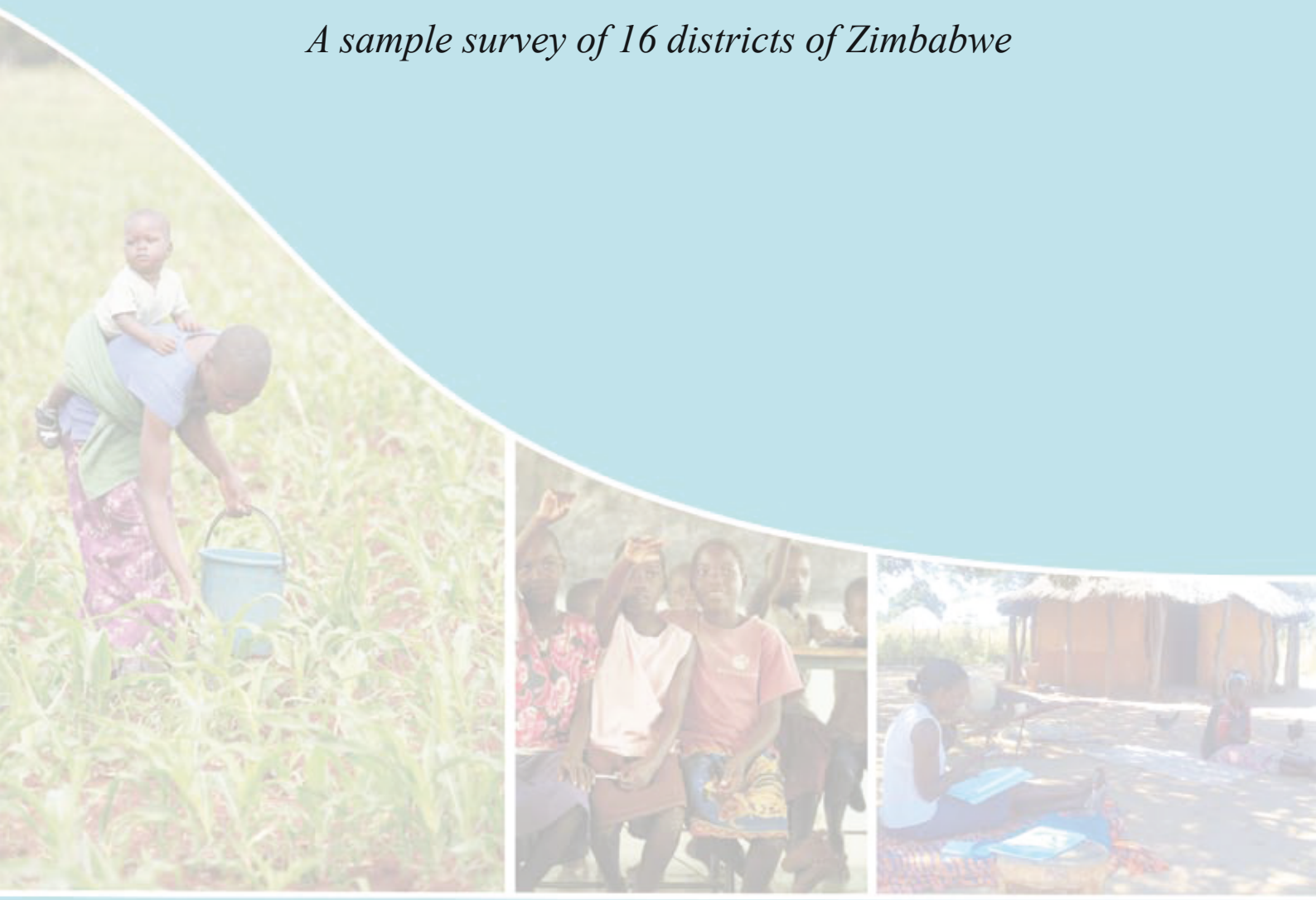
Understanding poverty, promoting wellbeing and sustainable development

A sample survey of 16 districts of Zimbabwe



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Foreword

Welcome to the Moving Zimbabwe Forward Wellbeing and Poverty Study Report

Poverty is multidimensional and so complex that we have to strive to understand its nature, depth and occurrence in order to address it effectively. Understanding the make-up of poverty provides scope for evidence-based responses. When policy is evidence-based there is confidence that resources deployed in dealing with a policy problem stand a better chance of success. A team at the Institute of Environmental Studies, University of Zimbabwe has provided new poverty knowledge in the Moving Zimbabwe Forward Wellbeing and Poverty Survey which is presented in this report.

The Survey provides evidence of the nature of poverty in Zimbabwe. It confirms the deepening poverty in Zimbabwe which did and still does affect the majority of households. The continent of Africa has the largest endowments of natural resources in the world. However, during the period 2000-2008 Africa experienced a high growth rate which did not lead to poverty reduction. Zimbabwe is rich in natural resources but the prevalence of poverty is not commensurate to the nation's quantum of resources. This is a question that many people ponder on. The study results are a wakeup call to all committed Zimbabweans to take action about the state of poverty and wellbeing in Zimbabwe.

The report not only presents the facts about poverty, but analyses and interprets the data, and contextualises the findings in relation to other studies, in particular, the Poverty Assessment Survey Studies (PASS) undertaken by the Ministry of Labour and Social Services, and the Income Consumption Expenditure Surveys carried out by the Zimbabwe National Statistics Agency (ZIMSTAT).

If it is to have a true impact, research should not only be aimed at an academic audience, but must reach out to meet the needs of policy makers and practitioners. The Moving Zimbabwe Forward Wellbeing and Poverty study report is designed to do that. It provides comprehensive suggestions for both policy and practice that can help address the various facets of poverty in Zimbabwe. We hope that the report will stimulate thinking and debate resulting in positive steps to uplift and improve the lives of the poor. This will enable policy makers to formulate and implement pro-poor policies.

A key finding of the study shows that there is a need to productively use land and maximise output in order to reduce poverty in Zimbabwe. Zimbabwe's rich natural resources, including land, minerals, forests and wildlife can move Zimbabwe out of poverty and towards sustainable development and equitable, pro-poor growth.

This report is not just about revealing the high levels of poverty, and the state of wellbeing, but also about continuing the debate about what can be done about it. Let's work to make poverty in Zimbabwe history!

Dr Desire Mutize Sibanda

Permanent Secretary
Ministry of Economic Planning and Investment Promotion

About the Institutions

The Institute of Environmental Studies

The Institute of Environmental Studies (IES) was established in 1994 as an independent, non-faculty unit within the University of Zimbabwe in response to national concerns about the ecological, social and economic consequences of environmental change. Recognising the inextricable link between poverty, environment and natural resources, the mission of IES is to contribute to the sustainable use of natural resources, poverty alleviation and prosperity of stakeholders by providing research, education, advisory services and networking on issues related to the environment and people.

The Brooks World Poverty Institute

The Brooks World Poverty Institute (BWPI) at the University of Manchester is an international centre of excellence established in 2006 to create and share knowledge to end poverty, in both the North and South, and to shape policies that deliver real gains for people in poverty.

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List of Abbreviations

AGRITEX	Agricultural, Technical and Extension Service
AIDS	Acquired Immuno Deficiency Syndrome
ARVs	Anti-retroviral drugs
BWPI	Brooks World Poverty Institute
CAMPFIRE	Communal Areas Management Programme for Indigenous Resources
CASS	Centre for Applied Social Sciences
CPRC	Chronic Poverty Research Centre
CRSP	Collaborative Research Support Programs
CSO	Central Statistics Office
DHS	Demographic Health Survey
EMA	Environmental Management Agency
FAO	Food and Agriculture Organization
FC	Forestry Commission
FCE	Food consumption expenditures
FGT	Foster, Greer and Thorbecke
FPL	Food Poverty Line
GDP	Gross Domestic Product
GoZ	Government of Zimbabwe
GPS	Global Positioning System
HDI	Human Development Index
HIV	Human Immune Deficiency Virus
ICES	Income Consumption Expenditure Survey
ICT	Information and Communication Technology
IDRC	International Development Research Centre
IEG	Independent Evaluation Group
IES	Institute of Environmental Studies
IFPRI	International Food Policy Research Institute
MDG	Millennium Development Goal
MIMS	Multiple Indicator Monitoring Survey
MPRA	Munich Personal RePEc Archive
MPSLSW	Ministry of Public Service, Labour and Social Welfare
MZF	Moving Zimbabwe Forward
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
PASS	Poverty Assessment Survey Study
PICES	Poverty Income Consumption Expenditure Survey
PWMA	Parks and Wildlife Management Authority
TCPL	Total Consumption Poverty Line
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Programme
UNDPI	United Nations Department of Public Information
USD	United States Dollar
WFP	World Food Programme
ZANU-PF	Zimbabwe African National Union-Patriotic Front
ZD	Zimbabwe Dollar
ZDHS	Zimbabwe Demographic Health Survey
ZIMSTAT	Zimbabwe National Statistics Agency
ZIMVAC	Zimbabwe Vulnerability Assessment Committee

Chapter One

Introduction to the Moving Zimbabwe Forward Wellbeing and Poverty Study

Jeanette Manjengwa

Main messages

- *All people have a right to wellbeing and a decent standard of living.*
- *Poverty is multidimensional and dynamic. It can be defined as a sustained or chronic deprivation of the resources, capabilities, choices, security and power necessary for the enjoyment of an adequate standard of living and other civil, cultural, political and social rights.*
- *The Moving Zimbabwe Forward wellbeing and poverty study aimed to create poverty knowledge and understand the current nature of poverty in Zimbabwe, to identify factors that may contribute to poverty reduction strategies.*

Why addressing poverty is important

Wellbeing and development is for all people and every person has the right to a decent life:

'Everyone has a right to a standard of living adequate for the health and wellbeing of himself and his family, including food, clothing, housing and medical care, and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age, or other lack of livelihood in circumstances beyond his control.' Universal Declaration of Human Rights (1948).

Nevertheless, worldwide there are around half a billion people who are persistently poor over many years, their whole lives, and inter-generationally (Chronic Poverty Research Centre (CPRC), 2010). Progress against poverty has been uneven and disappointingly slow in some regions, particularly Africa. In practice, development has failed to put people first, poverty has deepened and inequities are more entrenched (Moyo, 2010). People in poverty are those who have benefited least from economic growth and development. Many live in remote rural areas or urban slums; have little access to productive assets; low capabilities in terms of health, education and social capital; and suffer from chronic ill health or disabilities (CPRC, 2005).

The vision of development and wellbeing is shared by all, but the current reality does not match pronouncements of this vision. The imperative to confront and eradicate poverty is a moral one, and cannot be selectively applied (CPRC, 2005). An effective response to poverty requires a better understanding of what it means to be poor and better analysis of the characteristics and underlying social processes that result in sustained and intractable poverty.

Poverty in Zimbabwe has been increasing over the last 20 years due to a combination of economic and weather-related problems. The Moving Zimbabwe Forward (MZF) study is motivated by understanding the context in which poverty exists in Zimbabwe. It is not meant to chronicle failures, but rather provide a deeper understanding and analysis of the problems of poverty and help to identify factors that may contribute to poverty reduction strategies.

Concepts of poverty and wellbeing

Wellbeing and poverty are defined in many different ways. Many of the vernacular languages in Zimbabwe have terms that relate to the concepts of wellbeing and poverty and locate it socially. Shona words that express wellbeing are *kugarika* and *upfumi* and the Ndebele words are *inhlalakahle* and *inotho*. The Shona word *urombo* or *nhamo* and the Ndebele word *ubuyanga* capture the essence and recognize the time duration and depth dimensions of poverty. In Shona, the concept of chronic poverty is captured in phrases like *nhamo yemadzinza* (poverty passed down across generations) or *nhamo inokandira mazai* (poverty that lays eggs). Analytically many in Zimbabwe relate poverty to assets, which are often seen as indicators of wealth, or an ability to avoid poverty. In many rural areas it is land and livestock, particularly cattle, which define a household's wealth status. Wellbeing and poverty are closely linked, as illustrated by the saying: *rugare tange nhamo,* which means that prosperity only comes after hardships.

The main focus of wellbeing is whether households or individuals have enough resources to meet their needs, such as enough food, shelter, health care, education etc. Wellbeing comes from a capability to function in society, and therefore also includes adequate income, security, self-confidence and rights. In April 2012, a United Nations conference, titled 'Happiness and Wellbeing: Defining a New Economic Paradigm,' endorsed the importance of happiness as an indicator of human development.

Poverty is multifaceted and there are many approaches to defining it. The most widely used are poverty lines which measure deprivation of income (or the related expenditure

and consumption) needed to meet basic needs for the maintenance of 'physical efficiency'. Rather than focusing on incomes, the capabilities approach explains poverty in terms of what people are able to do and to become (Sen, 1999). Poverty is then defined broadly as lack of capabilities rather than income. This implies a focus not on the utility, but the welfare benefits of an income. For example being educated, well-fed and free to exercise choice gives an individual a better living standard than being wealthy but in ill-health.

Widespread institutional and social exclusion on the basis of, for example, age, gender, ethnicity, landlessness or disability, represent formidable barriers for the efforts of the poorest to achieve security. The social exclusion approach conceptualises poverty as a state in which individuals are sidelined by societal structures from accessing resources (Ludi and Bird, 2007). This is taken further in the participatory approach, where poverty is defined as a state in which people have limited participation in the governance of their community (Chambers, 2006; de Campos Guimarães, 2009).

In contemporary poverty discourses this new generation of poverty definitions co-exists alongside the money-metric understanding, and is seen as complementing rather than replacing the former (see Alkire and Foster, 2011). In 2001, the United Nations Committee on Economic, Social and Cultural Rights defined poverty as 'a sustained or chronic deprivation of the resources, capabilities, choices, security and power necessary for the enjoyment of an adequate standard of living and other civil, cultural, political and social rights'.

In addition to understanding the scale and depth of poverty, contemporary concern also focuses on the duration of poverty. A distinction is now often made between those living in long term or chronic poverty, and those living in transitory poverty (who occasionally or are sometimes poor). There are variations about the length of time that qualifies an individual as living in chronic poverty. In the main, the cut-off duration is arbitrary and often depends on data availability and the cycles of surveys. Transitorily poor households include those whose fortunes fluctuate around the poverty threshold. In agrarian societies this might include households that emerge out of poverty during a good agricultural season, but fall below the poverty line with any adverse shock, such as a severe drought. Classifying poverty in this way enables policy makers to develop better targeting mechanisms. Chronic poverty or hard core poverty is more entrenched and can be intergenerational, and therefore more difficult to deal with compared to transitory poverty.

