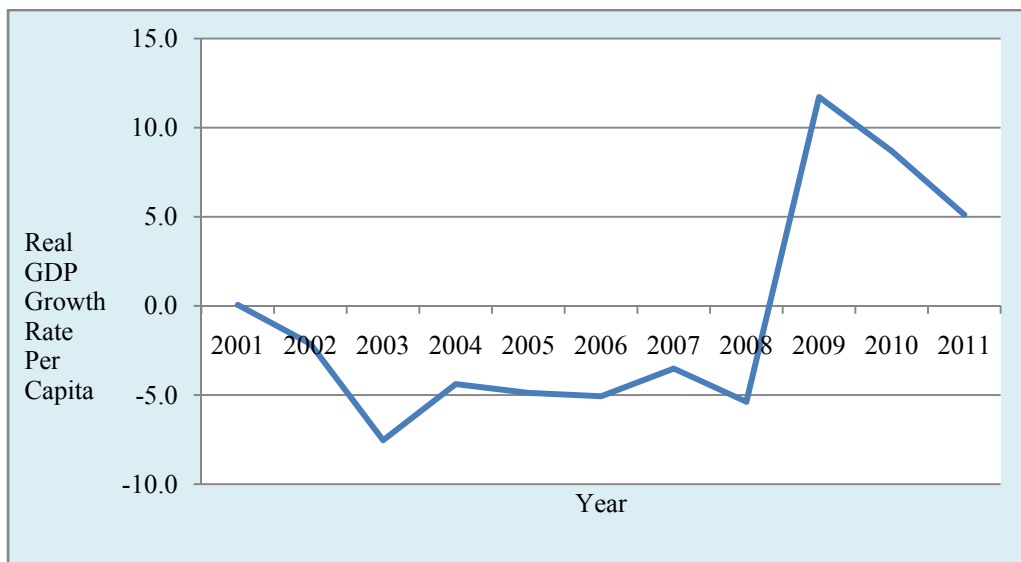
Source: ZIMSTAT 2011

1.8 Structure of the Economy

The biggest contributor to GDP in 2011 is manufacturing with 20.2 percent followed by agriculture 17.9 percent, then transport and communication with 15.8 percent (see table 1.1). The main declines in contribution to GDP between 2000 and 2011 are shown in industries such as agriculture, construction, real estate, education, other services and distribution hotels and restaurants as they were adversely affected by a decade of economic instability. The massive drop in the distribution, hotels and restaurants is attributed to a decline in tourism, as the number of visitors into the country dropped sharply due to negative publicity made on Zimbabwe. Services represent a combination of education, health, domestic services, and other services. At 11.3 percent of GDP in 2011, it appears the contribution to GDP of these key social services is low compared to previous contributions of around 14 percent in the 1990s. It is noted that the speed of recovery in productive industries such as manufacturing and mining is being hampered by lack of working capital and financial resources to replace obsolete capital goods. The economy has been facing liquidity shortages as depositors are not keeping their money at banks for long periods. This has also curtailed long term advances by commercial banks. The economic sanctions placed on Zimbabwe since the 2000s have also negatively impacted on the economy particularly on access to international credit finance.

Table 1.1: Percentage Distribution of GDP by Industry Current Prices: 2000-2011

Industry	2000	2008	2011
Agriculture, hunting, and fishing	20.4	16.0	17.9
Mining and quarrying	4.2	5.0	10.3
Manufacturing	19.3	18.2	20.2
Electricity and water	2.3	6.0	5.4
Construction	2.4	0.8	0.6
Finance and insurance	8.5	2.0	3.7
Real estate	3.6	2.4	1.8
Distribution, hotels and restaurants	18.0	13.2	10.7
Transport and communication	7.9	18.8	15.8
Public administration	3.7	4.9	3.0
Education	7.9	3.6	3.2
Health	1.5	1.5	1.7
Domestic services	1.5	2.3	0.6
Other services	5.6	5.3	5.8
Less Fin intermediary services indirectly measured	-6.8	-	-0.7
GDP at factor cost	100.0	100.0	100.0

Source: ZIMSTAT 2012

1.9 Employment Activities in Zimbabwe

Before poverty analysis can be made it is important to understand the employment situation in Zimbabwe as employment is closely linked with income generation and expenditure patterns. The following definitions on unemployment were adopted from the International Labour Organization (ILO).

Unemployed persons (broad definition)

These are persons aged 15 years and above who, during the reference period are without work and currently available for work. These are referred to as broadly unemployed persons.

Unemployment rate
-Is the percentage of unemployed persons in the economically active population. The rate can be strict or broad depending on the definition of unemployment used.

Unemployed persons (strict definition)

These are persons aged 15 years and above who, during the reference period (e.g. 7 days) are :
- without work (are not in paid employment or self-employment),
- currently available for work;
- and actively seeking employment, i.e. have taken specific steps (registered or checked at any employment agency, applied to employers, responded or placed advertisements, enquired at farms or worksites or asked friends or relatives about work) in a specified recent period to seek paid employment or self employment.

According to the PICES 2011/12 survey 52.5 percent of the economically active persons in urban areas of Zimbabwe are permanent or temporary employees while 22.1 percent of the economically active persons in urban areas are own account workers (table 1.2). In rural areas, 61.6 percent of the economically active persons are own account communal and resettlement farmers while only 11.5 percent of the economically active persons in rural areas are paid permanent employees or temporary or casual workers. Using the ILO broad definition of unemployment, the rate of unemployment in urban areas of 21.9 percent is far above the unemployment rate of the country of 7.7 percent. The rate of unemployment in rural areas of 1.6 percent brings down the national average of unemployment. This is mainly because of the high proportion of unpaid family workers in rural areas constituting 22.5 percent of the economically active rural population. Unpaid family workers in urban areas constitute only 1.4 percent of the economically active population.

Table 1.2: Percent of Economically Active Persons Aged 15 Years and Above by Activity in the Last 7 Days (Broad Definition)

Economic activity	Rural Percent	Urban percent	National Percent
Paid permanent employee	7.0	34.3	15.2
Paid casual employee	4.5	18.2	8.6
Employer	0.0	0.7	0.2
Communal & resettlement farmer	61.6	1.4	43.6
Own account worker (other)	2.7	22.1	8.5
Unpaid family worker	22.5	1.4	16.2
Unemployed	1.6	21.9	7.7
Total	**100.0**	**100.0**	**100.0**

Source: PICES 2011

Table 1.3 shows after using the strict definition of unemployment, the rate of unemployment for Zimbabwe drops to 6.3 percent down from 7.7 percent attained when using the broad definition of unemployment was used. The rate of unemployment using the strict definition also drops to 19.9 percent in urban areas compared to 21.9 percent when using the broad definition see table 1.3 and table 1.2 respectively. Unemployment is thus a problem particularly in urban areas and those unemployed are actively looking for work.

Table 1.3: Percent of Economically Active Persons Aged 15 Years and Above By Sex and Activity in the Last 7 Days (Strict Definition)

Economic activity	Rural	Urban	Total
Paid permanent employee	6.8	34.8	14.6
Paid casual employee	4.5	19.4	8.6
Employer	0.0	0.6	0.2
Communal and resettlement farmer	62.2	1.5	45.4
Own account worker (other)	2.6	22.3	8.1
Unpaid family worker	22.9	1.5	17.0
Unemployed	1.1	19.9	6.3
Total	100.0	100.0	100.0

Source: PICES 2011

Table 1.4 shows the percent distribution of the economically active population by age group and activity. It is shown that 53.5 percent of the people that are unemployed are youthful and aged between 15-24 years. It is also noted that 83.5 percent of the unemployed persons are aged between 15 to 34 years. Therefore the youth in Zimbabwe are more likely to be unemployed than persons in older age groups.

Table 1.4: Percent Distribution of the Economically Active Persons (Both Sexes) by Age Group and Activity

Both Sexes

Age group	Paid employee	Casual employee	Employer	Communal/ resettlement farmer	Own account worker	Unpaid family Worker	Unemployed	Total
	%	%	%	%	%	%	%	%
15 – 19	4.6	11.5	1.3	3.4	2.3	39.7	17.5	11.1
20 – 24	9.5	18.5	8.3	8.7	9.5	29.7	36.0	15.2
25 – 29	17.1	22.1	19.7	12.3	20.4	14.3	19.8	15.5
30 – 34	17.0	15.6	20.2	11.9	22.2	5.8	10.2	12.8
35 – 39	14.8	13.1	12.8	11.4	15.9	3.4	6.7	10.8
40 – 44	12.8	6.6	9.1	8.1	10.3	1.8	3.7	7.5
45 – 49	8.3	4.2	5.9	7.6	7.0	1.0	1.4	5.8
50 – 54	6.0	3.5	11.3	7.9	5.0	0.9	1.7	5.4
55 – 59	5.6	2.0	3.2	7.8	2.6	0.7	1.4	4.9
60 – 64	2.9	1.1	6.1	6.7	2.1	0.6	0.3	3.8
65 +	1.5	1.8	2.1	14.4	2.7	2.3	1.3	7.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: PICES 2011

1.10   The Agricultural Sector

Zimbabwe is primarily a rural country, as about 68 percent of the people live in rural areas. The rural economy is dominated by agriculture. The share of agriculture in GDP is, however, lower than its share of employment. Productivity and incomes in agriculture are thus lower than in other sectors of the economy. In fact, most poverty studies have found that, partly because of the low income-generating potential of agriculture, poverty is much more prevalent in rural areas of Zimbabwe than it is in urban areas (World Bank, 1996; MPSLSW; CSO, 1998).

Agriculture in Zimbabwe has two broad distinguishing factors: natural regions (see box 3) and land use. The majority of people in rural areas are engaged in communal farming, characterized by low productivity and minimal use of purchased inputs and capital. Resettlement areas represent an attempt by government to address land distribution problems by resettling the rural poor on under-used commercial farmland (see box 4).

Box 3: The Natural Regions of Zimbabwe

Zimbabwe has five natural regions, distinguished by annual rainfall and agricultural productive potential of the soils. Intensity of farming activities varies across these natural regions.

Region one *(specialized and diversified intensive farming):* The region receives more than 1000 mm of rainfall per annum. The main agricultural activities include forestry, fruit production and intensive livestock rearing. It covers 7 000 km^2 (less than 2% of total area).

Region two *(intensive farming):* The region receives between 750-1000 mm of rainfall per annum. It specializes in crop farming and intensive livestock breeding, and covers 58 600 km^2 (15% of total area).

Region three *(semi-intensive farming)*: It receives between 650-800 mm of rainfall per annum and specializes in livestock breeding, fodder and cash crops. It has marginal production of maize, tobacco, and cotton and covers 72 900 km^2 (19% of total area).

Region four *(extensive farming):* This region receives 450-650 mm of rainfall per annum. It specializes in extensive livestock breeding and drought-resistant crops. It covers 147 800 km^2 (38% of total area).

Region five *(semi-extensive farming):* The region receives too low and erratic rains for even drought-resistant crops. It specializes in extensive cattle and game ranching and covers 104 400 km^2 (27 % of total area).

Box 4: Land Reform and Resettlement

During 1980-84, 35 000 households were resettled by government on approximately 2 million hectares of land. Since 1984, about 20 000 additional households have been resettled. Most of the resettled households were among the poorest in the country prior to resettlement. In the late 1990's the majority of the people who were not allocated land during the 1980-84 periods and who were still living in poor arid lands were allocated land. It should be noted that only a small proportion of the poor people were allocated land in the 1980-84 resettlement. The large scale commercial farms were divided into A1 and A2 farming areas in the 2000s and the majority landless people were then resettled on these farms. The year 2000 land reform programme has resettled over 300,000 households on more than 6.0 million hectares of land. This land is from over 4,000 former commercial farms. It is hoped that allocation of fixed quantities of land, and provision of agricultural support services to these areas would help alleviate poverty among the rural households who own very little or no land. [*Note: Data on A1 and A2 farms in Chapter 1 comes from Agriculture and Livestock Surveys (ALS) conducted by ZIMSTAT each year. Resettlement areas refers to the old resettlement areas. However, it is not possible to split former large scale commercial farms into A1 and A2 farms from the PICES 2011 data because the sample was drawn from the 2002 Master Sample. The geocode system used in the PICES 2011 survey were still those used in 2002. The new geocode system which includes land use sectors such as A1 and A2 farms will be adopted after a new Master Sample is constructed from the 2012 Population Census].*

Government policy towards agriculture since independence paralleled its treatment of social sectors. Immediately after independence, government formulated policies designed to address the imbalances created by colonialism. The major focus of agricultural policy following independence was to achieve equity and efficiency gains through the reallocation of land to smallholder producers, development of marketing infrastructure and marketing services for smallholder producers, and re-orientation of research and development and extension services towards the needs of smallholders.

The post-independence policies resulted in impressive increases in agricultural output in communal and resettlement areas, and growth in incomes for some of the poorest producers. Real agricultural output grew by about 4 percent per year through 1987, with much of the growth attributable to smallholder farms. Since the late 1980s, however, growth in agriculture stagnated, leading to persistent questions about whether the expansion during the 1980s was a one-off phenomenon achieved by transferring technologies and services to previously neglected areas.

Subsidies to grain millers and (largely urban) consumers accounted for about 70 percent of the Ministry of Agriculture expenditure in 1991-93, while drought relief exceeded the research budget in 3 out of 4 years between 1992 and 1994[1]. Drought relief measures were clearly needed as Zimbabwe suffered two crippling droughts in the first half of the 1990s, but much of the expenditure was achieved by reducing other high-priority expenses. More drought years were reported between 2000 and 2008, with the worst being the 2001/2002 and the 2007/2008 agricultural seasons. Drought has become a regular feature of Zimbabwean agriculture, and drought prevention and relief should occupy a permanent position in government planning.

During 2000s through to 2012 government support to agriculture maintained core services (research, extension, pest and animal disease control, and agricultural education) remained at low levels, while more support was provided towards loss-making parastatals, and short-term drought-relief measures to consumers. The slowdown in agriculture after 2001 is a result of Zimbabwe economic problems coupled with persistent droughts over a long period of time.

Table 1.5 shows the percentage contribution of the various kinds of agricultural output in Zimbabwe. The table shows a general decrease in total primary products since 2001. The contribution of primary products to total output rose from 96.9 percent during the 1993 - 1995 period to a peak of 98.9 percent in 2001 and then fell to 82.8 percent in 2010. There has been a marked drop in the contribution of tobacco production to total output since 1993. Tobacco contribution fell from a peak of 34.5 percent to total output between the 1996-2000 period and fell to 26.7 percent and 19.2 percent in 2001 and in 2010 respectively. Tobacco production is being affected by lack of expertise and adequate resources to produce this important cash crop. Notably tobacco is Zimbabwe's main

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[1] The lion's share of the subsidies on food products during the 1980s and early 1990s did not reach the poor due to lack of targeting, and allocation of expenditure away from core functions may have compromised long-term efforts to use agriculture as an engine of poverty reduction.

foreign currency earner in the economy and that position should be restored. Furthermore, change in livestock herds is an important driver to agricultural output growth. An increased change in livestock herds is expected to increase agricultural output in the medium term. Livestock herds will be ensured by adopting quality breeding mechanisms which will not only boost livestock production in the country but will also boost livestock product exports.

Table 1.5: Percent Contribution Agricultural Output 1993-2010 at Current Prices

Type of output	1993-1995	1996-2000	2001	2010
Tobacco	32.5	34.5	26.7	19.2
Grain crops	12.8	9.5	23.9	19.1
Industrial crops	18.7	25.2	23.3	18.0
Dry beans, potatoes and vegetables	3.2	4.2	6.6	2.6
Seed	3.1	2.5	2.2	1.8
Fruit	1.2	1.3	0.9	0.5
Cattle	10.4	7.8	5.0	3.0
Dairy produce	3.6	2.9	3.1	1.5
Poultry	6.0	5.4	3.8	8.0
Other livestock	1.2	1.1	1.0	1.1
Fodder crops	1.2	1.3	0.8	0.3
Other primary products e.g. fishery, forestry	3.2	2.1	1.7	7.6
Total primary products	96.9	97.8	98.9	82.8
Secondary products	1.5	1.0	0.7	0.1
Change in herds	-1.4	-1.3	-0.2	13.3
Own account capital formation	2.5	2.0	0.5	3.8
Housing for employees	0.4	0.4	0.1	0.1
Total output	100.0	100.0	100.0	100.0

Source: ZIMSTAT 2012

Increased agricultural output in the country ensures food security and hence there is need to restore the agricultural sector's contribution to the gross domestic product. This can be achieved through increased livestock and crop production, increase in agricultural extension services coverage, improvement in farmer's access to timely inputs and improvement of the farmer's access to domestic and international markets. Table 1.6 shows the total budget allocation to the Ministry of Agriculture and the Ministry of Lands between 2009 and 2012. The agriculture budget share rose from 2.6 percent in 2009 to 5.5 percent in 2010 and reached 6 percent of the total budget by the year 2012.

Table 1.6: Budget Allocations for Agriculture for the Period 2009 to 2012 US$ Million

Ministry	2009	2010	2011	2012
	US$ million	US$ million	US$ million	US$ million
Ministry of Agriculture	34	117	124	227
Ministry of Lands	2	7	7	14
Total budget allocation to agriculture	36	124	131	241
Total budget for the year	1,391	2,250	2,746	4,000
Percent share of budget	Percent	Percent	Percent	Percent
Ministry of Agriculture	2.5	5.2	4.5	5.7
Ministry of Lands	0.1	0.3	0.3	0.4
Total budget allocation to agriculture	2.6	5.5	4.8	6.0
Total budget for the year	**100.0**	**100.0**	**100.0**	**100.0**

Source: Ministry of Finance 2012

The government has since 2009 restored agricultural production in the small holder sector while a project on small grains is being implemented in the marginal areas of Zimbabwe at national and provincial levels. Several small scale producers have joined in the production of tobacco and the number of registered tobacco farmers has increased since the year 2009.

1.11   Agriculture Drought and Maize Production

Zimbabwean agriculture is highly dependent on rainfall. Most of the communal and resettlement areas depend entirely on rainfall for crop production. Large and small scale commercial farms usually have irrigation facilities but this irrigation potential is limited. Dependency on rainfall makes the sector and the entire economy highly vulnerable to drought.

Land quality, location in high rainfall areas and access to irrigation make commercial farms more productive than communal lands and resettlement areas. As a result commercial farms are less prone to drought. Maize yields on commercial farms are more than double the yields on resettlement areas and communal lands (table 1.7). These higher yields are reflective of the better-quality soils and higher productive potential of small scale commercial farms (SSCF) and large scale commercial farms (LSCF), and of higher capital and technology usage on commercial farms. An important finding in table 1.7 is the steady decline in maize yields on large scale commercial farms since 2000. This is mainly due to lack of adequate resources available to new farmers to produce the maize crop effectively.

Table 1.7:Maize Yield in Tonnes Per Hectare by Land Use Sector 1993-2011, Zimbabwe

Year	CA	SSCF	LSCF	RA	A1 farms	A2 farms	National
1993	1,069	1,565	5,003	2,084	-	-	1,653
1994	768	1,316	4,797	1,555	-	-	1,213
1995	239	570	3,383	785	-	-	595
1996	958	1,529	4,798	1,840	-	-	1,415
1997	689	1,430	4,354	1,622	-	-	1,104
1998	558	1,202	4,696	1,100	-	-	1,012
1999	702	1,483	4,926	900	-	-	1,087
2000	727	1,678	5,033	1,300	-	-	1,180
2001	908	1,500	4,785	1,000	-	-	1,231
2002	251	240	4,120	300	-	-	455
2003	687	752	4,000	595	-	-	783
2004	667	917	3,009	1,820	1,919	2,609	1,129
2005	310	402	2,448	983	800	1,735	529
2006	607	796	2,938	1,338	1,404	1,854	867
2007	508	714	2,799	1,303	833	1,868	803
2010	578	796	3,014	884	900	2,095	875
2011	428	553	2,016	761	812	1,629	657

Source: ZIMSTAT 2012 Agriculture and Livestock Surveys. RA refers to old resettlement areas. ZIMSTAT began to collect data on A1 farms and A2 farms in 2004. However, it is not possible to split former large scale commercial farms into A1 and A2 farms from PICES data since the geocode system used in the survey were drawn from the 2002 Population Census master sample. The 2012 Population Census final results will be used to update the geocode system for future surveys.

The average national maize production for the Zimbabwean economy fell from 1.6 million tonnes in the 1993-1999 period to 1,3 million tonnes in the 2000-2007 period and further dropped to 1.1 million tonnes in the 2010-2011 period, see table 1.8. Substantial decline in national yields is also notable.

Table 1.8: Average Maize Production in Tonnes by Land Use Sector 1993-2011, Zimbabwe

Period	CA	SSCF	LSCF	RA	A1 farms	A2 farms	National
Ave 93-99	816,343	55,668	641,828	125,849	-	-	1,639,688
Ave 00-07	590,933	44,608	228,754	392,890	140,180	93,772	1,257,186
Ave 10-11	441,832	19,904	81,544	109,471	198,794	249,891	1,101,436

Source: ZIMSTAT 2012, Agriculture and Livestock Surveys see note above.

Annual maize production in 2011 of 1,101,436 tonnes has fallen by 48 percent from a peak of 2,109,283 tonnes in 1994, see figure 1.5. Efforts should be made to restore maize production in Zimbabwe to previous levels through provision of input support schemes to farmers in communal lands commercial farms and resettlement farms. In addition, this also requires, strong extension services, prices regimes and infrastructural development in the farming communities, as well as security of tenure for the new farmers to encourage investment.

Figure 1.5: Maize Production in Tonnes 1993-2011, Zimbabwe
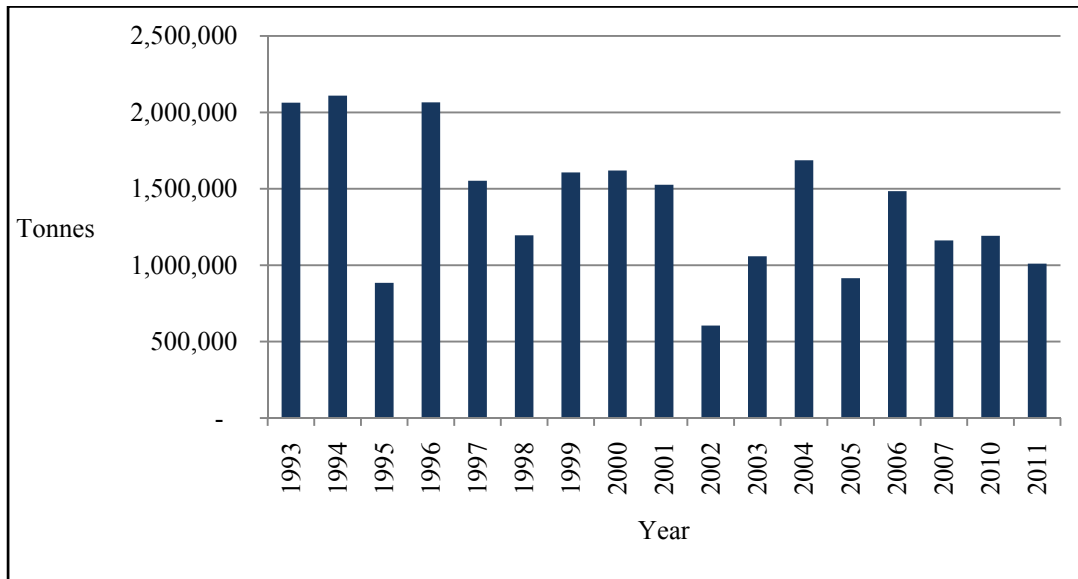
Source: ZIMSTAT 2012

From table 1.9, it is shown that large scale commercial farms accounted for 39.1 percent of national maize output between 1993 and 1999 but between 2000 and 2007 these farms accounted for only 15.3 percent of the national maize output while between 2010 and 2011 the output dropped significantly to 7.4 percent. This drop in production may be partly caused by reclassification of some large commercial farms into A1 and A2 farms. The proportion of maize production on A1 farms and A2 farms was 15.7 percent based on the total maize production for the period between 2000 and 2007 but this percentage has risen to 40.7 percent in the 2010 to 2011 period. The increase in total production in A1farms and A2 farms between 2010 and 2011 shows the need to create an enabling environment to farmers in order to boost output. Zimbabwe's bulk of maize production is produced by communal farmers whose contribution to total output was 49.8 percent between 1993 and 1999. The maize output contribution by the communal farmers has, however, fallen to 39.6 percent between 2000 and 2007 and marginally increased to 40.1 percent between 2010 and 2011.

This drop in maize production in communal lands is attributed to lack of adequate inputs coupled with poor rainfall and economic hardships experienced during the 2000 to 2008 period. Communal farmers need agricultural support both in terms of extension services and material support as most of them cannot afford the high prices of fertilizers and maize seed. The decline in maize production can also be partly attributed to the resettlement of communal farmers and the reallocation of labour who previously worked on communal lands. All efforts should therefore be made to restore agricultural maize production by communal farmers so as not only to reduce poverty among farmers but also to enhance food security and strategic grain reserves in the country.

Table 1.9: Percent Distribution of Maize Production by Land Use Sector 1993-2011, Zimbabwe

Period	CA	SSCF	LSCF	RA	A1 farms	A2 farms	National
Ave 93-99	49.8	3.4	39.1	7.7	-	-	100.0
Ave 00-07	39.6	3.0	15.3	26.3	9.4	6.3	100.0
Ave 10-11	40.1	1.8	7.4	9.9	18.0	22.7	100.0

Source: ZIMSTAT 2012 , Agriculture and Livestock Surveys (ALS)

Communal and resettlement areas are also relatively more sensitive to abnormal rainfall than commercial farms. There were major declines in output in all land use areas in 2002, 2005 and 2007 due to droughts. The relative declines in maize yields on RAs and CLs during the three years of drought far surpassed the declines on commercial farms. Thus, households in CLs and RAs are likely to have suffered more from the drought. The impact of the drought on RAs and CLs is likely to have been worse than is indicated by their losses in maize[2]. The maize yield decline, which is shown to be relatively worse in RA and CL, has a larger relative impact on total revenue from agriculture in RAs and CLs because maize constitutes a larger share of acreage and revenue for these households. Thus households living in RAs and CLs are more likely to be adversely affected by the droughts than commercial farms.

Agriculture needs separate attention in a study of poverty, because it occupies such an important position in the economy of Zimbabwe. Indeed, other analyses of poverty (specifically World Bank, 1996; MPSLSW; CSO, 1998) have examined rural poverty and revealed a number of findings. These include:

- a high prevalence of poverty in RAs and CLs;
- lower prevalence of poverty in LSCFs, but serious reservations about the distribution of the poor within LSCFs (see, particularly, World Bank, 1996, for a review of the issues);
- access to land, per se, is not closely associated with poverty status in rural areas; and,
- ability to accumulate assets largely determines the poverty-reducing potential of agricultural areas dependent on rainfall.

Some of these findings will be investigated in detail later in this report.

1.12   Human Resources and Social Services in Zimbabwe

Population and demographics

The population pyramid for Zimbabwe is broad based and narrows at the top as age increases (figure 1.6). According to PICES 2011 about 43.9 percent of the population is below the age of 15 which means that there is a large proportion of young children

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[2] Maize is grown under irrigation on commercial farms and in other dry areas but the impact of this kind of production is minimal.

relative to adults. There are more people in the zero to four year age group than in any other age group mainly due to high fertility rates.

The age-sex structure implies a young growing population. The fact that a large percentage of the population is young and economically dependent has economic implications for savings and provision of public services. Zimbabwe, therefore, requires high social spending as young people are intensive users of public services such as education and health. The provision of public services is constrained partly by the small base of earners who can pay for the infrastructure and services compared to the large number of users. Savings rates are also very low due to low incomes earned by economically active persons. In order to reduce poverty in Zimbabwe the rate of economic growth that greatly exceeds the 1.1 percent rate of population increase should be maintained.

Figure 1.6: Population by Age Group: Pyramid for Zimbabwe PICES 2011/12
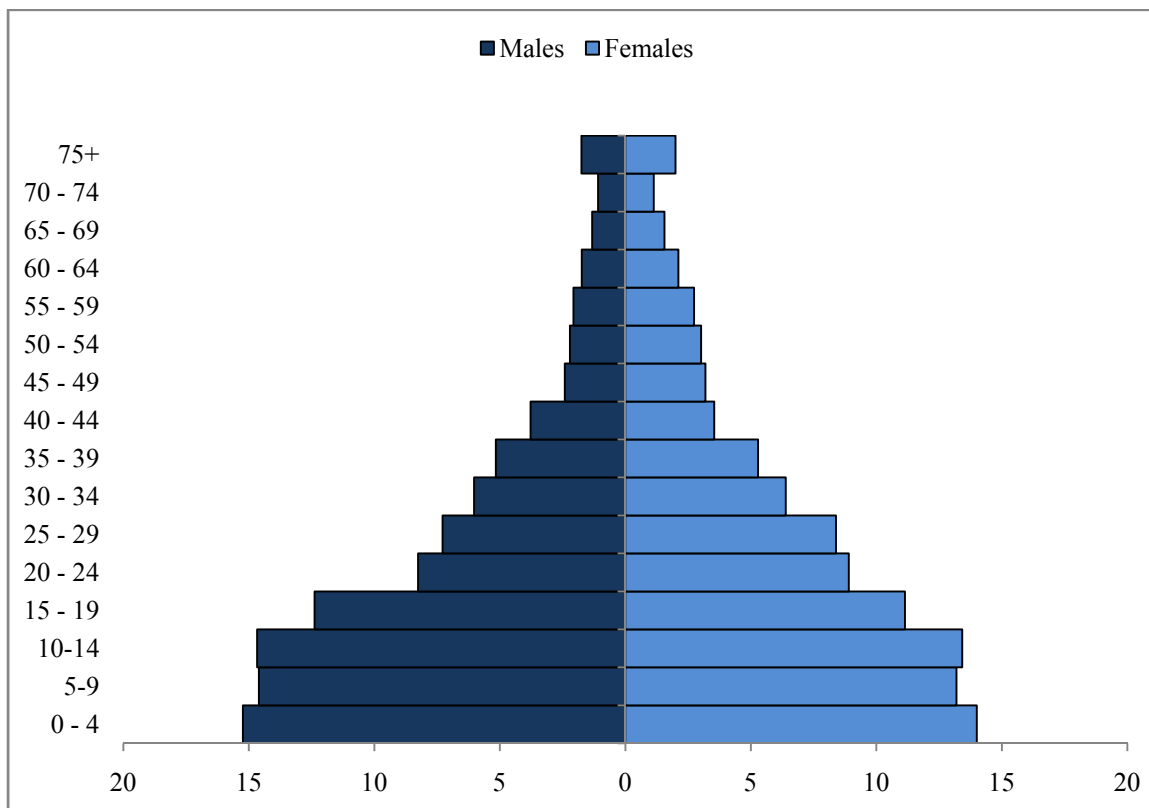
Source: PICES 2011

Trends in dependency ratios

The dependency ratio is defined as the sum of all persons under 15 years of age and over 64 years of age divided by the number of persons aged 15-64, multiplied by 100. This definition is used by demographers in a population census. Demography figures published by ZIMSTAT show that the dependency ratio fell from 102.9 in 1982 to 94.4 in 1994, further declined to 81 in 2001. The dependency ratio remained at the same level

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in 2008 (ICDS 2008). While a downward trend indicates a decline in dependency, it should be noted that this dependency ratio does not capture other factors like unemployment, diseases such as Human Immuno Virus (HIV) and Acquired Immuno Deficient Syndrome (AIDS) and the fact that some of the people who are above 16 years may still be full time students. Many people in these groups are de-facto dependent on assistance from their families. Little is known about the economic dependency ratio which would reflect this de-facto dependency. This would be an interesting area for future research or analysis.

There is higher dependency in rural areas compared to urban areas (108 versus 62 percent respectively). A high dependency ratio is associated with more poverty since it implies that there are relatively more dependants than the working population.

The PICES 2011/12 survey shows that larger household sizes averaging 4.7 members are in rural areas compared to 4.0 members per household in urban areas, see figure 1.7. The mean household size in Zimbabwe is 4.4 members.

Figure 1.7: Average Household Size in Zimbabwe by Rural and Urban Areas (Persons per Household)
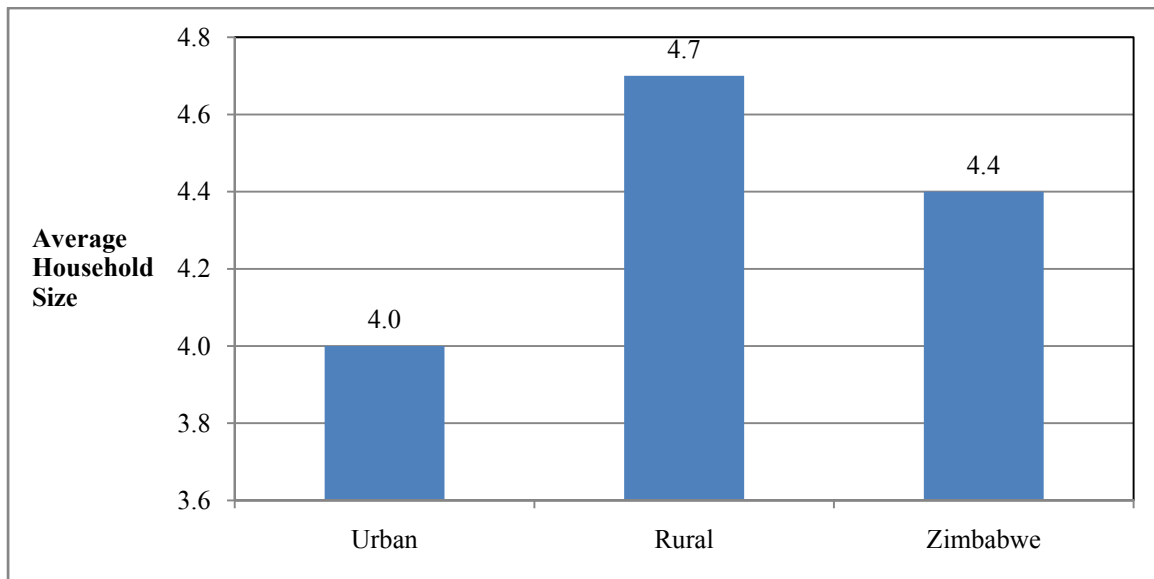
Source: PICES 2011

1.13   Health

For nearly a decade after independence, Zimbabwe made remarkable gains and consistent progress in health and nutrition. The government's health focus emphasized primary and preventive health care, notably maternal and child health, nutrition and family planning. As a result of government investment in primary and preventive health care the quality of life improved after independence.

The real GDP per capita in health ranged from US$7.1 per person in 2009 to US$8.6 in 2011, see figure 1.8. More resources are needed in the health sector in order to cover the sharply rising health care demand caused by the population growth and the need to combat the Human Immuno Virus (HIV) and Acquired Immuno Deficient Syndrome (AIDS) pandemic.

Figure 1.8: Real Per Capita GDP on Health in US$ 2000-2011 at Constant 2009 Prices
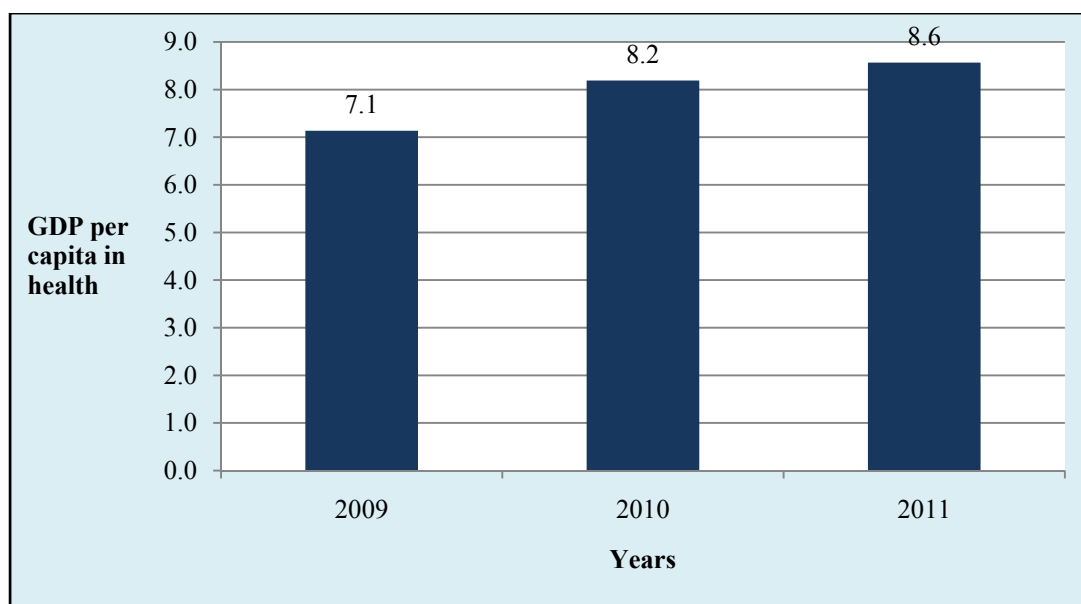
Source: ZIMSTAT 2012

The Infant Mortality Rate (IMR) is the number of deaths of infants under one year old per 1000 live births. Child Mortality Rate (CMR) is the probability of dying between exact age 1 and the fifth birthday expressed as deaths per 1,000 children surviving to the first birthday (ZDHS 2010-11). The infant mortality rate is an important indicator of health status of a population. According to the United Nations the infant mortality rate of the world is 49.4 per 1000 live births. In Zimbabwe, both the infant and child mortality rates (IMR and CMR) peaked during the 1970s and then steadily declined through the 1980s.

Using five year information from the ZDHS surveys, the overall pattern suggests that infant mortality levels increased slightly from 49 per 1000 live births in 1988 to a peak of 65 per 1000 live births in 1999 and then declined slightly in the early 2000s. The infant mortality rate in the 2010-2011 period is 57 per 1000 live births. It is also evident that progress in reducing infant mortality has stalled as the IMR in 2010 is substantially higher than its lowest level in 1988, see figure 1.9.

Figure 1.9:Trends in Infant Mortality Rate in Zimbabwe 1988-2010
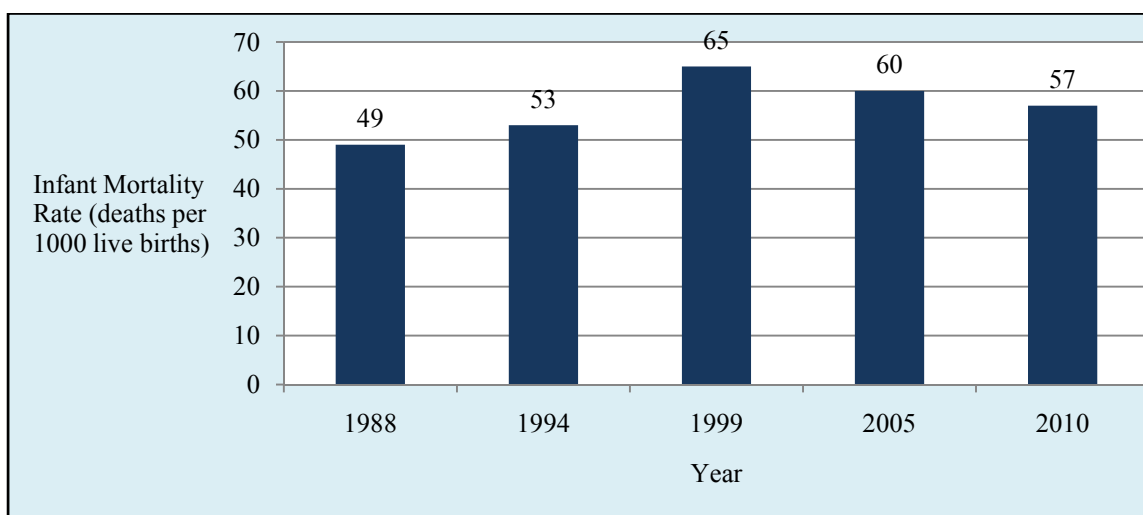
Note: Infant Mortality Rate is the number of children dying before they attain one year out of 1000 born alive. The above figure shows IMR from 1988 to 2011 in Zimbabwe. Source: ZDHS Report 2010.

Despite the economic hardships experienced over the past decade and concurrent public health challenges, IMR rates in Zimbabwe still compare favourably with neighboring countries and investments made in prior years paid dividends and need to be ramped up in the future (figure 1.10).

Figure 1.10: Infant Mortality Rates for Zimbabwe and Selected Countries
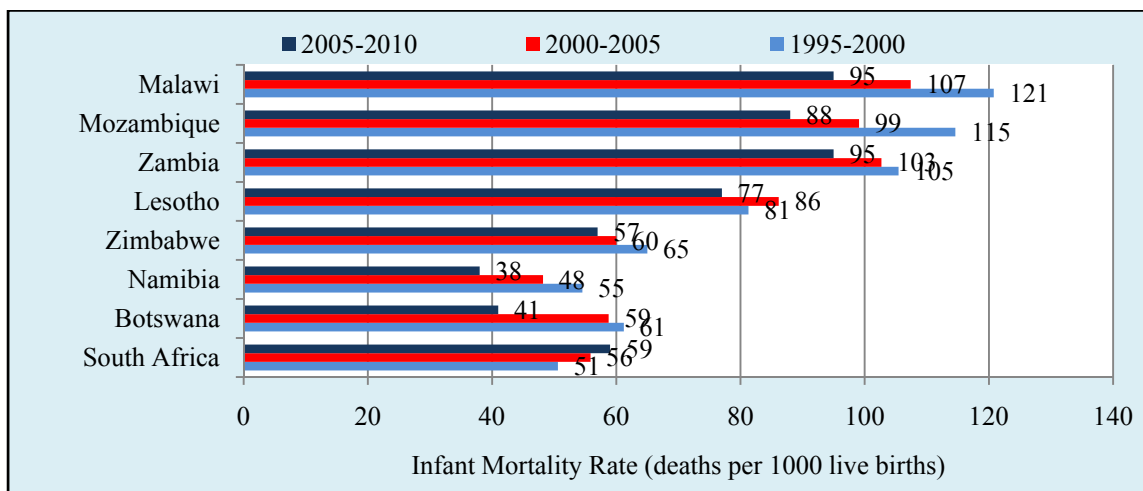
Note: Infant mortality rate is the number of children dying before they attain one year out of 1000 born alive. The above figure shows IMR for Zimbabwe and selected countries. Source: United Nations, 2011.

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1.14   Malnutrition and infant mortality

Nutrition refers to the relationship between diet and health. Nutrition includes the foods that provide energy and health, to people. Nutritional deficiency according to the World Health Organization, occurs when a person's nutrition intake consistently falls below the recommended requirement. From figure 1.11, it is shown that the prevalence of stunting and underweight increased slightly between 1999 and 2005-06 and decreased between the 2010-11 period. In contrast, the prevalence of wasting and overweight shows a continuous decline since 1999. Figure 1.11 further shows small and statistically insignificant declines in stunting during the period 1999, 2005-06 and 2010-11 while wasting revealed larger declines in children under age 5. Thus, despite the economic hardship, indicators of human development have improved moderately.

Figure 1.11:Percent Trends in Nutritional Status of Children Under Age 5
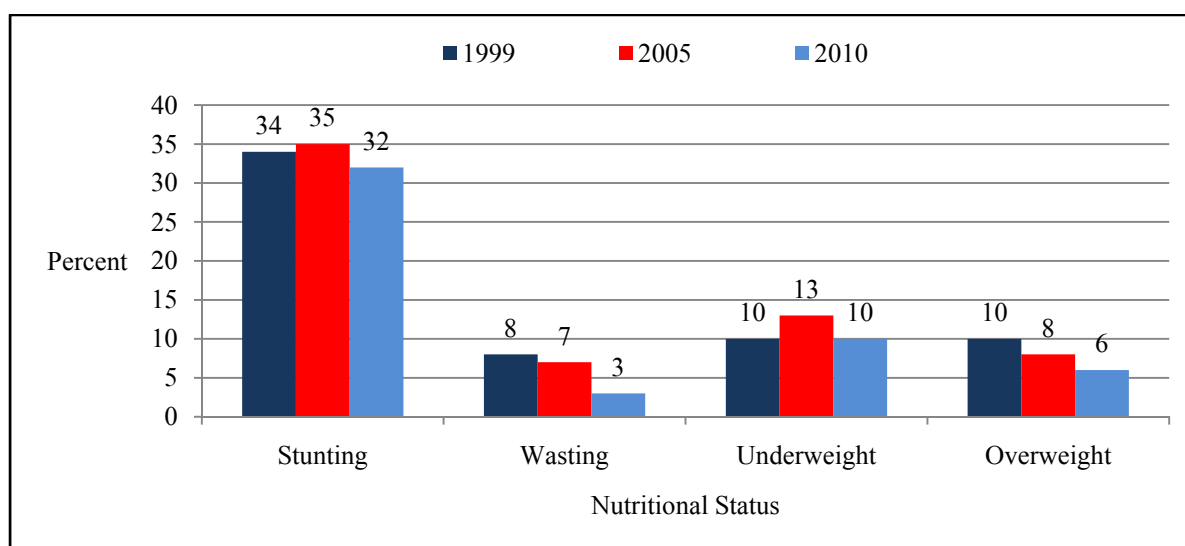
Source: Zimbabwe Demographic and Health Survey (ZDHS) 2010-11-ZIMSTAT and ICF International

1.15   The AIDS Epidemic

Zimbabwe faces challenges in areas of communicable infections, parasitic, respiratory, maternal and peri-natal conditions. The Human Immuno Virus (HIV) and Acquired Immuno Deficient Syndrome (AIDS) pandemics have taken a heavy toll on morbidity and mortality. To preserve the gains in health outcomes made to date, Zimbabwe will require continuous aggressive and far-reaching campaigns against the pandemics. Although HIV prevalence has been high between 2005 and 2006 there has been a 3 percentage point decline in HIV prevalence from 18 percent in 2005-06 to 15 percent in 2010-11 (figure 1.12). The prevalence among women fell from 21 percent to 18 percent, and prevalence among men fell from 15 percent to 12 percent. This decrease in HIV prevalence is attributed to strong HIV and AIDS awareness campaigns by the government, donor community and several organizations in the country.

Figure 1.12: HIV Prevalence in Zimbabwe 2005 and 2010
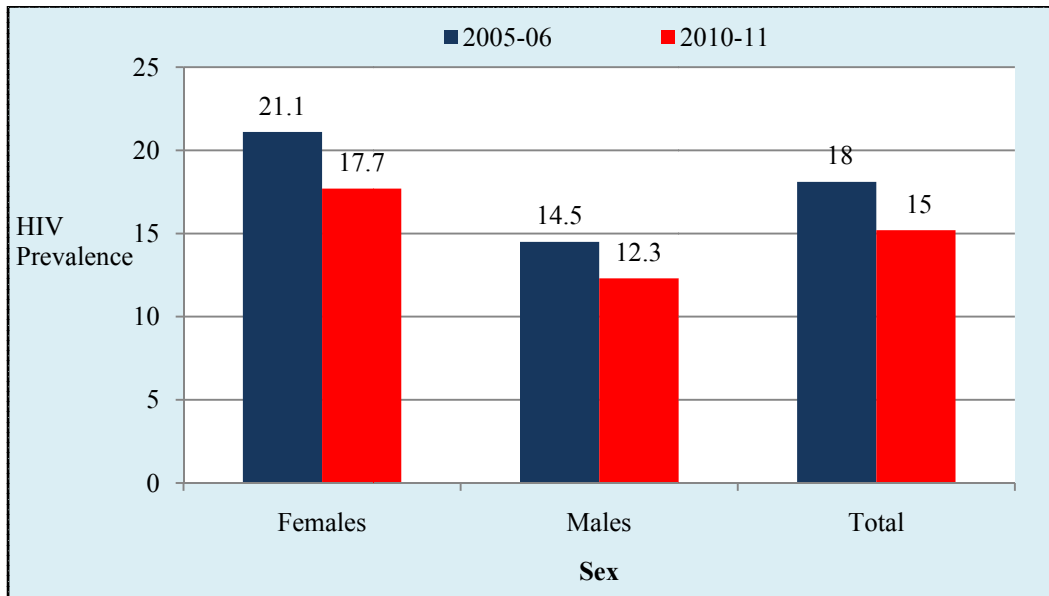
Source: Source ZDHS 2010-11.

When comparison on HIV prevalence is made across selected countries for the year 2009, it is shown that Zimbabwe is placed in the fourth position after Botswana, Lesotho and South Africa. Although countries such as Zambia, Namibia Mozambique and Malawi have HIV prevalence which is lower than that of Zimbabwe, these countries are still far-off in reaching the prevalence rate of 4.8 percent for the Sub Saharan region, see figure 1.13.

Figure 1.13: Estimated Adult Aged 15-49 Years HIV Prevalence in Selected Countries in 2009
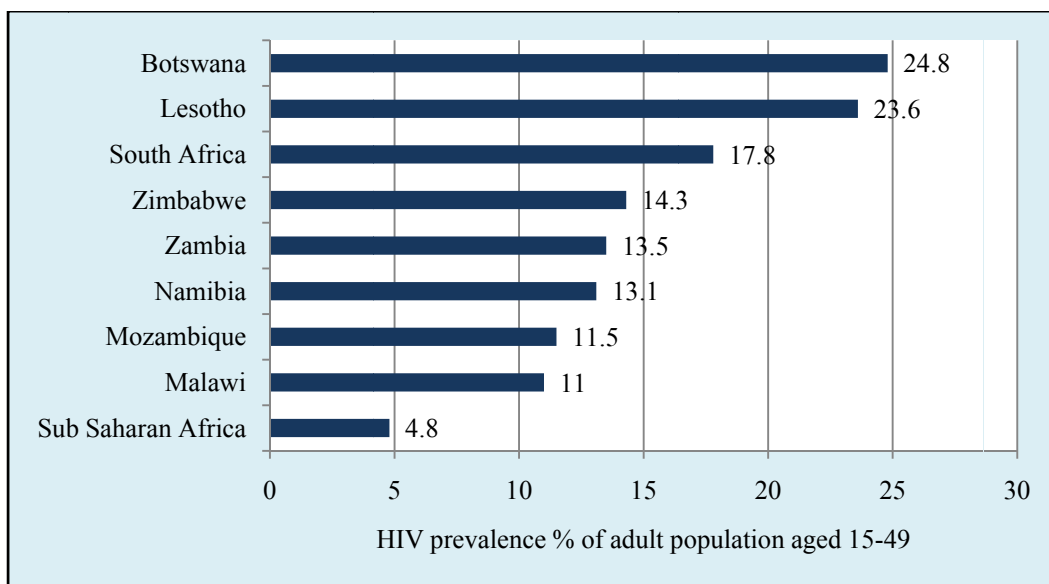
Source: UNICEF; State of the Children 2012

1.16   Implications on Health Outcomes

Although Zimbabwe's health infrastructure and health outcomes compare satisfactorily to other countries in the region, there is need to study improved ways of targeting the poor on access to health care as a way of alleviating poverty in Zimbabwe. Zimbabwe made commendable advances in its health care system since independence, but there is reason for concern due to increasing pressure on the system in recent years.

Among other things poor harvests, weak economic performance and shrinking government investment in the health sector have reduced public and household resources available for basic care. There is need to develop the means of growing the resource base for health care in Zimbabwe. Furthermore, there is also need to examine closely the accessibility and affordability of health facilities by the poor.

1.17   Water and Sanitation

Access to good – quality housing, clean drinking water and sanitation facilities affect the overall well being of households and particularly their health status. Poor quality housing and water and sanitation services not only indicate poor living conditions but also help perpetuate the vicious cycle of poverty. Inadequate living conditions are associated with more frequent illness, malnutrition, and overall discomfort that lower earning potential among adults and adversely affect ability to learn in children.

Sanitation is clearly better in urban than in rural areas. Flush toilets are almost exclusively found in urban areas (90.7 percent) while 40.1 percent of households in rural areas have no toilet facility at all. About 79 percent of households in urban areas have access to piped water, while 5.5 percent of rural households do. It might be worth noting that this does not mean water is always available and flowing from the municipalities. Having access to piped water is different from having water when the facet is turned on. About 35 percent of rural households rely on water supplies that are unsafe, according to Ministry of Health conventions (table 1.10); very few urban households have access to unsafe water.

Table 1.10: Percent Access to Sanitation for Urban and Rural Areas.

Place of residence			
Type of facility	**Rural areas**	**Urban areas**	**All Zimbabwe**
	% households	**% households**	**% households**
Toilet			
Flush	3.2	90.7	34.3
Blair toilet	31.1	4.4	21.6
Pit latrine	24.3	2.9	16.7
None	40.1	0.9	26.2
Other	1.3	1.0	1.2
Total	100.0	100.0	100.0
Water source			
Piped inside house	1.5	33.4	12.8
Piped outside house	4.0	45.7	18.8
Communal tap	4.7	3.7	4.3
Protected well/borehole	55.0	15.0	40.7
Unprotected well	23.7	1.8	15.9
River/stream/dam	10.7	0.1	6.9
Other	0.5	0.4	0.4
Total	100.0	100.0	100.0

Source: PICES 2011. Access to safe water is defined as either piped water inside household, or piped water outside household, communal tap, protected well, or borehole within 1km of the household.

Slightly over 43 percent of households in CLs have no toilet and 34.8 percent receive their water from unprotected wells or a surface water supply (table 1.11). Resettlement areas are worse off than CL's as 42.9 percent of the households had no toilet facilities while 42.8 percent of the households obtained water from unsanitary places such as rivers, streams and dams. Access to safe water in RA's households of 57.3 percent is, however, below the rural household average of 65.2 percent.

On average, rural households in LSCF areas have the best sanitation, 49.0 percent have flush or Blair toilets, and 27.1 percent have pit latrines. About 46.9 percent of households in LSCF areas have access to piped water or communal taps.

Table 1.11: Percent Access to Sanitation by Land Use Area, Rural Zimbabwe

Land use sector					
Type of facility	**CL**	**SSCF**	**LSCF**	**RA**	**Total rural areas**
	%	%	%	%	%
Toilet					
Flush	0.9	8.3	16.2	1.2	3.2
Blair toilet	31.0	45.0	32.8	27.2	31.1
Pit latrine	23.4	19.8	27.1	27.6	24.3
None	43.4	26.6	22.3	42.9	40.1
Other	1.4	0.3	1.6	1.1	1.3
Total	100.0	100.0	100.0	100.0	100.0
Water source					
Access to safe water	**65.2**	**63.5**	**71.9**	**57.3**	**65.2**
Piped inside house	0.8	5.7	5.2	0.8	1.5
Piped outside house	1.8	8.4	17.1	1.8	4.0
Communal tap	1.2	5.5	24.6	3.1	4.7
Protected well/borehole	61.4	43.9	25.0	51.6	55.0
Unprotected well	23.7	18.4	20.2	29.2	23.7
River/stream/dam	10.8	18.2	6.9	13.1	10.7
Other	0.3	-	1.1	0.5	0.5
Total	100.0	100.0	100.0	100.0	100.0

Source: PICES 2011, Access to safe water is defined as either piped water inside household, or piped water outside household, communal tap, or borehole within 1 km of the household.

1.18   Education

One of the major determinants of a nation's well being is the educational status of its human resources. Efforts towards poverty eradication yield more benefit in a literate society as the society tends to appreciate the need for change in their life styles.

Inputs into education

Zimbabwe's education sector grew rapidly after independence, particularly in the early 1980s. Even during the recent economic crisis, Government has placed a high priority on investments in educational infrastructure. Between 2000 and 2005, the number of Primary schools increased marginally from 4,741 to 4,793 including registered and satellite primary schools found in resettlement areas. The number of secondary schools also increased from 1,555 to 1,567 respectively in the same period including registered and satellite secondary schools. The expansion is due to several factors:

Increased demand for education as a result of government's free education policy
Local contributions towards construction of primary schools.

The rapid expansion of primary school infrastructure and enrolment led to an even higher growth rate of secondary and tertiary education. The expansion in tertiary education infrastructure is mainly a consequence of Government's endeavors to cope with the increasing demand for qualified teachers and other trained personnel at all levels of the education system and other sectors.

Real per capita GDP in education at constant 2009 prices remained stable at US$17.0 per person between the years 2009 and 2010. However, in 2011 the real GDP per capita in education dropped slightly to US$16.3 per person (figure 1.14).

Figure 1.14: Trends In Real Per Capita Government Expenditure on Education, 2000-2011 US$ at Constant 2009 Prices
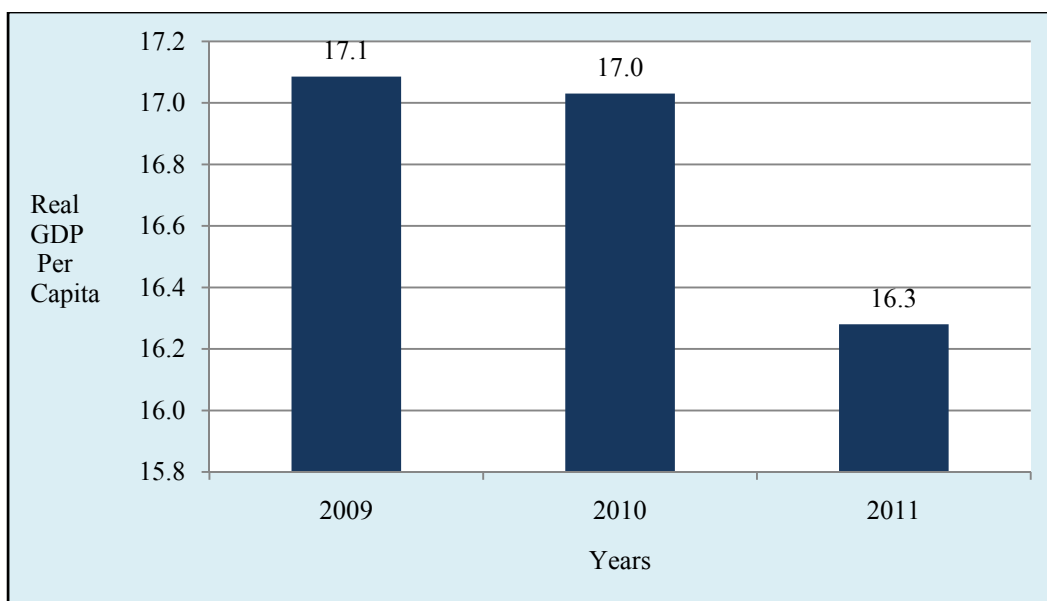
Source: ZIMSTAT, 2012

Box 5: Education- The Key to Zimbabwe's Human Development Strategy

Since independence, Zimbabwe has consistently considered human resources development as a central component of its development strategy. Considerable resources have been allocated to this sector since independence, and its achievements in education put it at, or, near the top in rankings of African nations for most indicators.

The strategy of human resources development through investment in education was realized through the key fiscal and policy measures.

Fiscal Measures

- Since independence education was among the top three priority sectors (which include defense and health) in government budget allocations.
- In the face of a shrinking revenue base, the largest component of the education budget since mid 1980s was going towards teachers' salaries and this component has been increasing over the years. Government took over the responsibility to pay teachers' salaries from all school authorities so that authorities could divert their resources towards infrastructure development and quality service provision.

Policy Measures 1980-2000

- Zimbabwe abolished primary school fees at independence in 1980, but reintroduced them in urban schools in 1992 as a fiscal measure during the ESAP period.

- Education infrastructure development was decentralized and the burden to provide and maintain the infrastructure was shifted to rural district councils (RDCs) and school development associations (SDAs). The establishment of these new structures encouraged community participation in the construction and maintenance of schools.

- Despite the need to reduce the civil service during the ESAP era, the teaching posts at all levels were exempted from the restructuring exercise. This has helped maintain constant average primary school teacher pupil ratio of 1:38 and 1:24 for secondary schools over the economic reform period.

- It is government policy that all children of school going age be enrolled in school. Poor results at any intermediary examinable grade should not hinder the progression of the child to the next level. The previous policy that did not allow children with poor results at an intermediary level to proceed to the next level has been the key factor for high drop-out rates in the past.

- In order to protect children from dropping out of school due to financial constraints, it was also policy that no child should be sent away from school due to failure to pay school costs. Instead, the school authorities should deal with the parent, not the child.

- The provision of university education, which used to be the domain of Government, was opened to other providers. The roll of the church is now increasing in this sub sector of education.

All these and other fiscal and policy measures have been pivotal for the continued increase in school enrolments and expansion of infrastructural base of the education system. There are also deliberate efforts to achieve equity in the sector which was once characterized by racial and class barriers.

1.19   Enrolment and Educational Outcomes

School enrolment status of children in various categories is of significance for educational policy formulation as well as in the design of targeting mechanisms for measurement programmes and assistance. The two widely used indicators for measurement of differences in the enrolment status of children are gross and net enrolment ratios. The gross enrolment ratio (GER) is an indicator of the overall participation in education by children who are within the official school-going age limits. This ratio is computed as the proportion of all children in school to the number of children of school-going age. The school net enrolment ratio (NER), computed as the proportion of children of school-going age in school to the total number of children of that age group in and out of school.

According to the Ministry of Education, Sport and Culture primary school gross enrollment ratios declined steadily from 116 percent in 2002 to 111 percent in 2006, see figure 1.15. The primary school net enrollment ratios also declined from 98.5 percent to 96.7 percent in 2006, see figure 1.16. These figures are directly measured by the Ministry of Education Sport and Culture. However, PICES 2011 data provides the latest information on primary school and secondary school enrolment ratios and these and other education indicators are found in chapter 3.

Figure 1.15: Primary Education Gross Enrolment Ratio from 2000 to 2006
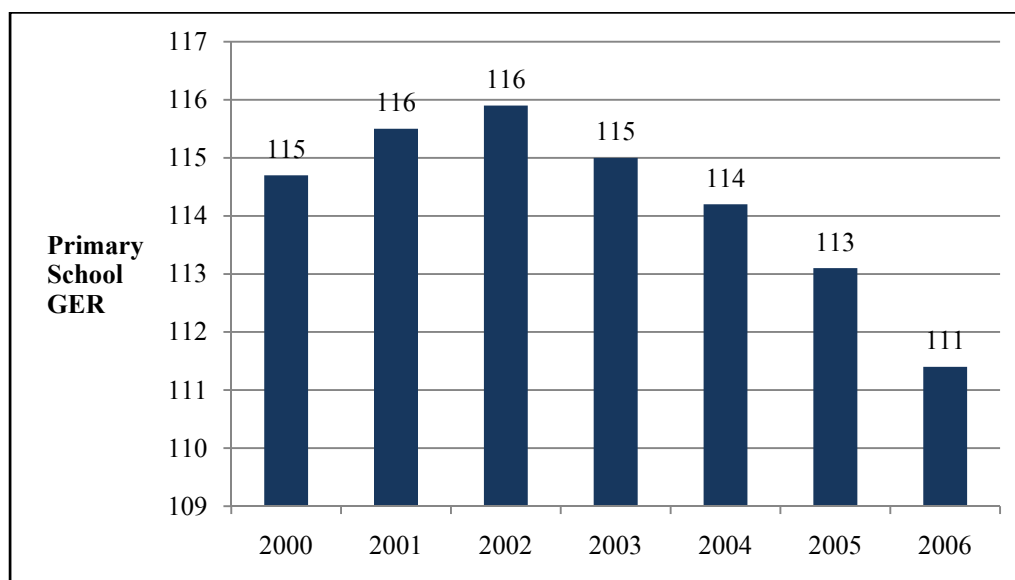
Source: Ministry of Education, Sport and Culture 2007. Latest figures on enrolment were not available at the time of going to the printers.

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Figure 1.16:Primary Education Net Enrolment Ratio from 2000 to 2006
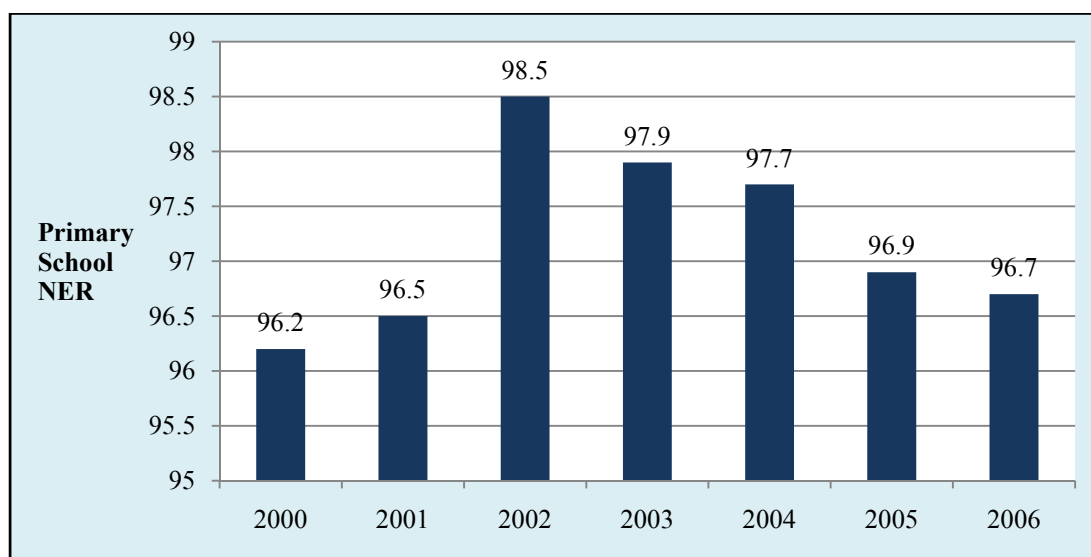
Source: Ministry of Education, Sport and Culture 2007. Latest figures on enrolment were not available at the time of going to the printers.

Box 6: The Basic Education Assistance Module (BEAM)

The main objective of BEAM is to reduce the number of children dropping out, and reach out to children who have never been to school due to economic hardships. BEAM is being implemented jointly by the Government of Zimbabwe through Ministry of Labour and Social Services and the Ministry of Education, Sport, Art and Culture. The main development objective of BEAM is to prevent irreversible welfare losses for poor households who resort to perverse coping mechanisms, like withdrawing children from school, in response to increasing poverty. Consequently, BEAM is a school fees assistance programme targeted at vulnerable children of school-going age, (6-19 years).

The module will specifically assist children in the following circumstances:
- Children in school but failing to pay or having difficulty in paying school fees.
- Children who have dropped out of school due to economic hardships.
- Children who have never been to school, due to economic hardships, but are of school going age.

Activities
In general terms, BEAM shall provide full support for tuition fees and levies at both primary and secondary levels, in both rural and urban areas, for eligible needy children. The waivers will support more specifically the areas detailed below:
- Tuition fees at urban primary, urban secondary and rural secondary schools.
- Examination fees for both urban and rural secondary schools.
- School levies and building funds for both rural and urban primary and secondary schools.

Source: Basic Education Assistance Module (BEAM) operational manual (2001)

1.20 Education: Implications on Poverty Analysis

Issues of interest for poverty analysis related to education include:

- An analysis of the relationship between lack of school fees and drop-out rates to ensure that poor children are not disadvantaged.
- Distance traveled by the poor children to school should be closely examined particularly in newly resettled households.
- Proportions of total consumption expenditure going to education by the poor, and the share of transfers in these expenditures. This analysis will provide information about the impact of poverty alleviation measures adopted by the government.
- Analysis of the incidence of benefits of social expenditure on education with focus on poor children.

1.21 Summary

This chapter has provided a background to many issues related to well-being and social and economic conditions in Zimbabwe. The developments in the economy with respect to the land issue, agriculture, education and health have been highlighted. It shows a decline in the economy in the past decade due to the prolonged economic crisis. Since independence, poverty reduction has been a primary objective and, over time, Zimbabwe has been relatively successful in addressing the needs of the poor. The macro economic crisis of the past decade has, however, increased the urgency of this challenge, and development of policy requires substantial analysis of correlates of poverty and how they change over time. Economic decline have been halted by the government after the introduction of the multi-currency system in January 2009. The economy is currently on a recovery path. The introduction of STERP and STERP11 and the crafting of MTP have played a pivotal role to the return of macro-economic stability and putting economy on the path to recovery. There is, however, some fragility in the economy due to limited fiscal space which has led to low levels of public investment in social sectors thereby negatively impacting on poverty.

2 Poverty profile for Zimbabwe for 2011/12

2.1 Poverty Concepts and Measurement

Measures of well-being and welfare

Poverty studies attempt to assess or measure well-being and establish a level of measured well-being at which a person can be considered to be poor. Comparisons of well-being can be made across subgroups of the population. Poverty is generally defined as the inability to attain a level of well-being constituting a realistic minimum as defined by society. Some studies utilise money-metric measures of well-being while others use non money-metric approaches. When money-metric measures are used, household income and consumption expenditures are usually adjusted for regional price differentials, household size and composition to reflect differences in needs across households.

Money-metric approaches allow quantification of the depth and severity of poverty and allow consistent comparisons to be made across subgroups of households and over time. For example, specific information can be generated about the size of the transfer to the poor necessary to eliminate poverty (the poverty gap). Alternatively, the level of income growth necessary to reduce poverty may be measured. Or, for specific groupings of households, measures of the size of the shortfall of welfare below the poverty line can be obtained. Money-metric approaches also can be used to quantify the degree of inequality among household groups.

Non money-metric means of examining poverty also exist. They include the use of asset indices to assess relative well-being, measures of access to social services, qualitative assessments, and participatory assessments. Non money-metric approaches can provide rich detail about the poor, the conditions they face, and some non-financial dimensions of poverty. They recognize that poverty is a social state that cannot often be defined in terms of dollars alone. Many of the qualitative studies of this kind allow the poor to explain why they are poor.

The report's primary measure of well-being is household per capita consumption expenditures. These expenditures will be used to identify relative levels of household well-being. Comparisons will be made between relatively well-off and less well-off households. Household characteristics, asset ownership, access to social services, and other factors will be also used in conjunction with the capita consumption expenditure in assessing poverty levels in Zimbabwe.

The choice of the best indicator may also depend on other constraints such as survey structure and timing, but there is little doubt that consumption expenditures are preferred when compared to other alternatives as a measure of welfare. In addition to the consumption expenditures, data for poverty analysis should include information on household structure and demographics, and access to social services can also help complement the poverty profile. The Income Consumption and Expenditure Survey (ICES) conducted by the Zimbabwe National Statistics Agency (-ZIMSTAT), formerly

the Central Statistical Office (CSO), is a data set that contains much of the necessary information and is well suited for poverty analysis. In the 2011/12 period ZIMSTAT conducted the Poverty Income Consumption and Expenditure Survey (PICES) whose data set is being utilized in this report.

2.2   Overview of the PICES 2011/12 Data

ZIMSTAT conducted the PICES from May 2011 through June 2012. Household data on socio-demographic characteristics, incomes, receipts, and consumption expenditures is collected on a weekly and monthly basis for certain items. Each selected household is monitored for a complete month during which household consumption expenditures are recorded in a daily record book. Weekly visits to the households were used to transcribe the daily records into the questionnaire and to check for recording consistency.

The objectives of the survey were to provide data to enable:
- estimation of private consumption expenditure and disposable income of the household sector;
- compilation of weights for the Consumer Price Index (CPI);
- compilation of the production account of the agricultural sector for households in communal lands, small scale commercial farms, large scale commercial farms and resettlement areas;
- measurement of inequality and poverty;
- the study of income/expenditure disparities among socio-economic groups
- estimation of the contribution of the informal sector to GDP in Zimbabwe
- estimation of the size of household transfer incomes within and outside (income from the diaspora) the country;
- the carrying out of market research by analysts

The word "diaspora" refers to people living outside their country of origin, irrespective of citizenship and nationality and who are willing to contribute to the development of their origin in country and /or community.

A nationally representative sample was drawn from the 2002 Revised Zimbabwe Master Sample. The population was stratified into land-use groupings, namely communal lands, large-scale commercial farming areas, small-scale commercial farming areas, resettlement areas, urban and semi-urban areas. The survey intended to enumerate about 31,248 households in 2,232 enumeration areas. A total of 30,838 interviews were conducted and these included partially completed questionnaires. After removing the partially completed questionnaires the number of households which were successfully interviewed in the study were 29,756, giving a response rate of 95.3 percent based on the initial sample of 31,248 households.   The households with partially completed questionnaires were left out in the analysis as they would distort averages for variables such as income and expenditures. In terms of enumeration area coverage, a total of 2,220 EA's were enumerated out of a sample total of 2,232 EA's and this represented a coverage response rate of 99.5 percent of the total number of EA's sampled. It is important to note that the final sample weights were generated only for households with complete questionnaires since the incomplete questionnaires were removed.

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Although it is not designed specifically for measurement of poverty, the PICES is well suited for such measurement because it can be used to construct a good measure of household consumption. In addition to market purchases of goods, the survey collects rich detail on own-consumption, payment in kind, and gifts and transfers of all goods. Additional information in the PICES 2011/12 includes information on health, education, housing, migration and remittances within the country and from abroad which is useful in determining poverty levels in Zimbabwe. Furthermore, ownership of assets can be used to impute consumption flows from these assets, and information on housing values and characteristics can be used to construct an imputed flow of consumption from owner-occupied housing (See annexes A-C for the details on the use of the PICES for poverty analysis and on data processing). The PICES data is combined with Consumer Price Survey (CPS) data to create a poverty datum line used to distinguish poor and non-poor households (see annex D).

2.3 The Poverty Datum Line

A poverty line represents the cost of a given level of living which must be attained if a person is deemed not to be poor. The idea is not simply to produce a figure defining the poor at a point in time but instead, to enable consistent comparisons across subgroups of the society, such as sectors, regions and over time. This study uses two poverty lines; the Food Poverty Line (FPL) or lower line and the Total Consumption Poverty Line (TCPL) or the upper line. Table 2.1 shows the value of the food poverty line (lower line) by province and by rural and urban areas, see annex D for details of how the FPL was computed.

Table 2.1:Annual Mean FPL by Place of Residence US Dollars

Province	Urban Mean FPL	Rural Mean FPL	Total Mean FPL
Manicaland	31.2	31.6	31.4
Mashonaland Central	32.0	31.5	31.8
Mashonaland East	31.9	31.8	31.9
Mashonaland West	32.2	33.9	33.0
Matabeleland North	35.5	36.6	36.1
Matabeleland South	35.6	35.9	35.7
Midlands	31.9	32.2	32.0
Masvingo	32.1	32.0	32.0
Bulawayo	32.0	-	32.0
Harare	31.5	-	31.5
All Zimbabwe	**32.6**	**33.2**	**32.7**

Source: PICES 2011: Notes: Variation in FPL is caused by spatial and seasonal variations in prices and by variations in the food shares by place of residence (rural/urban) and province.

The FPL represents the minimum consumption expenditure necessary to ensure that each household member can (if all expenditures were devoted to food) consume a minimum food basket representing 2100 calories. When consumption expenditures are measured on a per-capita basis, households or people below the FPL are said to be very poor or extremely poor. The TCPL includes an allowance for non-food minimum need requirements such as housing, clothing, transportation, health care, etc. The TCPL naturally exceeds the FPL, and households or people whose per capita consumption expenditure is below the TCPL are deemed to be poor. Each of these poverty lines varies by region and month of the survey to reflect regional and temporal differences in prices. Table 2.2 below shows the value of the total poverty line (upper line) by province and by rural and urban areas. See annex D for details on how the poverty datum lines used in this study were constructed.

Table 2.2: Annual Mean TCPLs by Place of Residence US Dollars

Province	Urban Mean TCPL	Rural Mean TCPL	Total Mean TCPL
Manicaland	81.3	62.2	71.7
Mashonaland Central	83.3	62.0	72.7
Mashonaland East	83.2	62.6	72.9
Mashonaland West	83.9	66.7	75.3
Matabeleland North	92.6	72.0	82.3
Matabeleland South	92.6	70.5	80.6
Midlands	83.0	63.3	73.2
Masvingo	83.6	62.9	73.2
Bulawayo	83.3	-	83.3
Harare	82.0	-	82.0
All Zimbabwe	**84.9**	**65.3**	**76.7**

Source: PICES 2011: Two TPDLs were computed, one for rural areas and the other for urban areas. TPDL is measured in US$ per person per month. Source PICES 2011.

2.4 Poverty Measures

In order to make poverty comparisons across population subgroups or over time, data on individual or household consumption expenditures and the levels of such consumption relative to the poverty lines must be aggregated over people or households in the subgroups. The *prevalence* (or *incidence*) of poverty is one example of such an aggregation. The prevalence (also known as the *headcount index*) represents the total population (either people or households) whose consumption expenditures fall below the poverty line as a proportion of the total population. For example, the prevalence of poverty in a region is the number of people (or households) below the poverty line divided by the total population (individual or households) in the region. The prevalence of poverty is especially useful for targeting regions and subgroups; a basic principle of targeting is to target groups or regions whose poverty prevalence is highest.

The prevalence of poverty does not, however, provide complete information about the degree of poverty felt by different subgroups. For example, the prevalence does not inform about the *depth of poverty*, or the mean shortfall of the poor's consumption expenditures below the poverty line. The depth of poverty is interesting because it shows how much of a transfer would be necessary to alleviate poverty if the transfer were targeted perfectly. It is also interesting because the prevalence might be deceptive. One region (or subgroup) may have a high proportion of people whose consumption expenditures fall just below the poverty line. Another region might have a slightly lower proportion or prevalence of the poor, but the people's consumption might fall far below the poverty line. The prevalence would indicate that poverty is worse in the first region, while the second region clearly has a worse problem in that the depth or poverty gap in the second region is much greater. The depth of poverty is measured using the *poverty gap index*.

The *poverty gap index* is a measure of the intensity of poverty. It is defined as the average poverty gap in the population as a proportion of the poverty line. The poverty gap index is an improvement over the poverty measure headcount ratio which simply counts all the people below a poverty line, in a given population, and considers them equally poor. Poverty gap index estimates the depth of poverty by considering how far, on the average, the poor are from that poverty line. The greater the gap the deeper poverty or the more severe the poverty is.

A third means of aggregating individual or household poverty takes into account the degree of inequality among the poor. The *poverty severity index* is useful because the depth measure ignores some of this inequality. The poverty severity index sometimes referred to as the *squared poverty gap index*, takes into account not only the distance separating the poor from the poverty line (the poverty gap), but also the inequality among the poor. That is, a higher weight is placed on those households who are further away from the poverty line. In other words, the poverty severity index is a weighted sum of poverty gaps as a proportion of the poverty line. This is in contrast to the poverty gap index where the poverty gaps are weighted equally.

Take, for example, a transfer of income from one very poor family to another family that was poor, but less poor, than the first. Most would agree that poverty has worsened because of the transfer. Yet the poverty depth (or poverty gap) measure would indicate no change in poverty. The mean gap of the poor's expenditures as a fraction of the poverty line is unchanged. The poverty severity index incorporates the premise that society should concern itself with the improvement of the poorest of the poor and is sensitive to distribution among the poor themselves.

Each of these measures (prevalence or headcount index, poverty gap index, and the poverty severity index) can be easily computed using data on household consumption expenditures. They belong to a class of poverty indices known as the Foster, Greer, Thorbecke (FGT) indices.

The following analysis will be conducted on a household basis. Since the ultimate interest of the policy maker is reduction of poverty among people, results will also be presented for people. When there are qualitative differences between the results (expressed on an individual or household basis), the differences will be noted.

2.5 Levels of Well Being

Levels of well being, as measured by consumption expenditures per person, are very low but modestly distributed. The national mean consumption per person per month (based on the value of the dollar in June 2011) is US$78.94 and median consumption is US$55.25 (see figure 2.1). The June 2011 mean and median figures are taken as they represented stable period at the beginning of the survey. The June 2011 prices are used as the base for deflating nominal data. However, it is important to note that on average the consumption expenditures for households is usually high during the festive season due to bonus payments received by most employees. In urban areas, the mean and median per capita consumption expenditures for the month of June 2011 are US$114.14 and US$87.26 respectively. It should be noted that household consumption expenditures includes own consumption and in kind consumption as well. As expected rural people have lower mean and median consumption expenditures per person per month of US$67.09 and US$47.59 respectively.

Figure 2.1: Mean and Median Per Capita Consumption Expenditures Per Month in US Dollars for Rural and Urban Areas
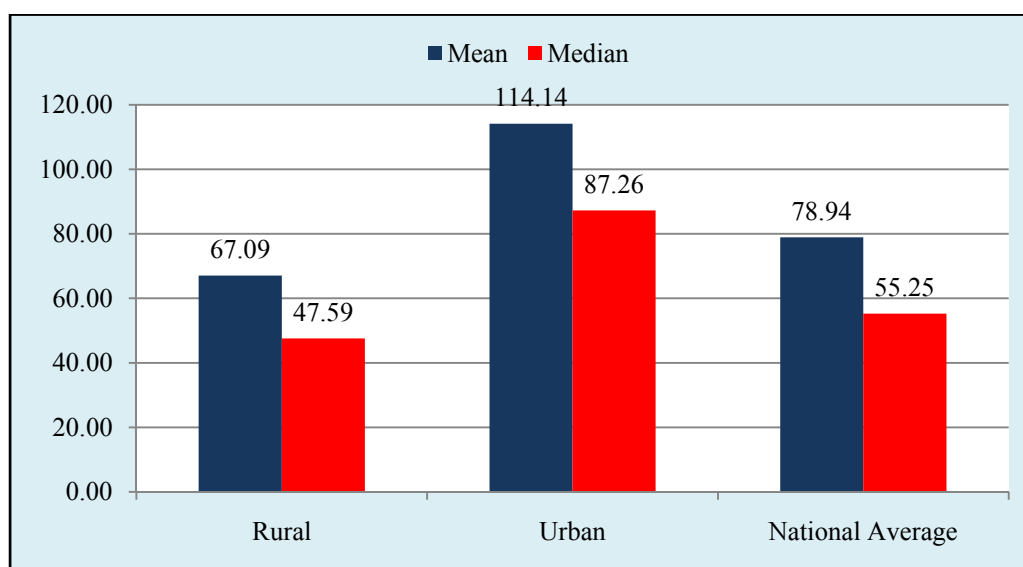
Source: PICES 2011

In order to measure whether well being is equally or unequally distributed the indicator used is the gini index. According to the World Bank (2012) a "gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal

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distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The gini index therefore measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus a gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality".

When expressed as a decimal fraction this indicator is called the gini coefficient and it provides an indication of the level at which income is equally or unequally distributed throughout a population. A gini coefficient of 1 is an indication of complete income inequality with one person having all the income, while a gini coefficient of 0 is indicative of complete equality with everybody earning an equal income. The gini coefficient of Zimbabwe according to PICES 2011 is 0.423[3]. Although the gini coefficient for Zimbabwe is deemed as indicating relative inequality in wellbeing, it is however, lower than the gini coefficient of South Africa of 0.674 percent for the year 2006 and that of Namibia 0.639 percent for the year 2004. Zimbabwe's gini coefficient is close to estimates for neighbouring countries, although it is within the range of countries considered to be highly unequal[4]. It is noted that the gini index in Zimbabwe declined from 0.501 percent in 1995, to 0.489 percent in 2001 and settled at 0.423 percent in 2011, see table 2.3. It is, however, difficult to explain the factors which have contributed to this decline and further analysis would be needed.

Table 2.3: Comparison of the Gini Index Across Selected Countries in Africa

Country	Gini Index	Year	Gini Index	Year
Kenya	47.7	2005	42.5	2008
Lesotho	52.5	2003	63.2	2009
Malawi	39.0	2004	39.0	2004
Mozambique	47.1	2003	45.6	2008
Namibia	63.9	2004	70.7	2009
South Africa	67.4	2006	65.0	2009
Zambia	54.6	2006	50.8	2009
Zimbabwe	48.9	2001	42.3	2011

Source: World Bank (2012) and CIA (2012) Websites

Even though this is a positive development in Zimbabwe, there appears to be a disparity in equality between rural and urban areas as shown by the gini indices. Inequality varies by place of residence and is slightly higher (gini is 0.39) in urban than in rural areas (0.37). Individual well being is skewed and highly unequal as indicated by the Lorenz curve in figure 2.2. Part of this inequality is manifested in disparities between rural and urban areas; real levels of well being are far lower in rural compared to urban areas.

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[3] This Gini coefficient was constructed using real consumption per person as the welfare measure and using the PICES 2011 population weights to reach nationally representative estimates.
[4] Recent estimates of Gini coefficients were obtained from World Bank and CIA websites for various countries. The source of Zimbabwe data is ICES 1995, 2001 and PICES 2011.

In addition, the Lorenz curve provides a complete summary of information about the distribution of well being. It is graphed as the cumulative percentage of consumption expenditures (the Y-axis controlled by the cumulative percentage of population (the X-axis). If well-being is evenly distributed, the Lorenz curve would be the first diagonal. The gini coefficients shown on the Lorenz Curve show that there is very little inequality between rural and urban areas and thus the graph for rural and urban areas is virtually identical.

Figure 2.2: Lorenz Curve for Zimbabwe Rural and Urban Areas
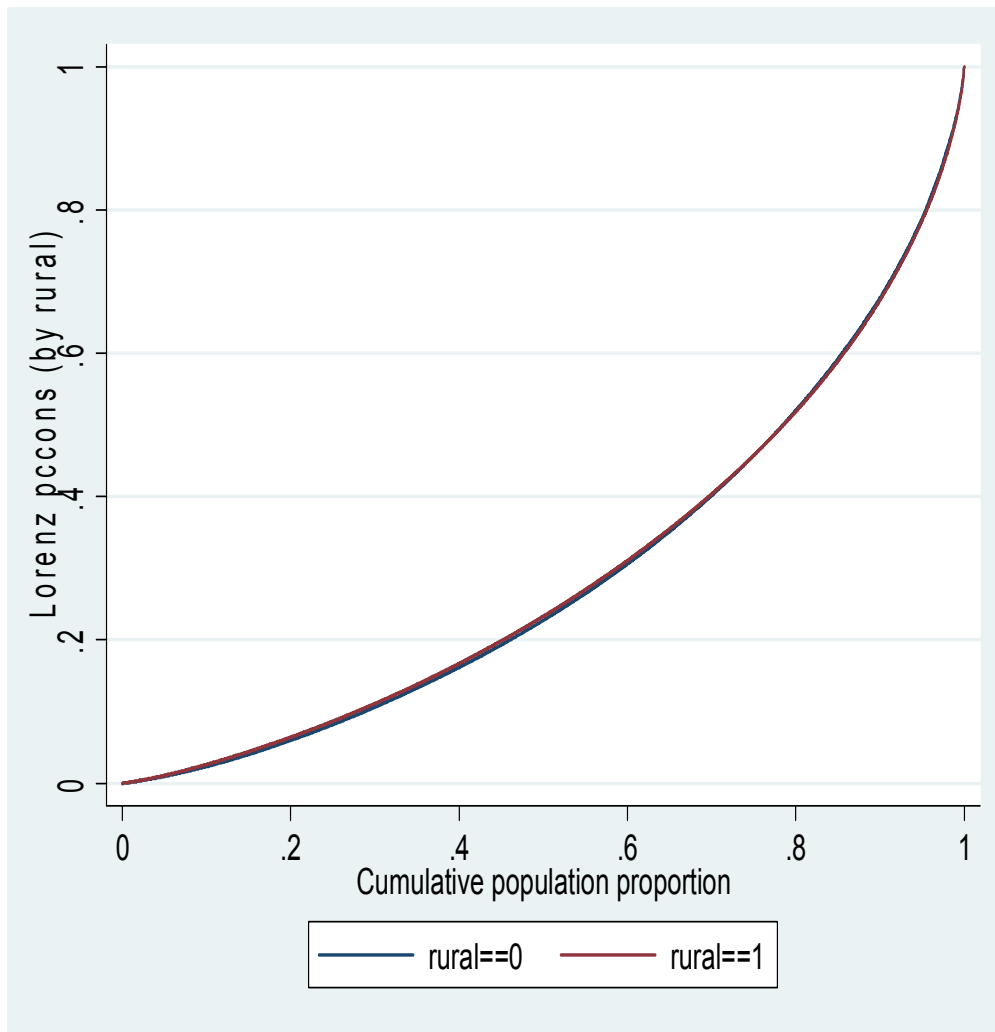
Source: ZIMSTAT, PICES 2011. Where 0 means urban and 1 means rural

Spatial patterns of individual and household poverty follow those of mean levels of consumption, and poverty is far worse in rural than in urban areas of Zimbabwe. While 62.6 percent of all Zimbabwean households have per capita consumption expenditures below the upper poverty line (the TCPL), 76.0 percent and 38.2 percent, respectively, of

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rural and urban households are deemed poor (table 2.4). The majority of all households are located in rural areas, and the indices of poverty show that prevalence, depth, and severity of rural poverty are much worse than those of urban poverty. In fact, the poverty prevalence rate of people residing in rural areas is 84.3 percent, while the prevalence of poverty for extremely poor people is 30.4 percent.

About 4 percent of urban households are below the lower poverty line (FPL), indicating a low prevalence of extremely poor households in urban areas. Extreme poverty is common in rural areas as 22.9 percent of rural households do not have enough resources to meet minimum food needs (table 2.4). Because poor households tend to have more members than non-poor households, the prevalence of poor people is in all areas higher than the prevalence of non-poor households. Notably, 72.3 percent of all Zimbabweans are poor, and 22.5 percent are extremely poor.

Table 2.4: Poverty Indices by Place of Residence

	Prevalence (%) of		Poverty indices	
Residence	Poverty	Extreme poverty	Poverty gap index	Poverty severity index
Households				
Rural	76.0	22.9	36.1	20.6
Urban	38.2	4.0	12.3	5.6
All Zimbabwe	62.6	16.2	27.7	15.2
People				
Rural	84.3	30.4	42.8	25.4
Urban	46.5	5.6	15.5	7.2
All Zimbabwe	72.3	22.5	34.1	19.6

Source: PICES 2011. Poverty refers to the prevalence of households or people in households whose consumption expenditures per capita are below the upper poverty line (the TCPL). Extreme poverty represents a shortfall below the lower poverty line (FPL). The poverty gap and the severity indices are the Foster, Greer and Thorbecke α=1 and α=2 measures, respectively (see Ravallion, 1992 for details). These indices are computed using the upper poverty line.

Comparison of results from the PICES 2011/12 survey with ICES 2001 and ICES 1995

Poverty prevalence in Zimbabwe as reported by the PICES 2011/12 of 62.6 percent is slightly higher than 60.6 percent for ICES 2001 and lower than 63.3 percent for the ICES 1995/96 survey. It is noted that extreme poverty has declined by half in 2011 when compared to 32.2 percent in 2001, see table 2.5. This drop could be attributed probably to remittances from the diaspora, domestic gift and transfer incomes.

Table 2.5:Household Measured Prevalence of Poverty, for the Years 1995, 2001 and 2011

Residence	Measured prevalence of		Poverty indices	
	Poverty	Extreme poverty	Poverty gap index	Poverty severity index
PICES 2011/12				
Rural	76.0	22.9	36.14	20.6
Urban	38.2	4.0	12.3	5.6
All Zimbabwe	**62.6**	**16.2**	**27.7**	**15.2**
ICES 2001				
Rural	73.0	42.3	36.1	21.6
Urban	33.8	10.5	11.7	5.5
All Zimbabwe	**60.6**	**32.2**	**28.3**	**16.5**
ICES 1995				
Rural	76.2	50.4	50.6	30.5
Urban	41.1	10.2	35.4	16.9
All Zimbabwe	**63.3**	**35.7**	**47.0**	**27.3**

Source: PICES 2011, ICES 2001 and ICES 1995 reports. Note: comparison was based only on percentage differences. The poverty lines for 1995 and 2001 were not recalibrated to 2011 prices.

Individual poverty prevalence remains above 82 percent in rural areas among the years 2011, 2001 and 1995, see table 2.6. Although individual poverty prevalence in Zimbabwe improved between 1995 and 2001, it, however, worsened in 2011. Individual poverty prevalence for Zimbabwe dropped from 75.6 percent in 1995 to 70.9 percent in 2001 and then rose to 72.3 percent in 2011. However, as previously observed persons in extreme poverty have also declined from 47.2 percent in 1995 to 41.5 percent in 2001 then further declined to 22.5 percent in 2011.

Table 2.6: Individual Measured Prevalence of Poverty, for the Years 1995, 2001 and 2011

Residence	Measured prevalence of		Poverty Indices	
	Poverty	Extreme poverty	Poverty gap index	Poverty severity index
PICES 2011/12				
Rural	84.3	30.4	42.8	25.4
Urban	46.5	5.6	15.5	7.2
All Zimbabwe	**72.3**	**22.5**	**34.1**	**19.6**
ICES 2001				
Rural	82.4	52.4	43.4	27.0
Urban	42.3	14.5	15.5	7.6
All Zimbabwe	**70.9**	**41.5**	**35.4**	**21.4**
ICES 1995				
Rural	86.4	62.8	**47.1**	**29.6**
Urban	53.4	15.0	**20.2**	**10.0**
All Zimbabwe	**75.6**	**47.2**	**38.3**	**23.2**

Source: PICES 2011, ICES 2001 and ICES 1995. Note comparison was done only in percentages. The poverty lines were not recalibrated to 2011 prices.