Poverty in Zimbabwe

Alienation of indigenous people from their land was institutionalised by the Land Apportionment Act of 1930 that divided land into European and African areas, with the resultant massive landlessness on the part of the Africans.

Poverty is widespread in Zimbabwe and is driven by many, often interlinking, factors. The root cause of poverty in the country is the inherited, embedded, structural chronic poverty and inequality template manifested by land alienation during the era of colonialism (Chipika, 2007).

From 1930 onwards there were numerous amendments to the Act, eventually leading to a consolidation through the Land Tenure Act of 1969. Apart from the racial segregation aspect, land distribution was extremely unequal (Government of Zimbabwe, 2003). In addition, discriminatory taxation and agricultural policies designed to support and cushion the white farming sector reduced the Tribal Trust Lands to poverty (Mutizwa-Mangiza and Helmsing, 1991). Moyo *et al.,* (1991) estimated that by 1978, half of the African population was landless due to increasing population in the marginal 'Tribal Trust Lands'.

Even though land alienation was addressed after independence in 1980 through the land reform programme, smallholder farmers are still facing productivity problems due to lack of tillage, inputs and functional markets. Furthermore, major events or shocks, such as drought, economic crisis and disease epidemics, magnify the situation, accelerating the process of impoverishment and causing transient poverty.

Pro-poor economic policies actively involve the State in taking measures to reduce poverty. For example, an employment policy framework can promote decent and productive employment that can contribute to eradicating poverty. Effective policies and strategies need to be informed by sound empirical evidence.

In Zimbabwe, a multidimensional view of poverty is recognized through the use of the Human Development Index as well as Poverty Assessment Survey Studies (PASS), Income and Consumption Expenditure Surveys (ICES) which have recently included poverty, as Poverty, Income, Expenditure Surveys (PICES), Demographic Health Surveys (DHS), Zimbabwe Vulnerability Assessments (ZIMVACs), Multiple Indicator Monitoring Surveys (MIMS) and a number of smaller sector-specific surveys. Although poverty has multiple dimensions, the worst case scenario is deprivation of food and essential or basic non-food items, respectively referred to as food and total consumption poverty.

In order to create poverty knowledge and understand the current nature of poverty in Zimbabwe, a sample wellbeing and poverty survey was carried out in 16 Districts in 2011. This report presents an analysis of the survey results and discusses the implications and contribution of its findings

to new poverty knowledge in Zimbabwe. Zimbabwe has undergone an era of economic decline with adverse consequences on the wellbeing of its people, during the last 20 years. It is hoped that the evidence gathered in this study can stimulate dialogue amongst decision- and policy-makers and subsequently feed into the policy process, strengthening pro-poor and inclusive growth policies.

The Moving Zimbabwe Forward Policy Dialogue Process

The MZF survey is a component of a larger initiative, the *'Moving Zimbabwe Forward: An Evidence-Based Policy Dialogue Initiative'* which aims to enhance poverty-focused stabilisation, recovery and growth in Zimbabwe through sound policy judgements, by encouraging policy dialogue and debate, and by generating and disseminating policy-relevant information.

The *Moving Zimbabwe Forward: An Evidence-Based Policy Dialogue Initiative* is being implemented by the Institute of Environmental Studies (IES), at the University of Zimbabwe. The Institute recognises the close relationship between the environment and development. Poverty has been identified as one of the main drivers of environmental degradation and eradicating poverty is a prerequisite for sustainable development (Feresu, 2010). Therefore, the Moving Zimbabwe Forward Initiative creates a platform for Zimbabweans to discuss and debate on issues and to come up with policy recommendations that will help Zimbabwe move forward and out of poverty towards sustainable development.

There is no easy solution to addressing poverty and a multi-pronged approach is needed, spearheaded by sound macro-economic policies, which espouse pro-poor and inclusive growth, complemented by effective social protection policies.

The evidence-based policy dialogue initiative began in August 2010 and has undertaken a number of activities beginning with the production of hard copies of the book *'Moving Forward in Zimbabwe: Reducing Poverty and Promoting Growth'* for dissemination and dialogue (Chimhowu *et al.*, 2010). The book, which covers a wide range of economic and social development challenges facing the country, was the outcome of collaboration between the University of Zimbabwe and the Brooks World Poverty Institute (BWPI), University of Manchester.

The book was launched at an international conference in Harare, December 2010, by the Permanent Secretary for Economic Planning and Investment Promotion. The official book launch was followed by countrywide launches by Vice Chancellors at five universities: the National University of Science and Technology, Bulawayo; Great Zimbabwe University, Masvingo; Midlands State University, Gweru; Chinhoyi University of Technology, Chinhoyi; and Africa University, Mutare. These provincial launches were attended by government officials, academia and civil society. The launches were accompanied by seminars addressing such issues as enhancing smallholder farming; poverty traps and opportunities for ways out of poverty; pro-poor inclusive growth and sustainable development; minerals for equitable development; and education for poverty reduction. These seminars provoked a lot of debate on how Zimbabwe can address poverty.

A number of in-house seminars with government policy makers, together with round tables and three international conferences with a wide range of stakeholders, have been held under the Moving Zimbabwe Forward Policy Dialogue Initiative. These events have created debate and furthered dialogue on topical issues around poverty and development in Zimbabwe, including promoting smallholder agriculture; cash transfers, information and communication technologies (ICTs) and minerals for sustainable development.

While the policy dialogue events with policy makers and other stakeholders link research to policy by providing a platform for dissemination and discussion of policy relevant research findings, an integral component of the Moving Zimbabwe Forward initiative was to create new knowledge on poverty, which can provide evidence to feed into the process of policy formulation. This generation of new knowledge through the Moving Zimbabwe Forward Initiative consists primarily of the poverty survey, as well as several case study researches and Masters dissertations on aspects of localised poverty in Zimbabwe.

Objectives of the survey

There is currently limited up-to-date information on the wellbeing of Zimbabweans. The last national Poverty Assessment Study Survey (PASS) was undertaken in 2003 and it revealed that 63 per cent of households were below the total consumption poverty line (Government of Zimbabwe, 2006). An Income Consumption and Expenditure Survey was conducted in 2007/8; however, information on poverty status was not released mainly due to problems of dealing with validity of figures obtained in the hyper-inflationary environment that existed at the time. Consequently, since the 2003 PASS, there has not been any official survey on the levels of poverty in Zimbabwe. Some estimates suggest that by the time the economic crisis reached its peak in November 2008, up to 80 per cent of the population survived on less than USD 2/day (UNDP, 2008; Chimhowu *et al.*, 2010).

The sample survey on poverty, wellbeing and inequity in Zimbabwe was carried out by the Institute of Environmental Studies, University of Zimbabwe, in collaboration with the Zimbabwe National Statistics

Agency (ZIMSTAT), the Department of Social Services and the Ministry of Economic Planning and Investment Promotion, in order to contribute to the generation of new poverty knowledge.

The aim of the sample survey was to provide a snapshot of the current multidimensional nature of poverty in Zimbabwe by collecting information on a wide range of poverty and wellbeing indicators in 16 districts in the country, which could in turn be used to enhance the formulation and implementation of effective policies and development programmes. The findings were analysed and interpreted to bring out implications of policy relevance and significance. The combination of both quantitative and qualitative techniques allowed for a rigorous, in-depth study.

Scope and coverage of the study

The Moving Zimbabwe Forward (MZF) survey covered all the 10 provinces of Zimbabwe and was carried out over the period April-May 2011. The survey was designed to provide representative estimates of poverty at the rural-urban level. Data was collected in 16 districts, representative of Agro-ecological Regions, land uses and livelihood zones in Zimbabwe. The districts covered are: Harare including Epworth, Bulawayo, Hwange, Gwanda, Masvingo, Chiredzi, Gokwe North and South, Gweru, Mazowe, Mbire, Hurungwe, Mutare Urban, Mutare Rural, Mutoko and Chimanmani (See map in Figure 1.1, and Table 3.1 in Chapter Three for more details).

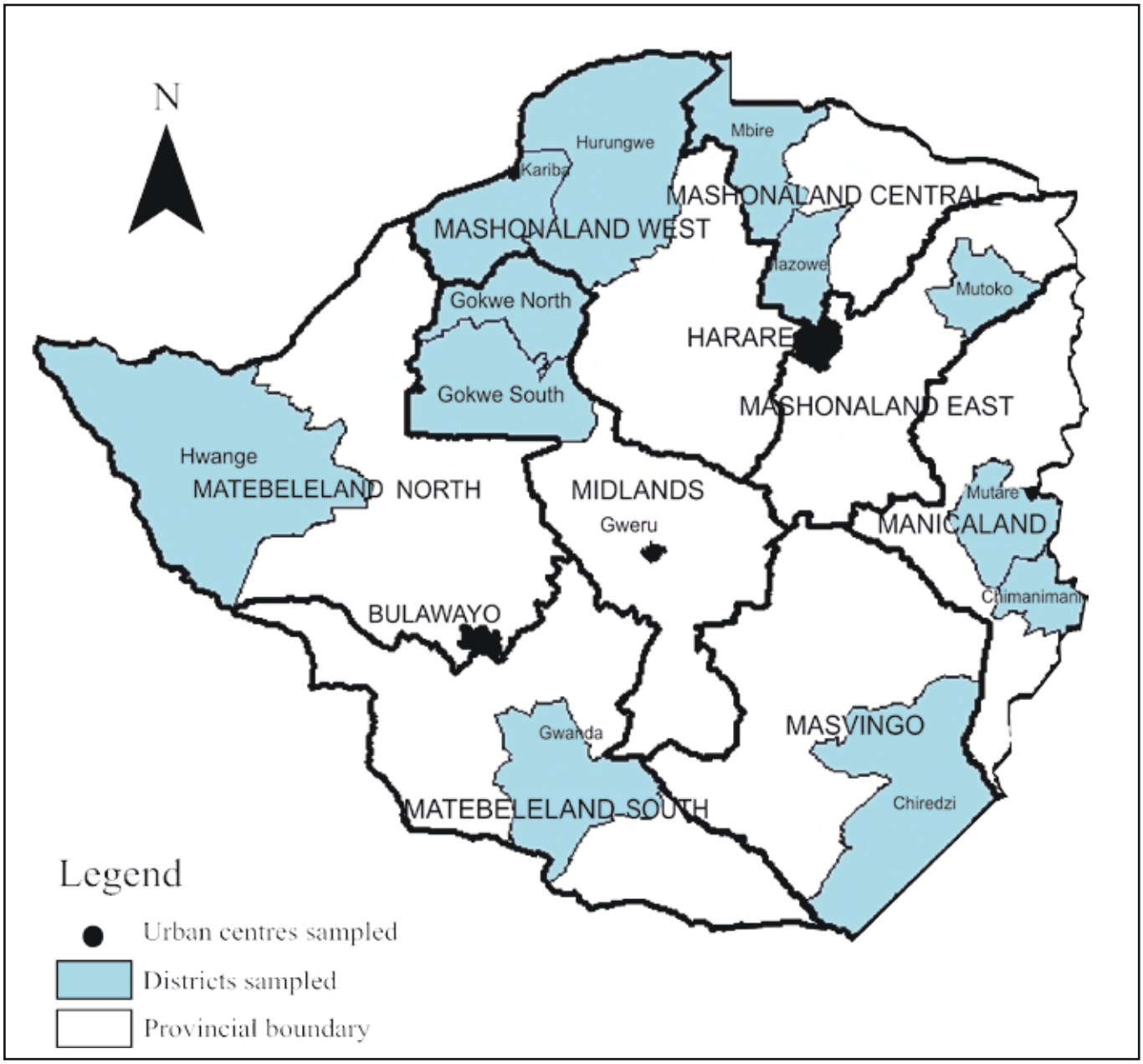

Fig 1.1: Map of Zimbabwe showing the Districts sampled in the Moving Zimbabwe Forward Wellbeing and Poverty Survey

Survey design

The survey looked at multidimensional aspects of poverty. A Q-squared approach, that is, a combination of quantitative and qualitative research methods was used for the analysis of poverty. Quantitative data was collected through administration of 3,448 household questionnaires, together with 75 institutional questionnaires to health and education institutions and business centres. Qualitative data was collected through focus group discussions with community groups and interviews with key informants.

The questionnaire covered a wide range of issues including:

- demographic characteristics
- access and use of education and health services
- incomes
- employment
- business enterprises
- agricultural activities
- food security and coping strategies
- access to land
- household food and non-food expenditures
- assets holdings
- natural resource use
- perceptions about poverty status
- exposure to shocks
- communication and access to information
- community organisations and social networks

Overview of Chapters

The book is divided into nine chapters which provide the context for the study, the design and methods used, the findings about poverty, followed by more detailed analysis of aspects of vulnerability, gender and natural resource use. In conclusion, recommendations and policy implications are suggested. Short descriptions of each chapter follow.

Chapter One: Introduction to the Moving Zimbabwe Forward Wellbeing and Poverty Study, is this introductory chapter that provides the background, rationale, objectives and design of the study. It also provides an overview of each chapter in the report.

Chapter Two: Context for the Study: Background to Development in Zimbabwe, illustrates how history matters, in that the chain of events which started with pre-independence colonial policies of an apartheid-like dual economy paved the way for much of what subsequently happened after independence, and what is still happening now. In fact, as the sample poverty survey shows, dualism and the resulting inequalities are still entrenched in Zimbabwe 32 years after independence.

The Chapter traces how, after independence in 1980, the new government strived to address the inherited inequalities through such policies as 'Growth with Equity', massive expansions in education and health services, and the launch of the land reform programme. These gains however, were eroded in the 1990s with the adoption of economic structural adjustment and the onset of the economic decline which culminated in economic crisis during 1999 to 2008. Recurrent droughts and subsequent crop failures, and the HIV and AIDS epidemic compounded the situation. Since 2009 there has been an improvement with economic stabilization and the gains of the land reform programme starting to be realized.

Chapter Three: Approach and Methods Used in the Moving Zimbabwe Forward Study. This methods chapter begins by looking at how poverty has been traditionally measured in Zimbabwe, principally through the Income Consumption and Expenditure Survey (ICES) carried out by the national statistics agency ZIMSTAT (formerly the Central Statistics Office), and the Poverty Assessment Study Surveys (PASS) implemented by the Ministry of Public Service, Labour and Social Welfare.

The Chapter then depicts the characteristics of the 16 Districts in the survey regarding Agro-ecological Regions and Livelihood Zones. Zimbabwe is divided into five Agro-ecological Regions which were all covered in the MZF study. The sample also covered 15 Livelihood Zones out of 24 zones listed by the Zimbabwe Vulnerability Assessment Committee (ZIMVAC). A Livelihood Zone is a geographical area in which people obtain food in more or less the same manner. Of the total of 3,448 households sampled, 59.6 per cent were situated in rural areas, while 40.4 per cent were in urban areas. Seventy one per cent of the household heads were male and 29 per cent female.

Determination of poverty levels from the MZF survey data is based on comparisons of monthly consumption expenditure with the official food and total poverty lines determined by ZIMSTAT. The total poverty line is the minimum amount of consumption required to meet the basic food and non-food requirements of a household. The total poverty line used was based on May 2011 prices.

The Chapter contains in-depth explanations of procedures used for analysis of the data including poverty status, namely incidence, depth and severity; calculation of poverty and inequality indices using the Lorenz Curve and Gini coefficient; and the development of regression models to explore determinants of poverty. Variables included in the regression analysis were employment status, demographics, socio-economic characteristics, assets and experience of shocks.

Chapter Four: Household Consumption and Poverty in Zimbabwe. This Chapter presents the main survey findings on magnitude and key determinants of poverty in Zimbabwe, based on household level data from the questionnaires. Community perceptions on poverty and development complement those obtained from the household consumption expenditure measures, and

together they generate a vivid picture of the current nature of poverty in the sampled districts.

Survey results suggest that the majority of the respondents were poor and nearly half were very poor. At 81.6 per cent poverty levels, four in every five sampled households lived below the Total Consumption Poverty threshold and can be classified as poor. Although not directly comparable due to methodological issues (the MZF is a small sample survey in 16 Districts and the PASS is countrywide), the MZF findings follow the trend observed by the PASS surveys in 1995 and 2003 which found that 42 per cent of households and 63 per cent of households sampled respectively were below the Total Consumption Poverty Line.

A significant 44.4 per cent of sampled households were classified as very poor and lived below the Food Poverty Line which means their total household monthly expenditures were unable to meet the minimum recommended food requirements of 2,100 calories per capita/day. This is slightly lower than the 2003 PASS results where 48 per cent of households were below the Food Poverty Line.

A major finding of the MZF survey was the continued deepening of rural poverty and further increase in the rural – urban divide. The survey found very high incidences of rural poverty with 95 per cent of the rural households under the Total Consumption Poverty Line and classified as poor. Only eight per cent of urban households were classified as very poor, compared to 68 per cent of the rural households. These divisions were also highlighted in the poverty depth and severity measurement. Notwithstanding the above, studies show that urban poverty is increasing at a faster rate than poverty in rural areas (Goverment of Zimbabwe, 2006).

Focus groups reveal that difficulties accessing adequate food, shelter, education and clothing characterise poverty across all communities. Perceptions of poverty in rural areas were also tied to productive assets (land, livestock, farming equipment), while those in urban areas are tied to employment (regular employment, capital, or machinery).

The Gini coefficient from the MZF survey was 0.50. It appears that inequality although still high in 2011 had narrowed slightly when compared with 2003, when the Gini coefficient from the PASS study was 0.64.

Regression analysis was used to determine the major drivers of poverty in the sample and found that the key factors correlating with poverty in case study areas are: rural locality; large household size; as well as lack of education, employment, business enterprises, and productive assets.

Chapter Five: Poverty Dynamics in Zimbabwe. The Chapter focuses on poverty dynamics and situates results of this survey within the historical data on poverty in Zimbabwe. Quantitative and qualitative research approaches reveal the complex nature of poverty, which consists of interrelated and compounding factors that reinforce each other to produce cycles of poverty.

Quantitative data was collected through a series of 'economic ladder' questions in the survey which sought people's perceptions of their current wellbeing and poverty status, where they thought they were five years ago and where they think they will be in five years time. The respondents were also asked what factors were likely to propel movement up the poverty ladder.

The study found that local people know and understand the reasons why they are poor. The reasons range from recurrent droughts and crop failure, lack of traction, inputs and markets, to high prices and unemployment.

Poor, marginalised and vulnerable people are more concerned with questions about what can be done to reduce their bad experiences of life, and what will enable them to achieve more of the good things in life to which they aspire. In line with this, the MZF study focused on strategies that people thought could lift them out of poverty. Overall, people identified that having more money, and the means of getting more money through more and better jobs; increased agricultural production; and more and better education, would solve most of their poverty-related problems.

Chapter Six: Shocks, Vulnerability and Coping. Zimbabwe is characterised by a multiple of economic, social and natural shocks that affect the majority of the population and render them vulnerable and impoverished. Although there is a strong nexus between vulnerability and poverty the two are not synonymous. People in vulnerable conditions may not necessarily be poor, whilst amongst the poor there may be varying levels and patterns of vulnerability, depending on the multitude of dynamic processes through which individuals and households respond to stresses and shocks. Nevertheless, increased poverty is usually a contributing factor to increased vulnerability.

A variety of questions in the MZF survey investigated the probability that a community or household suffers different shocks over the previous 12 months. In addition, information was collected on the severity of the shock as well as likelihood of it re-occurring in the next 12 months. The shocks identified range from drought, food shortages and inflation, to illness, HIV and AIDS, and loss of government or donor support.

The Chapter then looks at coping strategies that strengthen a household's position against risks and that minimise the

effects of various stresses and shocks such as building up assets, diversifying crops and livelihood sources, as well as conducting various trade-offs in responding to risk in ways that do not compromise critical household livelihood objectives. The study found that people in different wealth categories employed different coping strategies. The very poor for example emphasised asset depletion such as selling livestock, as well as engaging in local casual agricultural work as their top two coping strategies, whilst the non-poor emphasised strategies of further strengthening their positions against current and future risk and undertaking such activities as seeking better education, cross-border trade and establishing nutrition gardens.

Chapter Seven: Beyond Income: An Analysis of Gendered Wellbeing and Poverty in Zimbabwe. Women tend to bear the burden of poverty and, for example, the PASS reports indicate that female-headed households are poorer than male-headed households. Widows are particularly vulnerable. Using the MZF data together with other research and literature Chapter Seven explores the concept of the 'feminization of poverty'. It describes the disadvantages and problems that women face, particularly concerning maternal health, using data mainly from the Zimbabwe Demographic Health Surveys. The Chapter goes beyond income and explores the various facets of poverty that are not usually measured, or are hard to measure, such as violence and intimidation especially within marriage.

The MZF study did not find any major gender differences, as the gender factor appears to have been superseded by other factors such as education and employment as being major drivers of poverty in the case study districts. In fact, the MZF survey found that a higher percentage of female-headed households owned houses than their male counterparts. The study suggests that owing to the prolonged economic crisis, poverty is no longer as gendered as previously. It is recommended that further studies with a bigger sample be carried out as a way of moving away from contested views. A number of factors predispose women, especially female-headed households, to poverty and there is still over representation of women among the very poor.

Chapter Eight: Environment, Natural Resources and Poverty Reduction: Capturing and Sharing the Gains of Natural Resources Exploitation investigates the potential for natural resources to move people out of poverty. On a global scale Zimbabwe has one of the highest endowments of natural resources, such as gold, diamonds and platinum, which can fuel economic development and wealth creation. The Chapter identifies the various natural resources that are used both commercially and for household consumption and food security. Natural resources provide opportunities for a wide range of livelihood strategies which are invaluable for the survival of households, especially during times of shocks and stresses. The environment remains the only safety net for most of the vulnerable rural communities.

Economic hardships and poverty, however, have pushed more people to over-use and misuse the environment and natural resources causing significant degradation. Natural resource utilization and management must be sustainable. The Chapter looks at a number of opportunities for community-based management, such as the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE). The MZF study investigated issues of environmental management because for resources to be sustainable, their use has to be regulated and properly managed. The Chapter also looks at environmental awareness and knowledge, and implementation of natural resource rules and regulations.

Chapter Nine: Conclusions and Implications for Policy. The main message of the study is that there are high levels of poverty in Zimbabwe as evidenced by the results from the sample survey. Poverty is overwhelmingly a rural phenomenon, particularly in the drier regions of the country. A number of poverty traps or pitfalls were identified, including:

- Low total productivity, where both agricultural and economic production are below optimum.
- Lack of education and its effects on access to opportunities.
- Lack of quality employment.
- Health issues, such as HIV and AIDS, and maternal health, which undermine productivity and capital accumulation.

To escape, or at least to address these poverty traps, the following are emphasized:

- **Improving overall productivity,** with a focus on agricultural production. Smallholder farmers need to be empowered through the availability of traction, inputs, labour, irrigation and functioning markets.
- **Social protection.** The levels of poverty are so deep that any small incremental adjustments to income will take a long time to have an impact. Therefore, there is need for continued and scaled-up innovative social protection, consisting of a package of cash transfers; cash (or food) for work; as well as educational and health assistance.
- **Quality employment and education.** This can only emerge from sustained productivity growth over time. Increased agricultural production will lead to increased economic growth as well as boost rural incomes. This will result in increased demands for goods and services, and jobs will follow. Quality education is also key to quality employment.

- **Restore the urban areas as industrial, manufacturing and commercial centres.** This should increase economic production and create quality jobs, as well as have a knock-on effect in enhancing the rural situation.

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Chapter Two

The Context for the Study: Background to Development in Zimbabwe

Jeanette Manjengwa

Main messages

- *After independence in 1980 government policies strived to address the inherited inequalities caused by colonial policies of land alienation and the 'dual economy'.*
- *These gains however, were eroded in the 1990s with the adoption of economic structural adjustment and the economic decline which culminated in economic crisis during 1999 to 2008.*
- *Recurrent droughts and subsequent crop failures, and the HIV and AIDS epidemic compounded the situation.*
- *Since 2009 there has been an improvement with economic stabilization and the gains of the land reform programme starting to be realized.*

Introduction

This Chapter sets the scene for interpreting the poverty survey findings, providing a historical account of development issues in Zimbabwe affecting the present day situation. It focuses on macro-economic policies as these have direct impact on the wellbeing and poverty levels of the people of Zimbabwe. It also takes account of extraneous factors, namely frequent devastating droughts that have restricted the progress of development and influenced (usually negatively) the direction of macro-economic policies.

Independence and striving for equality

At independence in 1980 Zimbabwe inherited a 'dual economy' and a growth path that was built upon structural inequalities in relation to assets such as land, wages and incomes and which had led to ever-widening inequalities in wealth and income that were politically and economically unsustainable. Addressing inequalities formed the core component of a national poverty reduction strategy in independent Zimbabwe and the country pursued a development path that was centred on equitable distribution of income and wealth, as well as growth (Riddell, 2012).

The new government gave top priority to reducing the huge gaps between the white and black people, through massive expansions in health and education:

- Free primary schooling was introduced and enrolment increased from 819,000 in 1979 to 2,260,000 by 1986; secondary school enrolment expanded six fold (Stoneman and Cliffe, 1989).
- Infant mortality fell from 120 per thousand in 1980 to 83 per thousand in 1988, although this was still higher than white infant mortality, which was only 14 per thousand (Loewenson and Saunders, 1988).

In agriculture there was a shift in agricultural extension to serve black farmers and to implementation of the first land reform, which proved to be the largest in Africa[1]. The colonial period had brought systematic dispossession and alienation of land from black indigenous people and land was arguably the main factor behind Zimbabwe's liberation war. In 1980, 6,000 large-scale white commercial farmers owned 15.5 million hectares, more than half of which lay in the high rainfall agro-ecological regions where the potential for agricultural production is greatest, while over 700,000 black, mostly smallholder farmers held 17.8 million hectares of land located mostly in the drier agro-ecological regions where the soils are also poor (Moyo *et al.*, 2009). Six months after independence, the new government announced the Resettlement Programme, which resettled 73,000 families on land bought by the government on a 'willing buyer – willing seller' basis.

However, these efforts by the newly independent government were constrained by a severe three-year drought, destabilisation by apartheid South Africa, and a reduction in pledged donor support (Hanlon *et al.,* 2012). The expectations of large aid inflows encouraged the Government to borrow in anticipation of receiving support in the future (Jenkins, 1997). Zimbabwe negotiated its first World Bank loan in 1981 using the borrowed funds to increase education and health care facilities, to restructure the economy, and to cover the social costs of the three-year drought, which cost the Government USD 480 million, including USD 210 million in food imports, as well as to meet the costs of defending the country against apartheid destabilisation (Mlambo, 1997). Although at independence international donors pledged a massive USD1.8 billion of

[1]Kenya had resettled 50,000 families in 20 years (Cliffe, 1988)

Resettlement had an impact on alleviating poverty (Deininger et al., 2000), and Kinsey (2000) found that resettled households had higher and more evenly distributed income than their communal land counterparts.

aid, very little of these funds were ever received (Jenkins, 1997). A significant portion of this aid (between 10 per cent and 30 per cent) was tied to the purchase of goods and services from other countries, and the amount of aid provided fell extremely short of the amounts pledged: between 1982 and 1985, total official aid received from the main donors accounted for USD 574 million: only 30 per cent of the amount pledged (Riddell, 2012).

The impacts of ESAP

In the first four years of independence (1980-83) Zimbabwe received USD 1.5 billion in new loans, but in the next five years (1984-88) it had to pay back USD 1.2 billion (World Bank, 2012). The World Bank refused to extend an export revolving fund until Zimbabwe had liberalised trade, which it did (Zwizwai *et al.,* 2004).

From 1987 the economic policy changed and although government expenditures rose, this was less quickly than the increase in inflation. The government set a relatively high maize price plus a maize meal subsidy which reached USD 49 million in 1982/83 to support the urban poor and communal farmers (Kanyenze, 2004). Under World Bank pressure, maize meal subsidies were cut and maize prices were decontrolled, causing prices to fall and thus adversely affecting smallholder farmers. Spending on extension services was reduced and smallholder support diminished. Credit and fertiliser purchases dropped and the Grain Marketing Board cut back its number of collection points, which all hit small producers, including land reform farmers. After 1987-88, there was a sharp decline in smallholder production and sales. Maize sales fell as smallholders put less fertiliser in their fields.