2.6 Countrywide Picture of Poverty

Poverty among households varies significantly across and within provinces of Zimbabwe. About 12 percent of Zimbabwe's total poor households are found in the major cities, Harare and Bulawayo, but the vast majority of poor people and households are outside of major urban centres (see table 2.7). The prevalence of household poverty ranges from a low of 34.5 percent in Bulawayo, to 81.7 percent in Matabeleland North, which is primarily rural (table 2.7). According to all indices, Matabeleland North, Mashonaland Central, Matabeleland South, Manicaland and Mashonaland West provinces have the poverty prevalence levels of above 70 percent. The rest of the provinces except Harare and Bulawayo reported poverty prevalence ranging from 63.7 percent to 67.0 percent. (table 2.7)[5]. There is a consistent picture of poverty prevalence in the provinces as provincial rankings by each of the indices (i.e., the prevalence, depth index and severity index) are relatively unchanged across the indices. Matabeleland North is worse off according to each poverty index, having an extreme poverty index of 36.9 percent, a poverty gap index of 44.8 percent and a severity poverty index of 28.2 percent. Those provinces with a high prevalence of poverty are also those with the deepest and most severe poverty. Although the households in Bulawayo and Harare reported low levels of extreme poverty incidence, 3.4 percent and 3.3 percent respectively their poverty gap indices are higher being 11.4 percent and 10.6 respectively.

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[5] For the purposes of targeting poverty alleviation programmes, it is preferred to target based on a higher prevalence or incidence of poverty. The reason for this preference is that there will be fewer "leakages" to non-poor households in high-prevalence subgroups. However, some policymakers wish to know the subgroups containing the largest percentages or numbers or poor, and for this purpose we report the distribution of poor by province.

Table 2.7: Household Poverty Indices by Province

| Province | Percent poor households | Prevalence of (%) | | Poverty Indices | |
		Poverty	Extreme poverty	Poverty gap index	Poverty severity index
Manicaland	17.4	70.6	18.7	32.2	17.8
Mashonaland Central	10.9	75.4	22.0	35.7	20.2
Mashonaland East	10.0	67.0	17.3	29.9	16.5
Mashonaland West	13.2	72.4	21.8	33.9	19.4
Matabeleland North	6.0	81.7	36.9	44.8	28.2
Matabeleland South	5.6	70.8	19.4	32.1	17.8
Midlands	13.1	67.0	18.5	30.1	16.9
Masvingo	11.5	63.7	13.8	27.6	14.6
Bulawayo	3.3	34.5	3.4	11.4	5.1
Harare	9.0	35.7	3.3	10.6	4.6
All Zimbabwe	**100.0**	**62.6**	**16.2**	**27.7**	**15.2**

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke α=1 and α=2 measures, respectively (see Ravallion, 1992 for details). These indices are computed using the upper poverty line (the TCPL). Prevalence of poverty refers to the percentage of households whose consumption expenditures per capita fall below the upper poverty line (the TCPL). Extreme poverty refers to households below the lower line (the FPL).

Outside of Harare and Bulawayo, the lowest incidence of household poverty is found in Masvingo province (63.7 percent). Patterns of people in poverty by province follow those of household poverty but at higher levels, (table 2.8).

Table 2.8: Prevalence of Poor and Severely Poor People and Distribution of Poor People by Province

Province	Prevalence (%) of		Poverty indices	
	Poor people	Very poor people	Poverty gap index	Poverty severity index
Manicaland	80.0	25.1	38.8	22.2
Mashonaland Central	82.7	28.3	41.3	24.1
Mashonaland East	75.9	23.3	36.0	20.6
Mashonaland West	80.1	29.2	40.3	24.0
Matabeleland North	89.9	49.0	53.3	35.2
Matabeleland South	82.5	29.4	40.8	23.9
Midlands	76.7	25.0	36.8	21.5
Masvingo	73.8	19.2	34.0	18.8
Bulawayo	43.2	5.5	15.0	7.0
Harare	43.7	4.3	13.2	5.9
All Zimbabwe	**72.3**	**22.5**	**34.1**	**19.6**

Source: PICES 2011 The poverty gap and the severity indices are the Foster, Greer and Thorbecke $\alpha=1$ and $\alpha=2$ measures, respectively (see Ravallion, 1992 for details). These indices are calculated using the upper poverty line.

The geographic pattern of poverty is partly explained by the degree of rurality, land quality in rural areas, and proximity to major urban centres. As seen above, poverty is far worse in rural areas, and the overall level of poverty is positively related, (holding other factors equal), to the proportion of the provincial population living in rural areas.

The major cities have lower prevalence of poverty than the other provinces, which are predominantly rural, and the patterns of poverty across the large cities are similar. Bulawayo is slightly better off than Harare in terms of prevalence of poverty while Harare is better off in terms of incidence of extreme poverty, poverty gap index and poverty severity index (see table 2.7). Harare has, however, a large percentage of households whose monthly consumption falls between the two poverty lines (the TCPL and the FPL), since the measured prevalence of poverty drops dramatically when the lower line is used in place of the upper line. This drop indicates a bunching of household consumption expenditures between the two poverty lines, and the potential to change each measure of poverty fairly dramatically in case of a change (upward or downward in well-being).

These findings illustrate the importance of clarifying one's objectives when measuring poverty or when deciding upon a poverty reduction policy. The different dimensions of poverty (depth, severity, and prevalence) differ in urban areas, and it becomes difficult to determine where poverty is "worse" unless one clarifies which dimensions of poverty are important. If a distributionally neutral increase in income occurs, then the measured prevalence of poverty among households in Harare is likely to drop quickly. A large number of households whose consumption expenditures are right below the TCPL will be lifted out of poverty. The use of all indicators together leads to an equal emphasis on the two cities, as poverty levels are roughly equal in them.

A simulation exercise is conducted to observe the changes in poverty prevalence following a 10 percent increase in per capita consumption expenditures in each household and province. It is assumed that there is a 10 percent increase in per capita expenditures in each household in Zimbabwe. Then using the poverty lines and the new per capita consumption expenditures information on poverty prevalence and the percentage of poor households is recomputed. The percentage changes are then computed between the simulation table 2.9 and original table 2.7. This helped to examine how much poverty prevalence changed as a result of a 10 percent increase in consumption expenditures.

The results of the simulation exercise has indicated that poverty prevalence in Zimbabwe would drop by 4.6 percentage points to 58.0 percent from 62.6 percent currently being reported (see table 2.9). If the above scenario occurs, all provinces would register a decline of poverty prevalence by a magnitude ranging from 2.8 percent in Matabeleland North to 6.3 percent in Harare province. Bulawayo province registers a fall in poverty prevalence of 4.7 percent. Similar declines are noted on extreme poverty, poverty gap and poverty severity indices across provinces. It is, however, notable that the problem in Matabeleland North province is that consumption expenditures are so low that the equal proportional increment does little to reduce poverty. After a 10 percent increase in per capita consumption expenditures Matabeleland North still has the highest household poverty prevalence of 78.9 percent. The household poverty prevalence in the rest of the provinces drops to levels below 70 percent except Mashonaland Central province.

Table 2.9: Simulation Model Results: Prevalence of Household Poverty and Poverty indices by Province; Following a 10 Percent Increase in Per Capita Consumption Expenditures in Households

| Province | Percent poor households before simulation (1) | Percent poor households after simulation (2) | Prevalence of (%) | | |
			Poverty before simulation (1)	Poverty after simulation (2)	Percent change in poverty prevalence (2-1)
Manicaland	17.4	17.6	70.6	66.4	-4.2
Mashonaland Central	10.9	11.2	75.4	71.8	-3.6
Mashonaland East	10.0	10.1	67.0	62.5	-4.5
Mashonaland West	13.2	13.4	72.4	68.4	-4
Matabeleland North	6.0	6.3	81.7	78.9	-2.8
Matabeleland South	5.6	5.7	70.8	66.6	-4.2
Midlands	13.1	13.1	67.0	61.9	-5.1
Masvingo	11.5	11.6	63.7	59.1	-4.6
Bulawayo	3.3	3.1	34.5	29.8	-4.7
Harare	9.0	8.0	35.7	29.4	-6.3
All Zimbabwe	**100.0**	**100.0**	**62.6**	**58.0**	-4.6

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke α=1 and α=2 measures, respectively (see Ravallion, 1992 for details). These indices are computed using the upper poverty line (the TCPL). Prevalence of poverty refers to the percentage of households whose consumption expenditures per capita fall below the upper poverty line (the TCPL). Extreme poverty refers to households below the lower line (the FPL).

Table 2.10 shows the poverty prevalence by province in urban areas of Zimbabwe. When urban areas are considered, Harare province has the highest percentage of households that are poor, 41.4 percent. Mashonaland Central has the highest prevalence of poverty of 50.3 percent while Masvingo province has the lowest urban poverty prevalence of 21.4 percent.

Table 2.10: Household Poverty Prevalence by Province and by Urban Areas

Province	Percent poor households	Prevalence of poverty	Prevalence of extreme poverty	Poverty gap index	Poverty severity index
Manicaland	9.0	43.6	5.5	15.8	7.6
Mashonaland Central	3.8	50.3	9.2	19.1	9.8
Mashonaland East	3.6	43.5	5.5	15.2	7.1
Mashonaland West	11.9	50.1	7.1	18.3	8.9
Matabeleland North	2.4	49.7	6.4	19.0	9.5
Matabeleland South	2.2	44.0	1.7	12.4	4.9
Midlands	8.6	37.7	3.0	11.4	5.0
Masvingo	2.0	21.4	0.6	5.6	2.2
Bulawayo	15.2	34.5	3.4	11.4	5.1
Harare	41.4	35.7	3.3	10.6	4.6
Total	**100.0**	**38.2**	**4.0**	**12.3**	**5.6**

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke α=1 and α=2 measures, respectively (see Ravallion, 1992 for details). These indices are calculated using the upper poverty line.

2.7   Characteristics of Poor Households

Poor households in Zimbabwe are characterised by high dependency ratios, and, on average, older heads of households are associated with higher prevalence of poverty than younger heads of households (table 2.11). Households deemed poor in Zimbabwe, have a dependency ratio of 0.48, which is 17 percentage points more dependents per worker compared to non-poor households. In rural areas, poor households have a dependency ratio of 0.50 per household which is slightly higher than the dependency ratio in urban poor households.

Poor households in Zimbabwe have a mean size of 4.8 members per household, while extremely poor households have on average household size of 6.2 members. Mean household sizes for the rural poor is 4.8 members while the non-poor households in rural areas have a mean size of 3.1 members. The extremely poor households in rural areas have larger household members than the extremely poor households in urban areas.

Table 2.11: Dependency Ratios and Age of Household Head, by Poverty Status

Poverty status	Dependency ratio	Mean household size	Children under the age of 6	Mean age of household head
National	**0.42**	**4.4**	**0.78**	**44.8**
Non-poor	0.31	3.3	0.43	43.2
Poor	0.48	4.8	0.87	45.3
Extremely poor	0.54	6.2	1.29	47.2
Rural	**0.47**	**4.7**	**0.84**	**47.1**
Non-poor	0.35	3.1	0.39	46.0
Poor	0.50	4.8	0.85	47.3
Extremely poor	0.55	6.3	1.30	47.9
Urban	**0.33**	**4.0**	**0.66**	**40.5**
Non-poor	0.28	3.5	0.47	41.2
Poor	0.41	4.8	0.93	39.5
Extremely poor	0.48	5.6	1.27	39.1

Source: PICES 2011. Poor households are those below the upper poverty line (the TCPL), and poorest have consumption expenditures below the lower poverty line (the FPL). Dependence ratios here are the mean dependency ratio for households in the particular poverty group. So dependency ratios here refer to the mean dependency ratio (i.e. number of dependants divided by the total number of household members) for households in a particular poverty group. For example, the rural poor dependence ratio is the sum of household dependency ratios (for poor households) divided by the number of poor households. This is somewhat different from the way demographers traditionally compute these ratios.

Household structure is closely associated with poverty, in both rural and urban areas. In urban areas, poor and extremely poor households have larger household sizes than non-poor households (see table 2.11). There are no large differences in the ages of the head of households by poverty status in urban areas. Household heads are older in rural areas for all types of poor households. In rural Zimbabwe, extremely poor households tend to be headed by slightly older people compared with poor households. This disparity in age of the head by household poverty status is further symptomatic of a dependency problem. Older household heads are associated with higher incidence of poverty and higher dependency ratios particularly in rural areas.

2.8   Sex of Household Head

Sex of the household head is important in the measurement of well being as it influences the ability of the household to source income. Wage income, in rural areas for example, can be more accessible to men than it is to women. Household headship also influences access to assets such as land that have a direct bearing on the poverty status of a household. According to the PICES 2011/12 survey male-headed households constitute about 65 percent of all households in Zimbabwe while 35 percent of the total households are female-headed (see table 2.12).

Table 2.12: Percent Distribution of Households of Different Sizes by Sex of Head of Household

Size of household	Zimbabwe		
	Males	Females	All
	%	%	%
1	58.9	41.1	100.0
2	52.4	47.6	100.0
3	60.2	39.8	100.0
4	66.7	33.3	100.0
5	69.2	30.8	100.0
6	68.4	31.6	100.0
7	70.9	29.1	100.0
8	72.2	27.8	100.0
9 +	71.1	28.9	100.0
Total	**64.6**	**35.4**	**100.0**

Source: PICES 2011

Female household heads can be classified as dejure or defacto heads. De-facto female headship means that the woman is head of the household because her husband is temporarily absent. Dejure female household heads are the usual heads of the household normally identified by marital status such as divorced/separated or widowed. This distinction has implications on prevalence of poverty. Households that are headed by de-facto females may be better off than de-jure female heads of household because they might receive remittances from absent spouses while the female de-jure heads have to stand on their own.

From table 2.13 it can be noted that the prevalence of poverty among male-headed and female-headed households is almost the same at 62.9 percent and 62.0 percent respectively. Although the prevalence of poverty among male and female headed households is the same in Zimbabwe huge differences are observed in those heads classified as divorced or widowed. The highest prevalence of poverty of 68.9 percent is observed in female-headed widowed households compared to 54.7 percent for male headed widowed households. The poverty prevalence for divorced female-headed households is 49.5 percent compared to 35.6 percent poverty prevalence for divorced male-headed households.

The extreme poverty and poverty severity indices are slightly higher for the never-married male-headed households compared to never-married, female-headed households in Zimbabwe. The prevalence of poverty and extreme poverty are lower for divorced and widowed male-headed households compared to the same marital categories for female-headed households. The never-married group of female-headed households experience far lower poverty indices than the other marital status categories in female headed households.

Overall incidence of extreme poverty is 17.0 percent in male-headed households compared to 14.7 percent in female-headed households (see table 2.13). A similar pattern was observed on the poverty gap and severity indices. These points illustrate the danger of targeting poverty-reduction programs by headship alone. Clearly, female-headed households are worse off on average, but there is substantial poverty among male-headed households and heterogeneity of poverty among female-headed households. The concepts "homogeneity" and "heterogeneity" are concepts relating to the uniformity in a substance. A material that is homogeneous is uniform in composition or character; one that is heterogeneous is distinctly non-uniform in one of these qualities.

De-facto female-headed households have the second highest prevalence of poverty 61.6 percent and extreme poverty 13.7 percent among female-headed households (after widowed female-headed households), see table 2.13. The depth and severity indices also show these households to be suffering from high levels of poverty. This is consistent with earlier findings for the nation as a whole.

Large differences are found in the prevalence, depth, and severity of poverty among de-jure (divorced and widowed) female-headed households, depending on the type of female headship. Female widows are clearly worse off, while divorced and never-married female household heads tend to be far less poverty prone. The widows usually have no one to turn to, compared to women in other categories. There is substantial heterogeneity among female-headed households, and targeting any programme based on household headship alone will be imperfect.

Table 2.13: Household Poverty by Household Headship-Total Zimbabwe

	Prevalence (%) of		Poverty indices	
Headship	Poverty	Extreme Poverty	Poverty gap index	Poverty severity index
Male-headed	**62.9**	**17.0**	**28.1**	**15.6**
Defacto	65.7	18.1	29.6	16.5
Dejure				
-Divorced	35.6	7.3	14.1	7.3
-Widowed	54.7	12.2	22.9	12.3
Never Married	30.8	4.6	11.8	5.9
Female headed	**62.0**	**14.7**	**26.8**	**14.5**
Defacto	61.6	13.7	26.3	14.1
Dejure				
-Divorced	49.5	10.8	20.9	11.3
-Widowed	68.9	17.9	30.6	16.8
Never Married	34.4	4.0	11.9	5.7

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke $\alpha=1$ and $\alpha=2$ measures, respectively. These indices were computed using the upper poverty line.

In the rural areas, the prevalence of poverty among male-headed households of 76.7 percent is marginally higher than that of female headed households of 75.0 percent (table 2.14). However, when comparison is made on prevalence of poverty among the defacto,

divorced and widowed male and female-headed households the results were mixed. Households headed by widowed women in rural areas are most likely to be poor compared to female-headed households in other marital status categories. About 77.8 percent of widowed female-headed rural households are poor while 21.9 percent are extremely poor. The prevalence of poverty among defacto (married) female-headed rural households 73.9 percent is lower than that of widowed female-headed households of 77.8 percent. Poverty prevalence also varies by type of head and is in some cases lower for rural female-headed households compared to rural male-headed households. For instance, the prevalence of poverty in rural areas is higher for defacto male-headed households (79.7 percent) than it is for defacto female-headed households (73.9 percent), see table 2.14.

Probably the biggest factor determining the high rate of poverty prevalence among de-facto female-headed households is their overwhelming tendency to be found in rural areas. Because rural poverty is so widespread, the group of households with much higher likelihood of being found in rural areas is also the group most likely to be poor. These households are constrained by far fewer earning opportunities than households in urban areas. Headship affects the potential to source earnings, but does not overcome differences due to geography.

Table 2.14: Household Poverty by Household Headship, Rural Areas

| Headship | Prevalence (%) of | | Poverty Indices | |
	Poverty	Extreme Poverty	Poverty gap index	Poverty severity index
Male-headed	**76.7**	**24.6**	**37.2**	**21.4**
Defacto	79.7	26.3	39.0	22.6
Dejure				
-Divorced	45.5	8.1	18.4	9.5
-Widowed	66.3	15.8	28.9	15.9
Never married	41.3	7.7	17.1	9.0
Female headed	**75.0**	**20.2**	**34.4**	**19.2**
Defacto	73.9	18.8	33.5	18.4
Dejure				
-Divorced	71.1	19.8	34.1	19.5
-Widowed	77.8	21.9	36.0	20.1
Never married	50.4	9.6	20.6	10.9

Source: 2011/12 PICES. The poverty gap and the severity indices are the Foster, Greer and Thorbecke $\alpha=1$ and $\alpha=2$ measures, respectively. These indices were computed using the upper poverty line.

In urban areas, the prevalence of poverty in male and female-headed households across marital status categories is markedly lower than those of rural areas (table 2.15). Those types of female-headed households that are worse off in rural areas (defacto and widowed female headed households) have far lower levels of poverty in urban areas with poverty indices being 33.4 percent and 39.3 percent respectively.

Table 2.15: Household Poverty by Household Headship-Urban Areas

Headship	Prevalence (%) of		Poverty indices	
	Poverty	Extreme poverty	Poverty gap index	Poverty severity Index
Male-headed	**40.2**	**4.5**	**13.2**	**6.1**
Defacto	42.8	4.7	14.1	6.5
Dejure				
-Divorced	16.5	5.6	5.8	3.2
-Widowed	21.2	1.7	5.5	2.1
Never married	19.3	1.1	5.9	2.4
Female headed	**33.7**	**2.9**	**10.3**	**4.5**
Defacto	33.4	2.1	9.9	4.1
Dejure				
-Divorced	30.3	2.9	9.1	4.0
-Widowed	39.3	4.4	12.8	5.9
Never married	23.8	0.2	6.1	2.1

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke $\alpha=1$ and $\alpha=2$ measures, respectively. These indices were computed using the upper poverty line. Note: means few observations in the cell.

2.9   Employment and Income Sources

Access to employment for the household head is closely associated with household poverty status. In rural and urban areas, households headed by own-account workers are most likely to be affected by a high poverty incidence. Casual or temporary employees, similarly suffer from high rates of poverty. Households headed by a permanent paid employee or by an employer have the lowest likelihood of being poor. Clearly, households headed by communal farmers suffer from the greatest poverty prevalence, 81.8 percent, while households headed by an employer have a poverty prevalence of 32.0 percent, (table 2.16). This is mainly because households in communal lands are not generating enough incomes to cover their consumption expenditures. As expected, rural areas experience higher poverty incidence than urban areas across the various main employment activities.

Table 2.16: Prevalence of Household Poverty by Main Activity of Household Head

Main activity	Place of residency		
	Rural	Urban	All Zimbabwe
Permanent paid employee	41.8	28.0	32.6
Casual/temporary employee	66.0	46.6	53.3
Employer	32.0*	4.4*	8.6*
Communal farmer	81.8	72.2	81.7
Resettlement farmer	80.3	-	80.3
Other own-account worker	72.6	46.8	52.3
Other	72.9	39.2	49.8

Source: PICES 2011. Prevalence refers to the percentage of households whose consumption expenditures per capita fall below the upper poverty line. *Small number of cells for employers in rural areas make the prevalence difficult to interpret.

Households headed by government workers are least likely to be poor or extremely poor in both rural and urban areas (table 2.17). Similarly in rural and urban areas households headed by parastatal workers are more likely to experience higher prevalence of poverty compared to households headed by government workers. The prevalence of poverty in households headed by a government worker is 25.5 percent in rural areas compared to 23.8 percent in urban areas. This disparity in poverty prevalence could be explained by the fact that urban government workers tend to have secondary sources of income compared to rural government workers. Hence poverty incidence levels in urban areas also tend to be lower. The impact of government employment on poverty status is relatively stronger in urban areas than it is in rural areas. It is noted that prevalence of extreme poverty is very unlikely (0.7 percent) among households headed by a government worker in urban areas compared to 2.5 percent for households in rural areas. Apart from this, the poverty prevalence for rural communal farmer is 81.8 percent compared to an incidence of 53.8 percent for the rural parastatal worker. Government workers tend to be paid equally in urban or rural areas. Parastatal workers are more likely to be well compensated if they live and work in urban centres, but are still more likely to be poor than government workers in urban areas.

Households headed by someone who is employed in the private sector or formal sector are less likely to be poor than households headed by an informal sector worker in both rural and urban areas.

Table 2.17: Prevalence of Household Poverty by Sector of Employment of the Household Head

Employment type	Rural		Urban	
	Poor	**Extremely poor**	**Poor**	**Extremely poor**
Communal farmer	81.8	26.4	72.5	14.3
Resettlement farmer	80.3	21.1	-	-
Own account worker other	72.6	21.8	46.8	5.5
Government worker	25.5	2.5	23.8	0.7
Parastatal worker	53.8	7.5	25.1	3.5
Private sector	56.1	10.2	35.8	2.8
Formal sector	56.0	11.1	32.6	2.3
Informal sector	82.0	26.4	51.2	7.1

*Source: PICES 2011. Government workers include Central and Local government workers; parastatals include cooperative employees; formal sector includes registered establishments; informal sector includes unregistered establishments. *Few observations were observed.*

The impact on poverty of household access to employment in a "formal" sector is strong. In the PICES survey households members working in the formal sector consist of those working in the establishments such as central and local government, quasi-corporations, parastatals, or private companies, and registered cooperatives. Household members working in the informal sector are those who were working in household enterprises which were neither registered nor licensed.

Given these definitions it is observed that if any member of the household (not just the head) is employed in one of the formal sectors, the household prevalence of poverty would be 30.8 percent for all Zimbabwe, 40.1 percent for rural areas and 26.8 percent for urban areas (table 2.18). For households without access to formal employment, the prevalence of poverty is 69.9 percent for all Zimbabwe, 79.5 percent for rural areas and 44.8 percent for urban areas, respectively. All the indices of household poverty are much lower for households with at least one member having formal sector employment compared to households without a member having formal sector employment.

Table 2.18: Household Poverty Indices by Household Member's Employment

| Employment status | Prevalence (%) of | | Poverty indices | |
	Poverty	Extreme poverty	Poverty gap index	Poverty severity index
At least one household member with formal employment				
Rural areas	40.1	4.5	14.2	6.7
Urban areas	26.8	1.6	7.6	3.1
All Zimbabwe	30.8	2.5	9.6	4.2
No member with formal employment				
Rural areas	79.5	24.7	38.3	21.9
Urban areas	44.8	5.3	15.1	7.0
All Zimbabwe	69.9	19.3	31.8	17.8

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke $\alpha=1$ and $\alpha=2$ measures, respectively. These indices were computed using the Upper poverty line. Formal sector means that household has at least one member with Government, parastatal, or formal sector employment.

Consistent with the above findings, households whose head receives his/her main source of earnings from salaries and wages are less likely to be poor in Zimbabwe compared to other main sources of income. The main sources of income in Zimbabwe are salaries and wages, gifts and transfers, income from own business, communal or resettlement farming and other sources. The prevalence of poverty among households whose main source of income is salaries and wages is 40.9 percent, while the prevalence of extreme poverty is 5.6 percent (see table 2.19). As expected, households that earn most of their money from communal farming are the poorest, and have the deepest and most severe poverty. The incidence of poverty for households engaged in communal farming is 83.2 percent with extreme poverty levels of 28.0 percent and a poverty gap index of 41.0 percent. Households whose head relies on gifts and transfers are also likely to be poor and extremely poor, while households whose head is an owner of business have lower poverty incidences but which are slightly above those earning salaries and wages. Poverty prevalence in households whose head's main source of income is gifts and transfers is 69.8 percent with an extreme poverty incidence of 16.1 percent. The incidence of poverty of households headed by someone owning a business is 51.0 percent with the extreme poverty index dropping to 8.4 percent. The evidence at this point is that own account employment, whether in the formal or informal sector, is associated with lower levels of poverty.

Table 2.19: Household Poverty Indices by Household Head's Main Source of Household Income; Zimbabwe

| Main source of income | Prevalence (%) of | | Poverty Indices | |
	Poverty	Extreme poverty	Poverty gap index	Poverty severity index
Salary and wages	40.9	5.6	14.7	7.1
Gifts and transfers	69.8	16.1	30.4	16.4
Own business	51.0	8.4	18.9	9.5
Communal farming	83.2	28.0	41.0	23.9
Resettlement farming	80.8	21.7	38.0	21.0
Other	53.8	12.0	22.2	11.8

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke α=1 and α=2 measures, respectively. These indices were computed using the upper poverty line.

In rural areas, poverty is more prevalent in households that depend mainly on communal farming (83.5 percent), while households that depend on gifts and transfers have a poverty prevalence of 72.3 percent as shown in table 2.20. Households in rural areas whose main source of income is salaries and wages have a lower prevalence of poverty being 53.3 percent compared to other main sources of income categories.

Table 2.20: Household Poverty Prevalence by Main Source of Household Income, Rural Areas

| | Rural areas | | | |
| | Prevalence (%) of | | | |
Main source of income	Poverty	Extreme poverty	Poverty gap index	Poverty severity index
Salary and wages	53.3	10.5	22.3	11.6
Gifts and transfers	72.3	17.1	32.0	17.3
Own business	69.2	19.2	31.5	17.7
Communal farming	83.5	28.2	41.2	24.1
Resettlement farming	80.9	21.7	38.0	21.0
Other	75.5	23.6	36.2	20.8

Source: PICES 2011. Poor refers to households whose per-capita consumption expenditures are below the upper poverty line (the TCPL). Very poor households are below the lower line (the FPL).

In urban areas, poverty is most prevalent, 62.3 percent among households that depend mostly on communal farming, see table 2.21. However, poverty is more prevalent among communal farmers in rural areas, (83.5 percent) compared to communal farmers found in urban areas. The reason for lower poverty prevalence for communal farmers residing in urban areas is that there are more opportunities of earning secondary sources of income in urban areas compared to communal farmers residing in rural areas. As previously reported, poverty is lowest, 33.7 percent in urban households whose main source of income is salaries and wages.

Table 2.21: Household Poverty Prevalence by Main Source of Household Income, Urban Areas

| Main Source of Income | Urban areas | | | |
| | Prevalence (%) of | | | |
	Poverty	Extreme poverty	Poverty gap index	Poverty severity index
Salary and wages	33.7	2.9	10.3	4.5
Gifts and transfers	40.8	5.1	13.0	6.2
Own business	46.1	5.5	15.5	7.2
Communal farming	62.3	10.6	24.0	12.5
Resettlement farming	-	-	-	-
Other	39.9	4.6	13.3	6.1

Source: PICES 2011. Poor refers to households whose per-capita consumption expenditures are below the upper poverty line (the TCPL). Very poor households are below the lower line (the FPL).

In general, poverty is more prevalent (73.6 percent) in households with no salaried worker as compared to those with a salaried worker (41.9 percent), see table 2.22. The prevalence of poverty among household heads that have no salary or wage is as expected higher in rural areas 81.3 percent compared to urban areas, 55.9 percent.

Table 2.22: Prevalence of Household Poverty and Extreme Poverty by Whether any Household Member Avails of Salaries and Wages

| Area of residence | Salaried/wage worker | | | |
	Poverty	Extreme poverty	Poverty gap index	Poverty severity Index
Rural	55.9	11.1	23.2	12.1
Urban	33.2	2.9	10.2	4.5
Zimbabwe	**41.9**	**6.1**	**15.2**	**7.4**
Area of residence	No salaried/wage worker			
	Poverty	Extreme poverty	Poverty gap index	Poverty severity Index
Rural	81.3	26.0	39.5	22.8
Urban	45.8	5.5	15.4	7.2
Zimbabwe	**73.6**	**21.6**	**34.3**	**19.4**

Source: PICES 2011. Cells contain prevalence of household poverty depending on whether any member of the household has salaries or wages as a main source of income.

2.10   Food Security

At the national level, poor households spent slightly less than half (47.6 percent) of their money on food while non-poor households spent only 31.6 percent of their budget on food (see table 2.23). The same pattern is observed across rural areas with poor households spending 51.8 percent of their budget on food while the non-poor households spent 41.9 percent on food. In urban areas poor households spent 32.3 percent of their budget on food compared to 24.4 percent for non-poor households. The proportion of the total consumption budget allocated to food by a household determines what it allocates to other non food consumption items. The larger the share of budget a household allocates to food, the less budget space it has to accommodate other non food expenditures such as health, education, transport, clothing, etc. It is noted that higher food shares are associated with higher prevalence of poverty, whilst lower food shares were associated with lower prevalence of poverty. It is observed that borrowing by households has the impact of smoothing consumption expenditures.

Of the total expenditures on food, the shares spent on maize which is the staple food in Zimbabwe, ranged between 9.6 percent for non-poor households in urban areas to 18.7 percent for poor households living in rural areas. Poor households allocated the bigger shares to maize than non-poor households. This is probably because non-poor households can afford other starch alternatives such as rice, potatoes, and pasta. These alternatives, however, cost more than maize.

Own-production of maize and reliance on non-market purchased foods is markedly higher for the poor households compared to the non-poor households. About 14.7 percent of total food consumption by the rural poor comes from own-production, while 56.0 percent of their total food budget comes from non-market sources. This high percentage of non market food reflects a number of factors: First, the poor in rural areas might be less sensitive to changes in market prices, because much of the food they eat comes from non-market sources, particularly own consumption. Even non-poor households in rural areas receive 45.6 percent of their total food expenditures from non-market sources while 10.7 percent emanates from own production of maize. Second, it is important to examine the income side of the equation and determine the net sales position of the rural poor. If they sell large quantities of maize and other products, increases in maize prices may benefit them over time. This position is examined to the degree possible in chapter 3 on rural poverty and agriculture.

Table 2.23: Food Shares and Own-Production by Poverty Status by Rural and Urban Areas

	Rural			Urban			All Zimbabwe		
Shares	**Non-poor**	**Poor**	**Total**	**Non-poor**	**Poor**	**Total**	**Non-poor**	**Poor**	**Total**
Food shares	41.9	51.8	49.4	24.4	32.3	27.4	31.6	47.6	41.6
Maize shares	13.9	18.7	17.5	9.6	14.4	11.5	11.0	17.3	14.6
Own-prodn/maize	10.7	14.7	13.9	7.0	9.8	8.2	10.2	14.6	13.6
Non-market food	45.6	56.0	53.6	13.2	16.6	14.6	31.9	50.6	44.8

Source: PICES 2011. **Food shares** *are total (market and non-market) value of food consumption divided by total consumption; maize shares are the share of maize consumption in total food consumption; own-production is the share of maize consumption in total food consumption; and non-market food is the share of own-production, gifts and transfers, and payments in kind in the total value of food consumption.*

Third, subsidies for consumption of basic food that were utilised through the early 1990s did not benefit rural areas as much as they benefited urban consumers. Rural households, and especially the rural poor purchase much smaller quantities of maize and other basic foodstuffs than do urban consumers, and the subsidies thus transferred much more income to the urban consumers.

The maize shares of the poor and the shares of own-maize consumption in total maize consumption varies seasonally, as shown in figure 2.3. Differences between poor and non-poor rural households in the seasonal profile are not that great, but the poor seem to begin consumption of their harvest at an earlier date than do the non-poor. On one hand, this early consumption of own-produce might be due to desperation on the part of the poor; they cannot afford to wait for a mature harvest. On the other hand, it might just reflect earlier results showing that rural poverty tends to be found in the drier regions of the country where the harvest season begins earlier than in the high-rainfall zones. Households living in drier regions of Zimbabwe are also negatively affected by low productivity and their areas are often prone to food-insecurity.

The rural poor are clearly more vulnerable to maize price increases during the earlier months of the year (January through May), when their own food stocks are depleted and they rely on markets for purchase of food.

Figure 2.3: Percent Rural Maize Shares by Month by Poverty Category
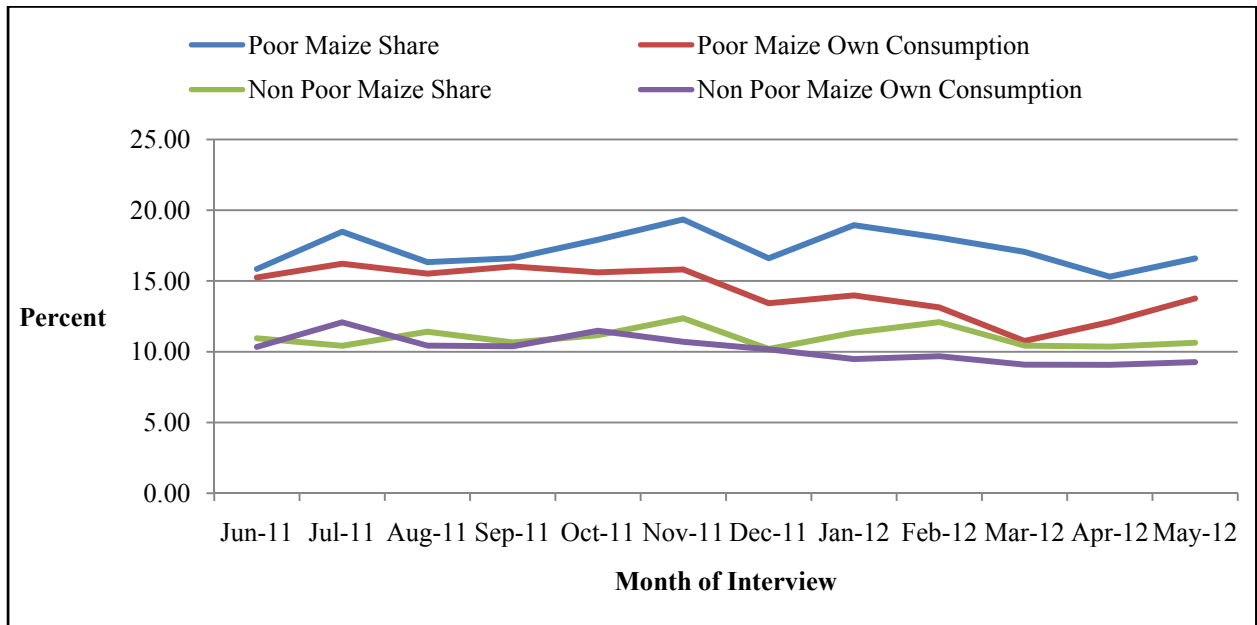
Source: PICES 2011.

The contribution of food shares to total household consumption expenditures in poor households is persistently above 43 percent in most months of the year and ranged from 43.0 percent in June 2011 to 50.6 percent in April 2012 (see figure 2.4). The high food shares also reflect the high poverty prevalence. However, the monthly food shares by non-poor households remained stable and ranged from 29.7 percent in July 2011 to 34.1 percent each in February 2012. This shows that the non poor households spend a smaller proportion of their budget on food compared to the poor households.

Figure 2.4: Percent of Rural Food Shares by Month by Poverty Category
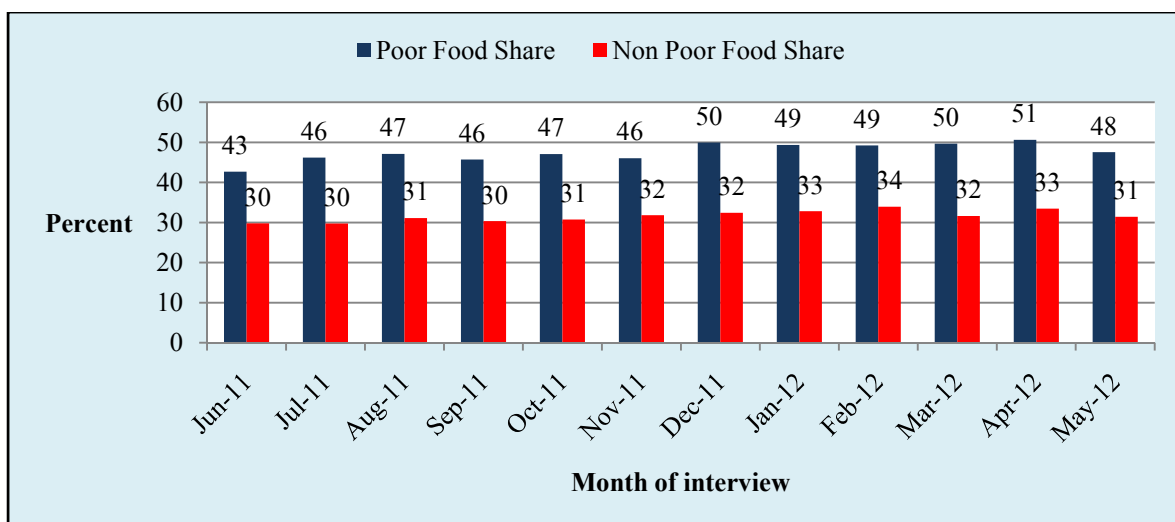
Source: PICES 2011

2.11   Asset Ownership and Poverty

Ownership of certain assets is widespread in Zimbabwe, and patterns of ownership follow expectations, as non-poor households are more likely to own key assets than the poor and very poor households. About 40.6 percent of all Zimbabwean households report owning a radio, while 34.2 percent own a stove and 23.2 percent own a bicycle. Only 5.5 percent own an automobile (table 2.24).

Bicycle ownership is not closely associated with poverty status, although the poor households are slightly more likely to own bicycles than are the non-poor and very poor. About 23.5 percent of non-poor households report owning a bicycle, compared to 24.2 percent for the poor and 19.5 percent for the extremely poor households. Television ownership follows a similar pattern, with relatively higher percentages of non-poor households reporting owning a television compared to the other household assets. A relatively high proportion of poor households in Zimbabwe own a television 41.4 percent while only 11.4 of the extremely poor own a television. About 37.1 percent of the poor and 28.6 percent of the extremely poor own a radio.

Table 2.24: Percentage of Households Owning Selected Assets, by Poverty Status; Zimbabwe

	Poverty Status of the Household			
Percent owning	Non-poor	Poor	Extremely Poor	All Zimbabwe
Radio	50.1	37.1	28.6	40.6
Television	65.0	32.9	11.4	41.4
Refrigerator	40.7	9.6	1.6	19.9
Stove	60.3	23.3	5.1	34.2
Heater	16.7	2.9	0.5	7.7
Bicycle	23.5	24.2	19.5	23.2
Automobile	12.4	1.7	0.1	5.5

Source: PICES 2011. Poor households have consumption expenditures below the upper poverty line (TCPL), while the extremely poor are below the lower poverty line (FPL).

Asset ownership more clearly distinguishes poor and non-poor households in rural areas compared to urban areas (table 2.25). Much of the ownership patterns noted above are related to the much higher prevalence of poverty in rural areas, and the fact that rural electrification is limited in Zimbabwe. Far smaller percentages of rural households own assets such as televisions, refrigerators, etc., and the rural poor have a few of these assets. The rural non-poor are 7 times as likely as the poor to own a refrigerator and 5 times each as likely to own an automobile and a heater as the poor. Very few poor households in any location, in fact, own automobiles.

In urban areas, ownership of refrigerators, heaters and automobiles most clearly distinguishes poor from non-poor households. About 18 percent of urban non-poor households own automobiles, while 61.9 percent own refrigerators. Large percentages of

urban poor households own televisions and stoves, but ownership of all these assets is much more likely for non-poor households. The urban non-poor households are five times more likely to own a motor vehicle than the urban poor households. Roughly equal percentages of poor and non-poor households own bicycles in both rural and urban areas.

Table 2.25: Percentage Household Ownership of Assets by Poverty Status, Rural and Urban Areas

Asset	Rural			Urban		
	Non-poor	Poor	Extremely Poor	Non-poor	Poor	Extremely Poor
Radio	43.6	37.5	28.6	54.7	36.1	28.6
Television	31.4	17.7	7.8	88.5	75.5	49.3
Refrigerator	10.3	1.5	0.4	61.9	32.3	13.6
Stove	15.7	3.6	1.0	91.6	78.7	48.5
Heater	3.2	0.7	0.0	26.2	9.2	5.6
Bicycle	28.1	25.5	19.5	20.2	20.3	19.4
Automobile	5.2	1.0	0.1	17.5	3.8	-

Source: PICES 2011. Poor households have per-capita consumption expenditures that are below the upper poverty line (the TCPL). Very poor households are below the lower line.

There are major differences in use of energy by poor and non-poor households in Zimbabwe (table 2.26) and these differences are partly due to the higher prevalence of poverty in rural areas compared to urban areas. Nationally, 75.3 percent of non-poor households have access to electricity, while 44.9 percent of poor households have access to electricity.

Table 2.26: Energy Sources by Household Poverty Status for All Zimbabwe (Percent Households With Access to Source).

Energy sources	All Zimbabwe		
	Non-poor	Poor	Extremely Poor
Access to electricity	75.3	44.9	23.3
Cooking fuel			
Wood or coal	41.6	79.0	95.2
Electricity or gas	56.2	19.2	3.7
Other	1.9	1.7	1.0

Source: PICES 2011. Poor households have per-capita consumption expenditures below the upper poverty line (the TCPL). Extremely poor households have per capita consumption expenditures that fall below the lower line.

In urban areas, the difference between poor and non-poor households in the access of electricity is, however, much smaller. About 83.1 percent of urban poor households claim to have access to electricity whilst 95.9 percent of the urban non-poor households have access to electricity (table 2.27). In contrast, in rural areas, 46.0 percent of non-poor and only 31.2 percent of the poor have access to electricity. In rural areas, almost all the poor households use firewood to cook, while 88.7 percent of the non-poor cook with

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wood fuel. Use of firewood to cook by the poor households is extensive throughout Zimbabwe since nationally 79.0 percent of the poor cook with wood fuels whilst 95.2 percent of the extremely poor use wood as the main source of energy for cooking (table 2.26).

Such extensive use of firewood for cooking places pressure on natural resource bases, particularly in peri-urban areas surrounding major cities. The implication of extensive usage of wood for cooking is deforestation and the related impacts such as soil erosion and siltation of rivers and dams. This will also result in shortage of building materials and hence the need to strengthen policies on afforestation and seeking alternative sources of energy for cooking and lighting, such as solar energy. Besides extensive cutting down of natural forests by households mainly residing in rural areas, the persistent and unnecessary starting of fires in resettlement and other rural areas have caused untold damages to Zimbabwe's natural vegetation, household property and animals. It is also noted that the recent growth in the number of small holder tobacco farmers has placed much pressure on indigenous and exotic forests as new tobacco farmers require large amounts of fuel to cure tobacco. Alternative sources of energy such as coal, need to be availed for tobacco farmers particularly those in remote places. Lack of firewood will soon become a poverty issue to grapple with unless proper conservation measures are put in place to stop rampant destruction of forests by veld fires.

Table 2.27: Energy Sources by Household Poverty Status for Rural and Urban Zimbabwe (Percent Households With Access to Source)

	Rural			Urban		
Energy sources	**Non-poor**	**Poor**	**Extremely poor**	**Non-poor**	**Poor**	**Extremely poor**
Access to electricity	46.0	31.2	20.2	95.9	83.1	56.1
Cooking fuel						
Wood or coal	88.7	98.2	99.4	8.6	25.2	51.5
Electricity or gas	10.6	1.6	0.3	88.2	68.6	38.5
Other	0.7	0.2	0.3	2.8	6.1	8.4

Source: PICES 2011. Poor households have per-capita consumption expenditures below the upper poverty line (the TCPL).Extremely poor households have per capita consumption expenditures that fall below the lower line.

Housing

Housing living conditions provide another means of identifying poor households in rural areas and urban areas. Overall, 76.9 percent of poor households reside in their own dwelling units, while non-poor households are split among the other tenure types (table 2.28). Much of this relationship, however, is due to the rural/urban distribution of poor households. In rural areas, especially in resettlement areas and communal lands, virtually all poor households reside in their own dwelling units. In urban areas, there are only minor differences in tenure patterns by poverty status. About 25.8 percent of the urban poor households claim to own dwelling units, while 36.2 percent of the non-poor have their own dwelling units.

Table 2.28: Distribution of Household Tenure Status, by Urban/Rural and Poverty Status (Percentage of Households in Each Class)

	Rural areas		Urban areas		All Zimbabwe	
Tenure status	Non-poor	Poor	Non-poor	Poor	Non-poor	Poor
Owner/purchaser	69.2	91.1	36.2	25.8	49.8	76.9
Tenant or lodger	4.0	1.0	41.3	51.0	25.9	11.9
Tied accommodation	25.2	6.6	12.2	10.8	17.6	7.5
Other	1.6	1.3	10.4	12.5	6.8	3.8
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: PICES 2011. Poor households have per-capita consumption expenditures below the upper poverty line (the TCPL).

In rural areas, the non-poor are extremely unlikely to occupy traditional dwelling types, while the rural poor rarely live in flats or townhouses. In urban areas, the non-poor are more likely to live in detached and/or semi-detached housing compared to the poor (see table 2.30).

Table 2.29: Type of Dwelling by Household Poverty Status in Percentages; for All Zimbabwe (Percent Households Living in Each Dwelling Type)

	All Zimbabwe		
Dwelling	Non-poor	Poor	Extremely poor
Traditional	9.4	36.0	52.2
Mixed	20.9	37.2	36.5
Detached	49.1	17.8	7.6
Semi-detached	16.4	7.4	3.0
Flat/townhouse	3.8	1.4	0.6
Other	0.5	0.3	0.1
Total	**100.0**	**100.0**	**100.0**

Source: PICES 2011. Poor households have per-capita consumption expenditures below the upper poverty line (the TCPL).Extremely poor households have per capita consumption expenditures that fall below the lower line.

Table 2.30: Type of Dwelling by Household Poverty Status in Percentages for Rural and Urban Areas

	Rural			Urban		
Dwelling	Non-poor	Poor	Extremely poor	Non-poor	Poor	Extremely poor
Traditional	22.4	45.7	57.0	0.3	1.0	2.4
Mixed	48.6	47.0	39.6	1.43	2.1	3.5
Detached	19.5	5.2	2.5	69.8	63.3	62.0
Semi-detached	7.7	1.7	0.7	22.5	28.2	27.2
Flat or townhouse	1.6	0.5	0.2	5.4	4.6	4.5
Other	0.3	0.1	0.1	0.6	0.8	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: PICES 2011. Poor households have per-capita consumption expenditures below the upper poverty line (the TCPL).Extremely poor households have per capita consumption expenditures that fall below the lower line.

2.12   Summary of Findings

This chapter has discussed the measures of well being and welfare. The per capita consumption expenditure approach is adopted in measuring poverty incidence in Zimbabwe. Comparison of well being mainly use the per capita consumption expenditure indices combined with other measures of well being such as household characteristics, asset ownership and access to social services. The analysis on poverty reveals that poverty is far worse in rural areas than in urban areas of Zimbabwe. It is observed that 62.6 percent of Zimbabwean households were deemed poor whilst 16.2 percent of the households were in extreme poverty. Poverty is more widespread and prevalent in rural Zimbabwe. It is shown that 76.0 percent of the rural households were poor compared to 38.2 percent in urban areas. Poverty also varied significantly among households across provinces and within provinces. Matabeleland North province has the highest prevalence of household poverty (81.7 percent) and extreme poverty (36.9 percent). Incidence of poverty in Zimbabwe is further analyzed according to the sex of head of household, employment and income sources, asset ownership and housing characteristics. All these non money metric methods have helped to highlight the poverty situation in Zimbabwe and this information is useful for policy planning and formulation.

3 Sectoral profile of poverty in Zimbabwe

3.1   Introduction

Poverty is not uniformly distributed throughout Zimbabwe. Differences in patterns and severity of poverty emerge based on degree of rurality, the type of land use and agro-ecological conditions such as rainfall and soil quality. In addition, poor households have differential access to productive assets, rely on different livelihood strategies, and have different attainments of human capital and other assets. Access to public services such as educational services and health care distinguish the poor from others. In order to formulate an effective poverty reduction strategy, it is necessary to understand the relationships between poverty status and household location, other household characteristics, access to assets and services, degree of dependence on different livelihood strategies, and other key correlates of poverty. This section of the report examines some of these relationships.

3.2   Rural Poverty and Agriculture

Of all the poor households in the rural parts of the country, Manicaland has the highest proportion of poor households, (19.7 percent), followed by Midlands with 14.4 percent, and Masvingo 14.2 percent. The households that are poor in Matabeleland North and Matabeleland South provinces constitute 7.1 percent and 6.6 percent respectively of the total rural Zimbabwe households (see table 3.1). Geographically, provinces with the highest percent of poor households share boundaries. Manicaland province shares a boundary with Masvingo, while Masvingo shares its boundary with Midlands province. These provinces are more densely populated than Matabeleland North province where poverty prevalence is worse. When all the rural provinces are compared, Matabeleland North province has the highest prevalence of poverty, constituting 87.0 percent of the total households in the province. This is followed by Mashonaland West and Mashonaland Central provinces with household poverty prevalence of 81.3 percent and 78.7 percent respectively. The differences in household poverty prevalence among rural provinces, is influenced by rainfall patterns and soil types which determine the types of crops which are produced. The provinces with higher poverty prevalence also tend to have some sections of their land being semi-arid and characterized by low productivity.

Table 3.1: Household Poverty in Percentages by Province in Rural Zimbabwe

Province	Percent poor households	Household prevalence of (%)			
		Poor	Extremely poor	Poverty gap index	Poverty severity index
Manicaland	19.7	76.6	21.6	20.0	35.9
Mashonaland Central	12.9	78.7	23.7	21.5	37.9
Mashonaland East	11.8	70.2	18.9	17.7	32.0
Mashonaland West	13.5	81.3	27.7	23.5	40.1
Matabeleland North	7.1	87.0	41.9	31.3	49.0
Matabeleland South	6.6	75.1	22.2	19.8	35.2
Midlands	14.4	77.0	23.8	21.0	36.5
Masvingo	14.2	68.9	15.5	16.2	30.3
Total	**100.0**	**76.0**	**22.9**	**20.6**	**36.1**

Source: 2011PICES.

The prevalence of poverty across different land use sectors also differed as shown in table 3.2. Rural poverty is most prevalent in communal land (CL) (79.4 percent) followed by resettlement areas (RA) with 76.4 percent. Extreme poverty is most prevalent in CLs with 25.8 percent and 20.0 percent for RAs. The prevalence of poverty in communal lands may be attributed to the lack of financial and material resources needed to engage in meaningful productive agricultural activities.

Table 3.2: Rural Household Poverty Prevalence by Land Use Sector

Land use area	Prevalence (%) of		Prevalence (%) of	
	Poverty	Extreme poverty	Poverty gap index	Poverty severity index
Communal lands	79.4	25.8	22.4	38.7
Small scale commercial farms	56.2	10.5	11.3	22.2
Large scale commercial farms	60.7	11.9	13.3	25.3
Resettlement areas	76.4	20.0	19.5	35.5

Source: PICES 2011.

3.3   Household Size and Poverty in Rural Areas

The table below (table 3.3) shows the distribution of household sizes by land use sector in rural Zimbabwe. The average household size in rural areas is 4.7 persons with communal lands and resettlement areas having average household sizes of 4.8 and 5.1 persons respectively. Both large and small scale commercial farms have an average household size of 4.1 persons and 4.6 persons respectively. The land use sectors such as communal lands and resettlement areas which have the highest household sizes also tend to have higher prevalence of poverty, as shown in table 3.3.

Table 3.3: Distribution of Households by Size and Rural Land Use Sector

Household size	Communal lands	Small scale commercial farms	Large scale commercial farms	Resettlement areas	Total rural areas
	(%)	(%)	(%)	(%)	(%)
1	5.5	7.5	13.9	5.2	6.7
2-3	23.7	32.2	29.0	21.4	24.4
4-5	36.6	28.7	34.7	34.8	36.0
6-7	22.7	21.7	15.5	23.4	21.8
8+	11.4	9.9	7.0	15.2	11.2
Total	100.0	100.0	100.0	100.0	100.0
Mean size	**4.8**	**4.6**	**4.1**	**5.1**	**4.7**

Source: PICES 2011. Household size is a count of reported number of members.

In general, as the household size increases, the prevalence of poverty also increases, (table 3.4). Larger households are more likely to be poor and more likely to be found in resettlement areas and communal lands. The prevalence of poverty among households of more than 8 persons in small scale commercial farms and large scale commercial farms was 88.3 percent and 87.3 percent respectively. Similarly, all the households of size 8 and above in communal lands, and resettlement areas are virtually all poor, with poverty prevalence of 96.7 percent and 93.2 percent respectively.

Table 3.4: Prevalence of Household Poverty by Size and Rural Land Use Sector

	Household prevalence of poverty (%)			
Household Size	Communal lands	Small scale commercial farms	Large scale commercial farms	Resettlement areas
1	20.7	8.6*	10.8	13.5
2-3	63.2	38.7	48.6	61.6
4-5	85.3	61.3	75.2	79.5
6-7	92.5	77.2	83.5	88.3
8+	96.7	88.3*	87.3	93.2
Total	**79.4**	**56.2**	**60.7**	**76.4**

*Source: PICES 2011. Poverty refers to the proportion of households whose per capita consumption expenditure values fall below the upper poverty line. * Means few observations.*

The dependency scenario in rural areas is similar to that for Zimbabwe as a whole. Rural poor households are characterised by much higher dependency ratios compared to non-poor households, and dependency is highest for the poorest households (table 3.5). There are also notable differences in patterns of household dependency across land use areas. Non-poor households in LSCF areas are likely to be single-person households and as soon as a dependent is present, there is a much higher likelihood of poverty occurring in

the household. Large scale commercial farms have the lowest dependency ratios in all poverty categories compared to other land use sectors. The low dependency ratios among large scale commercial farmers helps explain lower rates of per capita consumption poverty in these areas. Dependency ratios increase as poverty increases in all land use sectors. It is noted that the magnitude of dependency across poverty categories on resettlement areas and communal lands are close. The dependency ratio for the poor living in communal lands is 51 percent compared to 48 percent for the poor households residing in resettlement areas. The same pattern is depicted on the dependency ratios for the extremely poor households in both resettlement and communal lands. As expected extremely per capita poor households have, on average, more dependents than the non-poor across all land use sectors.

Table 3.5: Dependency Ratio by Poverty Status in Rural Areas

Land use sector	Non-poor	Poor	Extremely poor
Communal lands	0.39	0.51	0.50
Small scale commercial farms	0.32	0.47	0.41
Large scale commercial farms	0.23	0.43	0.36
Resettlement areas	0.36	0.48	0.46
All rural areas	**0.35**	**0.50**	**0.55**

Source: PICES 2011. Poor household per capita values fall below the upper poverty line and above the lower line. Extremely poor households have per capita values that fall below the lower line. Dependency ratios here are the mean dependency ratio (number of dependants divided by the total number of household members) for households in the particular poverty group.

3.4   Employment, Incomes, and Wealth

The vast majority of rural workers are communal and resettlement farmers or unpaid family workers. In rural areas, communal and resettlement farmers and unpaid family workers constitute 84.1 percent of the economically active population, see figure 3.1. These economic activities, found mostly in rural areas, are most likely to be associated with higher poverty. In communal lands, the prevalence of poverty for households engaged in communal and resettlement farming is 83.0 percent compared to 80.3 percent in resettlement areas, see table 3.6. There are few permanent paid employees in rural areas constituting 7.0 percent of the economically active population, see figure 3.1. It is important to recognize that the PICES interviewed many workers and employees than employers on commercial farms since a few farm owners are captured during the sampling of commercial farming areas.

Figure 3.1: Percent of Economically Active Persons Aged 15 Years and Above by Economic Activity in Rural Areas in the Last 7 Days
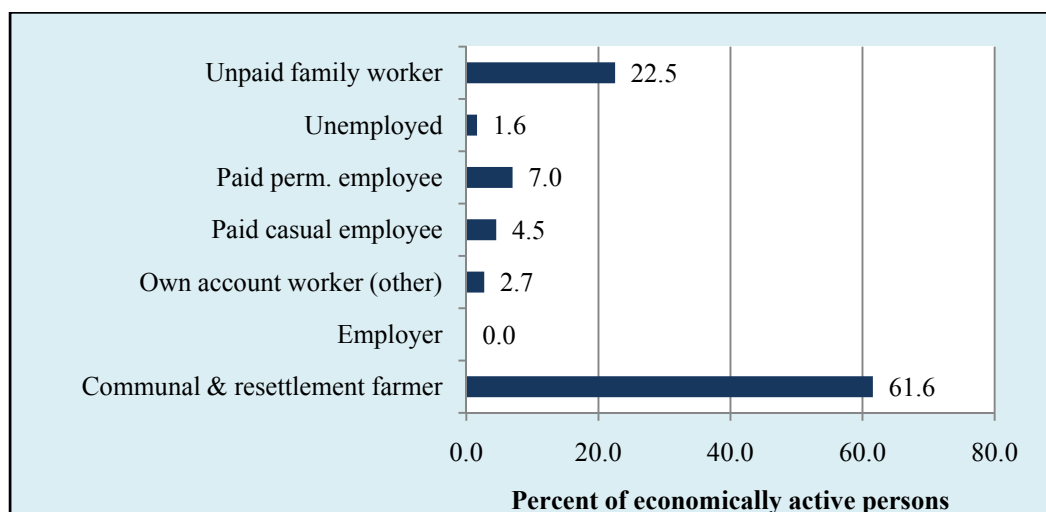
Table 3.6: Prevalence of Household Poverty by Main Activity of the Household Head, Rural Zimbabwe

| Main activity | Percent households poor by land use | | | |
	Communal lands	Small scale commercial farms	Large scale commercial farms	Resettlement areas
Permanent paid employee	31.1	37.1	49.2	40.7
Casual/temporary employee	64.6	72.4*	66.4	66.7
Employer	57.2*	-	11.1*	76.4*
Communal/resettlement farmer	83.0	65.5	68.7	80.3
Other own account-worker	73.9	28.9*	70.2	73.2
Other (e.g. unemployed)	75.8	44.6*	71.1	67.6

*Source: PICES 2011. *Refers to small numbers of observations in the cells, and should be interpreted cautiously. Poor households have per capita consumption expenditure values that fall below the upper poverty line.*

As previously observed in the urban areas of Zimbabwe, the poverty status of rural households is closely associated with the main source of employment of the head of household. A household whose head has communal or resettlement farming as a main activity is much more likely to be poor or extremely poor than a household headed by a permanent or even casual employee (table 3.6). Households headed by a communal/resettlement farmer have the highest prevalence of poverty 83.0 percent compared to other heads of households across land use sectors. Households headed by a permanent paid employee are less likely to be poor compared to households that are headed by casual or temporary employees. Prevalence of poverty among household heads who were employers was lowest in large scale commercial farms, 11.1 percent. It has also been established that households headed by members in the other main economic

activity category such as a retired person in rural areas, are more likely to be poor in all land use areas due to lack of a sustainable source of income.

3.5 Asset Ownership in Rural Areas

Households in rural areas tend to store their wealth in livestock. Households in all land use areas, on average, own more poultry than other types of livestock. Ownership of sheep and goats is not significantly different among all land use sectors (table 3.7). Cattle ownership does not vary much by land use, but poultry ownership does. Households in both small scale and large scale commercial farms own more poultry on average, 15 poultry per household than other land use areas. Households residing in resettlement farms own, on average 10.7 poultry per household compared to 8.9 for households in communal lands. Households residing in small scale commercial farms own on average 4.2 cattle per household compared to 2.3 cattle per household for those households living in communal lands.

Table 3.7: Livestock Ownership by Land Use Sector

	Mean household ownership (number of heads)			
Livestock	Communal lands	Small scale commercial farms	Large scale commercial farms	Resettlement areas
Cattle	2.3	4.2	3.2	2.9
Poultry	8.9	15.2	15.3	10.7
Pigs	3.2	6.0	4.1	4.5
Sheep	4.9	6.0	8.7	5.4
Goats	4.7	6.6	6.6	5.3
Other livestock	4.4	3.8	6.2	4.7

Source: PICES 2011.

A close association is observed between ownership of livestock and poverty in all land use sectors (table 3.8). Ownership of cattle is an indicator that a household is less likely to be poor in all areas. In SSCFs, poor households have mean holdings of cattle of 3.8 per household compared to 4.6 per household in non-poor households. This finding might be an indicator of type of farm and more in-depth analysis is necessary before conclusions can be drawn. In RAs, cattle ownership is close again for poor and non-poor households with 2.7 and 3.5 per household respectively. It is noted that poultry ownership varies significantly between poor and non-poor households in all land use areas. Poultry ownership ranges from 8.5 per household in poor households living in communal lands to 25.4 per household for the non-poor households living in large scale commercial farms.

Table 3.8: Livestock Ownership by Land Use Sector and Household Poverty Status (Number of Heads)

Livestock	Communal lands		Small scale commercial farms		Large scale commercial farms		Resettlement areas	
	Non-poor	Poor	Non-poor	Poor	Non-poor	Poor	Non-poor	Poor
Cattle	2.6	2.2	4.6	3.8	4.0	2.8	3.5	2.7
Poultry	10.8	8.5	18.6	12.6	25.4	10.7	12.4	10.3
Pigs	4.5	2.9	5.1	7.1	5.8	3.0	4.9	4.3
Sheep	4.9	4.9	7.2	5.3	11.3	7.6	5.6	5.2
Goats	5.6	4.5	7.0	6.3	8.4	5.8	6.3	5.0
Other livestock	5.2	4.2	4.9	3.2	6.6	6.0	5.5	4.4

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line.

Substantial variation in productive asset ownership is observed across land use types in rural Zimbabwe (table 3.9), but ownership of productive assets is not closely associated with rural poverty. Households in RAs are fairly well-endowed with productive assets, such as ploughs, scotch carts and wheel barrows. The ownership of tractors and grinding mills across land use sectors is low in rural Zimbabwe and the highest ownership of tractors of 3.0 percent is reported in small scale commercial farms whilst the lowest ownership of tractors of 0.7 percent is shown in communal lands.

Bicycle ownership is highest in large scale commercial farms 36.7 percent and lowest in communal lands, 21.5 percent. However, ownership of bicycles might allow households better access to off-farm opportunities in rural areas, and thus can be a source of higher incomes.

Table 3.9: Percentage of Households Owning Productive Assets in Rural Areas, by Land Use Sector

Percent owning	CL	SSCF	LSCF	RA
Plough	50.2	55.1	18.3	56.6
Tractor	0.7	3.0	1.3	2.0
Bicycle	21.5	33.5	36.7	30.1
Scotch-cart	24.0	35.2	11.6	35.7
Wheelbarrow	33.2	42.9	15.3	30.9
Grinding mill	0.8	1.2	0.8	1.8
Cultivator	10.1	29.4	6.4	17.4

Source: PICES 2011

Many assets have been accumulated by rural households over a long period of time, yet ownership of productive assets does not automatically assure that a household is not poor. In particular, in small scale commercial farms, poor households constituting 56.0 percent are more likely to own a plough compared to the non-poor with 54.0 percent, see table 3.10. The same pattern of plough ownership is noted for the poor and non-poor households living in communal lands and in large scale commercial farms. If plough ownership is an indication of specialization, then poor households might be more completely specialized in agriculture than non-poor households. Ownership of scotch-carts and wheelbarrows in communal lands is, however, associated with lower likelihoods of poverty. Specialization in agriculture is associated with higher rates of poverty in commercial farming areas, but farmers with more productive assets in CLs and RAs are less likely to be poor (table 3.10).

Table 3.10: Productive Asset Ownership, Prevalence of Poverty and Land Use Sector, Rural Zimbabwe

Percent owning	**Prevalence of poverty and land use**							
	CL		**SSCF**		**LSCF**		**RA**	
	Non-poor	**Poor**	**Non-poor**	**Poor**	**Non-poor**	**Poor**	**Non-poor**	**Poor**
Plough	50.1	50.2	54.0	56.0	18.1	18.4	56.9	56.5
Tractor	0.8	0.7	4.6	1.8	2.5	0.6	3.1	1.7
Bicycle	25.2	20.5	33.0	33.8	34.5	38.2	30.4	30.0
Scotch-cart	28.6	22.8	40.4	31.1	11.5	11.7	39.3	34.6
Wheelbarrow	43.2	30.6	51.3	36.3	18.6	13.2	38.1	28.7
Grinding mill	1.2	0.7	1.3	1.1	1.5	0.4	3.0	1.5
Cultivator	14.9	8.9	37.2	23.4	8.8	4.9	22.1	15.9

Source: PICES 2011. Poor households have per capita values that fall below the upper poverty line.

Table 3.10 also shows that the prevalence of poverty for poor households owning bicycles in large scale commercial farms was 38.2 percent compared to 33.8 percent for poor bicycle owners in small scale commercial farms.

3.6 Health and Poverty

The information presented previously on agriculture shows that poverty in Zimbabwe is extensive and deep. Poverty in Zimbabwe is closely related to household characteristics, including household size, dependency, health, location and livelihood strategy. In order to formulate effective anti-poverty strategies within the health industry, it is necessary to understand how health status and access to health care infrastructure is related to household poverty. In this section of the report, we examine the relationship between household poverty and: (i) health status, (ii) access to health care treatment, and (iii) barriers to treatment. We also investigate access to sanitation and potable water by poverty category and place of residence.

Self-reporting of illnesses varies by location in Zimbabwe and by household poverty status. For all Zimbabwe, people from poor and severely poor households are more likely to report being ill compared to the non-poor. Those from extremely poor households are most likely to report suffering from an illness, regardless of whether they live in urban or rural areas (table 3.11). Although the differences in illness reporting are relatively small, they indicate that people from poor households are more likely to be ill than the non-poor. Non-poor and poor people in rural areas are more likely to report being ill in the past month than their counterparts in urban areas, but the extremely poor in urban areas are more likely to suffer from illness than the extremely poor residing in rural areas. These differences may be due to differences in access to clean water and modern sanitation by socioeconomic stratum, which will be investigated below.

Table 3.11: Prevalence (%) of Reported Illness by Poverty Status for Those Reporting an Illness, Zimbabwe

Percentage	Rural	Urban	All Zimbabwe
Non-poor	20.9	13.4	16.3
Poor	19.1	15.8	18.3
Extremely poor	17.3	20.5	17.5

Source: PICES 2011. Poor households have per capita values that fall below the upper poverty line and above the lower line. Extremely poor households have per capita values that fall below the lower line.

When ill the poor and poorest people in Zimbabwe are slightly more likely to seek treatment in a public health facility than are the non-poor (table 3.12). About 50.5 percent of the poorest people, who are ill, use public health facilities for treatment, while 43.7 percent of the non-poor go to such facilities. Non-poor people are most likely to substitute health care provided in a public health facility for the services of private clinics. About 18.8 percent of non-poor people who are ill, sought help in a private clinic, while 10.8 percent of the poor and 8.0 percent of the extremely poor, seek help from private health care facilities. Roughly equal percentages of people from each poverty group do not seek any health care, but the poor are more likely not to seek care than the non-poor, most probably due to lack of funds.

Table 3.12: Method of Treatment of Illness, by Poverty Status, for Those Reporting an Illness, Zimbabwe

Percentage	Public health facility	Traditional healer	Private clinic	None	Total
Non-poor	43.7	1.7	18.8	35.7	100.0
Poor	48.5	3.0	10.8	37.7	100.0
Extremely poor	50.5	4.3	8.0	37.3	100.0
Total	**47.7**	**3.0**	**12.2**	**37.1**	100.0

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line and above the lower line. Extremely poor households have index values that fall below the lower line.

Poor and extremely poor households in *rural areas* are almost equally likely to attend public health facilities when ill (table 3.13). Approximately 50 percent of all rural residents who reported being ill, seek treatment in a public health facility. Access to public health facilities is important for all segments of the society in rural areas. The rural poor and the rural severely poor are less likely to seek treatment in a private clinic when they are ill compared to the non-poor. Private clinics in rural areas mostly serve few households (16.0 percent) who are non-poor (table 3.13). This result reflects the relative scarcity of private health care facilities in rural Zimbabwe, and also shows that the poor are vulnerable to cuts in public spending in health care.

Table 3.13: Method of Treatment of Illness for Rural Households, by Poverty Status, for Those Reporting an Illness

Percentage	Public health facility	Traditional healer	Private clinic	None	Total
Non-poor	47.7	3.3	16.0	32.9	100.0
Poor	50.0	3.6	10.7	35.7	100.0
Extremely poor	51.0	4.6	8.0	36.4	100.0
Total	**49.9**	**0.4**	**10.9**	**35.4**	**100.0**

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line and above the lower line. Extremely poor households have index values that fall below the lower line.

In *urban areas*, 39.8 percent of the non-poor households who are ill, go to public facilities, while 43.5 percent of the poor and 44.9 percent of extremely poor, respectively seek treatment in a public facility (table 3.14). Treatment rates in urban areas suggest that the poorest of the poor are not seeking health-care assistance in public health facilities. Furthermore, relatively high proportions (45.8 percent) of the extremely poor in urban areas do not seek treatment for their illnesses.

Provision of free primary care services has benefited all rural Zimbabweans who are relatively intensive users of public health facilities. In all areas, the poor benefit relatively more than the non-poor from government expenditures on public health services. In urban areas, the non-poor substitute public facilities for private clinics, but few poor and extremely poor households are treated in private facilities (table 3.14).

Although the re-introduction of fees in hospitals and clinic helps to boost funds in the health sector the high percentage of none use of hospital facilities could be a result of financial barriers to use.

Table 3.14: Method of Treatment of Illness for Urban Households, by Poverty Status

Percentage	Public health facility	Traditional healer	Private clinic	None	Total
Non-poor	39.8	0.2	21.6	38.5	100.0
Poor	43.5	1.2	10.9	44.4	100.0
Extremely poor	44.9	1.1	8.2	45.8	100.0
Total	**41.8**	**0.7**	**15.9**	**41.6**	**100.0**

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line and above the lower line. Extremely poor households have index values that fall below the lower line.

The finding that poor households benefit more from public health expenditures has several implications for policy. First, all households are affected by quality of service within the public sector, and will benefit from improvements in quality and suffer from cutbacks. Second, public health spending does not appear to be well targeted (from a poverty perspective). A greater proportion of benefits in health care can be made to flow to the poor through improved targeting, such as through means testing. *A means test is a determination of whether an individual or family is eligible for help from the government, based upon whether the individual or family possesses the means to do without that help.* The means testing should be conducted at public clinics, since the non-poor are almost as likely to use public clinics as the poor. Third, given some of the cutbacks that might result from government cash budgeting and the challenges posed by the AIDS epidemic, improved targeting might be desirable. Cost-savings through enhanced targeting could be channeled into providing better access to the rural poor who face many constraints to access to health care.

Fairly large differences are observed in access to and use of health facilities for the treatment of illnesses in rural Zimbabwe (table 3.15). Residents in small scale commercial farms have substantially less access to public health facilities (42.1 percent) than residents of other areas, particularly communal lands (50.7 percent), resettlement areas (49.9 percent) and large scale commercial farms (46.1 percent). The extremely poor residents in large scale commercial farms have the least access to public health facilities (37.3 percent). The non-poor households living in large commercial farming areas are most likely to use both private clinic facilities, and public health facilities compared to the poor and extremely poor in the same land use sector. Almost equal access, to public facilities for the poor and extremely poor are found in communal lands and resettlement areas. The proportion of residents who do not use any health facilities is highest among poor households living in small scale commercial farms 47.2 percent. Residents across poverty categories living in SSCF areas, who report being ill, are also least likely to seek treatment from traditional healers 1.6 percent compared to residents living in resettlement areas 6.2 percent. In communal lands, SSCFs, and resettlement areas access to public health facilities benefits the poor more than the non-poor, but in LSCF's, the non-poor benefit more than the poor and the extremely poor in having access to public health facilities.

Table 3.15: Method of Treatment Sought by Poverty Status and Land Use Sector

Percentage	Public health facility	Traditional healer	Private clinic	None	Total
Communal lands	**50.7**	**3.7**	**10.1**	**35.6**	**100.0**
Non-poor	47.5	2.5	15.0	35.0	100.0
Poor	50.8	3.6	10.1	35.4	100.0
Extremely poor	52.0	4.3	7.5	36.3	100.0
SSCF	**42.1**	**1.6**	**13.1**	**43.2**	**100.0**
Non-poor	41.2	2.4	18.3	38.1	100.0
Poor	39.1	1.1	12.6	47.2	100.0
Extremely poor	57.7	2.1	2.9	37.3	100.0
LSCF	**46.1**	**2.7**	**16.8**	**34.4**	**100.0**
Non-poor	52.3	1.9	19.6	25.8	100.0
Poor	45.5	2.2	16.1	36.3	100.0
Extremely poor	37.3	5.5	14.2	43.0	100.0
Resettlement areas	**49.9**	**6.2**	**10.0**	**33.8**	**100.0**
Non-poor	43.4	10.2	14.9	31.6	100.0
Poor	50.9	4.8	9.2	34.9	100.0
Extremely poor	52.2	6.7	8.3	32.8	100.0

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line and above the lower line. Extremely poor households have index values that fall below the lower line.

Very small proportions of people from all poverty categories in Zimbabwe claim that distance to the health service provider is the main constraint preventing them from seeking treatment for their illness (table 3.16). The main barrier preventing people from seeking treatment for their illness is cost. Poor and extremely poor households are slightly more likely than the non-poor to claim distance is the main reason for not seeking treatment. Only 3.9 percent of the poor and 4.3 percent of extremely poor, compared to 2.9 percent of the non-poor households, blame distance as the reason for not seeking treatment. The non-poor are most likely to use home treatment 47.5 percent while the poor and the extremely poor are more likely to claim that they cannot afford treatment, (37.0 percent and 41.9 percent respectively). This finding may help explain the positive association between illness and household expenditure found above. The poor are less likely to claim to be ill than the non-poor. Although the non-poor households are more likely to claim an illness, many of these reported health problems are probably minor and do not require professional treatment.

Table 3.16: Reason for Not Seeking Medical Treatment for People Who Were Ill But Did Not Treat Their Illness, Zimbabwe

Percentage	Too far	Cannot afford	Home treatment	Religion	Not necessary	Other	Total
Non-poor	2.9	26.2	47.5	3.1	17.9	2.5	100.0
Poor	3.9	37.0	34.4	4.1	18.6	2.0	100.0
Extremely poor	4.3	41.9	28.4	7.8	15.8	1.9	100.0

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line and above the lower line. Extremely poor households have index values that fall below the lower line.

The extremely poor are more likely than people in the other poverty categories to claim that inability to afford treatment is the main reason for not seeking treatment for an illness. Nationally, 41.9 percent of the extremely poor identified this financial barrier to treatment, compared to 37.0 percent of the poor and 26.2 percent of the non-poor (table 3.16.) This is consistent with the 2001 analysis, which similarly showed that the poor faced financial barriers to illness. In 2001 about 26 percent of the extremely poor claimed that they could not afford treatment compared to 20 percent of the poor. It is also consistent with deterioration in access to health care since the 1990s when financial barriers were less problematic for the poor. The figures above show that the there are more poor people who cannot afford treatment in 2011 compared to 2001.

In *rural areas* of Zimbabwe, distance to health service providers is a more important barrier to health care compared to urban areas. Affordability is a problem in both rural areas and urban areas, and it tends to be more of a problem particularly for the poor and the extremely poor. About 40.9 percent of the extremely rural poor did not receive treatment because they could not afford it, compared to 26.4 percent for non-poor and 35.7 percent for poor rural residents (table 3.17). In both rural and urban areas, home treatment is the most common avenue to deal with illnesses instead of seeking outside treatment.

Table 3.17: Reason for Not Seeking Medical Treatment for People Who Were Ill But Did Not Treat Their Illness, Rural Zimbabwe

Percentage	Too far	Cannot afford	Home treatment	Religion	Not necessary	Other	Total
Non-poor	6.0	26.4	38.9	4.0	21.4	3.3	100.0
Poor	5.1	35.7	33.9	4.9	18.0	2.5	100.0
Extremely poor	4.8	40.9	28.3	8.1	15.9	2.0	100.0

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line and above the lower line. Extremely poor households have per capita values that fall below the lower line.

About 0.3 percent of the non-poor people in urban areas, who did not seek treatment, claimed that distance to the facility prevented them from doing so, while 6.0 percent of the rural non-poor identified distance as a problem, see table 3.18 and table 3.17 respectively. About 49.6 percent of the extremely urban poor residents did not receive

treatment because they could not afford it, compared to 26.0 percent for the non-poor and 40.6 percent for poor urban residents (table 3.18). Urban non poor households are more likely to seek home treatment than rural households as they have better access and ability to pay for medicines from health or retail outlets. About 54.6 percent of the non-poor in urban areas seek home treatment compared to 38.9 percent for the non-poor living in rural areas. In general people usually suffer from minor ailments but the non-poor are more likely to buy their own medication from shops and pharmacies compared to the poor. Moreover, 35.7 percent of the urban poor households compared to 33.9 percent for rural households seek home treatment. Affordability of public health care appears to be a more important problem for the poor households in *urban* Zimbabwe.

Table 3.18: Reason for Not Seeking Medical Treatment for People Who Were Ill But Did Not Treat Their Illness, Urban Zimbabwe

Percentage	Too far	Cannot Afford	Home treatment	Religion	Not necessary	Other	Total
Non-poor	0.3	26.0	54.6	2.3	15.0	1.8	100.0
Poor	0.3	40.6	35.7	2.0	20.5	0.8	100.0
Extremely poor	-	49.6	29.5	5.6	15.3	-	100.0

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line and above the lower line. Extremely poor households have per capita values that fall below the lower line.

3.7   Housing and sanitation

Access to good-quality housing, clean drinking water and sanitation facilities affects the overall well being of households and particularly their health status. Poor quality housing and water and sanitation services not only indicate poor living conditions but also help perpetuate the vicious cycle of poverty. Inadequate living conditions are associated with more frequent illness, malnutrition, and overall discomfort.

Sanitation is clearly better in urban areas compared to rural areas. Flush toilets are almost exclusively found in urban areas (90.7 percent), while 40.1 percent of households in rural areas have no toilet at all (table 3.19). About 79.1 percent of households in urban areas have access to piped water inside or outside the house, compared to only 5.5 percent of rural households. About 35 percent of rural households rely on water supplies that are unsafe, which according to the Ministry of Health conventions include; unprotected wells, rivers and dams. About 2.3 percent of urban households have access to unsafe water.

Table 3.19: Percent Access to Sanitation by Urban and Rural Areas

Place of residence			
Type of facility	**Rural areas**	**Urban areas**	**All Zimbabwe**
	% households	**% households**	**% households**
Toilet			
Flush	3.2	90.7	34.3
Blair toilet	31.1	4.4	21.6
Pit latrine	24.3	2.9	16.7
None	40.1	0.9	26.2
Other	1.3	1.0	1.2
Total	100.0	100.0	100.0
Water source			
Piped inside house	1.5	33.4	12.8
Piped outside house	4.0	45.7	18.8
Communal tap	4.7	3.7	4.3
Protected well/borehole	55.0	15.0	40.7
Unprotected well	23.7	1.8	15.9
River/stream/dam	10.7	0.1	6.9
Other	0.5	0.4	0.4
Total	100.0	100.0	100.0

Source: PICES 2011

In rural areas, dwelling units in communal lands and resettlement areas are least likely to have good quality sanitation and water. The worst living conditions are in resettlement areas with 42.9 percent of households reporting having no toilet facilities while 42.8 percent receive their water from unprotected wells or a surface water supply such as rivers, streams or dams (table 3.20). In contrast, large scale commercial farming areas seem to be bestowed with reasonably good water supplies and sanitation. Conditions in communal lands are similar to those of resettlement areas with 43.4 percent of the households having no toilet facilities while 34.8 percent use water for cooking and drinking from unsanitary sources.

Access to safe water in large scale commercial farms of 71.9 percent is far better than the rural average of 65.2 percent while 49.0 percent of the households have either a flush or Blair toilet. On average, households in large scale commercial farming areas have the best sanitation as 16.2 percent of the households have flush toilets, while 59.9 percent have access to Blair toilets or pit latrines. Households living in small scale commercial farms also have better access to high-quality sanitation services compared to households in communal lands or resettlement areas. About 65 percent of households in small scale commercial farms have access to Blair and pit latrines compared to 54.4 percent for households in communal lands and 54.8 percent for households living in resettlement areas. However, households in communal lands have far above rural average access to protected wells and boreholes while households in commercial farms and resettlement areas have below average access to the same facilities.

Table 3.20: Percent Access to Safe Water and Sanitation by Land Use, Rural Households, Zimbabwe

Land use sector					
Type of facility	**CL**	**SSCF**	**LSCF**	**RA**	**Total rural areas**
	%	%	%	%	%
Toilet					
Flush	0.9	8.3	16.2	1.2	3.2
Blair toilet	31.0	45.0	32.8	27.2	31.1
Pit latrine	23.4	19.8	27.1	27.6	24.3
None	43.4	26.6	22.3	42.9	40.1
Other	1.4	0.3	1.6	1.1	1.3
Total	100.0	100.0	100.0	100.0	100.0
Water source					
Access to safe water	**65.2**	**63.5**	**71.9**	**57.3**	**65.2**
Piped inside house	0.8	5.7	5.2	0.8	1.5
Piped outside house	1.8	8.4	17.1	1.8	4.0
Communal tap	1.2	5.5	24.6	3.1	4.7
Protected well/borehole	61.4	43.9	25.0	51.6	55.0
Unprotected well	23.7	18.4	20.2	29.2	23.7
River/stream/dam	10.8	18.2	6.9	13.1	10.7
Other	0.3	-	1.1	0.5	0.5
Total	100.0	100.0	100.0	100.0	100.0

Source: PICES 2011. **Note:** *access to safe water consists of piped water inside and outside house, communal tap, protected well/borehole.*

There is a clear and strong relationship between household poverty status and access to safe drinking water, especially in rural areas of Zimbabwe, see table 3.21. The rural poor are much less likely than the non-poor to have access to safe water. Almost everyone in urban areas has access to safe water, with the poor being only slightly less likely to have access to unsafe water than the non-poor. The concept of safe water has a different meaning in urban areas than rural areas as very few households in urban areas will need to travel more than one kilometre to fetch water.

Similarly, in rural areas, the poor are much less likely than the non-poor to have either a flush toilet or a Blair toilet (table 3.21). About 45.1 percent of the rural poor households have no access to a toilet facility at all, compared to 24.2 percent for the non-poor households. While sanitation is bad among poor households, the PICES 2011 data shows a slight improvement compared to what was observed in 2001. Poor rural households who had no toilet facilities in 2001 were 47.6 percent compared to 45.1 percent in 2011. There is, however, a huge drop in the access to safe water from rural poor households as 70.1 percent of the poor had access to safe water in 2001 compared to 62.1 percent in 2011. One of the reasons for this scenario is that most boreholes in rural areas have broken down and are no longer functional.

Table 3.21: Percent Distribution of Households With Access to Safe Water and Sanitation, by Rural And Urban and Poverty Status

Type of facility	Rural areas		Urban areas		All Zimbabwe	
	Non-poor	Poor	Non-poor	Poor	Non-poor	Poor
	%	%	%	%	%	%
Toilet						
Flush	9.1	1.3	95.5	83.1	59.9	19.1
Blair toilet	43.9	27.1	2.1	8.2	19.3	23.0
Pit latrine	21.8	25.0	1.3	5.5	9.8	20.8
None	24.2	45.1	0.5	1.5	10.3	35.6
Other	0.9	1.5	0.6	1.7	0.7	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water source						
Piped inside house	4.5	0.5	41.3	20.6	26.1	4.9
Piped outside house	8.4	2.6	43.1	50.0	28.8	12.9
Communal tap	7.0	3.9	1.8	6.7	4.0	4.5
Protected well/borehole	54.7	55.1	13.2	17.9	30.3	47.0
Unprotected well	17.2	25.8	0.3	4.2	7.3	21.1
River/Stream/Dam	7.3	11.7	0.0	0.3	3.0	9.3
Other	0.8	0.3	0.3	0.4	0.6	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line (TCPL). Extremely poor households have index values that fall below the lower line.

In general, PICES 2011 data shows that sanitation appears to be of even better quality in urban areas, with the poor only less likely to have safe water or sanitation than the non-poor. However, in rural areas, there are clear signs that access to good quality sanitation differs depending on the poverty status of the household. The proportion of poor households without toilet facilities in rural areas is very high (45.1 percent) compared to the non poor households (24.2 percent). The proportion of poor households using water from unsanitary sources such as unprotected wells, rivers, streams and dams is 37.8 percent compared to 25.3 percent for the non poor households. However, the PICES 2011/12 did not go into much detail in testing the quality of the water or sanitation, other than collecting information about the main source of water for cooking and drinking and type of toilet facilities from households.

3.8 Education and Poverty

Studies in Africa and elsewhere in the world consistently show that educational attainment is a critical determinant of household well-being and poverty. Since labour is one of the few assets available to extremely poor households, its productivity helps determine livelihood strategies, and can improve income generation. Both of these affect well-being and poverty. Investments in education help increase productivity of labour

and lead to improvements in the quality of life of the recipients. In this section of the report, we examine the link between education and poverty. We begin by examining how household poverty is associated with the educational attainment of the household head. We then investigate differential access to educational services by poverty and socioeconomic status of households. We conclude by discussing some of the implications of our findings on the educational policy.

3.9 Profile of Poverty by Household Head's Educational Attainment

A strong association is observed between educational attainment of the head of household and household poverty (table 3.22). Incidence of poverty declines as the household head's educational attainment rises. There is a substantial increase in the likelihood of a household being poor when its head has less than secondary school education. Households headed by someone who has at least some secondary education are 14.9 percentage points less likely to be poor and 10.3 percent less likely to be extremely poor than households whose head has only primary school education. This association between head's education and poverty holds for all types of headship, regardless of whether poverty is measured among households or people.

The association between head's education and household poverty status holds across all areas of Zimbabwe. There appears to be strong "returns" to education in both rural and urban areas. However, causality cannot be concluded because these results suggest a strong correlation, not that more education will necessarily lower poverty.

Table 3.22: Household Poverty by Education of the Household Head; Zimbabwe

Prevalence (%) of				
Education of the household head	Poor	Extremely poor	Poverty gap index	Poverty severity index
No education	81.5	28.9	40.6	24.1
Primary education	74.5	22.4	35.1	20.0
Secondary education	59.6	12.1	24.5	12.8
Post-secondary education	17.5	1.1	4.6	1.9

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line. Extremely poor households have index values that fall below the lower line.

Returns to education do not, however, accrue evenly in rural and urban areas. The lower prevalence of poverty in rural areas as the head's education rises from none through secondary school is more dramatic than the difference in urban areas, table 3.23 and table 3.24. In rural areas, the prevalence of household poverty is 60.9 percentage points lower for households headed by someone with post-secondary education (23.0 percent) compared to no education at all (83.9 percent) see table 3.23. Table 3.23 for rural areas also shows a differential of 3.3 percent in prevalence of poverty between no education and primary school education while table 3.24 for urban areas shows a differential of 8.6 percent prevalence of poverty between no education and primary education. Thus, it

would seem that having a primary education has a greater effect in reducing poverty prevalence in urban areas than in rural areas.

Table 3.23: Household Poverty by Education of the Household Head; Rural Areas

Prevalence (%) of				
Education of the household head	Poor	Extremely poor	Poverty gap index	Poverty severity index
No education	83.9	30.6	42.6	25.5
Primary education	80.6	26.0	39.3	22.7
Secondary education	73.5	18.9	33.2	18.2
Post-secondary education	23.0	2.1	8.1	3.7

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line. Extremely poor households have index values that fall below the lower line.

In urban areas, the prevalence of poverty drops by 41.1 percentage points for households headed by someone with post secondary education when compared to households headed by a person with no education. The prevalence of poverty for a household head with post-secondary education is 15.7 percent while the prevalence of poverty for a household headed by someone with no education at all is 56.8 percent. There appears to be poverty reduction benefits associated with education, regardless of place of residence. It should be noted that correlations rather than causation is being shown in the association of education and place of residence.

Table 3.24: Household Poverty by Education of the Household Head; Urban Areas

Prevalence (%) of				
Education of the household head	Poor	Extremely poor	Poverty gap index	Poverty severity index
No education	56.8	10.4	20.2	10.2
Primary education	47.9	6.7	16.8	8.1
Secondary education	42.9	4.0	13.9	6.3
Post-secondary education	15.7	0.7	3.4	1.3

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line. Extremely poor households have index values that fall below the lower line.

In both male and female headed households, the education of the household head is closely associated with poverty status (see table 3.25). Prevalence of poverty falls as education level rises. For female heads, the prevalence of poverty declines dramatically for those household heads with secondary education compared to household heads with no education. Prevalence of poverty for male-headed households drops by 19.4 percentage points while the prevalence of poverty for female-headed households drops by 27.8 percentage points when the household is headed by a person with secondary education compared to a head with no education at all.

Table 3.25: Poverty Indices for Households by Sex and Education of the Household Head

| Education of household Head | Prevalence (%) of | | Poverty indices | |
	Poor	Very poor	Poverty gap index	Poverty severity index
Male-headed				
None	81.2	34.3	43.8	27.0
Primary school	76.8	25.4	37.1	21.6
Secondary school	61.8	13.4	25.9	13.7
Post-secondary school	20.1	1.3	5.5	2.3
Female-headed				
None	81.7	25.7	38.8	22.4
Primary school	71.2	18.2	32.2	17.7
Secondary school	53.9	8.9	20.7	10.3
Post-secondary school	10.9	0.5	2.1	0.8

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke $\alpha=1$ and $\alpha=2$ measures, respectively (see Ravallion, 1992 for details). These indices are calculated using the upper poverty line.

3.10   Participation in Education by Poverty Status

Participation in education at the primary and secondary school levels varies with poverty. Entrance rates are lowest among children in the extremely poor households, but children in poor households are doing relatively well (figure 3.2). The NER is the best indicator of being on track in the education system, and it falls as poverty increases. (See box 7 for definitions of SER, NER and GER). The primary school gross enrolment rates are above 100 percent for all poverty categories, indicating very good access to education for primary school-aged children in Zimbabwe. This is attributed to nearly free education as primary school fees are not deterrent to parents sending their children to school. The primary school gross enrolment ratio (GER) for the extremely poor children is 107 percent compared to 109 for non-poor children.

Box 7: Enrolment Status and Poverty

Enrolment ratios are a good indicator of the participation of the various poverty groups in formal education. The gross enrolment ratio (GER) is an indicator of the overall participation in education by children who are within the official school-going age limits[6]. This ratio is computed as the proportion of all children in school to the number of children of school-going age. GER is influenced by three factors: school entrance rates (SER), drop-out rates, and complete non enrolment of some children. The SER is defined as the proportion of children in the lower school-going age limit (6 and 13 years in Zimbabwe for primary and secondary school, respectively) who are enrolled in school

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[6] In Zimbabwe, the official school-going age is 6 – 19 years

compared to their total population in the age group. If there are significant numbers of overage and underage students at a given level of schooling, the GER can exceed 100 percent.

The school net enrolment ratio (NER), computed as the proportion of children of school-going age in school to the total number of children of that age group in and out of school. NER is a function of SER, dropout rate and early enrolment in primary school. For example, children who enroll at the age of five complete primary school early and this results in a lower NER. A GER greater than the net enrolment rate, implies that either children overstay in school, or, are enrolled late. This difference translates to high age-grade mismatch. By definition the NER cannot exceed 100 percent.

Primary school entrance rates show that children from non-poor and poor households tend to enter the school system earlier than those from extremely poor households, (figure 3.2). Children from extremely poor households might enroll in school late due to resource constraints. Despite the adoption of the free primary school tuition, most extremely poor households still hesitate to enroll their children in schools because they find difficulties in mobilizing financial resources to pay for other school costs like uniforms, levies, etc. This is demonstrated by the lowest entrance rate of 61 percent for the extremely poor children compared to a 77 percent entrance rate for the non-poor children. However, as noted in figure 3.2, the differences in primary school entry rates between children from extremely poor and non-poor households are relatively high, representing 16 percentage points in favour of the non-poor children.