In 1991 Zimbabwe adopted a World Bank Economic Structural Adjustment Programme (ESAP) which meant market-oriented reforms and severe cuts in government spending, resulting in deepened poverty. Zimbabwe had to abandon its import substitution and industrialisation strategy, support for black farmers, land reform, and any remaining socialist rhetoric. ESAP involved:

- A rapid devaluation and a floating exchange rate.
- Eliminating controls on prices and wages.
- Liberalization of trade and investment.
- Reducing the civil service and state spending.
- Ending subsidies.
- Commercialisation of many government-owned businesses.

Agricultural marketing was deregulated, and controls on domestic prices were removed except for a few commodities. Market liberalization reforms led to a tremendous increase in agricultural production costs particularly for stock feeds, fertilizer, transport costs and agricultural equipment (Tekere, 2003).

By the end of 1993, between 45,000 and 60,000 people lost their jobs and real wages were lower than at independence (Mlambo, 1997). Job cuts came just as the expanded education system delivered over 100,000 new high school graduates on the job market each year. The removal of price controls meant that the cost of living for Zimbabwe's lower-income urban families rose by 45 per cent between mid-1991 and mid-1992 and for higher income groups by 36 per cent (Kanji, 1995).

Meanwhile, ESAP resulted in a decline in the standard of living. Health and education services declined; fees for hospitals and schools were reintroduced in 1991, leading to a sharp drop in school and hospital attendance, a rise in births outside health facilities and an increase in maternal mortality. These cuts came just at a time when HIV and AIDS was becoming a serious problem, imposing an extra burden on the health service. By 1993, a third of Zimbabwe's doctors had left the country and many teachers and other health workers also left, moving particularly to South Africa and Botswana (Mlambo, 1997).

Even the World Bank's own Independent Evaluation Group (IEG) concluded that Zimbabwe's ESAP did not reduce poverty and unemployment as its architects had hoped (World Bank, 1995). Poverty levels in Zimbabwe increased from 26 per cent in 1990/91[2] to 55 per cent in 1995 (GoZ, 2006; Chimhowu et al., 2010).

A report for the UN Food and Agriculture Organization (FAO) noted that the implementation of the structural adjustment programme had a negative effect on household food security (Tekere, 2003).

The Fast Track Land Reform Programme

Frustration over the slow pace of land redistribution in the late 1990s, increasing political tensions and worsening poverty precipitated land invasions, popularly known as *jambanja,* at the local level, primarily by frustrated peasant

[2]The 1991 figure is not directly comparable because of methodological differences, but it is the accepted figure.

farmers, war veterans, and the youth. The Fast Track Land Reform Programme launched by the government in July 2000 formalised the situation, adopting an approach to resettlement that greatly speeded up the pace of land acquisition and resettlement by the immediate identification of not less than five million hectares for compulsory acquisition (Hanlon *et al.*, 2012). Over the following years the legal framework was revised several times, culminating in the 17th Constitutional Amendment, August 2005 which nationalised all commercial farming land in Zimbabwe.

The last ten years have seen an agrarian revolution whereby the agricultural system now consists of a large smallholder sector occupying two-thirds of all agricultural land. More than 141,000 families benefited from the Fast Track Land Reform. After an initial decrease immediately after resettlement, production has increased and lives of resettled farmers have been transformed for the better 12 years down the line. Many smallholder subsistence farmers now have viable commercial farms (Hanlon *et al.*, 2012). Production of maize and some cash crops, including tobacco and cotton has increased over the last three seasons (Mupodyi, 2012).

Drought and food shortages

A major feature behind the variation in Zimbabwe's economic growth is the agriculture sector's reliance on uncertain rainfall (Kinsey, 2010). Rainfall is highly variable in Zimbabwe, both from one year to another, but also between different parts of the country. Recurrent droughts are a normal feature of Zimbabwe's climate and have had a negative effect on development, magnifying existing poverty and vulnerability problems.

Zimbabwe is divided into five Agro-ecological Regions with rainfall and agricultural potential decreasing from Region I to Region V (Figure 2.1 and Box 2.1). Regions IV and V, with rainfall of below 650 mm per annum, deemed suitable for livestock, rather than cultivation, are characterized by infrequent heavy rain and severe dry spells. Figure 2.2 shows the deviation from the mean annual rainfall and the variation of rainfall from year to year. It also indicates that Zimbabwe received below average rainfall in 15 years out of the 30 years after independence.

Droughts in Zimbabwe usually have serious political and economic implications. The first three years after

Resettled farmers inspect their paprika harvest.
Photograph: Joseph Hanlon

independence were all drought years which led Zimbabwe to borrow (with IMF and World Bank encouragement) causing debt problems later. Then 1990/91 was a drought year followed by the worst drought of the century in 1991/92 (with rainfall 77 per cent below normal); this pushed the country into accepting the structural adjustment package (partly due to debt from the earlier drought years). The drought years of 1993/94 and 1994/95 worsened the economic problems caused by adjustment and fed into the strikes and disruptions. Then the 2001/02 drought occurred in the first year that farmers had land under the Fast Track Land Reform, making it harder for new farmers to become established.

Changes in rainfall between years, timing of rainfall and length of the season over time all present increasing difficulties for communities in anticipating the climate conditions each growing season.

HIV and AIDS and other health issues

The HIV and AIDS pandemic, which is arguably the most pressing current health problem facing Zimbabwe, has had serious negative impacts on the economy and society, particularly on poverty and vulnerability; worsening an already precarious situation. An estimated one in four adults were infected by the virus in 2003 while approximately

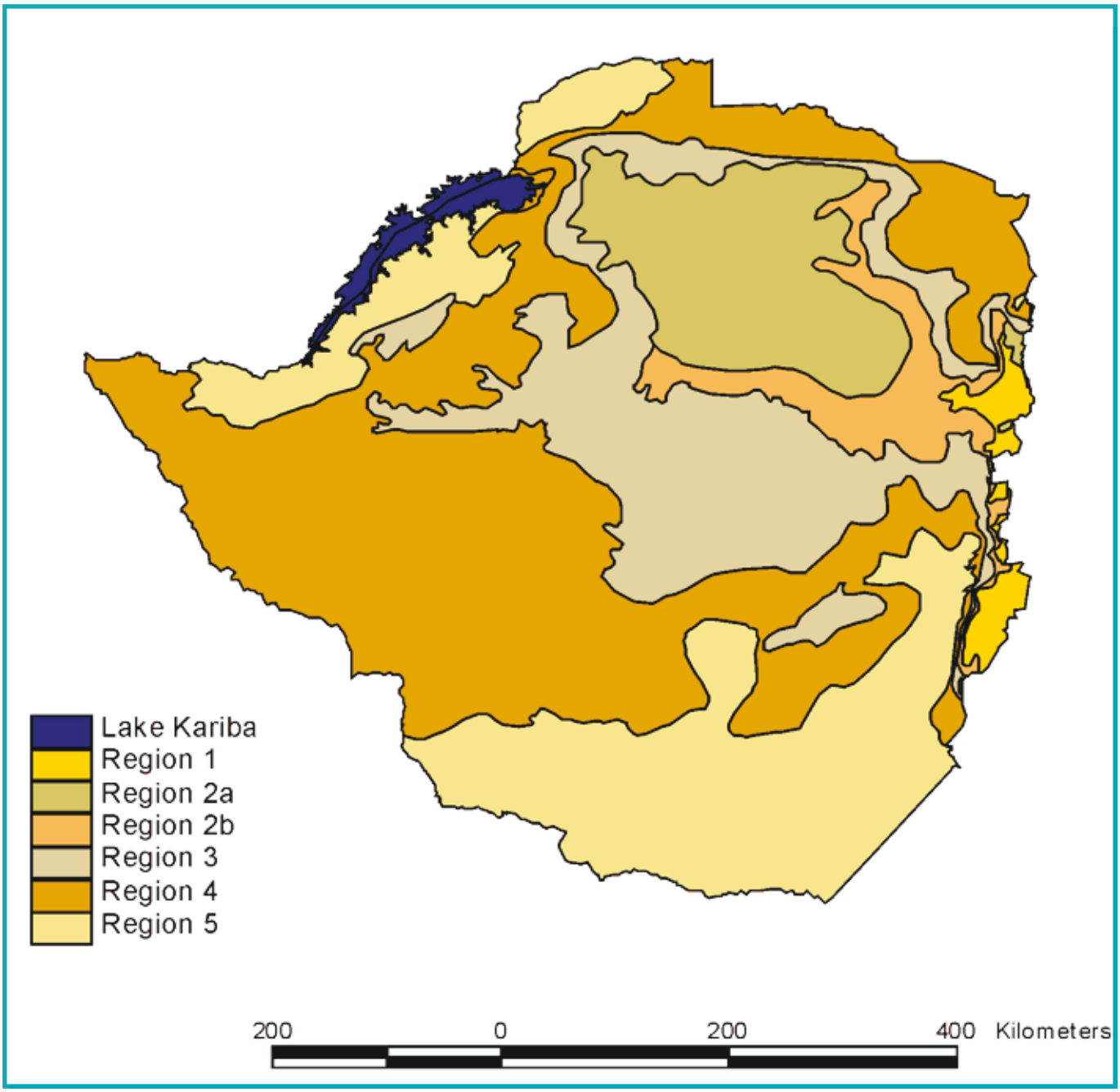

Fig 2.1 Zimbabwe's Agro-ecological Regions
Source: Department of Geography and Environmental Science - University of Zimbabwe

Box 2.1: Natural or Agro-ecological Regions of Zimbabwe

Agro-ecological Region I, situated along the eastern mountain ranges, covering less than 2 per cent of Zimbabwe, is characterised by high rainfall, 900-1,800 mm per annum, and relatively low temperatures. It is defined as the specialised and diversified farming region, which produces tea, coffee, deciduous fruits and is suitable for intensive livestock production because of its relatively high effective rainfall. This region forms the most productive part of the country.

Agro-ecological Region II, occupying about 16 per cent of the country, is characterised by moderately high rainfall, between 750 and 1,000 mm per annum, and normally enjoys reliable climatic conditions, making it suitable for specialised and diversified farming including pasture production. This region is consequently responsible for approximately 90 per cent of the nation's crop production including the country's staple food, maize, and the two most important cash crops, tobacco and cotton.

Agro-ecological Region III is mainly in the midlands and covers about 18 per cent of the country. The region is characterised by medium rainfall, ranging from 500-750 mm per annum. It is subject to periodic seasonal droughts and prolonged dry spells during the rainy season. The region is suitable for semi-intensive farming and livestock production.

Agro-ecological Regions IV and V occur in the low-lying areas in the north and south of the country and occupy about 64 per cent of Zimbabwe. These two regions have the lowest rainfall of below 650 mm per annum. Much of Region V falls within the hot, dry areas below 900 metre altitude covering the lower reaches of the Save - Limpopo River systems and the Zambezi valley below the escarpment. The rainfall is erratic and these regions are also subject to periodic seasonal droughts and are unsuitable for dryland cropping. The regions are more suited to livestock production and game ranching. Most of the country's national parks and communal areas, inhabited by the majority of the indigenous population, are situated within these two regions.

(Adapted from Vincent and Thomas, 1961; Moyo, 1994)

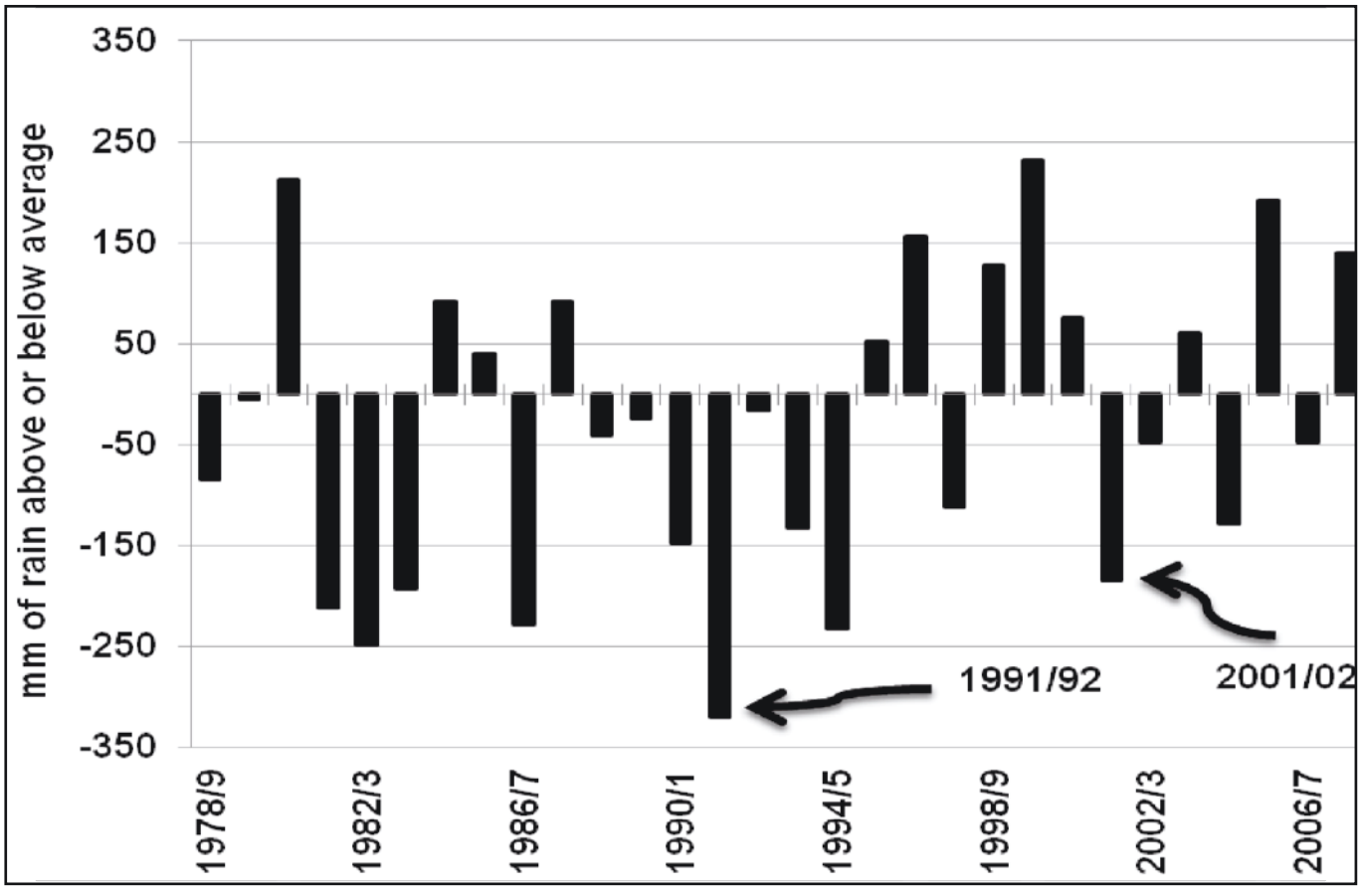

Fig 2.2 Zimbabwe seasonal rainfall, deviation from the mean (1978 -2007)
Adapted from: Unganai, 2011, based on Department of Meteorological Services.