Figure 3.2: Primary School Enrolment Ratios by Poverty Categories (Percent)
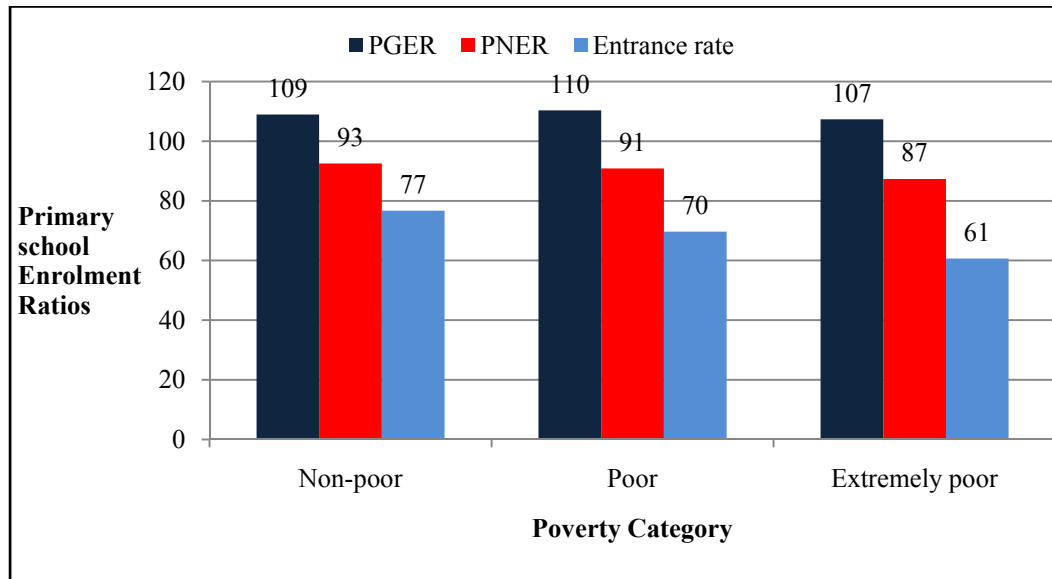
Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

The relationship between poverty and enrolment is more pronounced in secondary education where GERs are 69 percent for the non-poor as compared to only 38 percent for children from the poorest households (figure 3.3). By the time children are expected to participate in secondary school, economic factors create disparities in indicators of attendance. Secondary school entrance rates for the extremely poor are 21 percent, compared to 46 percent for the non-poor. The low net primary school enrolment ratios of 87 percent for the extremely poor translate into very low net secondary school enrolment ratios for the extremely poor of 34 percent (see figure 3.2 and figure 3.3 respectively). Secondary school enrolment rates also fall rapidly as poverty increases as shown in figure 3.3. The secondary school NER is 58 percent for the non-poor compared to 34 percent for the extremely poor children. It appears that a large proportion of poor children drop out of school upon completion of primary education, but the reasons for this drop out are not known without more substantial analysis.

This presents a mixed message about the education system in Zimbabwe. Whilst the poor and the extremely poor children are at a slight disadvantage compared to children from non-poor households at primary level, the gaps are much larger at the secondary level.

Figure 3.3: Secondary School Enrolment Rates by Poverty Categories (Percent)

Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

The main factors determining school enrolment rates of children are the proportion of children who have never been to school and dropout rates. These two indicators increase slightly as poverty increases (figure 3.4). These two factors, compounded with the low SER, cause both NER and GER to be lower for the poor. School dropout rates for non-poor children are 14.1 percent, compared to 13.4 percent for poor children and 16.7 percent for extremely poor children. The proportion of children that have never been to school for the extremely poor children constituting 3.5 percent is 2.6 percentage points higher than those for the non-poor and 1.8 percentage points higher for the poor children.

Figure 3.4: Proportion of Children of School Going Age Who are Not in School, by Poverty Category
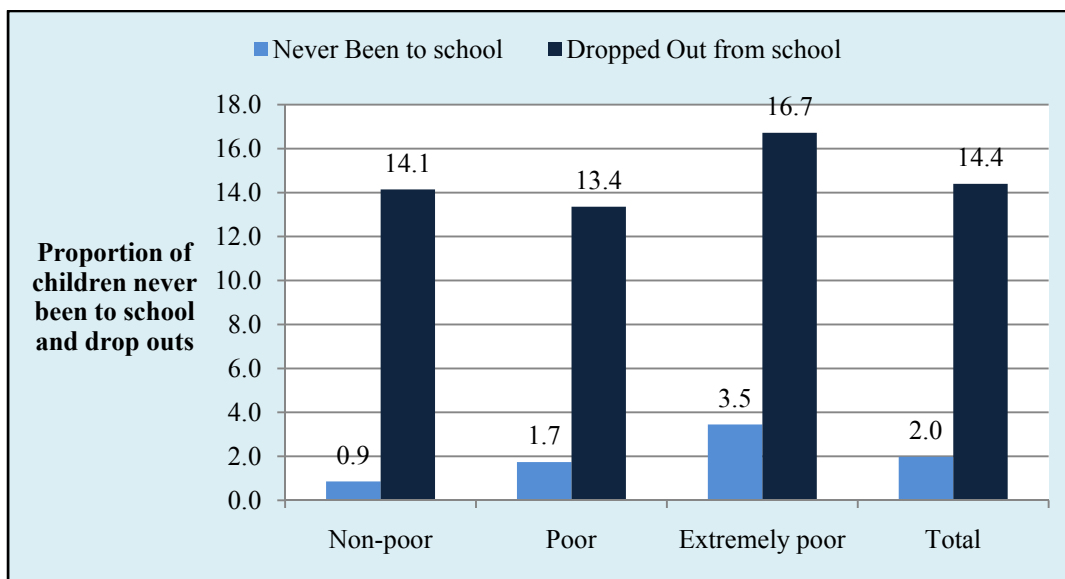
Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

Poverty and rural/urban school enrolments

Poverty is very closely related to children's participation in education, especially in rural areas. In both rural and urban areas, there are differences in school enrolment rates of poor and non-poor children, (figure 3.5). However, the relationship between household poverty status and enrolment rates is far stronger in urban areas. Notably, children from urban extremely poor households are strongly disadvantaged as the entrance rates are very low compared to children from poor and non poor households. In urban areas, school entrance rates indicate that extremely poor children are less likely to attend primary school (27 percent) than non-poor children (77 percent). When entrance rates are considered in rural areas, extremely poor children (63 percent) are only 13 percentage points less likely to attend primary school compared to non-poor children 76 percent. Overall, high primary school gross enrolment ratios in rural areas are a reflection of the level of school entrance rates. Notably, the primary school GER for the rural extremely poor is 109 percent. The primary school gross enrolment ratio for rural areas is relatively high by Zimbabwean standards, and reflects reasonably good access by extremely poor children to rural primary school education. There are marked differences in primary school gross and net enrolment ratios in urban areas across poverty groups. Children from poor urban households who exceed the age of six without enrolling in school eventually enter school. In rural areas, children from non-poor households have greater chance of receiving an education than those from poor households but differences in educational attendance by poverty status are not as pronounced in rural areas as they are in urban areas.

Figure 3.5: Primary School Enrolment Ratios by Poverty Category in Rural and Urban Areas

Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

3.11 Poverty and School Enrolments by Gender

The relationship between poverty and school enrolment status for the non-poor children is almost the same for boys and girls at primary school level (figure 3.6). In the rest of the poverty categories, the GERs for boys are higher than those of females. In non-poor households, the primary school GER for both boys and girls is 109 percent each. Primary school GER for the poor and the extremely poor children is higher for boys than for girls. In poor households, the difference in primary school GER between girls and boys is 2.5 percentage points in favour of boys, being 111.6 percent for boys and 109.1 percent for girls. In cases of extreme poverty, the GER for the boy child is higher than that of the girl child by 4.6 percentage points. This implies that more girls seem to drop out of school as poverty increases. The primary school GER of 109.7 percent and 105.1 percent respectively for boys and girls are noted in the extremely poor households.

Figure 3.6: Primary School GER by Gender and Poverty Category
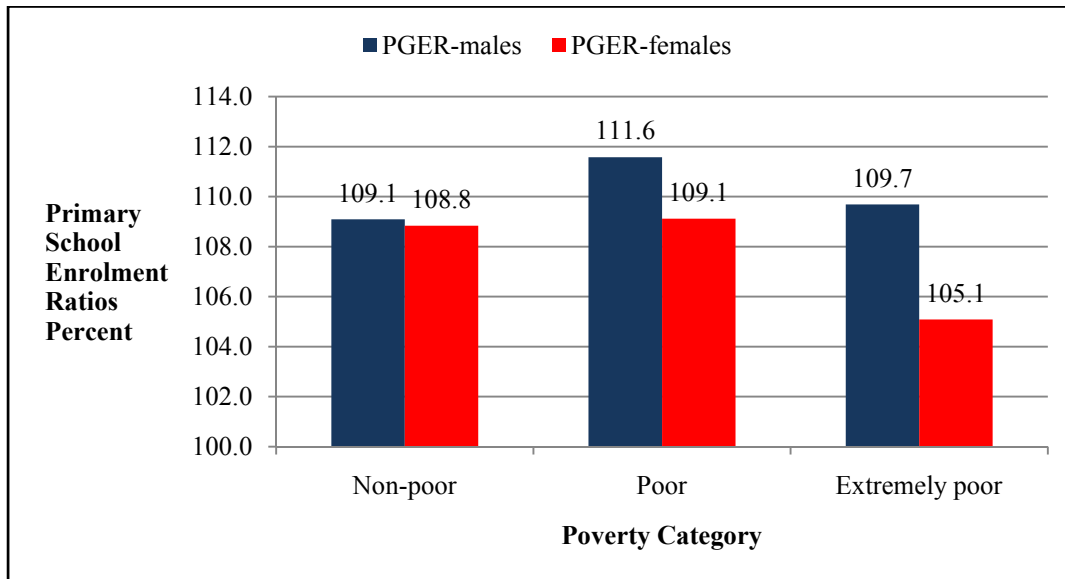
Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

In all poverty categories, the primary school NER is slightly higher for girls than for boys (figure 3.7). It is also noted that primary school NER for both girls and boys decline with increasing poverty and in cases of extreme poverty the NER is 88.4 percent for girls and 86.2 percent for boys. The decline in primary school NER as poverty increases indicates a high drop-out rate of older poor girls and boys from primary school coupled with lower entrance rates and high rates of grade-repetition.

Figure 3.7: Primary School NER by Sex and Poverty
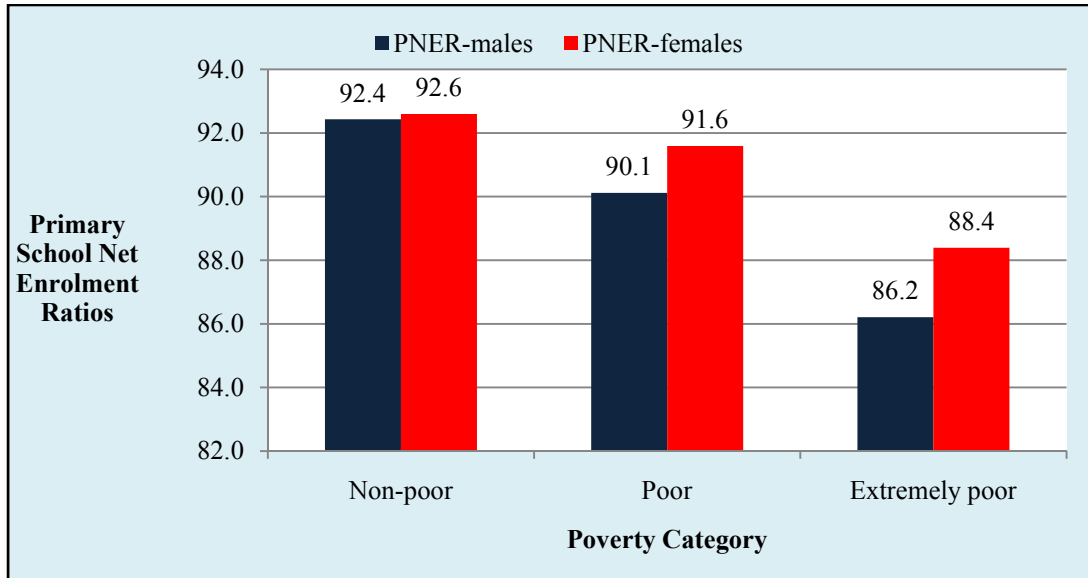
Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

Participation in secondary school education is limited for all children in Zimbabwe. Secondary school enrolment ratios are below 72.0 percent for all children even for non-poor households as well, (figure 3.8.) Although secondary school enrolment rates are lower for the poor, there are marginal disparities in enrolment rates between girls and boys among poor and extremely poor children. The gap in secondary school enrolment ratios between the extremely poor and non-poor children should be a cause for concern for the policy makers. The secondary school enrolment ratios of 39.0 percent for the extremely poor girls represent a disparity of 28.5 percentage points, when compared to girls from non-poor households. A similar pattern is observed for enrolment ratios for non-poor boys and extremely poor boys. This implies that GERs for secondary schools are sensitive to poverty and that the poor children are slightly more than half as likely to attend secondary schools compared to the non-poor children.

Figure 3.8: Secondary School GER by Sex and Poverty Category
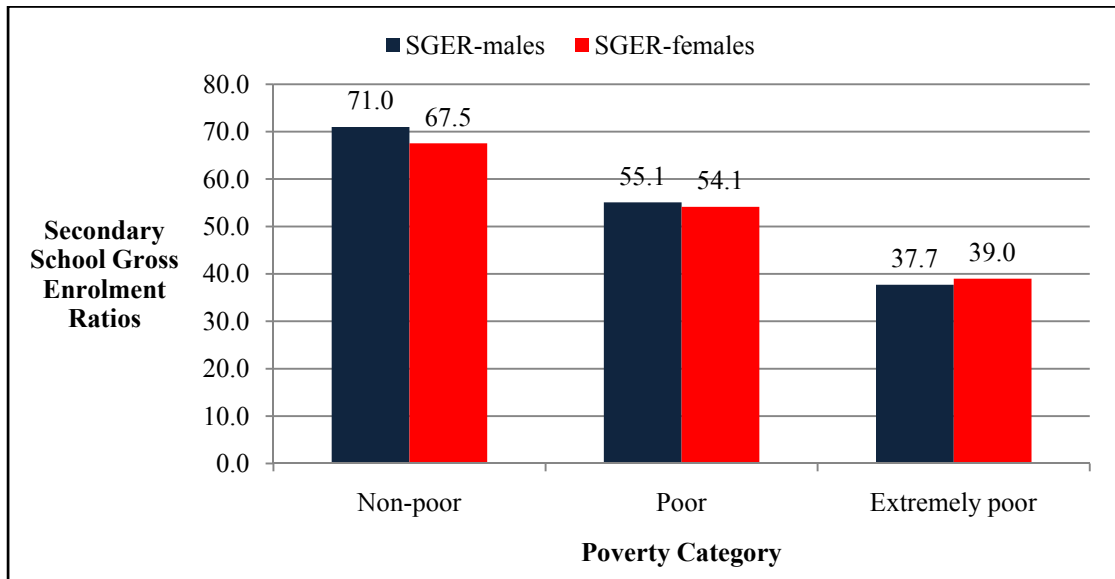
Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line (TCPL) but above the food poverty line. Extremely poor are from households below the food poverty line.

Although secondary school NERs also tend to be lower for children from poor and extremely households, there are slight disparities between girls and boys in net enrolments across all poverty categories (figure 3.9). The fall in the secondary school NER for children as poverty increases indicates a high drop-out rate of older poor children from primary school and low secondary school entrance rates. The slight disparities between GER and NER across poverty categories imply that either children overstay in school, or, are enrolled late. This translates to a high age-grade mismatch. The gap between the NER for the non-poor children compared to extremely poor children is also disturbing to the policy makers. The NER for the non-poor boy is 59 percent compared to 33 percent for the extremely poor boy. A similar pattern is noted for the girl child.

Figure 3.9: Secondary School NER by Sex and Poverty Category
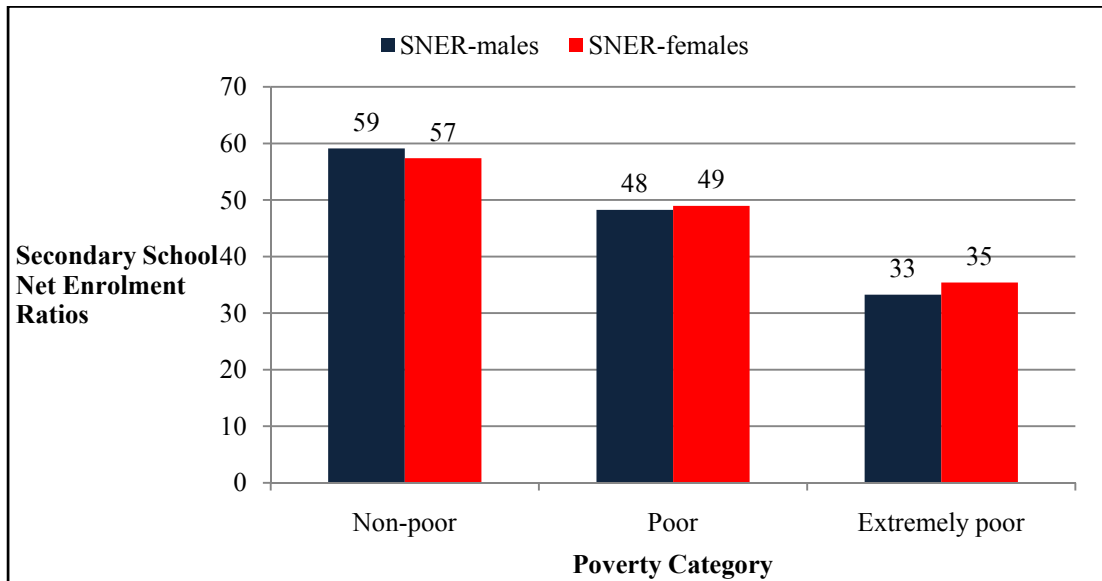
Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

Primary school gross enrolment ratios for non-poor rural boys of 116 percent are higher than those of non-poor girls 112 percent (figure 3.10). In urban areas there are slight disparities between GER for boys and girls from both non-poor and poor households except for the extremely poor boys and girls where disparities in GER are larger. The urban area primary school GER for extremely poor boys is 80 percent while the GER for the extremely poor girls is 90 percent. It is also noted that children from poor households are more likely to drop from school after completing primary school education compared to children from non-poor households. The higher GERs shown for the rural areas in all poverty categories could be explained by the fact that primary school children residing in rural areas enroll late compared to primary school children residing in urban areas.

Figure 3.10: Primary School GER Vs Poverty Category by Rural and Urban Areas
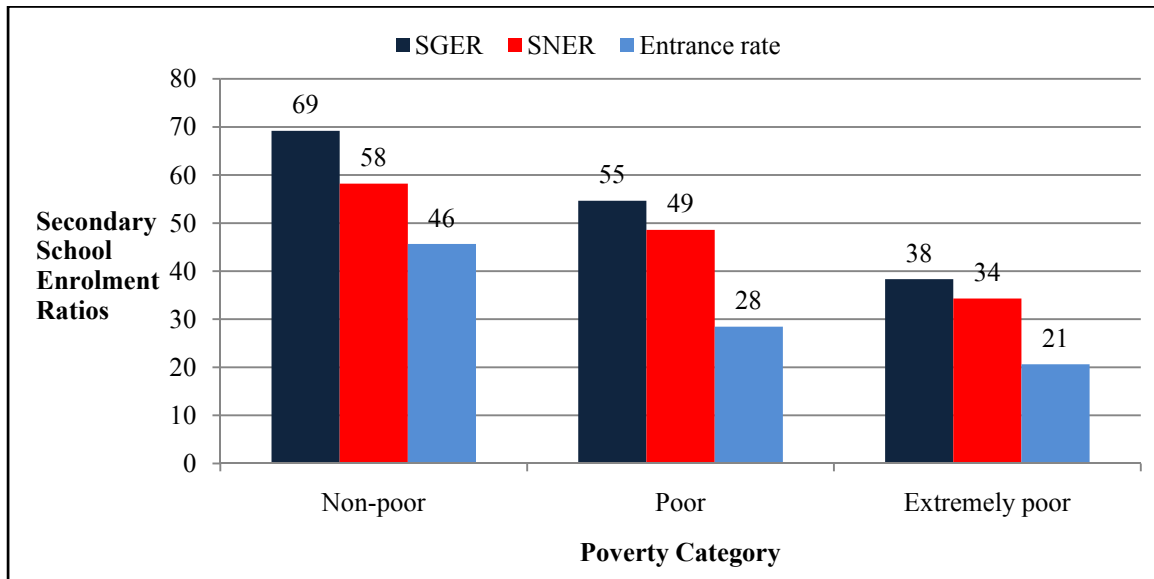

Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

While primary school NERs are lower than primary school GERs, there are only moderate disparities in NER between boys and girls in both rural and urban areas except for the extremely poor children living in urban areas, see figure 3.11. The highest primary school net enrolment ratio of 94 percent each is for the non-poor rural girls and urban non poor boys, while the lowest NER of 68 percent is recorded for extremely poor urban boys. It is noted that for extremely poor households living in urban areas, girls have higher net enrolment rates (83 percent) compared to boys 68 percent. The largest difference between primary school NER for boys and girls of 15 percentage points is recorded among children from extremely poor urban households while the rest of the differences among poverty categories are marginal. It is also noted that there is likely to be a higher rate of school dropouts for the extremely poor boys in urban areas, more likelihood of late entry into school or relatively more repeated grades. In rural areas there is particularly no visible pattern as females across poverty categories have higher net enrolment ratios possibly suggesting the use of boys as unpaid family workers on household agricultural land.

Figure 3.11: Primary School NER and Poverty Category by Rural and Urban Areas
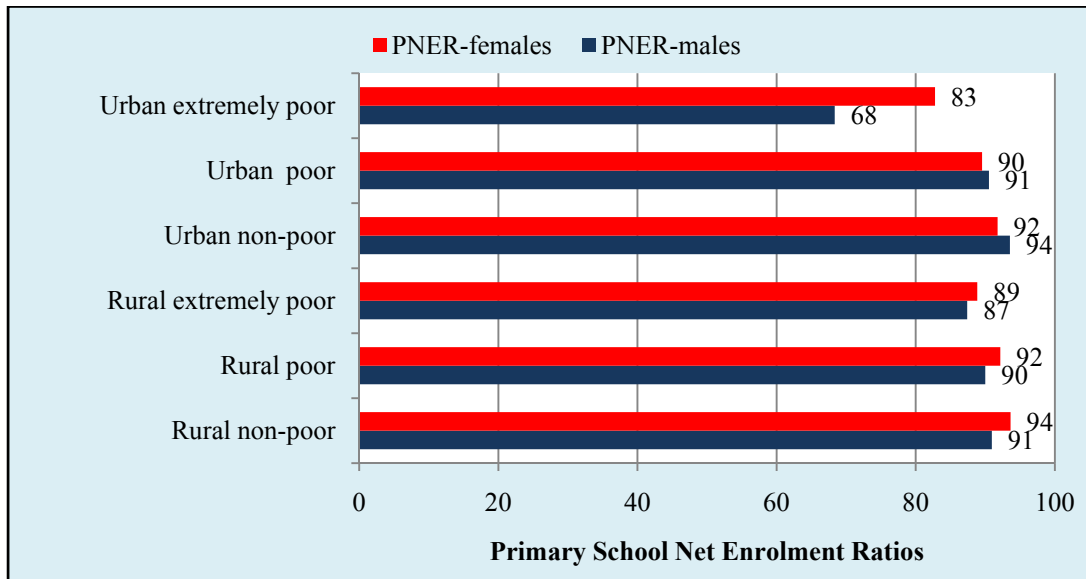
Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

Government in Zimbabwe (see box 8) is the largest provider of educational services to children from all poverty categories, enrolling 91 percent of extremely poor students, 86 percent poor students and 76 percent of non-poor students (figure 3.12). Twenty one percent of non-poor students are enrolled in private schools while 11 percent and 7 percent respectively of the children from poor and extremely poor households are enrolled in private schools. A small proportion of students across the poverty categories are enrolled in employer's schools. Enrolment of children in government schools is highest for children from extremely poor households whilst enrolment in private schools is highest for children from non-poor households.

Figure 3.12: Proportion of Children in Each Poverty Category Enrolled in School Versus Category of Education Provider
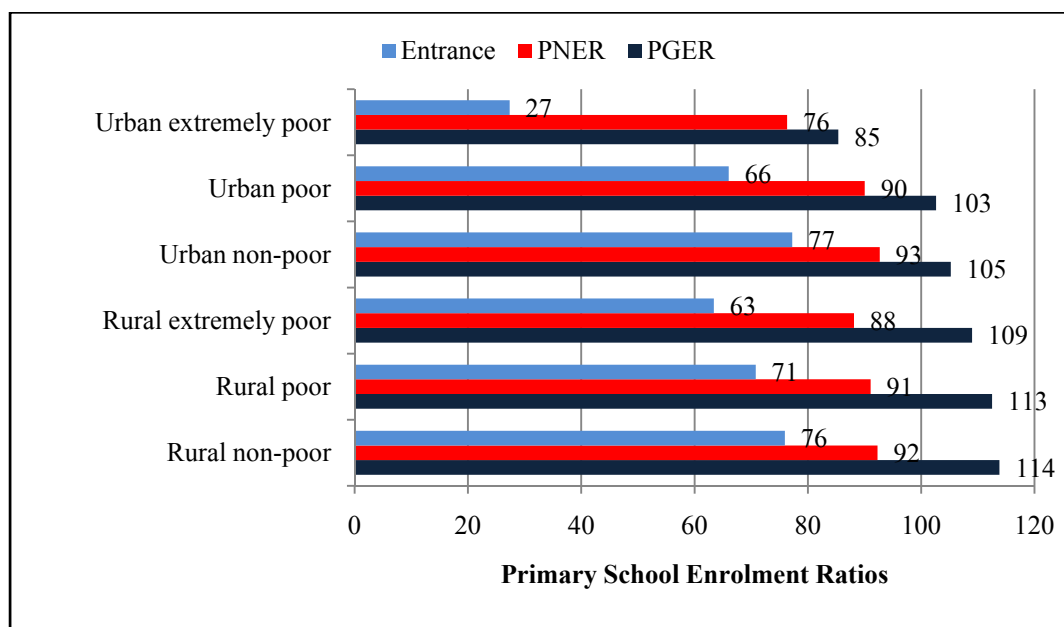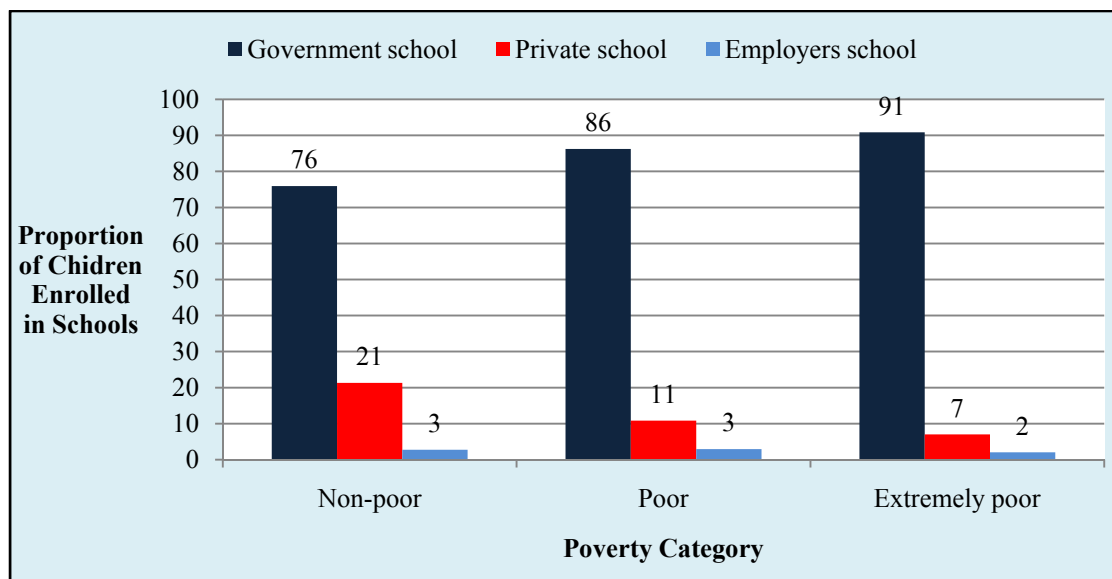

Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

Box 8: Education providers in Zimbabwe

Three major providers of education are found in Zimbabwe: local and central government, churches; and other private organizations. Other private organizations consist of employers who provide schools for their employees' children this usually occurs in mining areas, commercial farms and resettlement farms.

Local authority providers consist of municipalities and rural district councils (RDC). In 2006, about 77.1 percent primary schools were owned by rural district councils, 2.1 percent by municipalities, 6.0 percent by government, 5.2 percent by churches, 4.4 percent by mines, 0.9 percent by local town boards and 3.3 percent owned by other private organizations.

During the same period, district councils also played a pivotal role in providing secondary school education services, which constituted 68.9 percent of the total, while government provided 12.9 percent of the secondary schools. Churches provided 12 percent of the secondary schools, while local town boards provided 0.9 percent, resettlement farms 0.8 percent, mines 0.6 percent, city councils 0.4 and other private organizations 3.3 percent of the secondary schools in Zimbabwe respectively. (*Source: Primary and Secondary Education Statistics Report 2000-2006 - Ministry of Education, Sport and Culture 2007). Note that updated figures were not available at the time of going to the printers.*

Rural schools face challenges in delivering educational services to poor students. About 32.0 percent of children learning in rural government schools are extremely poor, while only 5.1 percent of children learning in government schools in urban areas are extremely poor (table 3.26). Urban private schools do, however, also serve poor students as 37.3 percent of students in urban private schools are poor while 3.1 percent of the students are extremely poor. It is also noted that 87.5 percent of children who go to a government school in rural areas are poor while 48.3 percent of the children in urban government schools are poor.

Table 3.26: Prevalence of Household Poverty by Type of School

Type of school	Rural prevalence (%) of		Urban prevalence (%) of	
	Poverty	Extreme poverty	Poverty	Extreme poverty
Government	87.5	32.0	48.3	5.1
Employer	74.6	17.3	73.7	19.4
Private	79.5	23.9	37.3	3.1

Source: 2011 PICES. Poor households have per capita expenditure values that fall below the upper poverty line and above the lower line. Extremely poor households have index values that fall below the lower line.

3.12 Local and Central Government Schools

Rural central government and rural district council schools enroll large proportions of children from poor and very poor households compared to urban schools. In rural areas, 32.3 percent of children in government school and 31.9 percent of the children in municipal or council schools are extremely poor (table 3.27). Similarly in urban areas, 5.0 percent of the children attending school in government and 6.5 percent of children attending school in municipal council schools are deemed extremely poor. It is also noted that 87.1 percent and 50.2 percent respectively of children attending school in rural and urban government schools are poor.

Table 3.27: Prevalence of Household Poverty in Local and Central Government Schools by Rural and Urban Areas

Type of government school	Rural prevalence (%) of		Urban prevalence (%) of	
	Poverty	Extreme poverty	Poverty	Extreme poverty
Government	87.1	32.3	50.2	5.0
Municipal/Council	87.8	31.9	49.8	6.5

Source: 2011PICES. Poor households have per capita expenditure values that fall below the upper poverty line and above the lower line. Extremely poor households have index values that fall below the lower line.

Many children enrolled in central government and rural district council primary schools are from poor and extremely poor households. However, poverty rates among children in secondary school tend to be far lower compared to the poverty rates in primary school. About 35.4 percent of the children attending a government primary school in rural areas are from extremely poor households while 5.7 percent of the children attending government primary school in urban areas are deemed extremely poor. The lower

participation of children from the poorest households in secondary school indicates that a significant proportion of rural poor children drop out of school at the primary level or central government schools in rural areas appear to do a better job in retaining poor and extremely poor students. In urban areas, fewer children from the poorest households participate in central government and municipal secondary schools compared to the rural areas (table 3.28).

Table 3.28: Prevalence of Household Poverty in Local and Central Government Primary and Secondary Schools by Rural and Urban Areas

		Rural prevalence (%) of		Urban prevalence (%) of	
Type of government school		**Poverty**	**Extreme poverty**	**Poverty**	**Extreme poverty**
Primary	Government	88.9	35.4	53.0	5.7
	Municipal/Council	89.1	34.0	48.1	6.5
Secondary	Government	82.0	23.4	44.8	3.7
	Municipal/Council	83.2	24.6	58.6	6.6

Source: 2011PICES. Poor households have per capita values that fall below the upper poverty line and above the lower line. Extremely poor households have index values that fall below the lower line.

Participation in central government primary and secondary schools is lower for poor and extremely poor children, compared to the non-poor. Participation in schools administered by municipal school is higher for the poor and extremely poor compared to the non-poor (figure 3.13). Primary school enrolment ratios in municipal schools are higher for poorer households compared to non-poor households. About 46 percent of the non-poor children attend school in municipal council primary school, while 54 percent attend school in a government school. About 69 percent of the extremely poor children learn in municipal council primary school while 31 percent learn in a government school.

Figure 3.13: Distribution of Children in Enrolled in Local and Central Government
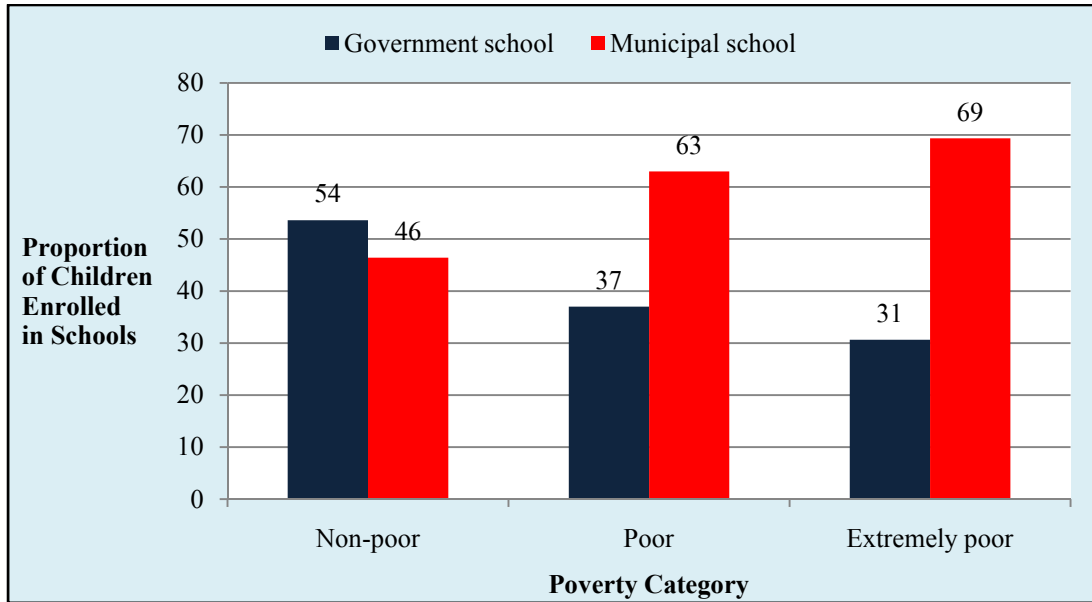
Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line

In secondary schools, the proportion of children going to central government schools is also lower for the poor and extremely poor children compared to the non-poor children, (figure 3.14). Children from the poor and extremely poor participate more in municipal council secondary schools compared to the non-poor children. In the non-poor category 67 percent of the children attend school in a government secondary school while 33 percent attend school in a municipal school. In contrast, 66 percent of the extremely poor children attend secondary school in a municipal council school compared to 34 percent in government secondary school. These trends are due to two main factors:

Firstly, almost all central government schools are in urban areas where there are more non-poor than poor households. Currently, there are very few municipal secondary schools hence central government dominates in the provision of secondary education. As highlighted in the previous section, the non-poor have superior secondary school entrance, gross and net enrolment rates. Secondly, the large poor population in rural areas tends to enroll in rural district council schools that are relatively affordable. Parents cannot afford to send their children to boarding schools because of high costs.

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Figure 3.14: Distribution of Children Enrolled in Government Secondary Schools by Poverty Category
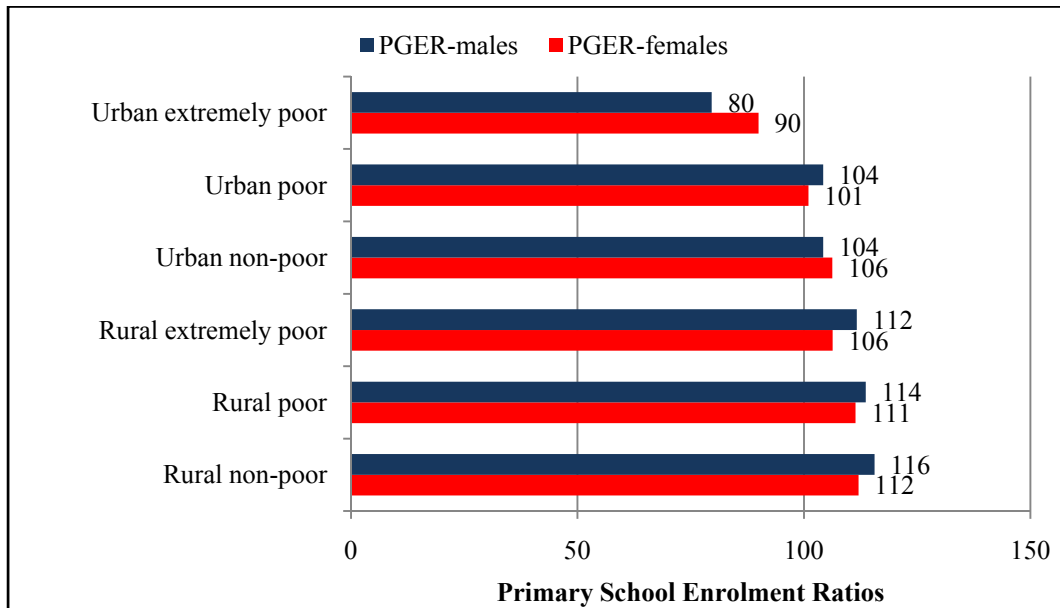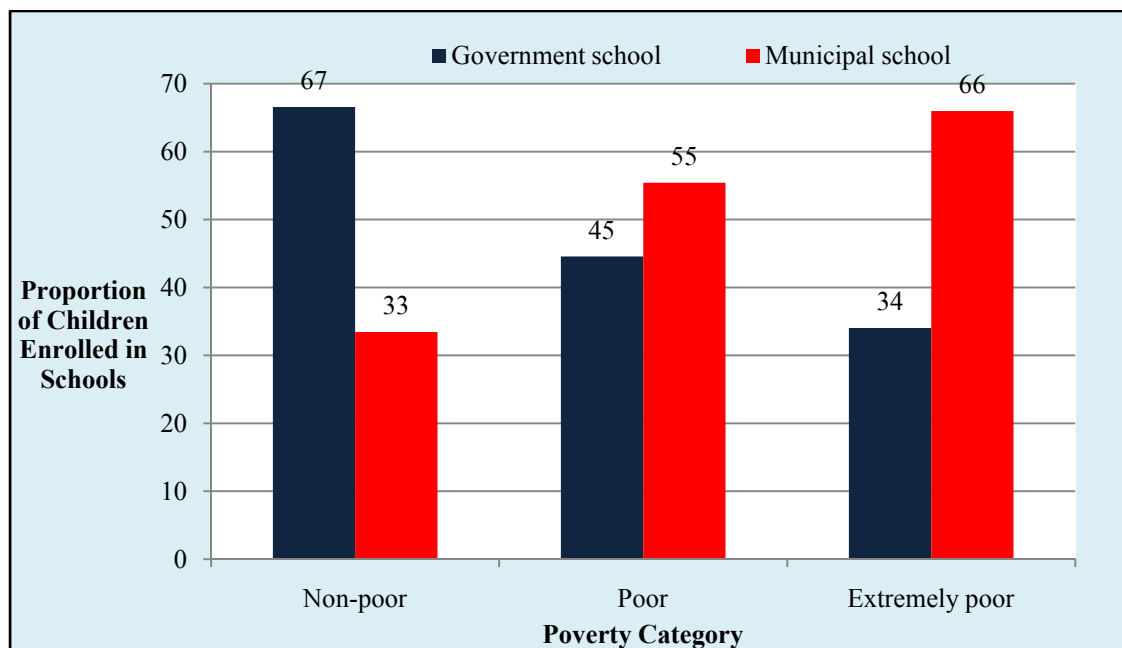

Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

3.13   Employer Schools

Employers in large scale commercial farming areas and mining towns frequently provide education facilities for the children of their employees. Since settlements in these two areas are normally located far away from other settlements, children (regardless of household poverty status) do not have much choice besides enrolling at their local school. Hence, each of these employer-provided schools enrolls only about two percent of children across all poverty categories.

3.14   Private Schools

Unlike mining and large scale commercial farm schools that cater for small proportions of children from all poverty groups due to location and limited choice for households, primary and secondary mission/church and other private schools enroll small proportions of the school going population because they are expensive by Zimbabwean standards.[7] However, these schools appear to be doing a relatively good job at mitigating these cost constraints, as relatively high proportions of children in each poverty group are enrolled

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[7] Enrolments by these two categories of schools are higher than shown in this Report because children in boarding schools were not captured by the PICES as they were not part of the de-jure household. Almost all mission schools and a large proportion of the high-fee private schools are boarding schools. Those captured as attending these schools were mostly probably enrolled as day scholars in these schools, or, they were on vacation from school during the time of the survey.

in mission and church schools particularly the poor and extremely poor children (Figure 3.15). Enrolment rates of non-poor children in mission/church primary and other schools are similar, and participation of the non-poor in private secondary schools is relatively high (figures 3.15 and 3.16). About 54 percent of the non-poor children attend primary school in a mission or church school while 46 percent of them attend school in other private schools (see figure 3.15).   See Box 9 for more information on private schools.

Figure 3.15: Distribution of Children Enrolled in Mission/Church and Other Private Primary Schools by Poverty Category
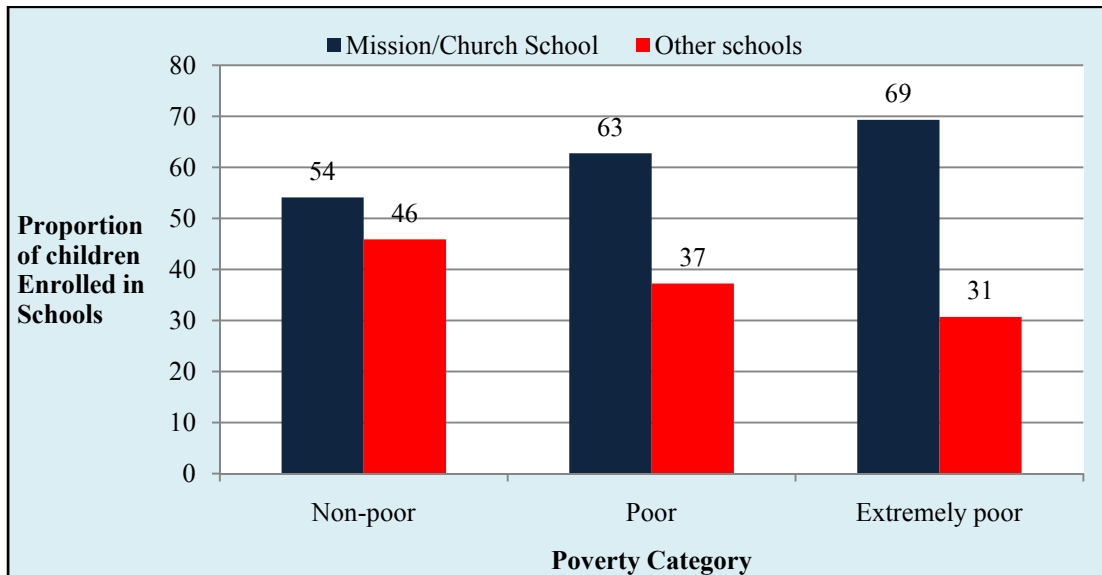
Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

Box 9: Private schools

Zimbabwe has a well-established system of mission schools run by churches and other private schools run by boards of trustees/governors. In 2006 the distribution of primary schools were administered as follows: 5.2 percent by mission or churches, 4.4 percent by farms, 1.0 percent by mines and 3.3 percent administered by other private organizations. The distribution of secondary schools was administered as follows: 12.1 percent by mission schools, 0.8 percent by farms, 0.6 by mines and 3.3 percent administered by other private organizations. *(Source: Primary and Secondary Education Statistics Report 2000-2006 - Ministry of Education, Sport and Culture 2007).* Among the private schools, a considerable proportion are high-fee schools that only attract children from non-poor households who can either pay the fees from their own earnings, or get school fee assistance from their employers as a fringe benefit. *Note: updated figures were not available at the time of going to the printers.*

About 31 percent of the non-poor children attend secondary school in mission or church schools and 69 percent attend secondary school in other private schools, (see figure 3.16). A high proportion of extremely poor children 72 percent attend secondary school in mission or church schools while 28 percent of the extremely poor children attend secondary school in other private secondary schools. Enrolment rates in mission or church secondary schools increase with increasing poverty and this scenario provides poor and extremely poor children with an opportunity to come out of poverty through being educated.

Figure 3.16: Distribution of Children Enrolled in Mission/Church and Other Private Secondary Schools by Poverty Category
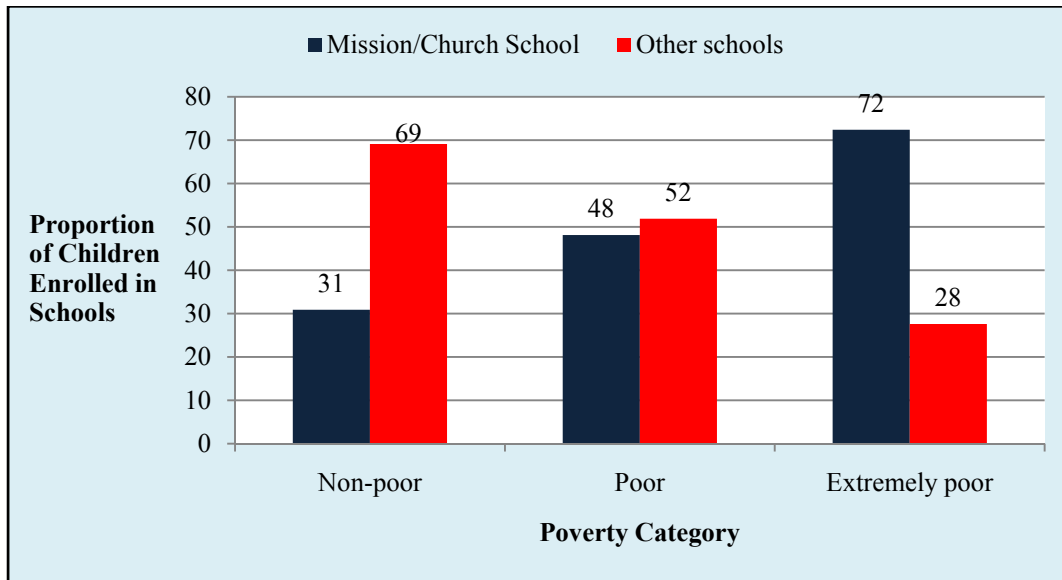
Source: PICES 2011. Poor are children from households whose per capita consumption is lower than the upper poverty line but above the food poverty line. Extremely poor are from households below the food poverty line.

3.15 Children who Left School by Highest Education Completed and Poverty Status

Table 3.29 shows the percent distribution of children who leave school aged between 6 to 20 years by highest level of education completed and poverty status. It is shown that for all Zimbabwe, children who leave school and have not completed grade 7 are poor, (86.0 percent) while 39.5 percent are extremely poor. Children who leave school having completed grade 7, are less likely to be poor compared to children who leave school without completing grade 7. There is no significant difference in poverty prevalence and between children who leave school after completing form 4 and after completing grade 7. There are also not many differences in poverty prevalence for both male and female children who leave school across all categories. Prevalence of poverty drops sharply for both male and female children who leave school at form 5.

Table 3.29: Percent Distribution of Children Who Left School and Aged (6-20 Yrs) by Highest Level of Education Completed and by Poverty Status

Sex and highest level completed	Prevalence of %	
Males	**Poor**	**Extremely poor**
Not reached grade 7	86.3	37.7
Completed grade 7	82.8	37.1
Not reached form 4	78.8	22.0
Completed form 4	82.9	32.8
Form 5 and above	32.4	0.0
Females		
Not reached grade 7	85.7	41.9
Completed grade 7	83.1	36.3
Not reached form 4	79.4	26.3
Completed form 4	82.3	33.7
Form 5 and above	43.5	3.6
Total	**Poor**	**Extremely poor**
Not reached grade 7	86.0	39.5
Completed grade 7	82.9	36.7
Not reached form 4	79.2	24.5
Completed form 4	82.6	33.3
Form 5 and above	38.2	1.9

In urban areas, children who leave school between the age group range 6-20 years are less likely to be poor compared to children who leave school in rural areas in the same age group range, see table 3.30. In rural areas 89.6 percent of the children who leave school at grade 7 are deemed poor compared to 63.3 percent for urban areas. In urban areas children who leave school at form 5 and above are less likely to be poor 29.6 percent compared to children who leave school after form 5 and above, in rural areas 67.7 percent.

Table 3.30: Percent Distribution of Children Who Left School Aged (6-20 Yrs) by Highest Level of Education Completed, by Rural and Urban Areas.

Area/highest education level	Prevalence of poverty %	
Urban areas	**Poor**	**Extremely poor**
Not reached grade 7	63.3	19.2
Completed grade 7	61.5	15.2
Not reached form 4	62.7	9.1
Completed form 4	62.6	12.9
Form 5 and above	29.6	1.3
Rural areas		
Not reached grade 7	89.6	42.7
Completed grade 7	85.5	39.3
Not reached form 4	85.0	30.0
Completed form 4	86.7	37.5
Form 5 and above	67.7	3.9
Total	**Poor**	**Extremely poor**
Not reached grade 7	86.0	39.5
Completed grade 7	82.9	36.7
Not reached form 4	79.2	24.5
Completed form 4	82.6	33.3
Form 5 and above	38.2	1.9

3.16 Implications on Educational Policy

An extra dollar ploughed into the development of RDC schools, will likely benefit children and people from the poorest households. Municipalities should also give particular attention to the construction of more primary and secondary schools, as their share in the whole sector is still very small.

The proportion of poor households, decline as educational attainment of the household head increases, so investments in education are likely to yield returns in terms of poverty reduction. Government should, therefore invest in education, particularly in rural areas where school enrolment rates are low and poverty is most widespread among school going children. Most households in rural areas are poor and are less likely to invest in their children's education due to cost and time constraints. Central Government thus has a significant role to play in supporting rural education and society as a whole will benefit because social returns will exceed rural returns (because of migration).

Government has done a lot in reducing urban poverty by investing in the children of urban households. It could now be time to direct resources to rural educational development. Government should consider investing in improvement and rehabilitation of educational infrastructure in rural areas.

Whilst Government has achieved significant progress in formulating policies directed at improving access to education, a lot still has to be done in terms of policy implementation. Incentives need to be designed to discourage parents from keeping their children out of school. Effective policing mechanisms should be put in place to ensure that children are not sent away from school for finance-related reasons, and that parents do not unnecessarily keep their children out of school. There is also need to intensify teacher training in order to cover the brain drain which occurred in the past decade. Focus should also be made to restore the quality of education to levels which were there before the brain drain.

3.17   Summary

This chapter has dealt with differential access to productive assets, attainment of education, access to public services such as schooling services and health care which distinguish the poor from others.   When all the rural provinces are compared, Matabeleland North province has the highest prevalence of poverty, constituting 87.0 percent of the total households in the province. It is also shown that rural poverty is most prevalent in communal lands (79.4 percent), followed by resettlement areas 76.4 percent. Rural poor households are characterised by much higher dependency ratios compared to non-poor households, and dependency is highest for the poorest households. A household whose head has communal or resettlement farming as a main activity is much more likely to be poor or extremely poor than a household headed by a permanent or even casual employee. Households headed by a communal farmer have the highest prevalence of poverty 83.0 percent compared to other heads of households across land use sectors. Furthermore, households in resettlement areas are fairly well-endowed with productive assets, such as ploughs, scotch carts and wheel barrows. About 50.5 percent of the poorest people, who are ill, use public health facilities for treatment, while 43.7 percent of the non-poor go to such facilities. Cost is indicated as the most common barrier to accessing treatment when household members are ill. The worst living conditions are in resettlement areas with 42.9 percent of households have no toilet facilities while 42.8 percent receive their water from unprotected wells or a surface water supply such as rivers, streams or dams. It is also established that the incidence of poverty declines as the household head's educational attainment rises. This implies that prevalence of poverty falls as education level rises.

4   Summary and Conclusions

Poverty and inequality present major challenges to Zimbabwe's government and its people. Poverty is widespread and severe while the degree of inequality in Zimbabwe is lower compared to most of its neighbours. Broad-based economic growth that is sustained over a long period is the only feasible means of solving these problems, but there are several measures that might ensure that any economic growth benefits the poor. These steps do not compromise the prospects for growth, but rather are fully complementary to growth-oriented policies.

Poverty is more prevalent and more severe in rural areas than in urban Zimbabwe. Some factors that contribute to rural poverty are limited employment opportunities, unreliability of agriculture, especially in communal and resettlement areas, and low levels of education (and low returns to education in rural areas). The partial drought of 2011/12 could have contributed to the high indices of rural poverty found in this study particularly in the southern half of the country and the Eastern Highlands. Drought led to increased transitory rural poverty, especially in communal lands and resettlement areas. There are strong poverty–reducing returns to economic growth in these areas. There is need to diversify the rural economy, improve productivity of traditional agriculture, support development of educational infrastructure in rural areas. The land resettlement in the early 2000 reduced the numbers of people (and dependents) per unit of land in communal lands among the poor. However, these resettlements have likely contributed to decreased outputs and decreased surplus sales from commercial farmlands. Efforts should be made to provide agricultural services to smallholders in such areas, including access to technical assistance, marketing services and cheap financial resources.

It should also be recognized that solutions to rural poverty should not be confined to rural areas alone. Creation of employment opportunities in urban areas can help by relieving population pressures and providing resources for the support of rural areas. There are strong linkages between rural and urban areas, and sluggish growth in urban employment has slowed the flow of remittances to rural areas. Rural households, especially female-headed ones, tend to be highly dependent on these remittance flows.

The driest areas of the country tend to be the poorest, and drought seems to have increased poverty significantly in these areas during the period of the survey. The poorest households in, for example, Matebeleland North and South and Masvingo tend to be those with limited assets, have almost complete reliance on agriculture as a source of income, and low levels of education.

Household sizes of poor households are far greater than those of non-poor households. The poor tend to have more children and more elderly dependents. Poor households in Zimbabwe are characterised by high dependency ratios, and, on average, older heads of households are associated with higher prevalence of poverty than younger heads of households. In addition, household size of the urban poor and extremely poor households, are larger than those of the non-poor, and this indicates a perpetuation of poverty through generations. As a result children in poor urban families are similarly less likely to attend school and more likely to drop out. These characteristics, in turn, perpetuate poverty over time, leading to a vicious cycle of inter-generational misery. Children in such households

are less likely to attend school and more likely to drop out earlier. There is a particular problem with access to and participation in secondary for poor rural households.

In terms of health it is shown that the extremely poor are more likely than people in other poverty categories to claim that inability to afford treatment is the main reason for not seeking treatment for an illness. Home treatment is the second reason for not seeking treatment when ill for the extremely ill but for the non-poor however, home treatment is the main reason for not seeking treatment when ill.

Poverty in urban areas, although less severe than in rural areas, is still a problem. Urban poor households tend to be dependent on irregular or informal income sources, and the formal sector has not created the growth in employment required to absorb the large number of people entering the job market. Slow employment creation in urban areas reduces remittances to rural areas and contributes to rural poverty. Informal sources of income usually do not provide benefits such as medical aid or retirement.

The sector–wise profile of poverty illuminates several areas that deserve attention by policy makers:

4.1   Agriculture

Poverty is worse among households that are more dependent on agriculture, particularly in communal lands and resettlement areas. The poor in resettlement areas own more assets than the poor households in other rural areas, indicating that there is potential for poverty reduction through productivity improvement in these areas. Broad–based growth, through productivity-enhancing technical innovations, increased access to productive inputs, and better access to marketing services will significantly reduce poverty. There is also need to focus on rehabilitation of production capital, especially irrigation equipment on commercial farms in order to boost crop production. Large household sizes in communal lands and resettlement areas are closely associated with poverty. Land policy should, therefore, allow some flexibility in household land holding sizes. Moreover, access to land per person is a strong determinant of poverty reduction in agricultural areas.

Maize production in Zimbabwe for the year 2011 constituting 1,101,436 tonnes has fallen by 48 percent from a peak of 2,109,283 tonnes in 1994. Efforts should therefore be made to restore maize production in Zimbabwe to previous levels through provision of input support schemes to capable farmers in all land-use rural sectors. This will not only help to reduce poverty in the country but also ensure replenishment of strategic grain reserves and food security. Similar efforts should be made to encourage farmers to grow tobacco, Zimbabwe's largest foreign currency earner and other cash crops. Support to agriculture should also move away from price support and stabilization toward increased access to inputs, productive capital, and technical assistance for smallholders and other farmers.

Government funding for agriculture should be reoriented towards core agricultural services with a focus on the technological and service needs of the poor. In addition commercial farmers who provide the bulk of export earnings for the country should not be neglected. The poor who, in rural areas, tend to be dependent on agriculture, need low

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cost technologies that improve the productivity of their land, given their resource and knowledge base. There is also need to reduce uncertainties caused by frequent droughts. These attributes need to be factored into decisions on funding of agricultural research. Techniques for better water management, harnessing of run-off rainfall water, increased access to water for agricultural production and land conservation should also be given high priority in the rural land use sectors particularly in the semi-arid regions.

4.2 Health

Public expenditure on health does not appear to be well targeted towards the poor. The policy of exemption of fees for primary health care in rural areas has benefited the rural poor and non-poor in approximately equal percentages. Most rural poor people who do not seek medical care are constrained by the high cost of such services, and also by distance to the service facilities. Mobile clinics are one alternative that might be explored. In urban areas, the main constraint to treatment of illness faced by the poor appears to be cost. This indicates that health care benefits should be expanded in rural areas in order to reduce distances to the health facilities. Public health facilities are used more frequently by the urban poor, but a substantial percentage of poor households in urban areas use private health care providers.

Urban sanitation and water supplies appear to be almost universally available, even to the poor, but in rural areas there is a strong need to improve both. For example, sanitation facilities do not exist in most of the homes of the rural poor, and a high percentage of the rural poor rely on unsafe water supplies.

4.3 Education

Although Zimbabwe made huge achievements in education in the first decade after independence currently the education sector has been negatively affected by lack of adequate resources and a huge brain drain which occurred during the economic crisis. There is need to train more teachers to cover the gap created by the brain drain. However, education spending should also benefit from improved targeting. Poor children in both rural and urban areas are less likely to attend school and more likely to drop out than are other children. These patterns are particularly pronounced for secondary education, where payoffs to education are higher.

Access to secondary education remains limited for many Zimbabweans, but the poor suffer from lowest enrolment rates of all. Whilst the country has made large investments in secondary school infrastructure and teacher training, majority of the children in need of secondary education do not benefit from this investment, especially the poor as secondary school enrolments decline as poverty increases. A programme to expand access to secondary education by the poor should therefore, be considered. In rural areas, access to education is worse than in urban areas, and some of the implicit subsidies in the education system flow disproportionately to urban areas. Although rural primary schools are exempted from paying tuition fees, children are constrained by other factors, as they tend to enroll late and drop out of school early.

Economic returns to education in rural areas are lower than they are in urban areas. The poorest households may be aware of these limited returns and thus tend to invest less in the education of their children. Government might have to increase its investment in education in rural areas so as to increase participation therein by the rural poor. Alternatively, programmes to generate employment opportunities in rural areas will increase rural returns to education and provide increased incentives for educational investments by the rural people. There is also need to prioritize economic diversification and employment generation in both urban and rural areas and provide support to the informal sector.

5 Annexes

Annex A: The PICES and Welfare Measurement

Measures of welfare: incomes, wealth and consumption

To measure and compare poverty among subgroups, a means of ordering and quantifying household well-being is needed. There are several money-metric options for such measurement including household income, wealth, expenditures, and consumption. These operational measures are often selected for convenience, ease of collection, or availability in a given survey. The critical issue, however, is how closely the measure corresponds to the concept of well-being.

Most poverty analysts prefer current consumption expenditures to income or wealth as an indicator of well being. Wealth and income form the basis over which an individual or household commands resources. These resources are transformed, either through market transactions, or household production, into commodities that are consumed. This consumption, then, determines well-being, so that the value of consumption is most closely aligned with the money-metric concept of well-being.

It is generally recognized that wealth and income are more difficult to measure than expenditures or consumption, especially in a developing country context. Wealth is difficult to measure because measurement requires valuation of assets including real property, household assets, and livestock but few surveys provide such details. Even if the survey covered all assets owned by the household, it would be difficult to value the assets without detailed information on their attributes. Markets for many assets are thin or non –existent and imperfect markets compound the problem of asset valuation.

Income, especially when large proportions are derived from the informal sector or through sporadic activities, can be difficult to measure. Recall problems, either due to the irregularity of earnings or strategic responses on the part of respondents, can increase the difficulty of measurement. Measurement of income from household enterprises requires careful distinction between net incomes and changes in the asset value of the enterprise. Few informal enterprises in developing countries possess the accounting skills necessary to determine net enterprise income.

Finally, income tends to fluctuate both seasonally and annually due to the vagaries of the production cycle. Seasonal and annual fluctuations in income are normal in rain-fed agriculture which particularly dominates Zimbabwe's rural areas. Typically, the poor can smooth consumption through savings, storage; insurance schemes etc., so that consumption (and well-being) will fluctuate less than incomes. Ravallion (1994) states that: a) current consumption is almost certainly better than current income as an indicator of current standard of living; and, b) current consumption may also be a good indicator of long-term standard of living.

The 2011/12PICES is the major source of data for the poverty profile. There is need to ensure that the use of data in the best possible manner to create measures that have a close correspondence to the concept of welfare and poverty.

The basic guiding principle for use of the data was to create "good" measures of the concepts of interest. For the purpose of this analysis, these variables are taken to be household income and household consumption expenditures[8]. No single measure can fully capture the multidimensional aspects of welfare or poverty. However, it can be argued that since consumption expenditures or income reflect a person's command over goods and services on which much welfare does depend on, they represent more comprehensive indicators of welfare than other measures. Information is also needed on household composition to ensure consistency. Many of the other variables in the PICES (such as employment, schooling, health) also affect well being and may not be adequately reflected in consumption expenditures. Consumption of public goods and many benefits that do not flow through markets can be difficult to measure and value thus they are also not included in the measure of consumption used in this study.

It is important that the measure (consumption or income) corresponds closely to the concept in question. Both of these are "flow" concepts, whereas wealth is a "stock" concept. Therefore, there is need to measure the flow of goods, money, etc. that are either consumed, or accrued as income. It is also important to avoid double counting. Double counting occurs when goods are purchased and then used to produce something else that is either consumed or used to create income.

Income is a net concept; it should be computed as the difference between revenues (actual and imputed) earned by the household and costs (such as the purchase of inputs). Expenditures on inputs into, for example, farm production are an obvious area where double counting needs to be avoided, as these expenditures do not fit into the concept of consumption. Purchases of flour used to produce bread are counted in the own-consumption portion of the questionnaire and should not be included in the final expenditure measure.

Standard economic concepts should be used to help define each "variable." The notion of a household income and expenditure can help sort things out. In this scenario, household "expenditures" on consumption should equal household income minus the net change in asset position including savings. Everything entering the consumption portion of the balance should have a corresponding entry on the income or asset side.

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[8] Consumption expenditure is used in this study because a large part of welfare ultimately depends on the consumption of goods and services. Typically, expenditure surveys measure purchases of goods and expenditures are used as a proxy for consumption. The comprehensive nature of the PICES allow us to construct a measure of household consumption that includes consumption of home-produced goods, consumption from durable assets, implied consumption from owner-occupied housing, etc.

Household income/consumption balance

The basic balance equation for household income, asset values and consumption is

$$C_i \equiv Y_i - A_i,$$

where C_i represents consumption (in dollars) by the ith household (the identity could also use a subscript for time), Y_i is the income and A_i is the net change in the asset position of the ith household. This identity must hold for every household for every period of time.

Aggregate income balance:
Nationally, the following must hold,

$$\sum Y_i \equiv Y,$$

where Y is national income. That is, we should recognize that our individual measures of household income need to be consistent when aggregated. Similarly, consumption should sum to national consumption.

Aggregate Consumption Balance:
In the aggregate, consumption must also balance,

$$\sum C_i \equiv C,$$

where C is private consumption. In this report, only household consumption expenditures are considered in the identity. These identities provide information about how different items should be treated:

Savings

Savings can be thought of as the residual on household consumption, a part of the asset balance in the preceding discussion. They represent income not spent on direct consumption, but on consumption deferred into the future. Thus, saving and dissaving represent changes in the net wealth (A_i) of the household. This asset position creates the link between household income and consumption. Current savings are not, therefore, consumption expenditures, and sales of assets (except capital gains) should not be treated as income.

Imputed expenditures and imputed income

Imputations are required in a number of cases. Consumption of own-produced goods counts both as income and as expenditure. This consumption is valued by the household in the PICES, i.e. there is a corresponding "imputed" income accrued from this consumption. Purchase and consumption of durable goods need to be handled in a similar fashion. An expenditure on a durable item represents a transfer to the household "asset account." It should be treated exactly as savings. Only that portion of the asset that is "consumed" in the period in question is counted as consumption. Thus, the purchase price should be amortized over the life of the good in question. How does such

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consumption of durable goods enter the income side of the household identity? Note that the income used to purchase the asset was earned at some prior time. This income was disposed of by spending it on the asset (a transfer to the asset account). "Consumption" occurs over the life of the asset; this initially earned income is gradually disposed of.

Assets whose values are not diminished by use. Some assets are not "consumed" by their continued use. Housing is the principal example; the value of housing does not fall by continued occupation. In such cases, consumption does not lessen the value of the asset, and an imputed income must be used to balance the household identity. Also, imputed values (or implicit rental values) go into C_i if the housing is owned.

Remittances. The identity should not only balance at the household level, but also in the aggregate. How do remittances enter on the income side of the equation and on the consumption side? Remittances sent out of the house should count against net income (even though it might seem strange, these are part of the "cost" of earning an income); remittances received from others add to income. Such a treatment ensures balance at the national level. Remittances out of a house are not expenditures (nor consumption). Since income must equal expenditures, remittances are income that never happened.

During the processing of the consumption variable, the above conventions were adhered to. The resulting variable (household consumption in a given month) was expressed on a household per-capita basis in order to conduct the analyses.

Annex B: PICES data processing

Introduction

The 2011 PICES data needed extensive processing to create the measure of household consumption expenditures. Household consumption expenditures form the core welfare indicator for ranking households in this report. Normal cleaning of the data was required. The raw data were generally quite clean, but some outliers were identified by examining the univariate distributions of variables.

The decision to use consumption rather than expenditure made it necessary to smooth some expenditures (on durables and schooling) and to impute in some cases (durables, schooling, and housing). Note that the PICES questionnaire might be altered to reflect a longer recall period for purchases of assets. These smoothing and imputation procedures are described below. The expenditure recall period for the PICES was generally the past month, including durables. The problem encountered was in the recording of lumpy expenditures, particularly schooling and some durables.

Food Items

Minimal cleaning was required for food expenditures. The PICES has detailed information on food expenditures (market, own consumption, gifts, transfers, and payments in kind) for 250 items. Although market purchases were recorded for all food items, own consumption, gifts, transfers, and payments in kind were recorded for only broad groups of food items (for example bread and cereals, milk cheese and eggs etc). This reporting makes it impossible to measure total consumption of each item, especially when own-consumption constitutes a large share of consumption of the item in question.

Table B.1: Mean Shares in Total Food Expenditure of Own-Consumption, Gifts, Transfers, and Payments in Kind, by Broad Food Group

Broad food group	Share of total expenditure on each broad group from own consumption		
	All Zimbabwe	Rural	**Urban**
Breads and cereal	32.5	41.4	5.3
Meats	35.6	50.5	5.5
Fish	18.9	22.4	6.6
Fruits	79.0	87.3	19.4
Vegetables	71.3	78.3	23.1
Dairy	49.9	67.0	3.4
Fats and oils	15.1	19.2	4.6
Nuts	87.5	89.2	53.7
Tubers	47.0	60.6	12.7

Source: PICES 2011.

Since own consumption of bread and cereals constitutes 32.5 percent of household consumption of bread and cereals, and since it is impossible to identify how much of that is devoted to maize, it is impossible to estimate the exact consumption of maize[9].The inability to disaggregate non-market consumption of particular food items had a particular impact on the estimation of the food poverty line. The adopted methodology (see annex D) required an estimate of the total quantity of each major food consumed. The PICES 2011/12 expenditures were divided by product prices to compute a quantity of each good. In the case of non-market consumption, the problem is to identify the correct prices. Simple indices were used to create a composite price of these non-market items (see annex D).

Non-Food Items

Housing

Rents were imputed for owner-occupied housing. The imputations were made by the PICES enumerators (see item 334 in the 2011/12 PICES questionnaire). (see Annex C for a description of how the value of housing consumption was imputed for owner-occupied housing).

Mortgage payments (recorded as house loans, regular installment) were also available from the PICES (see item 620 in PICES questionnaire). These payments were examined carefully only in cases where the household reported living in a rented dwelling and the reported mortgage payment was different from the reported rent. In this case and all other cases, mortgage payments were not included, as the imputed price of owner-occupied housing was assumed to capture the consumption benefits from housing ownership. In cases where mortgage payments are available and there are no actual rental payments then or imputed rentals then the monthly mortgage payments would represent the value of rental.

Schooling

Expenditures on schooling had to be treated in a manner that was consistent with the study's use of consumption as the means of ranking household welfare. Households that had children in school either had expenditures (and an implied equivalent value of consumption of school services), or they received free schooling which also represents a consumption of school services. Two problems had to be addressed when creating the variable for household consumption of school services: the lumpiness of expenditures on school fees, and valuing the consumption associated with free schooling.

Information on schooling is found in two places in the PICES. Schooling status of household members was collected in the section on household demographics. Questions were asked about the highest grade completed, current attendance, and type of school currently attended, for all members of the household. New questions were added on

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[9] It is not known if this own consumption is of maize, millet, sorghum, or other member of the bread and cereal group.

education which include 'who paid school fees last term', current grade attended, distance to school, has name paid school fees this term and how much is termly school fees and levies.   Expenditures on school-related items were recorded for the month during which the household was interviewed.

Expenditures on schooling, including school fees, levies, and other fees, tend to be lumpy, as they are usually incurred only once per term. For this reason, expenditures on schools were imputed for households who reported having children in schools, but who reported none of these expenditures.

Treatment of School Fees

In ICES 2001 school fees were imputed using a regression model because the school fees in the data was lumpy and the data had missing values of school fees. However, in the PICES 2011/12 ZIMSTAT abandoned this approach of using regression analysis to impute school fees, because school fees data was collected adequately using a new question, Q18. Question 18 solicited information on school fees which is usually paid each term by each school going child in the household. Question 18 reads " how much is (name)'s termly school fees (including levies)". This question was very helpful because when the enumerator visited every household, the question was asked whether the household paid school fees or not during the month. This question covered all school going children including children attending school in boarding schools. Since there are 3 terms in a year, the data on school fees was annualized first (termly fees multiplied by 3) and then the result was divided by 12 to obtain monthly consumption expenditures on school fees.

The following assumptions were used in determining school fees in the PICES 2011/12 survey:
- All households with school going children should pay school fees and levies.
- Information on school fees and levies was taken from Question 18 for it represented the total amount of fees paid per term. Actual data on school fees and levies tended to be lumpy or were paid over a long period of time. So the actual expenditures were not used. Some households did not have information on school fees expenditures because they did not pay school fees during that particular month. These households would have reported the amount of school fees they usually pay per term in question 18.
- It was assumed that all fees will be paid eventually if owing as relatives and friends often help. In addition, schools have strong follow up measures to obtain their money and this includes sending children away from school until fees are paid or inviting parents to make payment plans for their children.

In the final analysis the actual school fees obtained from the expenditure portion of the non food aggregate, was not used in the computation of school fees, as all information was obtained from question 18. This was done to avoid double counting of school fees.

After following the above assumptions it was observed that missing values of school fees were only 160 for school-going children. These estimated values were estimated using the average fees paid in the locality. The missing school fees values were replaced by the mean per capita school fees in each enumeration area, ward, and district. This analysis was done for each child who was reported to be going to school in question 11 (code2) but did not have a figure of school fees in question 18. Imputation of school fees was done based on type of school attended by child in question 12 and the level of education the person is currently attending. In this case, it is assumed that the person with missing school fees attended school in their localities beginning from the enumeration area, then ward, and district. The type of school and current grade being attended by a child with a missing value of school fees is be matched to the fees of children learning in the same kind of school and attending the same current grade. The type of school attended by school going children in question 12 are listed as follows;

- Government
- Municipal/Council
- Mission/Church
- Mine
- Commercial farm School
- Private School
- Other (specify)

The actual fees paid on item numbers 499 to 501 were also used to check the school fees mentioned in the demographic section on question 18.

Durable Goods

Since the study uses the concept of household *consumption,* rather than *expenditures,* to rank household welfare, care needed to be taken in separating flows of consumption benefits from purchase and ownership of durable goods. Two procedures were employed to measure the flow of consumption benefits from the purchase and ownership of durable assets.

Expenditures on durables tend to be very lumpy. Note that the questionnaire only asks about last month's expenditures on durables. Time period for this recall might be expanded in future PICES versions. To be consistent with the study's use of consumption, it was necessary to spread the value of expenditures on durables over the estimated lifetime of the good in question. Welfare-relevant benefits from such purchases are far below the purchase price, depending on the estimated life of the asset. The monthly consumption benefit equals the expenditure in the past year on each asset (as reported in the 2011/12 PICES), divided by the total expected life of the asset in months. The estimated lives of durable assets that were used in the study are presented in table B.2. Purchases of 12 types of durable goods are recorded in the 2011/12 PICES

(see table B.2); their purchase values were divided by the average monthly life to reach a monthly equivalent expenditure value.

It was necessary to smooth the lumpy non food consumption expenditures as they would distort the computation of means. The first issue was the purchase of durables. A list of durables was noted and their life span which was previously determined in the 2001 ICES was used to determine the consumption expenditure of the durables derived in each month. The list was extended to include durables such as furniture and the life span of these product items was estimated using the criterion previously used in 2001.

Since PICES records ownership of key assets (see table B.2), it allows an imputation of the benefit flows accruing to the household from such ownership. If the household reports owning the asset, the monthly equivalent benefit from such ownership was computed as the average purchase price divided by the asset's monthly life.

Table B.2: Durable Asset Lives and Estimated Purchase Prices

Asset	Ownership recorded in PICES[b]	Estimated life (years)[c]	Value of assets[a]	
			Number of observations [d]	Mean expenditure on asset (US$)[e]
Automobile	yes	10	10	3,191.45
Refrigerator	yes	10	64	162.67
Stove	yes	10	131	113.39
Heater	yes	5	12	15.31
Television	yes	10	113	98.95
DVD player	yes	3	153	31.69
Radio	yes	5	174	42.57
Bicycle	yes	5	135	55.66
Furniture (f)	yes	10	499	186.33
Jewellery	no	10	114	5.23
Other electronic goods (Cell Phone)	yes	5	541	35.18
Other electronic appliances	no	7	155	81.68

[a]From PICES 2011/12 survey
[b]If ownership was recorded, then benefit flow from ownership is imputed, if ownership of item is not recorded, then flow of benefits from a recorded purchase are spread over the life of the asset.
[c]Based on judgment of team
[d]Number of households recording purchase in past month
[e]Used as the purchase price for imputations for consumption flows from ownership of automobiles, refrigerators, stoves, heaters, televisions, DVDs, radios, and bicycles. VCR's were replaced with DVD's.
f. All kinds of furniture e.g. beds and mattresses, bedroom suite, tables and chairs, dining room suite etc.

Average purchase prices needed for computing table B2 were obtained from the PICES 2011 data on household expenditures (see table B.2). The average prices of durables used to compute aggregate consumption was obtained from the Consumer Price Survey (CPS) for the month of June 2011.

This means of imputing benefits from ownership, however, introduces error in that there is no information from the PICES on the quality of the durable nor on its age. It is assumed that durables are all of a uniform quality and that no movement in relative prices of durables occurs over the life of the asset. It also assumes that durables owned by poor and non-poor households are equal in value and quality. This assumption probably overstates the in-kind-income from durables in poor families.

Because purchase and ownership benefits are measured, the interest payments on consumer loans (items 620-631 in the PICES 2011/12) are not included when computing consumption. Their inclusion would represent double counting.

Non-Durable Goods

Expenditures on non-durable items such as clothing, household furnishings, etc. were recorded for the month of the interview and were included directly. No imputations were necessary and only minimal cleaning was required.

An obvious problem is associated with this treatment of non-durables such as clothing as a current expenditure (rather than amortising the expenditure over the life time of the good in question). These expenditures can be as lumpy as expenditures on durables, and the flow of consumption benefits from ownership of these items is not included in the measure of welfare. This problem could not be avoided, as there is no information on ownership of these items from the PICES. Instead of spreading purchase values over the expected lives of some of these semi-durable assets, reported monthly expenditures are used to capture the consumption benefits from such purchases.

However, after this process, lumpy expenditures were identified in the PICES data particularly on semi durable goods. These expenditures were found in product items such as repair charges for vehicles, hospital medical charges, funeral expenses, wedding expenses, fares on airline, etc. In all these cases an attempt was made to amortize the semi durable goods to a life span ranging from 1 to 2 years in order to remove the lumpiness of these consumption expenditures. For some semi- durables a lifespan of 1 year or two years was used to spread the consumption expenditures of these product items.

Total Consumption

Total consumption was computed as the sum of the monthly consumption of food, non-durable and durable goods, housing, and schooling. All expenditure categories that are present in the PICES 2011 data were included in this computation. For example, expenditures on transportation, fuel, etc. were all included. The per capita consumption expenditures were deflated by a PDL index created by expressing all PDLs across rural and urban areas and provinces using the Harare June 2011 prices.

Computations were done for each province by month and for rural and urban areas. The prices used in computation of PDLs were obtained from the ZIMSTAT's CPI selection of products from the minimum needs basket. Since there is a spatial and temporal source of price variability, the reference had to include a location at a specific time. Therefore Harare June 2011 was used as the base, and each region/ temporal CPI was normalised using the June 2011 Harare CPI.

Annex C: Housing and Rental Values

Background

The PICES is unusual among similar surveys in developing countries in that it collected information on housing, including housing characteristics and rental expenditures. For owner-occupied housing, there are two sources of information on its value: regular mortgage payments and imputations conducted by enumerators who were asked to estimate the market value of the monthly rent for the housing. In 1995 and 2001 the average imputed rentals made by the enumerators were significantly different from the average actual rentals. Consequently the enumerator's figures on imputed rent were discarded and rental information was recomputed using the Hedonic regression model on housing. However, in the PICES 2011 analysis it was noted that the mean rental imputations by the enumerators were not significantly different from the mean of actual rentals from the same data set.

Treatment of Housing Consumption Expenditures in PICES 2011

The ZIMSTAT team wanted to determine if the data collected by enumerators on actual rentals and imputed rentals was usable. Firstly data on rent per room by province was collected from the Rent and Domestic Workers survey conducted by the Prices Section every quarter, in Zimbabwe. Average rent per room was computed from the PICES 2011/12 data and the rent per room figures were compared (i.e. PICES average rent per room compared to Rent and Domestic Workers Survey's rent per room). The rent per room figures from the Rent and Domestic Workers Survey are, however, available only for urban areas by province and classified for high density areas, medium density areas and low density areas. It was noted that the average rent per room figures from PICES data were not very different from the Rent and Domestic Workers Survey's figures especially in urban areas.

The ZIMSTAT team then computed the average rent per room figures which deviated significantly from the average Rent and Domestic survey rent per room figures from the PICES 2011/12 data. A total of 30 batches of 14 questionnaire booklets each were pulled out from the shelf and the rental information was closely examined. These batches of questionnaires were picked from various provinces and from various months of the PICES 2011/12 survey year. The figures for rental of house or flat unfurnished (item 332), rental of house or flat furnished (item 333) and imputed value of rental of owner-occupied house (item 334) were computed separately in a worksheet. From this data, it was noted that in rural areas the rental figures in enumeration areas were not very different from each other except for one or two outliers. As expected high rental or imputed rental figures were found in low density areas of the urban areas. The team accepted the enumerator's figures of imputed rentals because they were not significantly different from actual rentals when rent per room was considered. However, the issue of outliers still needed to be addressed.

Average rent per room by enumeration area was computed and outliers were removed if the figure of rent per room was 2.5 times higher than the average rent per room. The average rent per room was used to re-compute the total rental or imputed rent of outlier households by multiplying rent per room by the number of rooms found in question 70. The outliers found in actual rentals were also corrected by using the average actual rental in the enumeration area. Some households did not report any rentals or imputed rentals (missing values) and so the average rent per room was multiplied by the number of rooms to obtain a figure of the estimated rentals. It was assumed all households should have a figure for rental or imputed rentals since no dwelling unit can be occupied for free. After replacing the missing values with estimated rentals, missing values disappeared from the adjusted data set on imputed rentals.

Table C 1. Average Rental Per Room by Location and Province US Dollars

Quart-er	Area	Year	Byo	Mani-caland	Mash Cent.	Mash. East	Mash. West	Mat. North	Mat. South	Mid-lands	Masvi-ngo	Hre	Zim
June	High	2011	31.72	32.17	30.38	26.86	26.45	29.15	32.97	25.81	37.39	43.48	31.25
Sept	High	2011	32.02	34.37	31.70	27.96	27.40	30.62	33.26	26.91	38.55	43.98	32.32
Dec	High	2011	33.03	32.04	32.21	30.42	29.58	38.07	33.19	33.02	41.74	49.05	34.82
Mar	High	2012	39.00	38.53	37.00	31.91	30.57	41.35	34.27	37.68	45.92	53.56	38.48
June	High	2012	43.79	49.68	40.78	40.10	33.86	49.36	38.52	42.57	47.87	57.51	43.94
June	Med.	2011	49.14	43.86	31.68	30.34	30.86	15.87	33.37	27.77	47.62	69.28	35.41
Sept	Med.	2011	49.86	44.54	32.57	37.96	31.16	15.87	33.65	28.72	48.82	70.29	36.76
Dec	Med.	2011	51.68	45.97	33.44	39.14	36.70	15.87	35.99	36.00	64.17	94.67	41.25
Mar	Med.	2012	56.20	54.18	40.40	39.14	37.82	15.87	38.32	38.35	57.33	95.24	43.30
June	Med.	2012	56.57	54.98	40.40	44.77	38.14	22.06	43.68	46.53	62.47	102.82	47.76
June	Low	2011	50.03	53.25	47.54	36.76	36.30	33.33	40.31	46.55	49.81	91.42	46.58
Sept	Low	2011	50.99	53.70	47.58	37.23	36.77	33.65	41.77	46.72	50.25	91.45	47.11
Dec	Low	2011	55.63	61.27	52.46	38.77	37.99	41.73	43.11	45.91	52.51	93.35	50.44
Mar	Low	2012	65.91	70.83	65.81	43.66	43.35	42.28	44.86	53.47	63.27	100.54	57.20
June	Low	2012	66.56	74.75	66.38	49.40	46.86	50.00	50.00	65.52	68.42	107.63	62.59

Source: Rent and Domestic Workers Survey, ZIMSTAT September 2012

Comment on Enumerator Training on Imputed Rentals

ZIMSTAT has been carrying out ICES work for a long period of time. Most of the enumerators who were trained in 1995 are still working for ZIMSTAT. During a 16 day training held in Gweru in November 2010 the issue of imputation of rental figures was adequately dealt with. The enumerators were requested to impute rental figures using actual rent per room information found within the same area. The enumerators were requested to ask the respondent how much they would charge per room if someone were to rent their dwelling unit. The total imputed rental figure would be derived by multiplying rent per room by the number of rooms in question 70. This method has proved to work as the level of rentals found in rural areas were significantly lower than

those in urban areas while the imputed rentals found in urban areas were close to those of the actual rentals.

It is important to note that most of the enumerators are educated up to at least "O' level. Some of the enumerators are educated up to "A' level and a few others have degrees. The ZIMSTAT team is therefore confident that the work on imputed rentals, was done well, being also assisted by a stable multi-currency economic environment. In addition, the use of information on the number of rooms per household has helped a lot in estimating imputed rentals particularly in rural areas. Consequently, in this iteration ZIMSTAT did not use the regression model on rentals as the figures obtained by direct computations were plausible.

Annex D: The Poverty Datum Line for Zimbabwe

Background

A number of studies have been conducted related to poverty and its determinants in Zimbabwe. These include Cubitt and Riddell, Cubitt, Jackson and Collier, Ministry of Public Service, Labour and Social Welfare, among others. These studies address many of the issues surrounding the level and composition of a poverty datum line (PDL). They note that as the PDL is the primary building block of subsequent analyses, determining the line is a critical first step in any analysis of poverty.

Different methods can be employed to determine the PDL, including the "food energy" method, the "least-cost diet" method, and the "cost of basic needs" method. The cost of basic needs method was adopted in this study, because it is consistent with prior practices in Zimbabwe, and is preferred on conceptual grounds because it leads to consistent comparisons among sub groups (for a discussion of consistency and the desirable properties of PDLs, see CSO, 1998; or Ravallion, 1998). All the studies mentioned above used some variation of the cost of basic needs method. Despite their use of a common methodology for developing a PDL, these studies did not use a similar minimum needs basket of items.

The cost of basic needs method consists of identifying a "minimum needs basket" of food items and other consumption goods, and then valuing that basket using market prices. The resulting value represents the cost or minimum expenditure required to attain a minimum level of well being (or what Ravallion, 1998, calls "the cost of the poverty level of utility"). As the value of the minimum needs basket will vary depending on the composition of the basket (and, of course, prices), it is important that the basket be consistent with expenditure patterns of the poor.

Methodology

The poverty datum lines employed in this study use a "representative basket" of food items that are consistent with expenditure patterns in Zimbabwe, provide reasonable dietary diversity, and provide a minimum amount of food energy needs. This basket was valued using market prices for the 10 provinces of Zimbabwe[10]; the resulting value (or cost of consumption of the minimum food needs) represents the "food poverty line" (FPL). It is assumed that an individual whose total per capita consumption expenditures do not exceed the FPL is very poor. A second poverty line that accounts also for non-food basic needs was created; this line is denoted the "total poverty line" (TCPL). The TCPL was derived by computing the non-food consumption expenditures of households whose total expenditures per capita just equal the value of the FPL. Please note that there are two potential upper lines, depending on how the food share is computed. The share of food expenditures for households whose total consumption exactly equaled the FPL is

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[10] Average Prices by province and district were derived from CPS data from June 2011 to May 2012. These prices are the most appropriate prices to use in this analysis because the data is representative at district level and all the variations in the prices of goods across the nation are captured.

used. This is a lower bound for the upper line. An alternative is the food share for household whose food expenditures exactly equaled the FPL. This would be used to compute an upper poverty line. This amount is added to the FPL. If an individual does not consume more than this TCPL, he or she is deemed poor.

There are two options for the "representative basket" of food items: (i) use a single basket for the entire country, or, (ii) use a basket that varies according to location. An example of the second option is the PASS study (MPSLSW) which used different minimum food baskets for urban and rural households. The choice to use single or multiple baskets, and the composition of the baskets is not one that should be made cavalierly. There is substantial evidence that findings relative to where poverty is more severe can depend on the choice (see, for example, Ravallion and Sen).

If a single national basket is used, poverty among certain groups may be understated when their consumption is compared to the cost of each poverty line. The reason for this is that as prices change, consumers substitute away from consumption of relatively more expensive goods and replace them with less expensive sources of nutrients. For example, prices of some commodities such as sugar and cooking oil might be higher in rural areas than they are in urban areas. Rural consumers will substitute less expensive goods for these higher-priced goods. If a constant food basket is used, and prices of the goods in the basket in rural areas are all higher than in urban areas, the poverty line, computed using a single food basket, in rural areas will be higher than it should be. Rural consumers will be able to achieve the same level of welfare, at lower cost to them, by making substitutions. The resulting poverty line will tend to overstate rural poverty relative to urban poverty[11].

The above argument implies that different "baskets" should be used depending on the location, especially if relative prices vary "significantly" across locations. However, a problem emerges with the use of different baskets, because different baskets of goods can imply different levels of welfare. To make poverty comparisons, the analyst must try to insure that individuals (or households) whose expenditures or income are exactly equal to the poverty line have equal levels of well being, regardless of where they live. When "minimum needs" baskets contain different quantities or different items in different areas, it is difficult to insure this equality. Thus, the validity of the poverty comparisons may be compromised by the use of different consumption baskets to construct the poverty line.

The ZIMSTAT has, as a matter of policy, adopted a single minimum needs food basket. There are several reasons for this, including the fact that ZIMSTAT uses single national weights for its CPI. It is desirable to have a consistent methodology for the CPI and the PDLs. In addition, there are substantial difficulties associated with ensuring that welfare levels are similar if different baskets are used. For the purpose of validating inferences, rural and urban minimum needs baskets are identified and the results of the two profiles are compared.

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[11] The example here is hypothetical, and the real direction of the bias depends on a number of things, including the magnitude of price differences, the source and composition of the minimum needs basket, and the propensity of low-income consumers to make substitutions. The direction of the bias (that is, whether poverty is over- or under-stated in a given area due to the use of a single food basket) is an empirical question.

The minimum needs food basket

The minimum needs food basket is identified by examining expenditure patterns from the 2011 PICES[12] and comparing those patterns to baskets used in other studies. An overview of the procedure used to identify components of the food basket and the quantities of each component is shown in figure A1.

Identifying basket components

The analysis began by analysing consumption patterns of Zimbabweans. In the 1995 Poverty Study conducted by a ZIMSTAT team and a World Bank Consultant, mean food budget shares[13] were examined for households whose consumption fell below the 40th percentile of total per capita consumption. The same method was used in PICES 2011/12. Food items were identified that constituted at least 1 percent of total food consumption for such households for each province and by rural and urban location. Any item whose mean food share exceeded 1 percent in any province is included in the minimum needs basket. Eighteen expenditure items are identified as being significant components of food expenditure. These commodities and their shares of total food expenditures are shown in table D.1. They formed the "minimum needs" basket of food.

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[12] The terms "consumption" and "expenditure" are used interchangeably here. The PICES contains information on market expenditures and non-market values such as own-produced items consumed by the household.

[13] That is, the share of expenditure or consumption of each food in total household food expenditure. These mean shares were computed only for those households below the 40th percentile of the national consumption distribution.

Figure A1: Process for Determining PDL Quantities

```
                    ┌─────────────────────┐
                    │  Identify Basket    │
                    └─────────────────────┘
                              ⇓
                    ┌─────────────────────┐   ⇐═══
                    │ Compute Consumption │
                    │ Shares              │
                    └─────────────────────┘        ⇑
                              ⇓
                    ┌─────────────────────┐        ⇑
                    │ Consumption         │
                    └─────────────────────┘        ⇑
                              ⇓
                    ┌─────────────────────┐    ┌─────────┐
                    │ Food Energy         │    │ IF ≠ 1  │
                    └─────────────────────┘    └─────────┘
                              ⇓                    ⇑
                    ┌─────────────────────┐═══⇐
                    │ Compute Inflation   │
        ┌────────┐  └─────────────────────┘
        │ IF=1   │──────────┤
        └────────┘          ⇓
                    ┌─────────────────────┐
                    │ Done                │
                    └─────────────────────┘
```
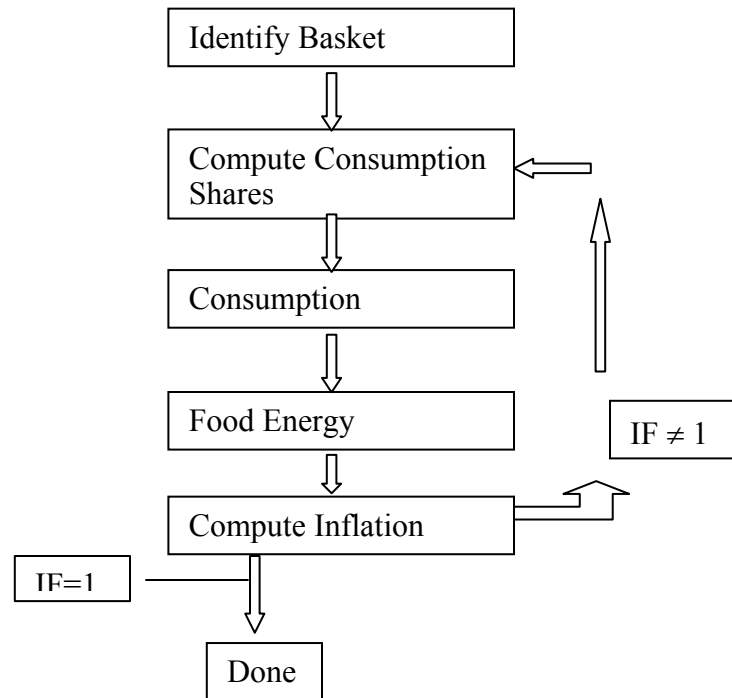
Determining Quantities of Each Component

Once the elements of the minimum needs food basket are identified, there is need to determine the quantity of each element, so that the total basket could be priced. In this step, the average shares of each of these minimum needs elements in the total value of the minimum food needs basket are computed[14]. These shares are only computed for households below the 40th percentile of the national consumption distribution[15]. These shares were multiplied by the value of expenditure at the 40th percentile, and divided by ZIMSTAT prices, to yield the implied quantity of each good consumed.