1.2 million people were estimated to be living with HIV and AIDS by the end of 2007 (Joint United Nations Programme on HIV/AIDS (UNAIDS), 2008).

The prevalence among adults 15-49 years, peaked at 36 per cent between 1995 and 1997 and reduced to 34 per cent in 2000, 24.6 per cent in 2003, 20.1 per cent in 2005, 18.1 per cent in 2006 and to 15.3 per cent in 2007 (GoZ, 2004; Mahomva *et.al.*, 2006; Central Statistical Office and Macro International Inc., 2007, UNAIDS, 2008). Reductions in early age sexual activity and non-regular sexual partnerships, and increased condom use during the 1990s may have contributed to the decline in HIV prevalence (Mahomva *et.al.*, 2006).

The prevalence of HIV and AIDS resulted in depletion of human resources. Estimated number of deaths due to AIDS in Zimbabwe were 140,000 during 2007 (UNAIDS, 2008). Orphans (aged 0-17) that lost parents due to AIDS were one million against 1.3 million by all causes (UNICEF, 2007). HIV and AIDS had slashed the average life expectancy from 61 in 1990 to 43 in 2007 (UNICEF, 2007). The smallholder agricultural sector was particularly affected with reductions in agricultural production and yields, decline in livestock production and loss of agricultural skills (Gandure, 2007). In most cases, the impacts of HIV and AIDS magnified the underlying chronic conditions of already weak livelihoods, caused by poverty, unemployment and high cost of basic commodities.

Rising poverty levels, poor environment and HIV and AIDS have contributed to the resurgence of TB, which thrives on immune systems that have been weakened by chronic infections and by malnutrition (GoZ, 2004). Overall, there has been an increase in the incidence of malaria, from 65 per 1,000 people in 1990 to 122 per 1,000 in the year 2000 (GoZ, 2004).

Another source of ill health is drinking water. Contamination of urban drinking water has increased in some cities in recent years, as seen by the increase in outbreaks of cholera and dysentery (Feresu, 2010).

The multiple causes and consequences of Zimbabwe's economic crisis

Zimbabwe's economy was on a downward trajectory since ESAP in the early 1990s and it escalated in 2000. The programme to distribute land from mainly white farmers to black Zimbabweans in February 2000 and the ensuing international isolation is often cited as the catalyst that precipitated the economic and subsequent social crisis (Chimhowu *et al., 2010).* However, there is no single factor which caused the country's economic crisis, which lasted for nearly a decade, as can be noted from the preceding sections.

The Zimbabwe dollar, which had been 19 to the USD in 1997, had fallen to ZD 55 = USD 1 by 2000. It reached ZD 1,000 = USD 1 in mid-2002. The policy of the Reserve Bank was to expand the economy by printing money and subsidising local production and key goods, while using administrative means to try to control inflation and speculation. This unorthodox policy failed, and instead led to corruption and hyperinflation. By January 2006 the exchange rate was ZD 100,000 to USD 1 and by mid-2007 it was ZD 100,000,000 to USD 1. By mid-2008 the USD was equivalent to the ZD with 14 zeros and prices were doubling daily; by the end of 2008, the ZD was with 21 zeros (Hanlon *et al.,* 2012).

This was one of the worst hyperinflations ever, and caused chaos for everyone, the better off and poor alike. Corruption became more serious as members of the elite could exchange money at meaningless official rates; by mid-2007 the parallel exchange rate was 1,000 times the official rate.

Major population movements took place as a result of the Zimbabwe crisis. It is estimated that by 2007, two million people had left Zimbabwe, half of them for South Africa – continuing a migration that had started under structural adjustment (Hanlon *et al.,* 2012). Most of these migrants were of the able bodied working age groups and many were skilled professionals, causing a major human capital loss for Zimbabwe, which in part is responsible for the decline in productivity and service delivery. Although they were sending back an estimated USD 500 million per year, this was on a personal level and *ad hoc* basis, rather than being for national development.

The situation was compounded by the increased burden of HIV and AIDS. Although HIV prevalence, which had peaked in the late 1990s, was now declining, the peak of mortality, and, hence, the increase of caring for the sick and dying, the peak period of orphan creation, and loss of human capital, came a few years later, in the early 2000s, at the same time as the land reform, the onset of hyperinflation, chronic economic decline.

The Global Political Agreement (GPA)

From 2009 onwards, the socio-economic situation changed dramatically, this time for the better. The Global Political Agreement (GPA) in late 2008 between the main political parties, Zimbabwe African National Union (ZANU)-Patriotic Front (PF) and the Movement for Democratic Change (MDC) formations which resulted in the establishment of a unity government in 2009, created the stability needed for economic improvement. In addition, dollarization in January 2009 prompted a remarkably rapid economic turnaround, which included restoration of local markets. A huge amount of resources are still required – to finish redressing the heritage of minority rule, to recreate the 60,000 or more jobs lost under structural adjustment, and to repair the damage caused to the economy by hyperinflation.

Conclusion

Manifestations of new forms of poverty emerged during the crisis. The suddenness and power of the shocks forced some people who were previously not considered poor into poverty. They were unable to cope with new types of deprivation (Gaidzanwa, 2010).

However, this period of instability brought with it remarkable resilience, enhanced social capital, and the emergence of diverse and innovative coping strategies.

A number of opportunities were espoused, including the Fast Track Land Reform Programme which provided 141,000 households with more and better land. It is in this context of ten years of economic and social crisis, followed by a relatively rapid macro-economic recovery that the Moving Zimbabwe Forward sample survey of 2011 was carried out.

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Chapter Three

Approach and Methods Used in the Moving Zimbabwe Forward Study

Collen Matema and Ibrahim Kasirye

Main messages

- *The sample survey was carried out in 16 Districts, covering all the ten provinces in Zimbabwe and representative of land use types, Agro-ecological Regions, and 15 Livelihood Zones.*
- *A total of 3,448 households were sampled, consisting of 71 per cent male-headed and 29 percent female-headed households.*
- *Determination of poverty levels was based on comparisons of monthly consumption expenditure with the official food and total poverty lines determined by ZIMSTAT.*
- *Procedures used for calculation and analysis of the data include poverty incidence, depth and severity; inequality indices; and regression models to explore determinants of poverty.*
- *Qualitative data was obtained through focus group discussions and key informant interviews, as well as 75 institutional questionnaires administered at health facilities, schools and business centres.*

Introduction

The Moving Zimbabwe Forward (MZF) Wellbeing and Poverty Study, recognizing the limitations of relying only on money metrics of wellbeing, which in some instances ignore the 'condition of life', took a multidimensional approach to poverty and incorporated other criteria and aspects, such as exposure to shocks and perceptions about wellbeing. The study used both quantitative and qualitative research approaches to explore poverty in 16 districts of Zimbabwe. The benefits of combining quantitative and qualitative-based research for understanding poverty have long been recognised (Lawson, 2010). The quantitative approach to poverty measurement and analysis uses surveys to collect quantifiable data and analyzes it using statistical techniques, while the qualitative approach uses interviews and group discussions to collect data, mainly relating to people's judgments, attitudes, preferences, priorities, and/or perceptions (Kanbur, 2003). The study consisted of a household questionnaire and institutional questionnaire surveys, key informant interviews and focus group discussions.

This methods chapter begins by looking at how poverty has traditionally been measured in Zimbabwe and then describes the MZF study research design and data collection; the procedures of measuring and analysing poverty status; calculation's of poverty and inequality indices; and the development of regression models to explore determinants of poverty.

Poverty measurements in Zimbabwe

The 1981 Riddell Commission of Inquiry into Incomes and Pricing (Government of Zimbabwe, 1981) was probably the first systematic attempt to understand issues of deprivation and welfare in Zimbabwe. Prior to this, much of the work was *ad hoc* and consisted mostly of academic studies focusing on the impacts of resource alienation, especially land, on the ability of Africans to make a living.

Although the Riddell Commission called for systematic collection of poverty data, published systematic poverty measurement only started with the Income Consumption and Expenditure Survey (ICES) of 1990/91. After this, the Ministry of Public Service, Labour and Social Welfare (MPSLSW) conducted two important detailed poverty analysis surveys, namely, the Poverty Assessment Study Surveys (PASS) in 1995 and 2003. The ICES and PASSs are not directly comparable due to methodological differences[3]. The 2003 PASS looked at both income and human poverty (Government of Zimbabwe, 2006).

Apart from these surveys, specialist databases like the Demographic Health Surveys, the Multiple Indicators Monitoring Survey (MIMS), and the Zimbabwe Vulnerability Assessment Committee (ZIMVAC) rural and urban surveys provide scope for exploring poverty in Zimbabwe. The only panel data set tracking welfare in rural Zimbabwe is that led by Bill Kinsey who since 1982 has been conducting a panel study of resettled households in Zimbabwe and who have built a knowledge hub that allows analysis of poverty dynamics.

The MZF study incorporates aspects of these previous poverty studies and builds on the work of the ICES and PASS. The MZF questionnaire drew heavily on the ICES and PASS instruments during its formulation. However, although it is useful to acknowledge trends and indications

[3] The two PASS surveys used different food items. The 1995 PASS survey used two baskets - urban and rural - with 16 food items and the 2003 PASS used a basket consisting of 30 food items. Recalculation of the 1995 food basket has allowed some level of comparability between the two surveys.

among the different studies, a direct comparison cannot be made due to methodological differences. Furthermore, the ICES and PASS are national surveys, whilst the MZF is a smaller sample survey conducted in 16 Districts of Zimbabwe by the Institute of Environmental Studies, University of Zimbabwe in 2011. The scope of the MZF study was limited by the time frame and resources, nevertheless, it adds to the body of poverty knowledge in Zimbabwe.

The MZF study also looked at shocks experienced and predictability of these shocks, causes of shocks and coping strategies, as well as subjective measures of peoples perceptions of poverty, in addition to the ICES and PASS methods. The regression analysis reveals the factors that are possible drivers of poverty. The study extends its analysis and interpretation and uses quantitative and qualitative approaches to triangulate information and gain a more complete understanding of the nature of poverty. The qualitative data helps provide explanations, reveal nuances and elaborate the quantitative information. Patterns, relationships and correlations are explored in an attempt to make sense of the data.

The MZF study goes further than the other studies in that it interprets the data and puts it into context about how people live, so that it can be used to formulate and implement effective policies and programmes to reduce poverty and increase wellbeing. The study provides a snapshot of a moment in time which can be used as a benchmark for future studies. Ideally, a panel study is required to explore and understand poverty dynamics, to determine if people's wellbeing is improving or not; and if the impact of macro-economic policies are reaching the poor. Such regularly repeated surveys would give an indication of how fast the 'trickle down' effect is, and may assist in formulating or reorienting policies in future to maximise the impact of pro-poor policies.

The causes of poverty are multiple and an improvement in one area, for example education, may have long term knock-on effects, whilst cash transfers have more immediate impacts. Recognising the importance of studying poverty dynamics over a longer period, the design of the MZF 2011 study incorporated elements such as global positioning system (GPS) recordings of each household and contact telephone numbers that would enable more survey rounds in future to investigate and track how these families move into and out of poverty.

The data

The MZF Survey included 16 Districts covering all the ten provinces of Zimbabwe (Table 3.1, and Figure 1.1 in Chapter One). The households were interviewed over the period April-May 2011. The objective of the survey was to collect information on a wide range of poverty and wellbeing indicators in the sampled districts. In addition, the survey provides an up-to-date picture of the status of wellbeing in these districts given that the most recent poverty survey was undertaken in 2003 before the economic decline intensified.

The survey was designed to provide representative estimates of poverty at the rural-urban level. The survey sample took into account the national rural-urban population distribution ratio which officially stands at approximately 60:40 (Central Statistical Office, 2004). The 16 districts surveyed are representative of a wide range of land uses, Agro-ecological Regions and Livelihood Zones in Zimbabwe (Table 3.1). Details of the Agro-ecological Regions and their agricultural potential are given in Figure 2.1 and Box 2.1 in Chapter Two.

Zimbabwe is divided into 24 relatively homogeneous zones, developed by the Zimbabwe Vulnerability Assessment Committee (ZIMVAC), and defined according to a livelihoods framework. The zones are illustrated in the Zimbabwe Livelihood Zone Map (Figure 3.1) (ZIMVAC, 2010). Livelihood zone profiles have also been developed which describe the major characteristics of each zone, including a brief differentiation of the food security status of different wealth groups. Table 3.2 gives a description of the Livelihood Zones that occur in enumeration areas of the MZF survey.

A two-stage sampling procedure was used to select areas to include in the sample. In the first stage, enumeration areas were the primary sampling units and these were selected based on the 2002 Zimbabwe Master Sample (ZMS02) developed by the Zimbabwe National Statistics Agency (ZIMSTAT) using the probability proportional to size procedure. In the second stage, households were selected from the 76 enumeration areas using the systematic random procedure. A total of 3,448 households comprising 15,430 individuals were surveyed (Table 3.3). Of the households sampled, 71 per cent of the household heads were male and 29 per cent female-headed. The highest percentage of female-headed households were in Gwanda and Mutare Rural, with about 46 per cent each, while Gokwe North and Kariba had the lowest number of female-headed households, at around 15 per cent. In each sample household the head, spouse or a senior member present were the target interviewees for the questionnaire survey.