Quantities were then converted to their energy equivalent (see section below on how food energy content was computed). The energy content of the food basket (E_B)[16] was compared to the 2100 calorie per person per day FAO minimum dietary needs (E_{MIN}). An inflation factor (E_B/E_{MIN}) was computed and the total expenditure at the 40th

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[14] The total consumption expenditure by each household on the elements of the minimum needs basket was divided into the value of consumption of each item. This formed a series of expenditures on each item as a share of total expenditures on the food basket.

[15] The choice of this decile as a starting point was arbitrary. The resulting food basket does not depend on this choice.

[16] $E_B = \sum_{i=1}^{n} s_i * x_{40} / p_i * e_i = q_i * e_i$, where i indexes the n (18) items in the minimum needs basket, s_i is the minimum needs expenditure share, x_{40} represents the value of total consumption expenditure at the 40th percentile, p_i is the price of the ith good, and e_i is the energy content of the ith good.

percentile was multiplied by this inflation factor (to increase or decrease, proportionally, the quantities of all the items in the basket). This process yields a new consumption cutoff.

Table D.1: Food Commodities Included in the Minimum Needs Basket, and Their Shares of Total Food Consumption Expenditures[a].

Commodity	Share in total food consumption	Quantity Per person (kg/annum/ person)
Maize (including own-produced)	.216	134.7
Bread	.094	18.3
Rice	.012	0.7
Flour	.018	3.6
Beef (including own-produced)	.130	11.1
Poultry	.024	2.4
Fish	.043	3.5
Milk & eggs (including own-produced)	.061	15.5
Fats & oils	.066	5.7
Rape	.021	13.1
Cabbage	.007[b]	5.3
Tomatoes	.016	3.1
Own-produced vegetables	.093	66.7
Groundnuts	.013	8.4
Potatoes & tubers	.017	6.6
Sugar	.062	13.3
Pulses	.008[b]	10.5
Salt & confections	.016	2.9
Total (value food basket divided by total food consumption)	.920	

Source: ICES 2001
[a] Shares are presented for households below the 40th percentile of total per capita consumption.
[b] Although the mean share is less than 1 %, the share exceeds 1% in at least one province.

Average minimum needs shares were then computed for households whose total consumption fell below the new consumption cutoff. The quantities were recomputed and priced, and the process was repeated until the inflation factor stabilized at 1. This iterative process insures that the budget shares used are consistent with the expenditure patterns of households below the poverty line.

In order to compute rural and urban poverty lines (for the purpose of examining the robustness of the findings of the profile to the use of a single national minimum needs basket), the process was repeated. Budget shares, quantities, and final expenditures were computed for urban and rural areas, separately. The process yielded two minimum needs baskets, one for urban and one for rural areas, while ensuring that the expenditure patterns were consistent with such patterns in rural and urban Zimbabwe.

Computing Food Energy Content

The energy content of the minimum needs basket had to be estimated in order to derive the inflation factor and ensure that the quantities of food in the basket provided adequate dietary energy. To do so, values of expenditure on the food items were divided by the food prices (see above) to yield quantities. After this, the quantities had to be converted to their energy equivalent.

Table D.2: Assumed Composition of Own-Produced Consumption, by Broad Group

Own-produced broad commodity group	Assumed composition
Bread and cereals	Maize (100%)
Meat	Beef (70%), poultry (30%)
Dairy	Milk (80%), eggs (20%)
Vegetables	Cabbage(33%), rape(33%), tomatoes (34%)

Source: ICES 2001. Note: these assumed compositions were based on rough expenditure patterns for market purchases of the items.

To minimize the need for prices of commodities, the components of the composite commodities were kept to a small number. In the bread and cereals group, maize was the only component, because own consumption of the other major cereals (bread, flour, rice) is unlikely to occur.

Own Consumption

Own consumption accounts for a large share of reported expenditures on the following food groups: bread and cereals, meats, dairy products, and vegetables. Since the PICES contains no information on the specific commodities composing these own consumption expenditures, assumptions needed to be made about their composition in order to compute prices (which are quantity-weighted averages) and energy contents of these commodities[17]. Assumptions about the composition of the own-consumption composite goods were made based on expenditure patterns, on the availability of ZIMSTAT prices, and common sense. For example, the own-consumption of the bread and cereal group did not include bread (very little own-consumption of bread occurs) or sorghum/millet (ZIMSTAT does not collect prices of these commodities). The assumed composition of the own-consumption bundle for each of these groups is shown in table D.2.

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[17] The PICES addresses own consumption by asking the household the value of own-produced food items consumed in the previous month (see ZIMSTAT PICES 2011 Manual and Questionnaire). However, these values were aggregated during completion of the questionnaire into broad food groups. For example, while the PICES contains information on market expenditures on maize, bread, millet, etc., it only contains information on own-consumption of the broad cereal group. Payments in kind, gifts, and transfers are also aggregated in a similar fashion.

Energy Content

The primary source of information on energy content of food items was the paper authored by Chitsiku. In cases where food items were aggregated into a compound commodity, raw expenditure shares were used to weight the calorie contents of the different components. All energy values were adjusted for energy losses during cooking.

Table D.3: Assumed Energy Content of Food Items in the Minimum Needs Basket

Commodity	Units	Kcal /unit	Note
Maize	100 g	310	Straight run mealie-meal, adjusted (*.89) for energy loss during cooking
Rice	100 g	311	Raw rice, adjusted (*.89) for energy loss during cooking
Flour	100 g	291	Adjusted (*.89) for energy loss during cooking
White bread	Standard Loaf	2100	70 kcal/25 g., 750 g. per loaf
Beef	100 g	251	Stewed beef
Poultry	100 g	216	Roasted chicken
Own-produced meat	100 g	240	Beef (70%), chicken (30%)
Fish	100 g	299	Dried fish
Milk	1 cup (244 g)	150	Fresh whole milk
Own-produced dairy	100 g	151	Milk(80%), eggs (20%)
Oil/fats	100 g	895	Vegetable oil
Cabbage	100 g	20	Boiled
Rape	100 g	36	Adjusted (*.76) for nutrient loss during cooking
Tomato	100 g	16	Adjusted (*.76) for nutrient loss during cooking
Own-produced vegetables	100 g	24	Cabbage (33%), rape (33%), tomato (34%)
Tubers	100 g	78	Compound commodity (.75 boiled potato and .25 boiled sweet potato)
White sugar	100 g	375	
Dried vegetables	100 g	330	Dried haricot beans

Source: Chitsiku

When a food basket providing 2 100 calories per day was reached, it was priced for each province and month using local prices. This process yields region (province), rural, urban and month-specific food poverty datum lines. For the PICES 2011 survey, 216 poverty lines (12 x18) or 9 x2 x 12 were computed. These poverty lines were deflated by the Harare June 2011 FPDL to basically yield one food poverty datum line.

Formula for Computing the Food Poverty Datum Line

The formula for computing the poverty line has been adopted from the weights used in the minimum needs basket which was derived for the ICES 2001 and ICES 1995 poverty analysis. This basket was based on earlier 1997 consultancy involving a statistician and a nutritionist/food economist. There is no change in the caloric value than was initially intended and the same approach has been adopted from ICES 2001. A basket of foods providing a minimum calorie level following consumption patterns of the poor is used and minimum quantities of 18 food staff items are used.

During the period 1997 and 2001 the basket was priced using only urban prices as noted in earlier reports. However, the present minimum needs basket has been priced using urban and rural prices since ZIMSTAT now collects prices also from rural markets. It has been observed that the cost of reaching the poverty line expenditure does not vary substantially between rural and urban areas.

Table D.5: Annual Mean Food PDL by Place of Residence in US Dollars

Province	Urban	Rural	Total
	Mean Food PDL	Mean Food PDL	Mean Food PDL
Manicaland	31.2	31.6	31.4
Mashonaland Central	32.0	31.5	31.8
Mashonaland East	31.9	31.8	31.9
Mashonaland West	32.2	33.9	33.0
Matabeleland North	35.5	36.6	36.1
Matabeleland South	35.6	35.9	35.7
Midlands	31.9	32.2	32.0
Masvingo	32.1	32.0	32.0
Bulawayo	32.0	-	32.0
Harare	31.5	-	31.5
All Zimbabwe	**32.6**	**33.2**	**32.7**

Source: PICES 2011. Notes: Variation in FPDL is caused by spatial and seasonal variations in prices and by variations in the food shares by place of residence (rural/urban) and province.

Table D.6: Annual Mean TCPLs by Place of Residence in US Dollars

Province	Urban Mean TCPL	Rural Mean TCPL	Total Mean TCPL
Manicaland	81.3	62.2	71.7
Mashonaland Central	83.3	62.0	72.7
Mashonaland East	83.2	62.6	72.9
Mashonaland West	83.9	66.7	75.3
Matabeleland North	92.6	72.0	82.3
Matabeleland South	92.6	70.5	80.6
Midlands	83.0	63.3	73.2
Masvingo	83.6	62.9	73.2
Bulawayo	83.3	-	83.3
Harare	82.0	-	82.0
All Zimbabwe	**84.9**	**65.3**	**76.7**

Source: PICES 2011 :Two TCPLs were computed, one for rural areas and the other for urban areas. TCPL is measured in US$ per person per month.

Non-Food Expenditures

Because it is difficult to measure quantities, qualities, and prices of non-food goods necessary for a minimum level of well-being, the analysis turned again to revealed behaviour of households near the FPL. Ravallion (1998) shows that on a conceptual basis, the total consumption poverty line cannot exceed the total consumption of those whose actual food spending achieves basic food needs. This is the upper bound which was discussed earlier on. We, however, use total expenditures which reflects a lower bound. Thus, we measure the total consumption for households whose food expenditures exactly equal the FPL. This amount of expenditures is the TCPL.

To implement this procedure, non-parametric methods were used in 2001 to measure the total consumption expenditures of those households just spending enough on food to meet the FPL consumption level. However, for PICES 2011 the Engle Approach was used as described below.

Because prices vary monthly and by province, the FPL is different for every month and every province. The TCPL is different for every month, every province, and by rural/residence.

Engle Approach Used to Estimate the Upper Poverty Line in the PICES 2011 Analysis

A food poverty line (FPL) is created using CPS price data. The food poverty line (FPL) is created using the smoothed and imputed prices. This FPL is merged with the household consumption aggregate dataset containing the basic information for the poverty profile.

Generating the upper poverty line

The Working-Engle approach is used because the non-parametric approach described above leads to inconsistencies[18]. In using the Engel approach, the food share is regressed on the log of per-capita consumption and a dummy variable reflecting rural/urban status. Using this regression, the food share is predicted for households whose total per-capita consumption (lower bound) and total per-capita food consumption (upper bound) exactly equals the food poverty line. This share is divided into the food poverty line to yield an upper poverty line with an upper and lower bound. The lower bound of this upper-line is subsequently used.
- the lower bound of the upper poverty line is used
- the upper line is computed using the FPL and the method described above.

Table D 7: Estimated Food Shares Using Engel Curve Method.

Expenditure value	Rural	Urban	Status of food share
Total expenditures per-capita	.5084	.3837	Lower bound
Total food expenditures per-capita	.5279	.3229	Upper bound

Source: PICES 2011. Note: Used regression of food share on log total per-capita expenditures (per-capita food expenditures) and rural dummy variable. Predicted share is computed substituting the log of the FPL (for rural and urban areas) as the regressor.

For every FPL (rural or urban) the upper poverty line would be computed by dividing the FPL by the expenditure share (rural or urban, depending on where the household is located. This will give an upper poverty line for each province, each month, rural and urban areas. These are then used to deflate the consumption expenditures.

Deflating household expenditures
The upper poverty line is used to deflate household expenditures to reflect cost of living-based differences in the minimum expenditures necessary to avoid being classified as poor or extremely poor according to the upper and lower poverty lines, respectively. Harare, June 2011 is used as the reference period and area. The upper poverty line rather than the lower or food poverty line is used for this deflation. The reason for this suggestion is that the resulting deflator would reflect all differences in cost of living, not just food-price-base differences.

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[18] The main problem is that the non-parametric method relies heavily on food shares of households whose consumption expenditures are very close to the poverty line. The method yielded the odd result that the food share of households whose total expenditures were near the poverty line was actually lower than the food share for households whose total food expenditures were near the poverty line. The first group of households is clearly worse off than the second, yet their estimated food share was lower.

Results

The iterative procedure outlined above was used to compute a minimum needs basket for all Zimbabwe (table D.8). The minimum needs basket is close in quantities to the basket used in the PASS study (MPSLSW), and closely matches the consumption patterns of Zimbabweans (see Mutungadura and Keogh for an overview of different food baskets used in studies in Zimbabwe). Differences from the PASS[19] basket occur because the ZIMSTAT modified its questionnaire between the conduct of the 1995 and 2001 ICES, and expenditure patterns of the poor have changed over time.

The quantities consumed in this minimum needs basket are multiplied by the market price in each of the 10 provincial markets to yield a food poverty line for each province. This poverty line varies by market and by month as the prices of the goods in the minimum needs basket change.

Table D.8: Minimum Needs Food Basket for All Zimbabwe

Commodity	Share of minimum needs food basket	Quantity (kg/annum/person)
Maize (including own-produced)	.28	134.7
Bread	.06	18.3
Rice	.01	0.7
Flour	.02	3.6
Beef	.12	11.1
Poultry	.02	2.4
Fish	.05	3.5
Milk & eggs (including own-produced)	.05	15.5
Fats & oils	.06	5.7
Rape	.03	13.1
Cabbage	.01	5.3
Tomatoes	.01	3.1
Own-consumed vegetables	.18	66.7
Groundnuts	.02	8.4
Potatoes & tubers	.02	6.6
Sugar	.08	13.3
Pulses	.01	10.5
Salt	.01	2.9

Source: ICES 2001

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[19] The PASS study used a minimum needs basket derived using the 2001 ICES.

Computation of the Food Poverty Datum Line Using PICES 2011/12 Data

The prices of products from the minimum needs basket are collected and multiplied by the monthly quantities in order to derive the poverty datum line. The average prices are derived from the consumer price survey data collected for the period June 2011 to May 2012. It was observed that some of the prices of certain products were missing. It has been ZIMSTAT policy over the years that, if the price of a certain product was not available from the Consumer Price Survey (CPS) then the previous price was carried forward to cover the gap in the price. Therefore in the ICES 2001 the issue of missing prices was addressed by repeating the price of the item's last known price. However, during the period of hyperinflation, this practice was replaced by a method of dropping the missing prices together with the corresponding weight.

Cleaning of Prices

The data from the prices section was checked to see if the quantity of each product matched the weight of each product on the minimum needs basket. Examples include a smaller loaf than the standard loaf of bread or a larger bag of maize meal than the one expected on the product list. The product whose quantity is outside the expected range is identified and removed from the data then average prices for each product in the minimum needs basket are computed. The mean prices are computed at province level. These mean prices for each product are used to replace all the products whose prices are above or below the average prices. The province average prices by product are used to replace the prices of products which did not have the correct quantity in each province.

The prices used in determining the FPL are obtained from the Consumer Price Survey (CPS). The raw price data is obtained for the 18 products which are in the minimum needs basket. The data is collected for each province, and for each month of the PICES survey. The prices data is therefore collected for the PICES survey months beginning from June 2011 to May 2012. Another set of cleaned data set for June 2011 was obtained from the Prices Section for comparison. In the previous ICES for 2001 and 1995 only urban prices were used in computing FPLs. However, the CPS now collects both urban and rural prices. As a result there would be different FPLs for rural and urban areas in the PICES 2011 poverty analysis.

The PICES team had to carry out a data price cleaning process in order to come up with average prices for urban and rural areas. There are two problems with the prices: (i) missing prices; (ii) prices where the unit for which the price was collected does not match the standard ZIMSTAT unit (such as smaller than normal loaves of bread) which sometimes referred to as outliers. The problem of missing prices was prevalent in rural areas. The problem of missing prices was 5.3 percent and was mostly found in rural areas. The problems of un-matching product units represented 23.5 percent across all provinces. It should be noted after the cleaning process was completed the results were compared with the clean prices from the CPS and the two prices matched or had marginal differences.

Table D9: Results of Price Cleaning and Replacement of Missing Prices

Description	Item No.	No. of prices	Percent
Total prices in data base obtained from CPS	1	11,464	100.0
Original prices which needed no cleaning	2	7,158	62.4
Number of prices observations at outlet level to be cleaned	3	4,306	37.6

Number of prices needed in the minimum needs basket

Total number of mean prices needed in the minimum needs basket (18 products x 9 provinces x 12 months x 2 rural and urban areas)	4	4,104	100.0
The mean prices that could be computed in minimum needs basket from original prices	5	2,925	71.27
Total number of un-matching product units (outliers) and missing prices	6	1,179	28.73

Replacement of outliers and missing prices

Un-matching product units prices (outliers) to be replaced by average prices across provinces	7	963	23.46
Missing rural prices	8	216	5.26
Total prices		**1,179**	

Source: PICES 2011

Sensitivity Analysis: Price of Groundnuts versus the Price of Peanut Butter

The team used ground unit prices from the PICES data since there were few ground nut prices in the CPS. These prices are listed by province and for rural and urban areas. The average prices of groundnuts are derived from the prices of unshelled and shelled groundnuts, items 165 and 166 respectively in the PICES questionnaire. A sensitivity analysis is done to see the impact of peanut butter prices compared to using groundnut prices on computing the food poverty line. It is noted that being a processed product has the effect of increasing the food poverty line by on average 2.1 percent, see table D10 and figure A2. However, it should be pointed out that substitution of a processed good's price for that of an unprocessed good is likely to create price distortions. The variation in peanut butter prices may not be able to accurately reflect changes in the prices of groundnuts. Consequently urban prices of processed peanut butter are likely to be lower than rural prices for the same item, while rural prices of unprocessed groundnuts are likely to be lower than urban prices.

Figure A2: Food Poverty Lines Using Groundnut Prices and Using Peanut Butter Prices
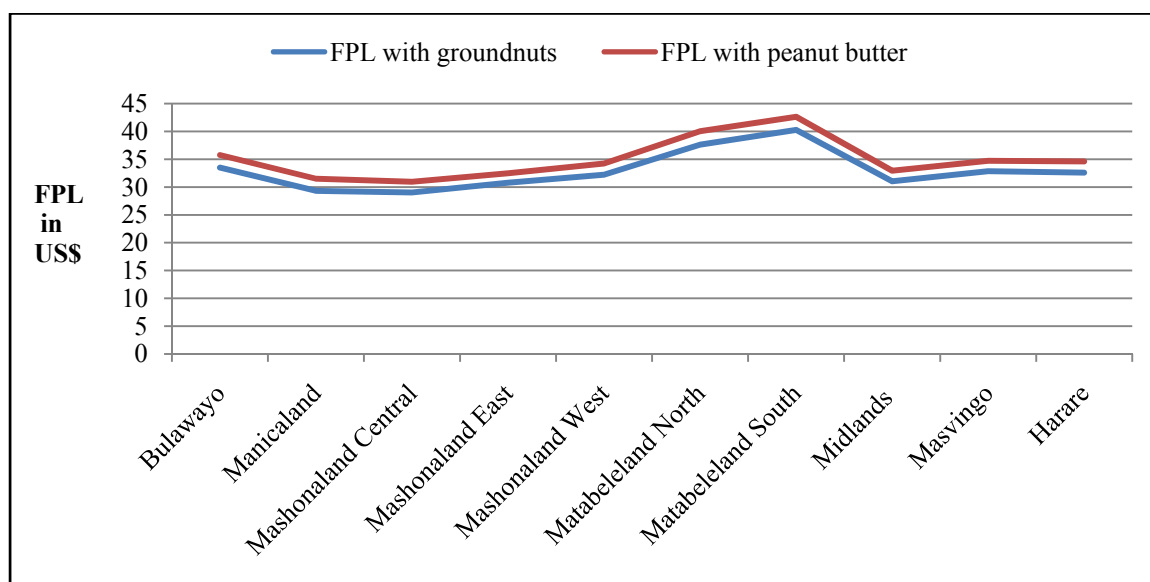
Table D10. Sensitivity Analysis: Difference in FPL With Peanut Butter and With Groundnuts

Province	Difference in FPL using peanut butter and groundnuts
Bulawayo	2.3
Manicaland	2.2
Mashonaland Central	1.9
Mashonaland East	1.7
Mashonaland West	2.0
Matabeleland North	2.4
Matabeleland South	2.4
Midlands	1.9
Masvingo	1.9
Harare	2.0
Average All Zimbabwe	**2.1**

Sensitivity Analysis 2: Using Smoothed Household Expenditures on Clothing and Footwear in December 2011 and Without Smoothed Expenditures

The average monthly household consumption expenditures on clothing and footwear are shown in figure A3. It can be observed that most of the households in Zimbabwe bought their clothes in December 2011 particularly during Christmas time. The aim of the sensitivity analysis is to examine the impact of smoothing lumpy clothing and footwear consumption in the month of December 2011.

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Figure A3: Mean Monthly Household Consumption Expenditures on Clothing and Footwear US$
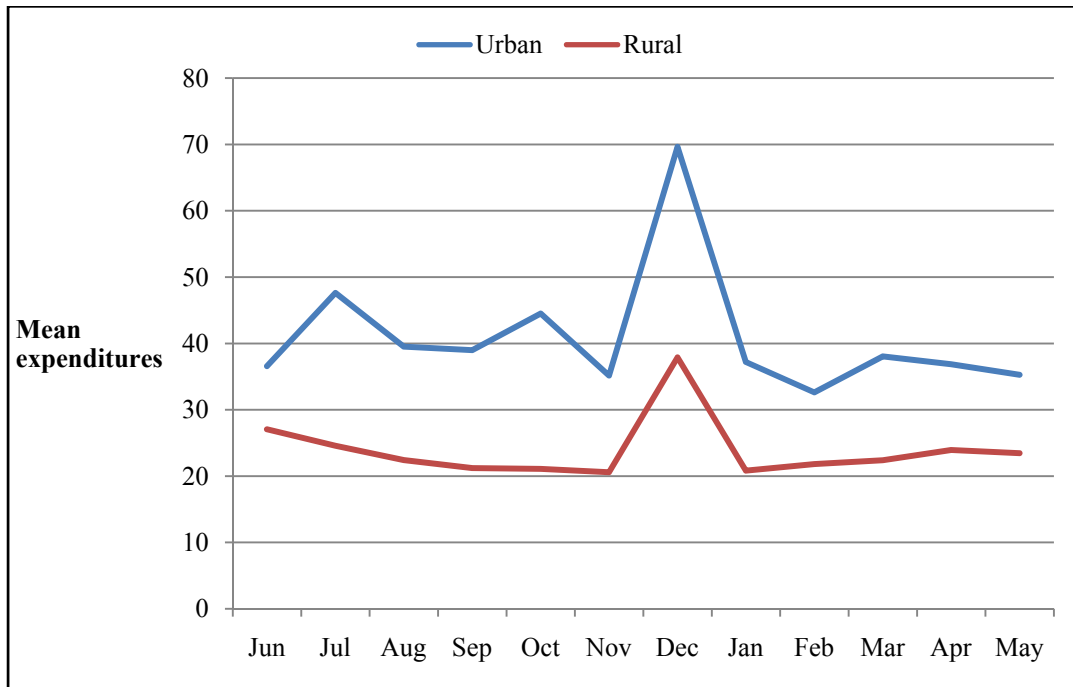
Source: PICES 2011

The December 2011 household consumption expenditures on clothing and footwear are then smoothed by replacing the original figures with the average expenditures of clothing and footwear for the rest of the months. Figure A4, shows the impact of smoothing the December 2011 figures. The consumption aggregate is recomputed using the smoothed December 2011 expenditures on clothing and footwear and the impact on the poverty prevalence is examined. The results reveal that there are no significant differences in the poverty prevalence before smoothing and after smoothing clothing and footwear in December 2011. The conclusion is not to smooth the expenditures on clothing and footwear since there is no effect in doing so, see table D11.

Figure A4: Mean Monthly Household Consumption Expenditures on Clothing and Footwear US$
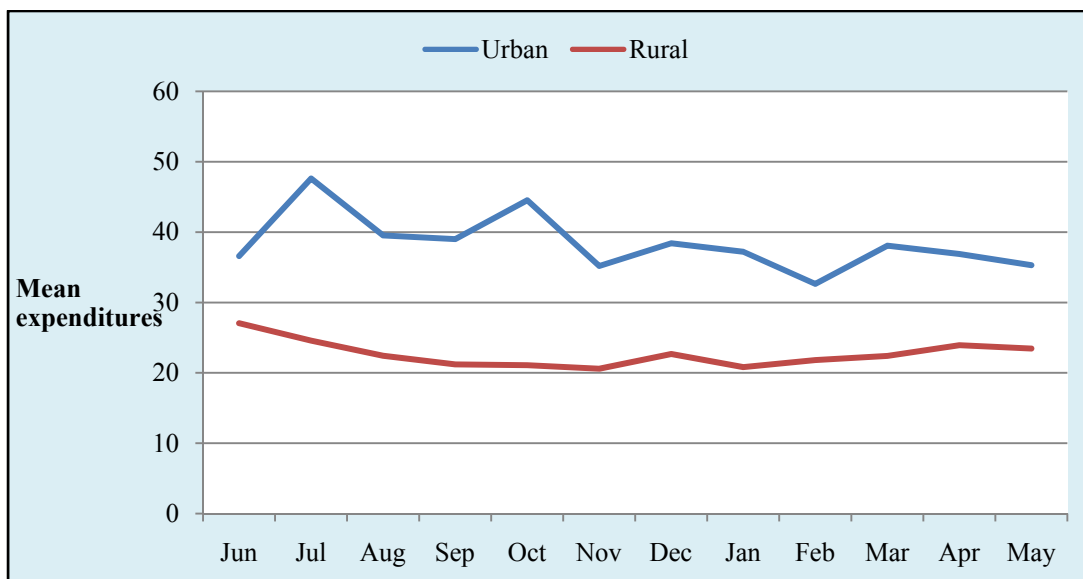
Source: PICES 2011

Table D11: Poverty indices by place of residence, before smoothing and after smoothing expenditures on clothing and footwear.

	Prevalence (%) of	
Residence	**Poverty**	**Extreme poverty**
Households before smoothing clothing and footwear		
Rural	76.0	22.9
Urban	38.2	4.0
All Zimbabwe	62.6	16.2
Households after smoothing clothing and footwear		
Rural	76.0	22.9
Urban	38.5	4.0
All Zimbabwe		

Source: PICES 2011. Poverty refers to the prevalence of households or people in households whose consumption expenditures per capita are below the upper poverty line (the TCPL). Extreme poverty represents a shortfall below the lower poverty line (FPL). The poverty gap and the severity indices are the Foster, Greer and Thorbecke α=1 and α=2 measures, respectively (see Ravallion, 1992 for details). These indices are computed using the upper poverty line.

Sensitivity Analysis 3: Housing Consumption Aggregate: Removing Households that had Both Imputed Rent and Mortgage so as to Remain with Imputed Rentals Only.

The SAS program was examined to see if there were any households who had both imputed rentals and actual rentals. The result was that there no such households. The next step was to check if there were households who had imputed rentals as well as mortgage expenses. Only 14 households were found in that scenario. The mortgage expenses were then removed and only imputed rentals remained for the 14 households. The impact of this measure is examined on the poverty prevalence figures. The results are shown in table D12. Again there are no differences in removing the mortgages and not removing them from the aggregate consumption expenditures because the number of households affected is negligible and the amounts of mortgage payments are also small.

Table D12: Poverty indices by place of residence; before removing mortgages from 14 households and after removing mortgages from 14 households

	Prevalence (%) of	
Residence	**Poverty**	**Extreme poverty**
Households before removing mortgages from 14 hholds		
Rural	76.0	22.9
Urban	38.2	4.0
All Zimbabwe	62.6	16.2
Households after removing mortgages from 14 hholds		
Rural	76.0	23.0
Urban	38.3	4.0
All Zimbabwe	62.6	16.2

Source: PICES 2011. Poverty refers to the prevalence of households or people in households whose consumption expenditures per capita are below the upper poverty line (the TCPL). Extreme poverty represents a shortfall below the lower poverty line (FPL). The poverty gap and the severity indices are the Foster, Greer and Thorbecke α=1 and α=2 measures, respectively (see Ravallion, 1992 for details). These indices are computed using the upper poverty line.

Sensitivity Analysis 4: Prevalence of Poverty Following a 10 Percent Decrease in Per Capita Consumption

If the households in Zimbabwe suffer a 10 percent decrease in per capita consumption say owing to high inflation then household poverty prevalence for all Zimbabwe increases by 4.7 percent, see table D13. Bulawayo would have the highest increase in poverty prevalence of 7.0 percent while Harare would experience an increase in poverty prevalence of 5.2 percent. Urban households tend to suffer more from a reduction in per capita consumption expenditures compared to rural areas. The prevalence of poverty in Zimbabwe would also rise from 62.6 percent to 67.3 percent.

Table D13 Simulation Model Results: Prevalence of Household Poverty and Poverty Indices by Province; Following a 10 Percent Decrease in Per Capita Consumption Expenditures in Households.

| Province | Percent poor households before simulation (1) | Percent poor households after simulation (2) | Prevalence of (%) | | Percent change in poverty prevalence (2-1) |
			Poverty before simulation (1)	Poverty after simulation (2)	
Manicaland	17.4	17.1	70.6	75.0	4.4
Mashonaland Central	10.9	10.6	75.4	79.0	3.6
Mashonaland East	10	9.9	67.0	71.5	4.5
Mashonaland West	13.2	12.9	72.4	76.4	4.0
Matabeleland North	6	5.8	81.7	85.0	3.3
Matabeleland South	5.6	5.6	70.8	75.5	4.7
Midlands	13.1	13.1	67.0	71.9	4.9
Masvingo	11.5	11.7	63.7	69.2	5.5
Bulawayo	3.3	3.7	34.5	41.5	7.0
Harare	9	9.6	35.7	40.9	5.2
All Zimbabwe	**100**	**100**	**62.6**	**67.3**	4.7

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke $\alpha=1$ and $\alpha=2$ measures, respectively (see Ravallion, 1992 for details). These indices are computed using the upper poverty line (the TCPL). Prevalence of poverty refers to the percentage of households whose consumption expenditures per capita fall below the upper poverty line (the TCPL). Extreme poverty refers to households below the lower line (the FPL).

Summary : Steps of computing the poverty line

- Collect price data for the 18 products listed on the minimum needs basket from the Consumer Price Survey for the period June 2011 to May 2012.
- Average prices are computed by province and by rural and urban areas.
- Average prices of the products in the minimum needs basket are multiplied by the quantities already established for the products in the minimum needs basket.
- A total of 216 poverty lines are computed by province, rural, urban and each month of the PICES 2011 survey.
- All the 216 lines are divided (deflated) by the Harare June 2011, food poverty line to yield one national food poverty line.
- Food shares are computed for all households using the working Engel regression analysis and the food share of households that are exactly equal to the food poverty line is computed. The lower bound food share is chosen.
- The national food poverty line is divided by the lower bound food share to obtain the upper poverty line.
- The upper poverty line is used to deflate household expenditures while Harare, June 2011 is used as the reference period and area.

The resultant real per capita consumption expenditures are then compared to the national food poverty line and the upper poverty line in order to classify households as poor or extremely poor.

Annex E: Miscellaneous tables

Table E.1.1: Main Activity for People Reported to be Working, By Urban/Rural (Percent)

Percent workers reporting main activity as	Place of Residency		
	Rural	**Urban**	**All Zimbabwe**
Permanent paid employee	6.8	43.3	15.3
Casual/temporary employee	4.5	24.3	9.0
Employer	0.0	0.7	0.2
Communal/resettlement farmer	61.0	1.9	47.3
Other own-account worker	2.6	27.9	8.4
Unpaid family worker	25.2	2.0	19.8
Total	100.0	100.0	100.0

Source: PICES 2011. Workers are only those who currently report being employed. For example, the main activity of a student is student and he or she would not be included among these numbers.

Table E.1.2: Mean Holding Size (in Hectares) in Communal and Resettlement Areas, by Province

Province	Communal lands	Resettlement areas
Manicaland	2.0	3.3
Mashonaland Central	2.3	3.8
Mashonaland East	1.9	8.7
Mashonaland West	3.1	4.0
Matabeleland North	1.9	2.7
Matabeleland South	1.6	3.4
Midlands	2.4	6.1
Masvingo	1.9	7.6

Source: PICES 2011

Table E.2.1: Shares of Total Consumption Expenditures Per Capita and Mean Real Consumption Expenditures for Each Decile

Decile	Share of total expenditure per capita	Mean real expenditure per capita (US$)
1	0.02341	18.50
2	0.03466	27.32
3	0.04337	34.25
4	0.05252	41.49
5	0.06316	49.93
6	0.07594	59.95
7	0.09259	73.17
8	0.11698	92.39
9	0.16095	127.07
10	0.34642	265.87

Source: PICES 201.1 Harare in June 2011 is the base period. The share of total expenditures per capita for the first decile were computed by taking the first 10 percentile per capita expenditure as a proportion of total expenditures per capita. All expenditures are first expressed to Harare June 2011 prices. The mean real expenditures per capita are then computed for each decile.

Table E.2.2: Prevalence of Poor and Severely Poor People and Distribution of Poor People by Rural and Urban Areas

Residence	Prevalence of poverty	Prevalence of severe poverty	Percent poor people	Percent very poor people
Rural areas	84.3	30.4	88.9	95.5
Urban areas	46.5	5.6	11.1	4.5
All Zimbabwe	**72.3**	**22.5**	100.0	100.0

Source : PICES 2011. Poor denotes residents of households whose consumption expenditures do not meet the upper poverty line (the TCPL); very poor people reside in households with consumption expenditures below the lower poverty line (the FPL).

Table E.2.3: Prevalence of Poor and Severely Poor People and Distribution of Poor People by Province

Province	Prevalence (%) of		Poverty Indices	
	Poor people	Very poor people	Poverty gap index	Poverty severity index
Manicaland	80.0	25.1	38.8	22.2
Mashonaland Central	82.7	28.3	41.3	24.1
Mashonaland East	75.9	23.3	36.0	20.6
Mashonaland West	80.1	29.2	40.3	24.0
Matabeleland North	89.9	49.0	53.3	35.2
Matabeleland South	82.5	29.4	40.8	23.9
Midlands	76.7	25.0	36.8	21.5
Masvingo	73.8	19.2	34.0	18.8
Bulawayo	43.2	5.5	15.0	7.0
Harare	43.7	4.3	13.2	5.9

Source: PICES 2011, The poverty gap and the severity indices are the Foster, Greer and Thorbecke $\alpha=1$ and $\alpha=2$ measures, respectively (see Ravallion, 1992 for details). These indices are calculated using the upper poverty line.

Table E.2.4: Distribution of Poor People by Province (Percent)

Province	Percent poor people	Percent very poor people
Manicaland	17.0	17.2
Mashonaland Central	10.9	12.0
Mashonaland East	9.4	9.3
Mashonaland West	12.8	15.0
Matabeleland North	6.4	11.2
Matabeleland South	6.2	7.1
Midlands	13.7	14.4
Masvingo	11.8	9.9
Bulawayo	3.4	1.4
Harare	8.4	2.7
Total	100.0	100.0

Source: PICES 2011. Poor denotes residents of households whose consumption expenditures do not meet the upper poverty line (the TCPL); very poor reside in households with consumption expenditures below the lower poverty line (the FPL).

Table E.2.5: Household Poverty Indices by Sector of Employment of the Household Head

| Type of employment | Prevalence (%) of | | Poverty indices | |
	Poor	Very poor	Poverty gap index	Poverty severity index
Communal farmer	81.5	25.6	39.3	22.6
Resettlement farmer	52.3	9.0	19.6	9.9
Government	24.4	1.3	7.2	3.1
Parastatal	30.5	4.2	10.7	4.8
Private sector	44.7	6.7	16.2	8.0
Formal sector	42.2	5.9	15.3	7.5
Informal sector	77.0	23.1	36.3	20.6

Source: PICES 2011: Formal sector includes registered establishments composed of Central and Local parastatal and registered cooperative employees: Informal sector includes establishments that are registered nor licensed.

Table E.2.6 : Prevalence of Household Poverty by Tenure Status

Tenure status	Rural	Urban	All Zimbabwe
Owner/purchaser	80.8	37.3	77.1
Tenant or lodger	49.8	46.5	47.0
Tied accommodation	45.4	41.0	44.2
Other	71.5	43.5	56.7

Source: PICES 2011. Poor people reside in households whose per capita consumption expenditures are below the upper poverty line (the TCPL).

Table E.3.1: Prevalence of Poor and Severely Poor People and Distribution of Poor People by Province, Rural Areas (Percent)

Province	Percent poor people	Percent very poor people
Manicaland	19.2	17.8
Mashonaland Central	12.7	12.4
Mashonaland East	10.9	9.7
Mashonaland West	13.1	14.9
Matabeleland North	7.4	11.9
Matabeleland South	7.2	7.6
Midlands	15.0	15.1
Masvingo	14.4	10.7
Total	100.0	100.0

Source: PICES 2011. Poor people reside in households whose per capita consumption expenditures are below the upper poverty line (the TCPL). Very poor have consumption expenditures below the lower line (the FPL).

Table E.3.2: Poverty Indices for People in Rural Areas by Province

Province	Individual prevalence of (%)		Poverty indices	
	Poor	Extremely poor	Poverty gap index	Poverty severity index
Manicaland	85.5	28.5	24.7	42.5
Mashonaland Central	85.2	30.0	25.4	43.2
Mashonaland East	78.7	25.2	22.0	38.1
Mashonaland West	88.0	36.0	28.5	46.6
Matabeleland North	93.5	53.7	37.9	56.8
Matabeleland South	85.6	32.4	25.9	43.6
Midlands	84.9	30.8	25.6	42.9
Masvingo	78.4	21.0	20.3	36.6
Total	**84.3**	**30.4**	**25.4**	**42.8**

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke $\alpha=1$ and $\alpha=2$ measures, respectively (see Ravallion, 1992 for details). These indices are calculated using the upper poverty line.

Table E.3.3: Indices of Poverty Among People by Rural Land Use Sector

Land use area	Prevalence (%) of		Poverty indices	
	Poverty	Extreme poverty	Poverty gap index	Poverty severity index
Communal lands	86.8	33.6	45.1	27.2
Large scale commercial farms	66.9	16.2	28.6	15.3
Small scale commercial farms	72.6	17.4	32.7	17.9
Resettlement areas	83.6	25.9	41.0	23.4

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke $\alpha=1$ and $\alpha=2$ measures, respectively (see Ravallion, 1992 for details). These indices are calculated using the upper poverty line.

Table E.3.4: Percentage of Males and Females Reporting an Illness, by Poverty Status

Poverty status	Sex	
	Male	Female
Non-poor	14.3	18.1
Poor	15.9	20.4
Extremely poor	15.4	19.5

Source: PICES 2011. Cells are the percentage of people reporting being ill in the past 30 days.

Table E.3.5: Prevalence of Poverty Among People by Sex and Education of the Household Head, Rural and Urban Areas

Education of household head	Rural		Urban	
	Poor	Very poor	Poor	Very poor
All households				
None	90.7	41.1	72.7	15.0
Primary school	88.1	33.8	60.0	9.3
Secondary school	81.9	24.7	50.9	5.7
Post-secondary school	33.3	3.3	19.9	0.9
Male-headed				
None	91.4	46.5	62.3	29.9
Primary school	89.2	36.6	62.1	9.7
Secondary school	83.2	26.5	53.0	6.5
Post-secondary school	38.0	3.9	21.1	0.9
Female-headed				
None	90.2	37.4	77.7	7.8
Primary school	86.2	29.1	57.2	8.7
Secondary school	78.0	19.5	44.8	3.2
Post-secondary school	15.0	1.0	15.9	0.6

Source: PICES 2011. Poor people reside in households whose per capita consumption expenditures are below the upper poverty line (the TCPL). Very poor have consumption expenditures below the lower line (the FPL).

Table E.3.6: Poverty Indices for Households by Sex and Education of the Household Head

Education of household head	Prevalence (%) of		Poverty indices	
	Poor	Very poor	Poverty gap index	Poverty severity index
Male-headed				
None	81.2	34.3	43.8	27.0
Primary school	76.8	25.4	37.1	21.6
Secondary school	61.8	13.4	25.9	13.7
Post-secondary school	20.1	1.3	5.5	2.3
Female-headed				
None	81.7	25.7	38.8	22.4
Primary school	71.2	18.2	32.2	17.7
Secondary school	53.9	8.9	20.7	10.3
Post-secondary school	10.9	0.5	2.1	0.8

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke $\alpha=1$ and $\alpha=2$ measures, respectively (see Ravallion, 1992 for details). These indices are calculated using the upper poverty line.

Table E.3.7: Prevalence of Household Poverty by Sex and Education of the Household Head, Rural and Urban Areas

Education of household head	Rural		Urban	
	Poor	Very poor	Poor	Very poor
Male-headed				
None	84.4	35.9	47.2*	17.4*
Primary school	82.0	29.1	52.7	7.9
Secondary school	75.4	20.7	45.6	4.7
Post-secondary school	27.7	2.6	17.5	0.8
Female-headed				
None	83.6	27.6	62.2	6.5
Primary school	78.7	21.5	42.1	5.4
Secondary school	68.7	14.4	35.6	2.1
Post-secondary school	10.0	0.6	11.2	0.5

Source: PICES 2011. Poor households have per capita consumption expenditures are below the upper poverty line (the TCPL). Very poor have consumption expenditures below the lower line (the FPL).
** Means the number of observations are few.

Table E.3.8: Poverty Indices Computed for People by Education of the Household Head

Education of household head	Poor	Very poor	Poverty gap index	Poverty severity index
None	89.3	39.0	48.2	30.1
Primary school	83.5	29.8	41.8	24.8
Secondary school	68.9	16.8	30.0	16.2
Post-secondary school	23.1	1.5	6.2	2.5

Source: PICES 2011. The poverty gap and the severity indices are the Foster, Greer and Thorbecke α=1 and α=2 measures, respectively (see Ravallion, 1992 for details). These indices are calculated using the upper poverty line.

Table E.3.9 Access to Sanitation and Electricity by Poverty on Large Scale Commercial Farms

Percent with access to	Type of LSCF									
	Type I		Type II		Type III		Type IV		All LSCF	
	Non-poor	Poor	Non-poor	Poor	Non-poor	Poor	Non-poor	Poor	Non-poor	Poor
Safe water	80.3	63.0*	70.2*	49.9*	85.6	67.5	81.2*	35.1	80.0	50.3
Toilet (flush or Blair)	15.4	0.5*	2.1*	1.7*	23.8	5.7	11.1*	2.0	15.1	3.0
Electricity	59.8	48.3*	50.0*	24.5*	65.8	46.1	59.5*	24.9	59.7	33.9
Cook with electricity	15.1	13.7*	2.1*	3.5*	26.2	9.4	6.7*	2.7	15.3	6.1

Source: PICES 2011. Poverty refers to the prevalence of households or people in households whose consumption expenditures per capita are below the upper poverty line (the TCPL). Type I households have three or fewer members and are headed by someone who has at least some secondary education; type II are small in size, but headed by someone with only primary education; type III are large in size, with a well-educated head; while type IV are large in size and headed by someone with primary or less education.

Table E.3.10: Distribution of Large Scale Commercial Farms by Household Headship

Headship	Type of large scale commercial farm				
	Type I	Type II	Type III	Type IV	All LSCFS
Male	68.1	41.8	86.6	62.8	68.1
Female defacto	12.2	50.7	6.1	28.0	21.1
Female dejure	19.7	7.5	7.4	9.2	10.8

Source: PICES 2011. Type I households have three or fewer members and are headed by someone who has at least some secondary education; type II are small in size, but headed by someone with only primary education; type III are large in size, with a well-educated head; while type IV are large in size and headed by someone with primary or less education.

Annex F: Poverty on Large Scale Commercial Farms

Introduction

Several researchers note that commercial farms need to be analysed separately from other rural land use areas. Because they are characterised by diverse populations as they include households headed by farm owners and managers and by farm labourers, commercial farms need to be examined closely (World Bank 1996 summarises some of the arguments). Indeed, above it was found that the prevalence of poverty and extreme poverty is relatively low on commercial farms when compared to other rural areas. It was also noted, however, that the FGT poverty depth and severity indices indicated problems of inequality among residents of LCSFs. The PICES, however, cannot be used to distinguish directly between owners/managers and labourers[20], but further analysis shows major differences based on household structure and the education of the household head.

Returns on Education

Returns to education on commercial farms are more consistent with returns in urban areas than they are with other rural areas. There is a sharp break in poverty status for households on LSCFs that are headed by someone with at least some secondary education. The prevalence of household poverty falls from 68.9 percent to 57.7 percent if the head of a household on a commercial farm has some secondary education as opposed to some primary education see table F.1. The prevalence of extreme poverty drops by about 11 percentage points for households whose head has some secondary education compared to households whose head has some primary education. About 44.5 percent of households on commercial farms have a head with at least some secondary education. Households headed by someone with post-secondary education are very unlikely to be poor, although these households represent 6.9 percent of the commercial farm population.

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[20] *The PICES, when it asks about the main activity of the household head, can distinguish between workers and employers. Managers and normal workers cannot be separated because both would classify themselves as salaried employees.*

Table F.1: Poverty and Education of the Household Head, Large Scale Commercial Farms

Head's education	Percent of total population	Prevalence of poverty	Prevalence of extreme poverty
None	9.4	73.8	23.8
Primary	39.3	68.9	14.9
Secondary	44.5	57.7	8.3
Post Secondary	6.9	15.3	1.2
Total	**100.0**	**60.7**	**11.9**

Source: PICES 2011. Prevalence of poverty refers to households with per-capita expenditures below the upper poverty line (the TCPL). Extreme poverty is below the lower poverty line (the FPL).