The MZF household questionnaire covered a wide range of issues including: demographic characteristics; access and use of education and health services; incomes; employment; business enterprises; agricultural and other incomes; food security and coping strategies; access to land; household food and non-food expenditures; assets holdings; natural resource use and regulations, communications, perceptions about poverty status; and exposure to shocks.

Table 3.1: Agro-ecological Regions and Livelihood Zones for sampled districts in the MZF survey

Province	District	Agro-ecological Region	Livelihood Zones
Harare	City	II	Urban
Bulawayo	City	IV	Urban
Matebeleland North	Hwange	V	Kariba Valley and Kariangwe-Jambezi Communal
Matebeleland South	Gwanda	IV and V	Beitbridge South Western Lowveld Communal; Urban
Masvingo	Chiredzi	V	Urban; Irrigated Commercial Sugar and Fruit Farming; Cattle and Cereal Farming
Midlands	Gokwe North	IV and V	Cereal and High Cotton Communal; Cereal and Low Cotton Communal
	Gokwe South	IV	Cereal and High Cotton Communal; Lusulu, Lupane and Southern Gokwe Mixed Agriculture
	Gweru City	III	Urban
Mashonaland Central	Mazowe	II	Highveld Prime Communal; Highveld Prime Cereal and Cash Crop Resettlement
	Mbire	IV	Northern Zambezi Valley Communal
Mashonaland West	Kariba	V	Urban; Agro-fisheries
	Hurungwe	II and III	Highveld Prime Cereal and Cash Crop Resettlement; Highveld Prime Communal; Cereal and Low Cotton Communal; Central and Northern Semi Intensive Farming
Mashonaland East	Mutoko	II, III and IV	Central and Northern Semi Intensive Farming; Highveld Prime Cereal and Cash Crop Resettlement
Manicaland	Mutare Rural	III	Highveld Prime Communal
	Mutare Urban	III	Urban
	Chimanimani	I, II and IV	Masvingo Manicaland Middleveld Smallholder; Eastern Highlands Commercial Farming

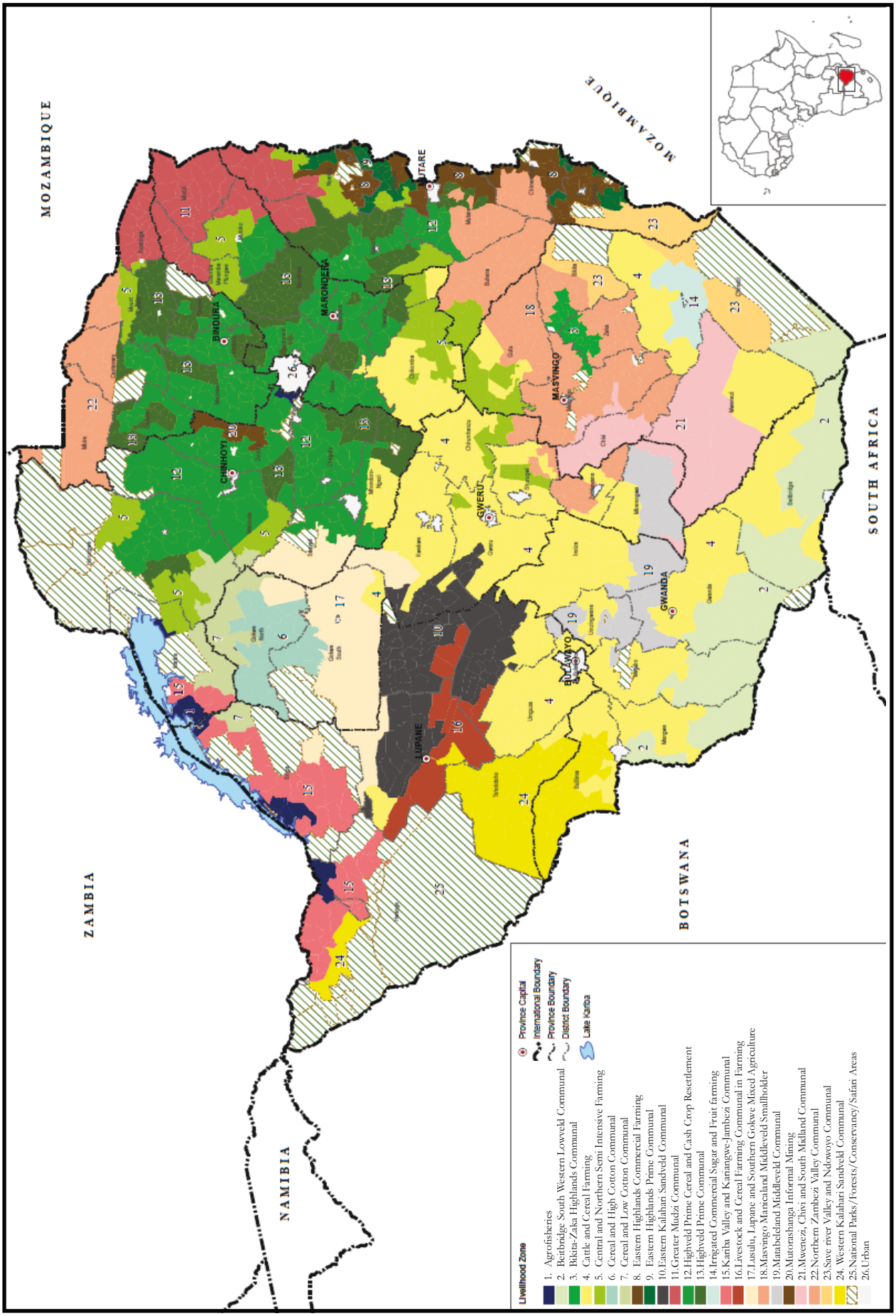

Figure 3.1: Zimbabwe-Livelihood zones
Source: ZIMVAC (2010)

Table 3.2: Summaries of Livelihood Zones and profiles of the districts covered in the MZF survey

Livelihood Zone	Profile characteristics	Districts covered in the MZF survey
Agro-fisheries	Livelihoods in this zone are characterized by fishing and related activities, supplemented by rain fed agriculture and animal husbandry. There is a distinct gender division of labour whereby men spend most of the year in fishing camps along the lakes (e.g. Lake Kariba) while the women and children live further inland where they practice some limited agriculture and animal husbandry.	Kariba
Beitbridge and South-Western Lowveld Communal	This is a semi-arid, agro-pastoral zone although employment is also a key source of food and cash income. Proximity to southern commercial estates and job markets around the border with South Africa and Botswana opens up significant employment opportunities. Sorghum cropping, mopane worm sales and gold panning supplement wage earnings of the poor.	Gwanda
Cattle and Cereal Farming	An area affected by land reform, the new owners of sub-divided former beef and wildlife ranches have introduced more mixed agriculture (mainly maize and cattle production). The zone is typically food secure and good incomes can be earned from cattle sales. Poor households (including ex-commercial farm workers) depend on seasonal farm labour – found on productive old resettlement and small-scale commercial farms – as well as opportunistic gold panning to make ends meet.	Chiredzi
Central and Northern Middleveld Semi-Intensive Farming	Maize and small grains are the dominant crops in this agricultural zone, providing both food and income. Better-off households are reasonably self-sufficient in cereals but poor households depend equally on own crops, daily wages and gold sales to make ends meet.	Mutoko, Hurungwe
Cereal and High Cotton Communal	Livelihoods in this zone are characterized as primarily agricultural, centred on growing maize for food and cotton for cash. The other pillar of rural income – particularly for better-off farmers – is animal husbandry (namely cattle, goats and poultry). Poor farmers purchase much of their food, generating income through casual labour (e.g. on cotton fields) or through gold panning.	Gokwe North, Gokwe South
Cereal and Low Cotton Communal	Located in the dry Kariba Valley, livelihoods in this zone can be described as a mixed economy of cash and food cropping combined with animal husbandry. Cotton production spread into the Kariba Valley from Gokwe and provides needed income – albeit unpredictable. In addition, many of the poor go in search of work in the high cotton producing areas of Gokwe. Income from livestock sales as well as seasonal wild fruits are other ways that households supplement their income.	Gokwe North
Eastern Highlands Commercial Farming	This high potential zone produces many crops for export including fruit, vegetables, flowers, tea, and coffee. Timber is another important industry in this rugged, forested highveld zone. Both the commercial farms and the sawmills offer important labour opportunities to poor farmers as well as to farm-workers (who often need to pick up additional seasonal work to supplement on-farm income).	Chimanimani
Highveld Prime Cereal and Cash Crop Resettlement	This zone covers prime (resettled) agricultural land. In general, it is a food secure zone with the potential to produce surplus. The major crops are maize, tobacco, soya beans and groundnuts which are grown for both food and cash and supplemented by livestock production. Whereas the A1 farmers and commercial farm owners are typically food secure, the (ex-commercial) farm workers are highly mobile and often at risk of food insecurity.	Mazowe, Hurungwe, Mutoko

Highveld Prime Communal	Livelihoods in this prime agricultural zone centre around the rain-fed production of both cash and food crops. Maize is the predominant food crop but cultivation overall is highly diversified and includes groundnuts, paprika, millet, sorghum, bambara nuts, cow peas, sweet potatoes, soya beans, tobacco and cotton.	Hurungwe, Mutare Rural, Mazowe
Kariba Valley and Kariangwe-Jambezi Communal	A dry, remote and resource-poor area, this zone suffers from chronic problems of food insecurity. Cultivation -mainly millet and sorghum -is unreliable and wild foods are seasonal. Goat sales are the most common source of cash income but local wage work, craft and beer sales are also pursued. Close proximity to Hwange provides some work opportunities on commercial farms for the poor, as well as access to the tourist craft market near Hwange, Kariba and Victoria Falls.	Hwange
Lusulu, Lupane and Southern Gokwe Mixed Agriculture Communal	This middleveld zone is relatively favorable for mixed crop and livestock production. Livelihoods are centred around maize, groundnuts and cotton cultivation with animal husbandry providing supplementary food and income. Daily wage work for poor farmers is still essential much of the year when food stocks run low.	Gokwe South
Masvingo, Manicaland Middleveld Smallholder	Livelihoods in this middleveld zone are characterized by cereal agriculture supplemented by cash cropping (groundnuts, round nuts and cotton), animal husbandry and remittances from migratory labour. A number of other income sources help the poor make ends meet including: sales of wild fruits and vegetables, gold panning, legal gold mining, sales of beer and handicrafts, and casual labour. Fishing is also opportunistically practised in the rivers and streams, as is some cross-border trade.	Chimanimani
Northern Zambezi Valley Communal	Bordering Mozambique, this hot, northern valley region supports extensive small grain, groundnut and cotton production together with animal husbandry. Due to a number of production constraints, local, seasonal employment on better-off farmers' cotton fields helps generate needed income.	Mbire

(Adapted from ZIMVAC, 2010)

Seventy five institutional questionnaires were administered to health and educational institutions and businessmen at business centres in the sampled districts. The health institutional questionnaire looked at the status of the health delivery system in the district from the official's point of view. It also sought to understand issues of people's access to health facilities, the availability of drugs and personnel, as well as major challenges encountered. The schools questionnaire sought to understand access to education, state of the schools, enrolment patterns and school fee charges. The business centre questionnaire sought to explore the availability of goods and to understand the consumption patterns, including the type of basic products being sold and the population's ability to buy them.

In order to get a deeper understanding of the nuances of poverty and wellbeing, the MZF study also collected qualitative data from key informants, such as local leaders, and from focus group discussions with communities in each selected district. The targeted number of people for each focus group discussion was between 8-12 with a gender balance and cutting across all adult age groups. Focus group discussions followed a guideline of questions including:

- perceptions and causes of poverty and wellbeing in that particular community
- status of food security
- major economic activities
- perceptions about development

- views on information technology
- external support in times of need
- environmental issues and natural resources use and management.

Measurement of welfare status in the Moving Zimbabwe Forward (MZF) survey

In measuring poverty, there are three critical issues: how to measure welfare, how to set the poverty line and how to aggregate individuals.

Poverty measurements generally focus on household incomes or expenditures. The MZF survey used household consumption and expenditures as measures of welfare, following other surveys in Zimbabwe, as well as previous studies in literature (see for example Owens *et al.,* 2003; Hoddinot, 2004). Although the survey collected information on household incomes such as employment incomes, incomes from business enterprises, agricultural incomes, and transfers; for practical reasons, expenditures are preferable in Zimbabwe as own consumption from agriculture is common in the rural areas. For instance, a substantial proportion of households have missing values for income items included in the questionnaire, especially households in rural areas. Previous studies have shown that income data in African countries is characterized by underreporting (see for example McKay, 2000).

The items considered in household consumption are: food and non-food expenditures. Different recall or reference periods were used to capture information on different sub-components of household expenditures. While a 30-day recall period was used for expenditure on food, beverages, rent, health care, and recreation services, a 120-day recall period was used in the case of household consumption expenditure on non-durable goods and frequently purchased services such as education. A 365-day recall period was used[5] for the non-food expenditures and semi-durable and durable goods and services.

Expenditure data are collected on an item by item basis. Seventeen food items were used which comprise the national food basket determined by ZIMSTAT. The food items in the national basket are adequate to supply 2,100 kilo calories a day as specified by the World Health Organisation (WHO) (ZIMSTAT, 2011a) and consist of the most consumed foods, usually reflecting food

Table 3.3: Household head by gender and district in the MZF survey

District	Male		Female		All
	Number sampled	Per cent within district	Number sampled	Per cent within district	Total number sampled
Gokwe North	76	85.4	13	14.6	89
Gokwe South	117	77.0	35	23.0	152
Gwanda	110	54.2	93	45.8	203
Chiredzi	163	67.9	77	32.1	240
Mazowe	163	79.5	42	20.5	205
Mbire	131	80.4	32	19.6	163
Hurungwe	154	76.6	47	23.4	201
Mutoko	137	65.6	72	34.5	209
Mutare Rural	98	54.1	83	45.9	181
Chimanimani	114	62.0	70	38.0	184
Hwange	129	67.9	61	32.1	190
Harare	299	74.4	103	25.6	402
Epworth[4]	128	80.0	32	20.0	100
Bulawayo	165	65.5	87	34.5	252
Gweru Urban	169	70.4	71	29.6	240
Kariba	168	85.3	29	14.7	197
Mutare Urban	127	70.6	53	29.4	180
Total	2,448	71.0	1,000	29.0	3,448

[4]Epworth is a peri-urban area within Harare

[5] The actual question posed to households was 'How much did this household spend on the following items?' The possible answers were: (1) last month i.e. 30 days; (2) last 12 months i.e. 365 days; and (3) last term i.e. 120 days.

preferences of the poor (Table 3.4).

For households, especially rural ones, where own production was the main food source, proxy expenditure was calculated using the respective provincial prices and quantities of each food item consumed. Purchases and consumption from other sources such as own production, barter, public transfer, and private transfers were calculated and inputted using the standard hedonic model.

Hedonic pricing is used to reveal the value that households give to some specific services or goods. A 'hedonic model' basically involves the regression of the value of food expenditures on a number of household characteristics (for example, the number of meals consumed in a day, consumption of major products such as maize, and household size). The estimated relationship was used to predict values of food expenditures out of own production for households where this information on own production as well as other means of acquiring food, such as by gifts and bartering, was not collected but whose other household characteristics were collected.

Food consumption expenditures (FCE) were computed by summing up food expenditure on the national food basket items for each household for the month of May 2011 (ZIMSTAT, 2011a). The total food expenditure for each household was divided by the respective number of household members to get per capita food expenditure for each household.

Per capita household FCE = $\sum x_i / n_i$ (1)

Where ^{x}i is the individual household food expenditure for the month of May 2011, and ^{n}i the household size.

For calculation of the total consumption poverty, besides food items, 42 non-food items consumption expenditures were collected and used to calculate total consumption expenditure of households. In addition it was decided that rentals be imputed and, using the hedonic procedure, rentals were worked out for both urban and rural households.

The expenditures were aggregated according to the recall period used and by broader sub-components of expenditures to a household level. Given the different recall periods used to collect data on household expenditures, conversion factors were applied to change the data to a monthly basis, after which all the different sub-components of the expenditures were aggregated to derive the total expenditures at the household level.

Adjusting for household size: Conceptually, the study aimed to measure an *individual's* poverty. However, it was observed that the most common poverty measure is consumption at the *household level.* Consequently, an assumption was made that all members of a household have the same

Table 3.4: Zimbabwe national food basket and quantity specification to meet WHO 2,100 kilo calories/day

	Quantity	Quantity	
Food item	**kg/annum/person**	**kg/month/person**	**Units in kgs**
Bread	18.30	1.53	0.72
Flour	3.60	0.30	2.00
Maize meal	134.70	11.23	20.00
Rice	0.70	0.06	2.00
Ration meat	11.10	0.93	1.00
Chicken	2.40	0.20	1.00
Fish	3.50	0.29	0.50
Milk	15.50	1.29	0.50
Eggs	5.70	0.48	12.00
Cooking oil	13.10	1.09	0.75
Cabbages	3.10	0.26	1.00
Rape	5.30	0.44	1.00
Tomatoes	66.70	5.56	1.00
Potatoes	6.60	0.55	2.00
Beans	10.50	0.88	0.50
Sugar	13.30	1.11	2.00
Salt	2.90	0.24	2.00

(Source: ZIMSTAT, 2011a)

level of wellbeing[6]. The household roster in the socio-economic module collects individual information for regular members of the household. To make poverty comparisons across households with different household size and composition in terms of sex and age, the consumption aggregate was adjusted by dividing with the household size to generate an indicator for household consumption per capita.

Poverty indices

Total Consumption and Food Poverty Lines. A typical poverty analysis requires setting a poverty line, which is an expenditure level below which one is absolutely deprived. In Zimbabwe, the total poverty line is the minimum amount of consumption required to meet the basic food and non-food requirements. The MZF study used the Total Consumption Poverty Line provided by ZIMSTAT based on the May 2011 prices. There are different poverty lines for different provinces in Zimbabwe with the average total consumption poverty line standing at about USD 100 per person per month, while the food poverty line is about USD 30 per month (ZIMSTAT, 2011b). See Table 3.5 for the Provincial Food Poverty Lines for May 2011.

Foster, Greer and Thorbecke (FGT) Poverty Indices: In general, use of the concept of absolute poverty, which uses an analysis of poverty measures based on money, is more common in developing countries.

Following earlier studies analyzing welfare status in Zimbabwe (see for example Horell and Krishnan, 2007; Kinsey, 2010) poverty indices were constructed in order to establish the welfare status of households surveyed.

Table 3.5: Food poverty lines for the different provinces, for May 2011

Province	Food Poverty Line (USD) May 2011
Bulawayo	29.43
Manicaland	28.52
Mashonaland Central	29.69
Mashonaland East	29.45
Mashonaland West	30.22
Matebeleland North	34.26
Matebeleland South	32.50
Midlands	29.88
Masvingo	32.41
Harare	28.91

(Source: ZIMSTAT, 2011b)

Three poverty indicators: namely P0, P1 and P2 of the FGT class (see Foster, Greer and Thorbecke, 1984) were used to characterize the level of poverty in the sampled districts. These are defined as:

$$FGT(\alpha) = \frac{1}{N}\sum_{i=1}^{H}\left(\frac{\max(0, z - y_i)}{z}\right)^{\alpha} = \frac{1}{N}\sum_{i=1}^{H}\left(\frac{(z - y_i)}{z}\right)^{\alpha} \quad (2)$$

Where z is the poverty line, y_i the income measure for the household, α is some form of sensitivity parameter, N is the number of people in the sample while H is the number of poor persons (whose incomes fall below the poverty line). When $\alpha=0$ this yields the headcount index. As α gets larger, the FGT measure gives more weight to the poorest.

The P0 ($\alpha=0$) indicator is headcount: the percentage of individuals estimated to be living in households with per capita consumption below the poverty line for their province. Thus a P0 of 81 implies that 81 per cent of people in the 16 sampled districts are estimated to live in households which spend less than what is necessary to provide their calorie requirements and basic non-food needs. The headcount shows how *broad* poverty is, although not necessarily how *deep* it is. That is to say, the answer does not portray how far the poor are below the poverty line. The P1 or P2 indicators are used to derive this information.

The P1 ($\alpha=1$) indicator is the 'poverty gap' or depth. This is the sum over all individuals of the shortfall of their per capita consumption and the poverty line, divided by the poverty line. One way to interpret the P1 is that it gives the per capita cost of eradicating poverty, as a percentage of the poverty line, if money could be targeted perfectly. Thus if P1 is 53, then in an ideal world, it would cost 53 per cent of the poverty line per person in order to eradicate poverty through cash transfers. In practice, it is impossible to target the poor perfectly and issues such as administrative costs and incentive effects have to be taken into account if such a scheme is to be considered. The P1 measure gives an idea of the depth of poverty. However, it is limited because it is insensitive to how consumption is distributed among the poor. If money is transferred from the very poor to the marginally poor, this might be expected to show up as an increase in poverty but it does not on the P1 measure. To satisfy this condition, the P2 measure is used.

The P2 ($\alpha=2$) indicator is the 'squared poverty gap'. This is the sum over all individuals of the *square* of the shortfall of their real private consumption per adult equivalent and the poverty line, divided by the poverty line. The reason for squaring the shortfall is to give greater weight to those who are living far below the line. It is hard to give a clear intuition about what a P2 indicator of for example, 39,

[6]However, it is acknowledged that within households individuals may have different poverty status.

denotes. However, higher values of the indicator imply higher poverty.

MZF study poverty categories: Using food and non-food consumption expenditure the households were divided into poor and non-poor categories. If total consumption (food plus non-food expenditure) per capita household fell *below* the Total Consumption Poverty Line then that household was deemed to be poor, and those *above* the Total Consumption Poverty Line were deemed to be non-poor. In households whose total consumption expenditure per capita fell below the Food Poverty Line, the household was deemed to be very poor and living in extreme poverty (See Table 3.6).

Measurement of inequality

This section details the methods used to examine the extent of inequality in Zimbabwe. There are important reasons for examining the nature of inequality in the country as it has historical disparities in access to resources. The causes of poverty in developing countries are driven by the initial level of inequality and how inequality changes over time (Ravallion, 2004). In particular, the higher the initial level of inequality in a country (even if it does not change), the less the likelihood that the gains from economic growth will be shared or received by the poor. On the other hand, Morrisey *et al.* (2002) show that land inequality has a more negative impact on economic growth than income inequality. Given that the MZF survey did not capture quantifiable indicators of land ownership or access to land, income inequality was examined as proxied by household consumption per capita.[7]

Poverty indices consider only the mass below the poverty line, while inequality measurement is drawn from an income distribution and considers the spread of this distribution. There are a number of ways of illustrating the degree of inequality in the distribution of income. First is the Lorenz curve which is obtained by arranging households along the x-axis by levels of household consumption and plotting the cumulative share of the sample of households with a given level of consumption on the y-axis. The further away a Lorenz curve is from the 45 degree line, the more unequal society is by that respective measure of welfare status.

Second, is the Gini coefficient which is a summary measure of the level of inequality in society. It ranges from zero (perfect equality) to one (perfect inequality). It can be defined in relation to the Lorenz curve as twice the area between the 45-degree line (the line of perfect equality) and the Lorenz curve. This is expressed as:

$$Gini = 2\left(\frac{1}{2} - \int_0^1 L(p)\,dt\right) = \left(\frac{2}{\mu}\right)\mathrm{cov}(y, F(y)) \quad (3)$$

Where y measures a household's income or consumption expenditure, $F(y)$ is the cumulative density function of the ordering consumption expenditures, y is the income measure and μ is the average household expenditure in the sample.

Determinants of household consumption

The regression model

The various characteristics of wellbeing may be correlated. For instance, it is possible that a household is very poor because it is in the rural area and in an agro-ecological region that routinely faces droughts. To better understand whether the correlations are genuinely explanatory, the regression is of the form:

$$\log Y_i = \beta X_i + \varepsilon_i \quad (4)$$

where Y_i is household monthly consumption expenditure, β is a vector of coefficients, and X_i is a vector of all of the variables measuring education attainment, shocks, geographic location and other household characteristics. In this case, a regression coefficient is a conditional correlation, that is the correlation of the regressor (say, an indicator for living in a district in Region IV)

Table 3.6: Categories of poverty used in the MZF study

Poverty category	Total consumption expenditure
Very poor	Below the Food Poverty Line (USD 30) (extreme poverty)
Poor	Equal to USD 30, but below Total Consumption Poverty Line (USD 100)
Non-Poor	Above the Total Consumption Poverty Line (USD100)

Compiled from ZIMSTAT (2011b) data.

[7]The survey only inquired whether a household had access to any or cultivable land in Zimbabwe or whether a household was resettled under the Land Reform Programme (LRP). The nature of the response i.e. yes or no is not amenable to inequality analysis.

after controlling for the other regressors (for example, exposure to shocks). To continue with the example, if exposure to shocks is what really causes lower incomes, then regressing household consumption on both regional indicators and exposure to shocks measure will show a significant correlation for the latter, but not the former.

Variables included in the analysis and justification for consideration

Justification for the variables included in the analysis are:
Employment status: For all household members aged 10 years and above, the MZF survey inquired whether a particular individual has ever been employed and the main economic activity in the last 12 months. Two categories of paid employment are defined, that is, permanent paid employee and temporary paid employees. In addition, a variable for a household operating a business enterprise in the past 12 months is included, as well as variables that capture other important sources of household incomes for example, participation in mineral panning, receiving rental incomes and cash transfers.

Demographics: In order to capture household demographic composition, the following household characteristics were considered: gender of the household head; the age of the head; household size; marital status of the household head; and the presence of orphans within the household. The age and marital status of the household head captures life cycle effects. The gender variable accounts for possibility of discrimination of female-headed households in communities. Household size accounts for two issues: First, the breadth of membership and possibility of diversified income sources for the household. Second, the household size also captures the dependency ratio—in cases where households have a large number of members below 18 years or above 65 years.

Socio-economic characteristics: As mentioned earlier, per capita household consumption expenditure was used as the household welfare measure. Other socio-economic characteristics used relate to the educational attainment of the individual. Both the highest number of years of formal education attained as well as five categories of education levels, namely: no education (or not completed primary level education), Grade 7, Form 2, Form 4, and Form 6 and above were considered. The education indicators represent accumulated human capital as well as skills acquired over time.

Assets: A number of measures of household assets were included for example, ownership of: livestock, bicycle, peanut butter machine, plough, and scotch cart. In addition, a variable for household access to electricity and access to cultivable land were also included. The value of livestock was included because cattle rearing is an important economic activity in the semi-arid regions of Zimbabwe - Agro-ecological Regions IV and V. Livestock possession is also a symbol of wealth in African culture (see Box 4.4 in Chapter Four). Anecdotal evidence revealed that ownership of assets such as peanut butter machine were important tools for generating additional income and hence boosting resilience during the economic crisis in Zimbabwe. The inclusion of a land variable was because land remains a major source of livelihood in Zimbabwe.

The orphan variable is included because Zimbabwe has one of the highest HIV and AIDS prevalence rates—15 per cent (ZIMSTAT and IFC International, 2012) and HIV prevalence has been documented to be closely linked to deprivation of parentless children in Zimbabwe and other African countries (Ainsworth et al., 2005; Nyamukapa and Gregson, 2005).

Experience of shocks: The survey inquired about each household's experience of major shocks in the past 12 months and for those households experiencing shocks, the severity of the shocks and the possibility of their reoccurrence in the next 12 months. Variables indicating the experience of the following shocks were included in the regression: drought; floods; crop pests; labour shortages; veldt fires; rising food prices; and changes in donor assistance. The above shocks mainly relate to weather variability and issues regarding the economic crisis for example, rising prices and donor cut-backs during economic sanctions.