Household structure also has a large effect on household well being on commercial farms (Table F.2). As noted in chapter 2, commercial farms are characterised by having a large percentage of single-person households; here we see that household structure is closely associated with poverty. Single person households are characterised by much lower poverty and severe poverty than other households. About 10.8 percent of single-person households on LSCFs are deemed poor while 0.1 percent are very poor, compared to 60.7 percent and (11.9) percent respectively, for all large scale commercial farms. There is also a discrete break between well being of households with three or fewer members and those with more than three members. Using both criteria—household size and head's education—the sample can be divided into 4 classes of farms:

Type of household	Number of members and education of head of household
Type 1	Has fewer than three members and is headed by someone with secondary or higher education
Type 11	Has 3 or fewer members, but is headed by someone with primary or less education
Type 111	Has more than 3 members and is headed by someone with secondary or more education
Type 1V	Is a large household headed by someone with primary or less education

Table F.2: Prevalence of Household Poverty on LSCFs by Household Size

Household size	Prevalence (%) of	
	Poverty	Extreme poverty
1	10.8	0.1
2-3	48.6	3.3
4-5	75.2	12.8
6-7	83.5	25.2
8+	87.3	36.6
Total LSCF's	**60.7**	**11.9**

Source: PICES 2011. Prevalence of poverty refers to households with per-capita expenditures below the upper poverty line (the TCPL). Extreme poverty is below the lower poverty line (the FPL).

Table F.3: Percent Distribution of LSCF Households by Head's Education and Household Size.

	Head's education				
Household size	None	Primary	Secondary	Post-secondary	Total
1	10.2	37.0	42.3	10.5	100.0
2-3	7.4	36.0	49.6	7.1	100.0
4-5	9.6	38.8	46.6	5.0	100.0
6-7	10.8	41.7	40.6	6.9	100.0
8+	11.4	54.1	26.5	8.0	100.0

Source: PICES 2011

Analysis of Poverty by Household Type on Large Scale Commercial Farms

There is a clear and strong relationship between type of household and poverty. Type I and type II households, which tend to be smaller in size, have prevalence of poverty and extreme poverty that is far below the prevalence in households of the other 2 types. About 29.5 percent of LSCF households are type IV (that is they are large in size and are headed by someone of only minimal education i.e. primary school or less) and the poverty prevalence in these households is 86.9 percent (Table F.4). Type III households (large in size, but headed by someone with at least some secondary education) have a lower prevalence of poverty and extreme poverty compared to type IV households but the depth and severity indices for these households are also quite high.

Table F.4: Household Poverty by Type of Household, Large Scale Commercial Farms

Household type	% Total LSCF households	Prevalence (%) of			
		Poverty	Extreme poverty	Poverty gap index	Poverty severity index
Type I	23.7	30.6	1.3	8.6	3.4
Type II	19.1	43.5	3.5	14.4	6.5
Type III	27.7	70.5	12.6	29.4	15.2
Type IV	29.5	86.9	25.1	42.0	23.8
Total	**100.0**				

Source: PICES 2011. Type I households have three or fewer members and are headed by someone who has at least some secondary education; type II are small in size, but headed by someone with only primary education; type III are large in size, with a well-educated head; while type IV are large in size and headed by someone with primary or less education. Poverty refers to the prevalence of households or people in households whose consumption expenditures per capita are below the upper poverty line (the TCPL). Extreme poverty represents a shortfall below the lower poverty line (FPL). The poverty gap and the severity indices are the Foster, Greer and Thorbecke α=1 and α=2 measures, respectively (see Ravallion, 1992 for details). These indices are computed using the upper poverty line.

Access to sanitation and energy sources varies significantly depending on the "type" of household living on the LSCF (Table F.5). Type I households are more likely to have access to safe water supplies and much more likely to have the use of a good waste disposal system than are other types of households. Access to electricity and use of electricity for cooking varies in a different fashion on LSCFs. The households that have more members (the type III and type IV households) are more likely to have access to electricity than the smaller households, holding head's education constant. Thus, the type III households (large size, head with secondary education) are more likely to have electricity than a type I household (57.0 percent vs. 53.8 percent). Poor households within each type are much less likely to have access to good water, sanitation, and electricity than are non-poor households (Annex E, table E.5.2). Thus, although the household types are closely associated with poverty, the poor, holding type of household constant, are much worse off than the non-poor.

Table F.5: Access to Sanitation and Electricity on Large Scale Commercial Farms

Percent households with access to	Type of large scale commercial farm				
	Type I	Type II	Type III	Type IV	All LSCFS
Safe water	80.5	70.0	72.5	65.5	71.8
Toilet (flush or Blair)	24.7	12.0	22.1	6.7	16.2
Electricity	53.8	41.9	57.0	45.3	49.9
Cook with electricity	20.2	7.7	20.1	4.1	13.0

Source: PICES 2011. Type I households have three or fewer members and are headed by someone who has at least some secondary education; type II are small in size, but headed by someone with only primary education; type III are large in size, with a well-educated head; while type IV are large in size and headed by someone with primary or less education.

Female-headed households are more likely to be poor, than male headed households. However, male headed households are more likely to be extremely poor, and have higher depth and severity indices than female-headed households on LSCFs. The results also show that, there is some heterogeneity among female-headed households (Table F.6).

The male headed households have the highest prevalence of poverty (61.8 percent) of all households on LSCFs. However these households represent 77.2 percent of all LSCF households and are clearly worse-off than other LSCF households.

Table F.6: Household Poverty by Sex of Household Head, Large Scale Commercial Farms

Household head	Percent poor	Prevalence (%) of		Poverty gap index	Poverty severity index
		Poverty	Extreme poverty		
Male	77.2	61.8	11.6	25.3	13.2
Female	22.8	56.7	12.8	25.3	13.8
Total	100.0				
Female de facto	15.4	58.4	14.1	27.5	15.4
Female de jure	7.5	53.3	10.0	21.0	10.6

*Source: PICES 2011. Poverty refers to the prevalence of households or people in households whose consumption expenditures per capita are below the upper poverty line (the TCPL). Extreme poverty represents a shortfall below the lower poverty line (FPL). The poverty gap and the severity indices are the Foster, Greer and Thorbecke α=1 and α=2 measures, respectively (see Ravallion, 1992 for details). These indices are computed using the upper poverty line. * Means the number of observations are few.*

School Enrolments on Large Scale Commercial Farms

The analysis above showed a strong relationship between the education of the head of the household and poverty status on LSCFs. Better-educated heads of households have families that are much less likely to be poor and extremely poor on all LSCFs. Several sources (notably World Bank,) note that educational opportunities are limited for children living on LSCFs. The subsequent sections of the report will analyse enrolments and educational outcomes in more detail, but it is instructive to examine school enrolment rates for children on LSCFs. This information shows how poverty among workers on these farms continues from generation to generation.

Enrolment rates on LSCFs are much lower for secondary school going children than they are for the country as a whole, and even for other rural areas of Zimbabwe (Table F.7). The extremely low rates of enrolment in secondary schools are particularly troubling since, as was demonstrated above; secondary education helps lower the likelihood that a family is poor. It has been previously been shown that the secondary school gross enrolment ratios ranged from 38 percent to 69 percent for the extremely poor children and non-poor children respectively (figure 3.3). In table F.7, it is shown that the secondary school gross enrolment ratios range from 24.0 percent in type II to 51.2 percent in type III. Some may argue that many of the children of secondary school age (official secondary school ages are 13-17 years in Zimbabwe) are actually old enough to

be working, and thus may be misclassified as students. In fact, the mean age of children of secondary school age on these farms is 15.0 years, indicating either a large portion of under-aged workers or a distressingly low rate of school participation.

Table F.7: School Enrolment Rates on Large Scale Commercial Farms

Enrolment rate	Type of large scale commercial farm			
	Type I	Type II	Type III	Type IV
Gross enrolment total	*69.9*	*61.4*	*88.7*	*82.0*
Net enrolment total	*58.7*	*50.0*	*72.2*	*66.2*
Gross primary	110.5	106.1	112.1	112.3
Net primary	92.5	81.0	90.0	88.3
Gross secondary	31.1	24.0	51.2	35.5
Net secondary	26.3	24.0	43.6	32.2

Type I households have three or fewer members and are headed by someone who has at least some secondary education; type II are small in size but headed by someone with only primary education; type III are large in size with a well-educated head; while type IV are large in size and headed by someone with primary or less education.

Summary

Households that reside on large scale commercial farms are a diverse group. Although there is, on average, less poverty among these households than among other rural households, there are wide variations in conditions on these farms. There are dramatic differences in the poverty indices depending on the number of members in the LSCF households and on the education of the household head. These characteristics (household size and head's education) help to distinguish between the different households.

It is found that conditions are much worse for type IV households than for others as they are less likely to have access of good water, good sanitation, and electricity than the other household types. The prevalence of poverty among male-headed households is worse than that of female-headed households on commercial farms.

Annex G: Other tables

Table G.1: Poverty Indices by Province and by District PICES 2011/2012

Province and district	Poverty	Extreme poverty	Poverty gap index	Poverty severity index
Bulawayo province	34.5	3.4	11.4	5.1
Manicaland province				
Buhera	80.8	24.9	39.2	22.2
Chimanimani	69.9	16.4	31.2	16.8
Chipinge	82.3	31.1	41.2	24.7
Makoni	66.1	12.1	26.9	13.6
Mutare Rural	79.4	23.2	37.9	21.4
Mutasa	75.5	17.5	33.9	18.4
Nyanga	74.2	19.6	35.8	19.8
Mutare Urban	42.2	4.0	14.7	6.7
Rusape	21.1*	5.9*	9.3*	5.0*
Chipinge Urban	57.8*	7.3*	19.4*	9.3*
Mashonaland Central province				
Bindura Rural	68.7	14.4	28.4	15.0
Centenary	88.2	37.7	47.9	29.1
Guruve	81.9	27.2	41.2	24.1
Mazowe	65.6	12.6	27.0	13.9
Mount Darwin	76.9	21.8	36.8	20.7
Rushinga	84.2	28.8	41.6	23.9
Shamva	75.4	20.9	35.5	20.2
Bindura Urban	47.5	9.6	20.5	11.0
Mashonaland East province				
Chikomba	58.5	6.5	22.1	10.5
Goromonzi	62.1	9.5	24.1	12.0
Hwedza	64.1	12.9	26.6	13.5
Marondera Rural	52.3	7.8	18.8	8.9
Mudzi	88.9	44.4	51.5	33.2
Murehwa	68.4	15.2	29.2	15.4
Mutoko	80.2	28.0	40.0	23.5
Seke	62.4	9.6	25.3	12.8
Uzumba Maramba Pfungwe (UMP)	81.8	27.7	40.1	23.2
Marondera urban	41.4	2.1	14.6	6.5
Chivhu Local Board	38.8*	11.2*	14.5*	7.9*
Ruwa Local Board	44.4	9.5	18.1	9.4

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Province and district	Poverty	Extreme poverty	Poverty gap index	Poverty severity index
Mashonaland West Province				
Chegutu Rural	69.2	20.5	31.6	17.8
Hurungwe	91.3	41.7	50.6	31.7
Kadoma	69.1	13.2	28.1	14.4
Kariba Rural	84.1	45.8	49.8	32.8
Makonde	85.2	27.6	42.0	24.1
Zvimba	81.7	21.9	37.8	21.3
Chegutu	45.8	7.9	17.6	8.4
Chinhoyi	45.1	3.6	14.2	6.1
Chirundu	46.3	1.9	12.9	5.0
Kadoma	53.4	5.9	18.6	8.5
Kariba Urban	23.9	1.1	6.8	2.8
Karoi	65.2*	2.8*	25.6*	11.8*
Matabeleland North Province				
Binga	85.2	31.8	44.1	26.5
Bubi	86.6	42.0	49.7	31.9
Hwange Rural	78.1	31.0	40.3	24.5
Lupane	86.4	37.7	46.8	28.9
Nkayi	95.5	60.3	60.4	41.7
Tsholotsho	88.9	42.6	50.5	32.0
Umguza	70.9	32.2	37.1	23.2
Hwange Urban	51.0	7.3	20.2	10.3
Victoria Falls	44.2	2.2	14.8	6.7
Matabeleland South Province				
Beitbridge Rural	77.4	22.0	36.4	20.6
Bulalima	71.8	20.4	33.7	18.7
Mangwe	75.3	21.0	34.3	19.2
Gwanda Rural	72.8	18.7	30.6	16.3
Insiza	74.6	22.1	36.3	20.8
Matobo	75.7	22.1	35.8	20.0
Umzingwane	69.8	29.0	36.6	22.5
Gwanda	50.0*	1.2*	14.4*	5.8*
Beitbridge Urban	34.6	0.9	9.2	3.4
Collen Bawn	52.6	2.8	16.8	7.2

Province and district	Poverty	Extreme poverty	Poverty gap index	Poverty severity index
Midlands Province				
Chirumhanzu	70.2	16.3	31.2	16.9
Gokwe South	75.3	17.9	32.2	17.2
Gweru Rural	91.8	42.4	51.6	32.7
Kwekwe Rural	75.7	21.0	35.8	20.2
Mberengwa	72.3	21.6	34.1	19.6
Shurugwi	66.0	12.6	25.8	13.1
Zvishavane Rural	60.2	7.5	23.2	11.0
Gokwe North	73.3	18.3	32.4	17.4
Gweru Urban	34.3	2.4	10.4	4.4
Kwekwe Urban	35.9	1.6	9.8	4.0
Redcliff	53.6*	13.5*	18.1*	9.9*
Zvishavane	42.3	2.7	13.8	6.1
Buchwa Mine	38.6*	-	9.7*	3.6*
Gokwe Centre	44.0	4.8	14.5	6.7
Masvingo Province				
Bikita	70.9	20.6	32.5	17.9
Chiredzi	64.4	15.3	28.8	15.5
Chivi	67.3	9.2	26.6	13.2
Gutu	65.6	13.7	27.9	14.6
Masvingo Rural	59.7	14.4	25.8	13.9
Mwenezi	79.4	26.2	38.6	22.3
Zaka	70.7	9.6	29.9	15.0
Masvingo Urban	20.1	-	5.5	2.2
Chiredzi Town	17.2*	-	3.5*	1.0*
Harare Province				
Harare Urban	31.5	1.5	8.1	3.1
Chitungwiza	35.7	2.6	10.1	4.2
Epworth	74.9	20.8	34.5	19.4

*Source: PICES 2011 * Means the number of observations are few.*

Table G.2: Method of Treatment Sought by Poverty Category and Land Use Area

Percentage	Public health facility	Traditional healer	Private clinic	None	Total
Communal lands	**50.7**	**3.7**	**10.1**	**35.6**	**100.0**
Non-poor	47.5	2.5	15.0	35.0	100.0
Poor	50.8	3.6	10.1	35.4	100.0
Extremely poor	52.0	4.3	7.5	36.3	100.0
SSCF	**46.1**	**2.7**	**16.8**	**34.4**	100.0
Non-poor	52.3	1.9	19.6	25.8	100.0
Poor	45.5	2.2	16.1	36.3	100.0
Extremely poor	37.3	5.5	14.2	43.0	100.0
LSCF	**42.1**	**1.6**	**13.1**	**43.2**	100.0
Non-poor	41.2	2.4	18.3	38.1	100.0
Poor	39.1	1.1	12.6	47.2	100.0
Extremely poor	57.7	2.1	2.9	37.3	100.0
Resettlement areas	**49.9**	**6.2**	**10.0**	**33.8**	100.0
Non-poor	43.4	10.2	14.9	31.6	100.0
Poor	50.9	4.8	9.2	34.9	100.0
Extremely poor	52.2	6.7	8.3	32.8	100.0

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line and above the lower line. Extremely poor households have index values that fall below the lower line.

Table G.3: Method of Treatment Sought by Poverty Category, Province and District

Province and district	Public health facility	Traditional healer	Private clinic	None	Total
Manicaland Province					
Buhera	**37.8**	**9.6**	**7.6**	**45.0**	**100.0**
Non-poor	41.3*	8.8*	8.5*	41.4*	100.0
Poor	40.7	6.4	10.6	42.3	100.0
Extremely poor	31.3	15.6	1.9	51.2	100.0
Chimanimani	**39.7**	**4.7**	**17.4**	**38.3**	**100.0**
Non-poor	32.8	5.7	17.0	44.5	100.0
Poor	37.1	3.7	21.6	37.6	100.0
Extremely poor	55.3	6.5	5.0	33.2	100.0
Chipinge	**49.8**	**1.7**	**18.2**	**30.3**	**100.0**
Non-poor	31.5	-	35.3	33.2	100.0
Poor	49.3	1.4	18.6	30.8	100.0
Extremely poor	57.0	2.8	11.8	28.4	100.0
Makoni	**55.5**	**1.5**	**9.2**	**33.8**	**100.0**
Non-poor	63.4	2.0	11.5	23.1	100.0
Poor	50.0	1.6	9.6	38.7	100.0
Extremely poor	61.1	-	2.6	36.2	100.0
Mutare Rural	**46.9**	**10.9**	**10.7**	**31.5**	**100.0**
Non-poor	29.8*	28.5*	22.3*	19.4*	100.0
Poor	45.1	7.4	9.7	37.8	100.0
Extremely poor	59.9*	8.1*	6.1*	25.8*	100.0
Mutasa	**43.5**	**9.2**	**18.9**	**28.3**	**100.0**
Non-poor	41.3*	9.7*	25.8*	23.3*	100.0
Poor	42.3	9.7	17.5	30.5	100.0
Extremely poor	48.0	7.8	18.5	25.7	100.0
Nyanga	**51.2**	**2.6**	**21.7**	**24.6**	**100.0**
Non-poor	51.9*	4.1*	21.9*	22.1*	100.0
Poor	45.2	3.6	19.0	32.2	100.0
Extremely poor	61.5	-	26.3	12.1	100.0
Mashonaland Central					
Bindura Rural	**43.4**	**3.5**	**4.7**	**48.5**	**100.0**
Non-poor	40.5	0.5	3.4	55.6	100.0
Poor	49.2	2.9	3.8	44.1	100.0
Extremely poor	30.2	10.2	9.2	50.4	100.0
Centenary	**50.1**	**3.0**	**7.6**	**38.5**	**100.0**
Non-poor	60.8*	-	18.5*	20.7*	100.0
Poor	49.0	5.1	6.9	37.4	100.0
Extremely poor	49.6	1.5	6.6	42.3	100.0

Province and district	Public health facility	Traditional healer	Private clinic	None	Total
Mashonaland Central					
Guruve	**66.8**	**2.2**	**2.1**	**28.9**	**100.0**
Non-poor	62.8	0.9	-	36.3	100.0
Poor	63.8	2.4	3.1	30.7	100.0
Extremely poor	74.2	2.6	1.4	21.8	100.0
Mazowe	**39.9**	**1.4**	**11.7**	**46.8**	**100.0**
Non-poor	52.5	0.2	11.5	35.8	100.0
Poor	37.8	1.4	10.3	50.0	100.0
Extremely poor	20.4*	3.8*	18.3*	57.5*	100.0
Mount Darwin	**57.9**	**3.4**	**8.2**	**30.5**	**100.0**
Non-poor	44.9	3.7	20.5	30.8	100.0
Poor	57.8	2.7	8.0	31.5	100.0
Extremely poor	65.7	5.0	1.3	28.0	100.0
Rushinga	**67.9**	**0.3**	**10.3**	**21.5**	**100.0**
Non-poor	64.0*	-	7.2*	28.8*	100.0
Poor	74.0	-	9.7	16.3	100.0
Extremely poor	62.0	0.8	11.8	25.5	100.0
Shamva	**55.0**	**5.5**	**2.7**	**36.8**	**100.0**
Non-poor	44.5	4.3	8.4	42.9	100.0
Poor	61.3	5.6	2.5	30.6	100.0
Extremely poor	46.9	5.9	0.8	46.5	100.0
Mashonaland East Province					
Chikomba	**50.9**	**3.5**	**2.7**	**42.8**	**100.0**
Non-poor	49.1	3.5	4.0	43.3	100.0
Poor	53.2	3.1	2.3	41.3	100.0
Extremely poor	43.3*	5.6*	-	51.1*	100.0
Goromonzi	**38.5**	**4.0**	**17.0**	**40.6**	**100.0**
Non-poor	47.0	2.8	12.4	37.8	100.0
Poor	38.7	2.4	17.0	41.9	100.0
Extremely poor	27.7	9.9	22.5	39.9	100.0
Hwedza	**40.1**	**2.3**	**7.5**	**50.1**	**100.0**
Non-poor	49.4	-	9.7	40.8	100.0
Poor	39.9	3.3	6.8	50.1	100.0
Extremely poor	29.2	2.0	7.3	61.5	100.0
Marondera Rural	**45.7**	**3.1**	**7.4**	**43.3**	**100.0**
Non-poor	42.5	1.4	10.4	43.8	100.0
Poor	46.7	4.6	6.3	42.5	100.0
Extremely poor	48.5*	-	5.4*	46.1*	100.0

Province and district	Public health facility	Traditional healer	Private clinic	None	Total
Mashonaland East Province					
Mudzi	**71.1**	**4.3**	**5.9**	**18.6**	**100.0**
Non-poor	51.0*	5.6*	9.8*	33.7*	100.0
Poor	69.5	2.8	9.4	18.2	100.0
Extremely poor	75.1	5.3	2.6	16.9	100.0
Murehwa	**43.1**	**6.0**	**9.2**	**41.6**	**100.0**
Non-poor	40.3	4.2	11.6	43.9	100.0
Poor	44.6	5.8	9.2	40.4	100.0
Extremely poor	41.8	7.8	7.6	42.8	100.0
Mutoko	**66.4**	**2.9**	**11.7**	**19.1**	**100.0**
Non-poor	65.4*	1.2	17.8*	15.5*	100.0
Poor	68.6	1.7	12.1	17.6	100.0
Extremely poor	63.0	5.3	8.9	22.7	100.0
Seke	**43.8**	**3.3**	**6.2**	**46.7**	**100.0**
Non-poor	49.5	2.1	15.8	32.6	100.0
Poor	44.9	2.0	2.8	50.3	100.0
Extremely poor	31.9	9.5	3.4	55.3	100.0
UMP	**46.3**	**3.9**	**12.2**	**37.6**	**100.0**
Non-poor	47.2	-	14.7	38.1	100.0
Poor	44.5	3.1	14.0	38.5	100.0
Extremely poor	49.8	7.4	7.3	35.6	100.0
Mashonaland West Province					
Chegutu Rural	**49.2**	**4.1**	**8.1**	**38.6**	**100.0**
Non-poor	52.6*	3.4*	6.3*	37.7*	100.0
Poor	45.7	3.1	9.0	42.2	100.0
Extremely poor	54.6	7.2	7.4	30.9	100.0
Hurungwe	**40.1**	**3.4**	**7.3**	**49.2**	**100.0**
Non-poor	61.4*	-	11.3*	27.3*	100.0
Poor	40.4	2.6	6.7	50.3	100.0
Extremely poor	37.9	4.5	7.5	50.1	100.0
Kadoma	**53.1**	**9.2**	**13.1**	**24.6**	**100.0**
Non-poor	56.6	12.1	16.4	14.8	100.0
Poor	53.8	8.0	10.6	27.6	100.0
Extremely poor	45.9*	9.1*	17.6*	27.4*	100.0
Kariba Rural	**74.2**	**0.9**	**9.1**	**15.8**	**100.0**
Non-poor	77.0*	-	16.2*	6.9*	100.0
Poor	69.5	1.3	15.3	13.9	100.0
Extremely poor	77.6	0.7	3.3	18.4	100.0

Province and district	Public health facility	Traditional healer	Private clinic	None	Total
Mashonaland West Province					
Makonde	**60.5**	**3.0**	**4.0**	**32.6**	**100.0**
Non-poor	65.3*	4.6*	3.5*	26.6*	100.0
Poor	66.8	1.1	3.6	28.5	100.0
Extremely poor	47.6	5.9	4.8	41.7	100.0
Zvimba	**47.0**	**3.3**	**8.3**	**41.3**	**100.0**
Non-poor	51.5*	-	5.4*	43.1*	100.0
Poor	48.8	2.5	10.1	38.5	100.0
Extremely poor	41.7	6.3	5.4	46.6	100.0
Matabeleland North Province					
Binga	**57.1**	**1.7**	**6.6**	**34.6**	100.0
Non-poor	53.6*	4.0*	-	42.4*	100.0
Poor	55.5	1.1	9.2	34.2	100.0
Extremely poor	59.9	1.9	5.2	33.0	100.0
Bubi	**67.7**	**0.9**	**3.1**	**28.3**	100.0
Non-poor	75.1*	-	-	24.9*	100.0
Poor	67.4	-	5.1	27.5	100.0
Extremely poor	66.8	1.8	1.8	29.5	100.0
Hwange Rural	**31.0**	**-**	**22.8**	**46.2**	**100.0**
Non-poor	24.0*	-	41.2*	34.8*	100.0
Poor	33.4*	-	16.4*	50.2*	100.0
Extremely poor	30.6*	-	23.9*	45.4*	100.0
Lupane	**52.2**	**2.2**	**12.7**	**32.8**	**100.0**
Non-poor	57.0*	-	16.2*	26.8*	100.0
Poor	51.3	-	16.0	32.7	100.0
Extremely poor	52.3	4.8	8.9	34.0	100.0
Nkayi	**60.0**	**2.1**	**9.2**	**28.6**	**100.0**
Non-poor	75.4*	-	12.7*	11.9*	100.0
Poor	59.2	2.4	12.1	26.3	100.0
Extremely poor	59.8	2.1	7.9	30.2	100.0
Tsholotsho	**58.8**	**0.1**	**3.8**	**37.3**	**100.0**
Non-poor	56.0*	-	5.0*	39.0*	100.0
Poor	57.1	0.4	3.4	39.1	100.0
Extremely poor	60.5	-	3.8	35.7	100.0
Umguza	**62.2**	**0.6**	**5.6**	**31.7**	**100.0**
Non-poor	72.3*	-	11.5*	16.2*	100.0
Poor	66.9	0.5	2.9	29.7	100.0
Extremely poor	54.3	0.8	6.2	38.6	100.0

Province and district	Public health facility	Traditional healer	Private clinic	None	Total
Matabeleland South Province					
Beitbridge Rural	**59.8**	**-**	**5.2**	**34.9**	**100.0**
Non-poor	58.8*	-	6.7*	34.5*	100.0
Poor	56.8	-	6.9	36.3	100.0
Extremely poor	68.2	-	-	31.8	100.0
Bulilima	**54.5**	**0.9**	**3.2**	**41.4**	**100.0**
Non-poor	48.1	1.1	5.2	45.5	100.0
Poor	58.4	0.5	3.5	37.6	100.0
Extremely poor	50.1	1.6	1.4	46.8	100.0
Mangwe	**44.5**	**0.3**	**17.0**	**38.2**	**100.0**
Non-poor	45.1*	-	11.6*	43.3*	100.0
Poor	43.5	0.5	19.0	37.1	100.0
Extremely poor	46.4	-	15.9	37.7	100.0
Gwanda Rural	**53.6**	**1.3**	**7.2**	**37.9**	**100.0**
Non-poor	50.4*	2.3*	17.7*	29.5*	100.0
Poor	46.7	1.0	6.8	45.5	100.0
Extremely poor	72.9	1.2	1.4	24.4	100.0
Insiza	**63.6**	**1.4**	**7.8**	**27.2**	**100.0**
Non-poor	49.0*	1.5*	10.4*	39.1*	100.0
Poor	61.8	2.3	10.0	26.0	100.0
Extremely poor	72.2	-	3.7	24.1	100.0
Matobo	**53.1**	**1.1**	**22.6**	**23.2**	**100.0**
Non-poor	56.5	0.9	25.6	17.0	100.0
Poor	48.9	0.7	21.9	28.4	100.0
Extremely poor	57.4	2.0	21.3	19.4	100.0
Umzingwane	**64.8**	**0.8**	**5.9**	**28.5**	**100.0**
Non-poor	66.4*	2.9	12.3*	18.4*	100.0
Poor	62.6	-	8.7	28.6	100.0
Extremely poor	66.4	0.9	1.4	31.3	100.0
Midlands Province					
Chirumhanzu	**39.4**	**2.5**	**36.6**	**21.5**	**100.0**
Non-poor	34.2*	2.9*	44.2*	18.7*	100.0
Poor	44.5	2.0	30.5	23.0	100.0
Extremely poor	28.6	3.6	48.3	19.5	100.0
Gokwe South	**41.0**	**1.2**	**18.4**	**39.4**	**100.0**
Non-poor	34.7	2.1	26.8	36.4	100.0
Poor	45.7	0.8	16.1	37.6	100.0
Extremely poor	36.1	1.7	15.1	47.2	100.0

Province and district	Public health facility	Traditional healer	Private clinic	None	Total
Midlands Province					
Gweru Rural	**42.2**	**5.8**	**8.6**	**43.4**	**100.0**
Non-poor	20.6*	-	28.2*	51.2*	100.0
Poor	53.0	7.6	8.5	30.9	100.0
Extremely poor	34.8	4.8	7.5	52.9	100.0
Kwekwe Rural	**43.8**	**-**	**7.7**	**48.6**	**100.0**
Non-poor	38.8*	-	11.8*	49.4*	100.0
Poor	45.6	-	7.9	46.5	100.0
Extremely poor	44.2*	-	3.6*	52.1*	100.0
Mberengwa	**60.0**	**2.7**	**12.5**	**24.8**	**100.0**
Non-poor	41.2*	4.2*	16.2*	38.4*	100.0
Poor	60.5	2.9	15.4	21.2	100.0
Extremely poor	83.5*	-	-	16.5*	100.0
Shurugwi	**42.1**	**5.1**	**13.9**	**38.9**	**100.0**
Non-poor	46.1	1.5	20.7	31.6	100.0
Poor	42.7	5.0	13.2	39.1	100.0
Extremely poor	36.8	8.4	10.1	44.7	100.0
Zvishavane	**60.3**	**3.4**	**13.2**	**23.1**	**100.0**
Non-poor	58.8	5.0	20.0	16.2	100.0
Poor	61.5	3.1	10.9	24.5	100.0
Extremely poor	56.9	-	4.4	38.7	100.0
Gokwe North	**62.7**	**4.5**	**8.1**	**24.6**	**100.0**
Non-poor	70.0*	1.9*	11.4*	16.8*	100.0
Poor	59.2	5.1	9.2	26.4	100.0
Extremely poor	68.9*	4.6*	2.0*	24.5*	100.0
Masvingo Province					
Bikita	**56.4**	**1.0**	**5.0**	**37.6**	**100.0**
Non-poor	60.6	-	11.6	27.8	100.0
Poor	54.1	1.8	3.7	40.4	100.0
Extremely poor	58.1	-	2.4	39.5	100.0
Chiredzi	**36.5**	**1.4**	**26.2**	**35.9**	**100.0**
Non-poor	33.9	-	33.1	33.0	100.0
Poor	41.7	1.8	22.6	33.9	100.0
Extremely poor	27.4	2.0	26.8	43.8	100.0
Chivi	**53.3**	**7.4**	**13.5**	**25.8**	**100.0**
Non-poor	56.2	1.8	12.2	29.9	100.0
Poor	53.5	8.6	13.3	24.5	100.0
Extremely poor	46.9*	11.8*	16.5*	24.8*	100.0

Province and district	Public health facility	Traditional healer	Private clinic	None	Total
Masvingo Province					
Gutu	**43.6**	**5.3**	**15.9**	**35.2**	**100.0**
Non-poor	38.7	-	22.7	38.6	100.0
Poor	44.7	9.1	12.7	33.5	100.0
Extremely poor	49.0*	-	15.3*	35.7*	100.0
Masvingo Rural	**43.5**	**7.3**	**18.1**	**31.1**	**100.0**
Non-poor	39.7	3.6	31.8	24.9	100.0
Poor	43.7	7.0	15.5	33.8	100.0
Extremely poor	48.0*	12.9*	5.7*	33.3*	100.0
Mwenezi	**44.8**	**1.5**	**17.3**	**36.5**	**100.0**
Non-poor	24.2	2.7	30.9	42.3	100.0
Poor	48.9	1.0	16.7	33.4	100.0
Extremely poor	49.1	1.6	11.1	38.2	100.0
Zaka	**53.7**	**3.8**	**16.3**	**26.2**	**100.0**
Non-poor	46.4	5.5	24.6	23.4	100.0
Poor	52.9	3.0	14.4	29.7	100.0
Extremely poor	74.3*	4.6*	10.8*	10.3*	100.0

Source: PICES 2011. Poor households have per capita consumption expenditure values that fall below the upper poverty line and above the lower line. Extremely poor households have index values that fall below the lower line. Note:* means the number of observations are few.

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Table G.4: Reason for not Seeking Medical Treatment for People Who Were Ill but Did not Treat Their Illness, Zimbabwe

Percentage	Too far	Cannot afford	Home treatment	Religion	Not necessary	Other	Total
Bulawayo							
Non-poor	0.4	20.0	65.1	1.1	11.7	1.6	100.0
Poor	0.5	30.2	43.1	1.6	24.5	-	100.0
Extremely poor	-	36.7*	50.5*	-	12.8*	-	100.0
Manicaland							100.0
Non-poor	3.2	25.0	44.0	6.7	19.3	1.8	100.0
Poor	3.3	27.1	39.9	10.0	17.8	1.9	100.0
Extremely poor	1.4	43.4	26.2	13.8	14.7	0.5	100.0
Mash. Central							100.0
Non-poor	4.9	22.4	37.5	2.0	28.9	4.3	100.0
Poor	3.5	42.2	31.5	2.6	18.3	2.0	100.0
Extremely poor	1.1	43.0	35.6	3.3	15.0	1.9	100.0
Mash. East							
Non-poor	3.2	*32.2*	35.5	3.0	23.3	4.8	100.0
Poor	1.5	*42.1*	30.4	3.8	17.9	4.4	100.0
Extremely poor	2.7	*42.0*	31.1	5.3	15.8	3.1	100.0
Mash. West							100.0
Non-poor	0.9	*21.4*	64.4	-	12.0	1.3	100.0
Poor	1.7	*38.6*	40.2	2.9	15.5	1.1	100.0
Extremely poor	5.2	*37.7*	24.3	14.5	16.8	1.4	100.0
Mat. North							100.0
Non-poor	20.2	*19.6*	29.7	0.9	27.2	2.4	100.0
Poor	16.3	*27.1*	26.9	1.8	23.8	4.1	100.0
Extremely poor	16.0	*36.3*	26.3	1.2	18.4	1.8	100.0
Mat. South							100.0
Non-poor	14.8	*24.9*	27.6	6.7	20.9	5.0	100.0
Poor	11.3	*37.5*	30.2	2.1	16.8	2.1	100.0
Extremely poor	3.9	*33.8*	35.1	1.2	21.0	5.1	100.0
Midlands							100.0
Non-poor	5.2	*22.3*	45.1	4.8	20.7	1.9	100.0
Poor	7.0	*32.6*	41.2	2.9	15.3	1.0	100.0
Extremely poor	3.7	*48.5*	26.3	5.5	14.8	1.1	100.0
Masvingo							100.0
Non-poor	3.8	*30.6*	38.6	3.0	19.8	4.3	100.0
Poor	7.7	*36.9*	29.3	4.6	18.2	3.2	100.0
Extremely poor	9.3	*39.4*	25.1	6.2	16.4	3.7	100.0
Harare							100.0
Non-poor	-	*32.2*	50.3	3.8	12.8	0.9	100.0
Poor	-	*45.9*	26.7	2.4	24.1	1.0	100.0
Extremely poor	-	*55.0**	16.7*	16.3*	12.1*	-	100.0

Table G.5: Percent Access to Safe Water and Sanitation by Land Use, Rural Households, Zimbabwe

Rural Districts in Manicaland Province				
Type of facility	**Buhera**	**Chimanimani**	**Chipinge**	**Makoni**
Toilet				
Flush	-	3.4	1.7	0.9
Blair toilet	16.0	45.3	22.7	45.7
Pit latrine	30.3	44.1	55.9	22.2
None	53.5	7.0	18.6	30.6
Other	0.2	0.2	1.2	0.6
Total	100.0	100.0	100.0	100.0
Water source				
Access to safe water				
Piped inside house	0.3	1.3	0.4	-
Piped outside house	1.9	29.3	5.4	0.2
Communal tap	0.4	4.9	3.6	1.7
Protected well/borehole	56.2	38.4	61.4	69.1
Unprotected well	36.8	20.8	22.8	22.9
River/stream/dam	4.2	5.1	6.2	6.1
Other	0.1	-	-	-
Total	100.0	100.0	100.0	100.0

Rural Districts in Manicaland Province

Type of facility	Mutare Rural	Mutasa	Nyanga
Toilet			
Flush	-	3.6	2.7
Blair toilet	28.4	41.6	40.4
Pit latrine	39.2	54.0	34.0
None	32.0	0.5	22.9
Other	0.4	0.3	-
Total	100.0	100.0	100.0
Water source			
Access to safe water			
Piped inside house	-	3.2	1.7
Piped outside house	2.3	25.0	8.4
Communal tap	2.5	8.2	7.8
Protected well/borehole	64.9	23.9	54.0
Unprotected well	25.1	34.9	17.8
River/stream/dam	4.4	4.8	10.2
Other	0.9	-	-
Total	100.0	100.0	100.0

Rural Districts in Mashonaland Central Province

Type of facility	Bindura Rural	Cente-nary	Guruve	Mazowe	Mount Darwin	Rush-inga	Shamva
Toilet							
Flush	1.3	0.1	-	10.0	2.3	-	0.4
Blair toilet	47.1	37.7	31.8	55.2	29.2	29.2	24.6
Pit latrine	33.5	22.4	34.9	29.3	39.5	13.4	59.5
None	10.9	32.0	30.5	3.7	28.7	51.0	13.6
Other	7.3	7.7	2.7	1.8	0.4	6.3	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water source							
Access to safe water							
Piped inside house	0.4	-	-	3.7	0.7	-	0.2
Piped outside house	1.2	0.2	0.5	6.5	1.8	0.8	1.3
Communal tap	5.1	9.0	0.7	22.0	-	-	7.7
Protected well/borehole	68.1	40.3	75.8	44.6	58.6	76.4	68.5
Unprotected well	22.7	40.9	13.3	22.9	15.9	11.2	20.7
River/stream/dam	2.5	9.6	9.8	-	23.0	11.6	1.3
Other	-	-	-	0.3	-	-	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Rural Districts in Mashonaland East Province					
Type of facility	Chikomba	Goromonzi	Hwedza	Maronde-ra Rural	Mudzi
Toilet					
Flush	0.3	12.5	1.4	3.7	1.9
Blair toilet	43.1	31.0	23.5	22.3	34.6
Pit latrine	25.0	39.9	49.3	52.4	20.1
None	31.0	15.8	25.6	19.3	42.5
Other	0.5	0.7	0.2	2.2	0.9
Total	100.0	100.0	100.0	100.0	100.0
Water source					
Access to safe water					
Piped inside house	0.3	6.2	1.1	3.2	1.5
Piped outside house	2.7	7.9	2.5	3.4	1.3
Communal tap	0.9	19.3	4.0	34.3	-
Protected well/borehole	69.2	44.9	68.4	42.9	59.1
Unprotected well	25.5	20.5	19.7	15.1	25.0
River/stream/dam	1.3	-	2.5	1.1	13.1
Other	-	1.1	1.9	-	-
Total	100.0	100.0	100.0	100.0	100.0

Rural Districts in Mashonaland East Province				
Type of facility	Murehwa	Mutoko	Seke	UMP
Toilet				
Flush	1.7	0.2	4.0	-
Blair toilet	44.4	56.9	18.8	40.1
Pit latrine	29.0	21.2	54.1	24.5
None	24.9	19.7	22.0	31.8
Other	-	1.9	1.0	3.6
Total	100.0	100.0	100.0	100.0
Water source				
Access to safe water				
Piped inside house	1.2	1.3	3.2	0.6
Piped outside house	1.5	0.5	4.6	-
Communal tap	1.2	1.0	6.8	-
Protected well/borehole	66.5	56.7	61.3	56.4
Unprotected well	29.2	36.1	23.0	28.6
River/stream/dam	0.4	4.5	1.1	14.3
Other	-	-	-	-
Total	100.0	100.0	100.0	100.0

Rural Districts in Mashonaland West Province						
Type of facility	Chegutu Rural	Hurungwe	Kadoma Rural	Kariba Rural	Makonde	Zvimba
Toilet						
Flush	5.6	1.5	3.5	5.7	1.3	9.6
Blair toilet	30.4	27.7	24.4	16.6	21.5	40.4
Pit latrine	20.9	25.9	8.3	3.8	33.8	28.1
None	42.1	44.4	58.3	74.0	42.4	20.6
Other	1.1	0.5	5.5	-	1.0	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water source						
Access to safe water						
Piped inside house	2.9	1.4	2.6	4.8	0.6	3.4
Piped outside house	2.8	3.3	2.3	4.1	1.8	11.2
Communal tap	3.8	3.5	6.7	1.4	14.1	11.6
Protected well/borehole	56.7	37.3	65.8	29.2	36.9	38.7
Unprotected well	31.4	31.2	12.7	41.2	32.9	29.4
River/stream/dam	2.4	23.0	9.6	18.6	13.7	3.9
Other	-	0.2	0.2	0.7	-	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Rural Districts in Matabeleland North Province						
Type of facility	Binga	Bubi	Hwange Rural	Lupane	Nkayi	Tsholotsho	Umguza
Toilet							
Flush	0.3	2.5	0.6	-	0.4	-	19.4
Blair toilet	16.8	34.1	28.4	15.3	16.0	21.9	22.3
Pit latrine	0.8	2.1	3.7	1.7	2.4	5.2	7.9
None	82.0	61.0	61.1	83.0	80.9	72.1	50.2
Other	0.2	0.4	6.1	-	0.4	0.7	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water source							
Access to safe water							
Piped inside house	0.2	2.2	0.5	-	0.5	1.1	15.7
Piped outside house	0.1	3.6	0.7	-	1.0	-	4.7
Communal tap	2.0	8.7	4.3	-	-	0.2	11.1
Protected well/borehole	46.5	70.4	76.3	63.7	56.0	93.5	51.0
Unprotected well	23.2	6.4	-	23.0	19.8	1.4	8.2
River/stream/dam	27.1	8.6	18.1	13.3	22.7	3.6	9.3
Other	0.1	-	-	-	-	-	-
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Rural Districts in Matabeleland South Province							
Type of facility	Beitbridge Rural	Bulili-ma	Mangw-e	Gwan-da Rural	Insiza	Mat-obo	Umzi ngwa ne
Toilet							
Flush	2.2	0.4	2.8	0.4	3.9	1.3	7.9
Blair toilet	24.2	42.7	50.9	29.2	47.7	42.6	50.7
Pit latrine	3.0	7.4	7.5	14.1	11.1	7.0	5.8
None	68.5	48.5	38.9	55.9	37.3	48.2	35.3
Other	2.0	1.0	-	0.4	-	0.9	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water source							
Access to safe water							
Piped inside house	1.5	1.4	1.9	-	2.3	1.4	3.4
Piped outside house	2.3	1.5	1.0	0.2	4.3	1.1	11.8
Communal tap	1.6	3.1	0.5	0.3	5.1	7.4	2.8
Protected well/borehole	73.0	61.1	45.3	48.6	43.4	56.8	56.1
Unprotected well	9.0	5.5	7.2	10.3	13.4	16.4	15.0
River/stream/dam	12.6	27.4	41.0	40.6	27.7	15.7	9.2
Other	-	-	3.0	-	3.8	1.2	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Rural Districts in Midlands Province					
Type of facility	Chirumanzi	Gokwe South	Gweru Rural	Kwe Kwe Rural	Mberengwa
Toilet					
Flush	3.1	0.4	-	4.5	6.9
Blair toilet	45.0	12.1	18.6	22.9	29.2
Pit latrine	14.8	26.3	19.7	26.3	29.7
None	37.1	61.0	61.5	46.3	32.9
Other	-	0.2	0.2	-	1.3
Total	100.0	100.0	100.0	100.0	100.0
Water source					
Access to safe water					
Piped inside house	2.2	0.5	-	2.8	1.5
Piped outside house	3.2	0.9	0.3	9.2	6.1
Communal tap	1.3	-	0.8	3.3	8.8
Protected well/borehole	56.3	32.1	61.6	62.4	66.7
Unprotected well	31.0	49.3	28.8	20.6	6.3
River/Stream/Dam	4.3	16.9	8.5	1.0	10.7
Other	1.7	0.3	-	0.7	-
Total	100.0	100.0	100.0	100.0	100.0

Rural Districts in Midlands Province			
Type of facility	Shurugwi	Zvishavane Rural	Gokwe North
Toilet			
Flush	7.8	2.8	3.1
Blair toilet	20.4	60.0	56.8
Pit latrine	16.3	7.3	2.9
None	55.5	29.2	36.2
Other	-	0.7	0.9
Total	100.0	100.0	100.0
Water source			
Access to safe water			
Piped inside house	2.5	2.2	0.3
Piped outside house	6.5	4.3	0.8
Communal tap	0.2	0.8	4.3
Protected well/borehole	55.1	73.3	60.2
Unprotected well	11.9	15.6	13.2
River/stream/dam	23.9	3.8	21.2
Other	-	-	-
Total	100.0	100.0	100.0

Rural Districts in Masvingo Province							
Type of facility	Bikita	Chiredzi	Chivi	Gutu	Masvingo Rural	Mwenezi	Zaka
Toilet							
Flush	0.3	25.8	0.4	0.4	4.6	2.6	0.9
Blair toilet	37.7	14.8	34.0	35.0	35.8	17.8	19.6
Pit latrine	4.7	6.1	15.8	17.1	9.2	12.4	13.4
None	54.7	53.2	44.2	45.0	48.2	66.9	64.1
Other	2.6	0.1	5.6	2.6	2.2	0.3	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Water source							
Access to safe water							
Piped inside house	0.8	3.9	1.2	0.2	3.8	-	1.4
Piped outside house	0.7	8.3	4.6	1.6	5.1	9.0	0.4
Communal tap	0.5	19.4	0.5	0.4	3.8	-	1.3
Protected well/borehole	72.6	29.3	57.4	45.5	53.9	50.6	41.3
Unprotected well	17.7	20.2	22.8	47.8	28.5	10.4	38.1
River/stream/dam	7.3	13.9	13.5	3.6	4.9	29.3	16.5
Other	0.4	5.0	-	1.0	-	0.7	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: PICES 2011. **Note:** *access to safe water consists of piped water inside and outside house, communal tap, protected well/borehole*

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