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Chapter Four

Household Consumption and Poverty in Zimbabwe

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Main messages

- *The magnitude of poverty and extreme poverty was high across Zimbabwe, especially in rural areas. 81 per cent of the sampled households lived in poverty, reaching 95 per cent in rural areas.*
- *44 per cent of the sampled households lived in extreme poverty, reaching 68 per cent in rural areas.*
- *The depth of poverty was also high. Zimbabwe would have to spend 52.8 per cent of the poverty line each month on each poor household to raise them above the poverty line. Poverty is nearly twice as deep in rural areas, compared to urban areas.*
- *Households living in the dry and marginal lands of Agro-Ecological Regions IV and V were more likely to live in poverty or extreme poverty. Promoting access to alternative livelihood options across these different areas is critical.*
- *Poverty as perceived by communities was characterised as difficulties accessing adequate food, shelter, education and clothing.*
- *Perceptions of poverty in rural areas were also tied to productive assets (land, livestock, farming equipment), while those in urban areas are tied to employment (regular employment, capital, or machinery).*
- *Income inequality, although still remaining high, appears to have dropped from its peak in 2003.*

Introduction

Based on the Moving Zimbabwe Forward (MZF) survey of nearly 3,500 households, this Chapter discusses the magnitude and key determinants of poverty in Zimbabwe. Qualitative research is used to complement the survey findings to give a rich and detailed insight into experiences of poverty in Zimbabwe. The Chapter is divided into three sections. Section one considers the magnitude of poverty in the sampled districts and analyses poverty incidence, depth and severity by the rural and urban divide, Agro-ecological Region and Livelihood Zone. Section two explores household and community perceptions of poverty, before section three investigates some of the key determinants of poverty and inequality.

Measuring poverty in Zimbabwe

Zimbabwe uses a variety of money metric measures to analyse poverty. Although the poverty datum line is still official policy, there is broad acceptance of the multidimensional understanding of poverty. Chapter Three describes the Food Poverty Line (FPL) and Total Consumption Poverty Line (TCPL), which captures the value of non-food items that are used as a measure of poverty and extreme poverty in Zimbabwe.

Table 4.1: Poverty incidence for the sampled households

	Poor			Very poor		
	All	Urban	Rural	All	Urban	Rural
Poverty incidence (per cent)	81.6	62.6	95.1	44.4	8.5	68.3
Poverty depth (per cent)	52.8	27.2	71.1	20.6	2.3	33.6
Poverty severity (per cent)	39.2	14.9	56.7	21.1	0.9	19.4

Note: The indices for the very poor are based on the food poverty line as defined by ZIMSTAT

'Poor' households are classified as those whose consumption of food and non-food items falls below the TCPL, but above the FPL. Those whose consumption falls below both the TCPL and FPL are classified as 'very poor', and unable to meet minimum food requirements of 2,100 calories per day (ZIMSTAT 2011).

Survey results: Magnitude of poverty in the sampled districts

The magnitude of poverty and extreme poverty found was high. Over 80 per cent of sampled households were classified as 'poor', and over 40 per cent as 'very poor' (Table 4.1). Using ZIMSTAT classifications, this indicates that nearly one in every two of households were very poor, and unable to meet their minimum food requirements.

We can look further at poverty depth by measuring the poverty gap, which measures the shortfall in household per capita consumption necessary to raise a household above the poverty or extreme poverty line. The higher the poverty gap, the deeper experiences of poverty are, and the greater the resources necessary to raise a household above the poverty line. With a poverty depth of 52.8 per cent, Zimbabwe's poverty was deep, with many households earning enough to bring them only halfway towards the national poverty line. This has implications on the resources necessary for facilitating poverty reduction in Zimbabwe: theoretically, the government needs to spend 52.8 per cent of the poverty line each month on each poor household to raise them above the poverty line.

Spatial distribution of poverty in the sampled households

Rural-urban divide

Table 4.1 also highlights the noticeable differences in the incidence and depth of poverty across rural and urban areas. Rural households are particularly vulnerable to poverty and extreme poverty, both in incidence and intensity. Ninety five per cent of all rural households were classified as 'poor' and nearly 70 per cent as 'very poor'. Poverty is still a major threat to urban households, with more than 60 per cent living in poverty. Food security was much better in urban areas, however, with less than 10 per cent of urban households being classified as 'very poor' and under the food poverty line.

Rural poverty was also almost twice as deep as that in urban areas, these locations displayed a poverty gap of 71 and 27 per cent respectively. This suggests that Zimbabwe would have to spend more than twice the amount of resources in rural areas compared to that in urban areas to raise poor households above the Total Consumption Poverty Line threshold.

Looking at differences in per capita expenditures between poor and non-poor rural and urban households also reveals the magnitude of the rural-urban divide. Table 4.2 displays the mean monthly expenditures for rural and urban households. The monthly mean expenditures of poor urban households (USD 54) was double that of poor rural households (USD 25), although this in part reflected the higher urban costs of living, where households have to pay the costs of food, rent, utilities and transport, amongst others.

Table 4.2 also illustrates high levels of inequality, which again was aggravated in rural areas. While non-poor households in rural and urban areas displayed similar expenditure profiles, this was approximately four times that of the urban poor and up to eight times that of the rural poor.

Agro-ecological regions

Opportunities to make a living off the land in rural Zimbabwe vary significantly by location along Agro-ecological Regions (Chapter Two), with over half of the country's land lying in regions classified as unsuitable for dry land farming without additional investment in water technology (Vincent and Thomas, 1961). Only 38 per cent of the country is deemed to have 'natural' farming potential. Regions IV and V are deemed too dry for crop production without irrigation. Small grains, particularly millet and sorghum, can be produced in some parts of this region, although seasonal and periodic droughts are a common feature afflicting most farm-based livelihoods. With up to 74 per cent of all communal lands located in the drier Regions IV and V, it is not too difficult to see why there is this marginality which, combined with remoteness and relatively basic production technologies, compromises the ability of families in the marginal lands to make a living and stay out of poverty.

Table 4.3 and Figure 4.1 show that households in the dry

Table 4.2: Rural–urban differences by poverty category in Zimbabwe

	Urban		Rural	
	Poor	Non-poor	Poor	Non-poor
Average monthly per capita household expenditures (USD)	54	225	25	190
Average monthly per capita food expenditures (USD)	22	54	10	55

and marginal lands of Agro-ecological Regions IV and V had the highest incidence of poverty at 94 and 90 per cent, respectively. These two regions also displayed the highest incidence of extreme poverty. At 67 and 61 per cent, respectively, this was approximately double the proportion of households living in extreme poverty as those living in Regions I, II and III. The regression analysis (Appendix 4.1) revealed that households in these two Agro-ecological Regions had significantly lower consumption expenditures than those in Agro-ecological Regions I, II and III. These differences highlight that a lack of alternative livelihood options was a major challenge for households living in vulnerable regions, who were subsequently predisposed to live in poverty and extreme poverty.

Figure 4.2 shows poverty incidence by district for the households sampled in the survey. Poverty incidence was very high (above 90 per cent) in all rural districts in the sample. The poverty incidence ranged from 90 per cent in Mazowe to 99 per cent in Hwange. The household respondents from Mazowe, which is in Agro-ecological Region II, with the highest agricultural potential, consisted of communal and newly resettled farmers, and former farm workers.

In the case of Kariba, which had a relatively high proportion of non-poor households, several of the enumeration areas were in the urban area, and Kariba also falls within the Agro-fisheries Livelihood Zone, where fishing provides an additional source of income. Interestingly, during the focus group discussion with a fishing village on the lake shore, the community seemed at face value to be extremely impoverished, with poorly constructed huts, no vegetable gardens, no sanitation facilities, no health services or schools. During discussions, however, it became apparent that fishing was a lucrative enterprise and the money was being spent elsewhere. The majority of villagers had homes in other areas, even as far as Masvingo where their families live, and they considered the fishing village a temporary home. The fishing village leader was supporting his daughter, who was studying medicine at the University of Zimbabwe.

Poverty by livelihood zones

Zimbabwe is divided into 24 livelihood zones based on the manner in which their populations obtain food (ZIMVAC 2010). Fifteen out of the 24 zones listed by ZIMVAC (ZIMVAC, 2010) were represented in the sampled districts (Table 4.4). As noted earlier, the poverty incidence was lowest among urban households, where livelihood opportunities were more diverse. Caution should be exercised when interpreting results from Table 4.4, however, since the indices for some livelihood zones are based on relatively small samples. Despite this limitation, it is nonetheless useful to illustrate how poverty varies by livelihood zones. Different zones offer opportunities for escaping poverty as well as risks for falling into poverty.

There were differences across zones in poverty severity. While the Masvingo, Manicaland Middleveld Smallholder[12] and Cattle and Cereal Farming[13] livelihood zones had similar poverty incidences, they differed significantly in poverty depth and severity. Poverty depth was 71 per cent in the Masvingo, Manicaland Middleveld Smallholder Livelihood Zone in comparison with 79 per cent of households engaged in cattle and cereal farming.

The results suggest that the Government would be required to spend on average USD 79 per person (based on the average poverty line of 100 USD) for the cattle rearing/ cereal farming group compared to USD 71 per person in the Masvingo, Manicaland Middleveld Smallholder group. Likewise, while the Highveld Prime Communal,[14] and Cereal and High Cotton Communal[15] zones had similar poverty headcount indices (96 per cent), they too displayed differences in poverty depth and severity. It would cost the government USD 47 per person to eliminate poverty in

Table 4.3: Incidence of poverty by Agro-ecological Regions

Agro-ecological Regions	Number of households sampled	All poor (percentage)			Very poor (percentage)		
		All	Rural	Urban	All	Rural	Urban
Regions I and II[8]	1,286	74.8	92.8	64.4	25.9	54.2	9.5
Region III[9]	744	73.8	96.6	56.2	35.7	73.1	6.9
Region IV[10]	621	94.4	95.7	76.7	66.7	70.5	16.3
Region V[11]	789	89.7	95.6	66.7	60.6	74.4	5.6

[8]Two Enumeration Areas in Chimanimani District were in Region 1, while Harare and Mazowe and parts of Hurungwe and Mutoko Districts are situated in Region II.
[9]The following districts fall in Region III: Gweru Urban, Mutare Urban, and Mutare Rural and parts of Hurungwe and Mutoko Districts.
[10]The following districts fall in Region IV: Mbire, Gokwe South and Bulawayo and some parts of Gwanda, Gokwe North and Mutoko.
[11]The following districts are in Region V: Chiredzi, Hwange, Kariba and parts of Chimanimani, Gokwe North and Gwanda Districts.
[12]Part of Chimanimani District falls in the Masvingo, Manicaland Middleveld Livelihood Zone.
[13]Part of Chiredzi District falls in the Cattle and Cereal Farming Livelihood Zone.
[14]Parts of Hurungwe, Mutare Rural and Mazowe Districts fall in the Highveld Prime Communal Livelihood Zone.
[15]Parts of Gokwe North and Gokwe South Districts fall in the Cereal and High Cotton Communal Livelihood Zone.

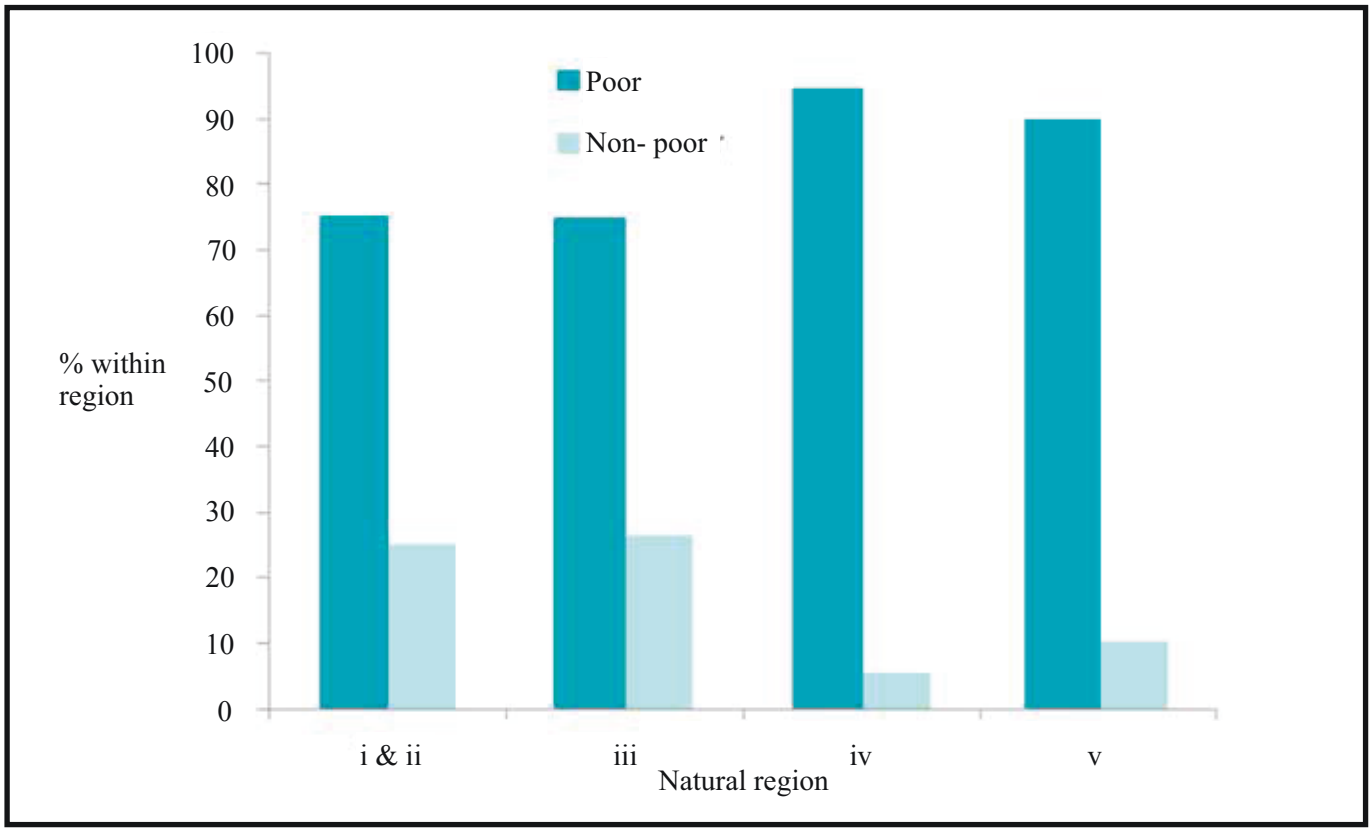

Figure 4.1: Poverty by Agro-ecological Regions

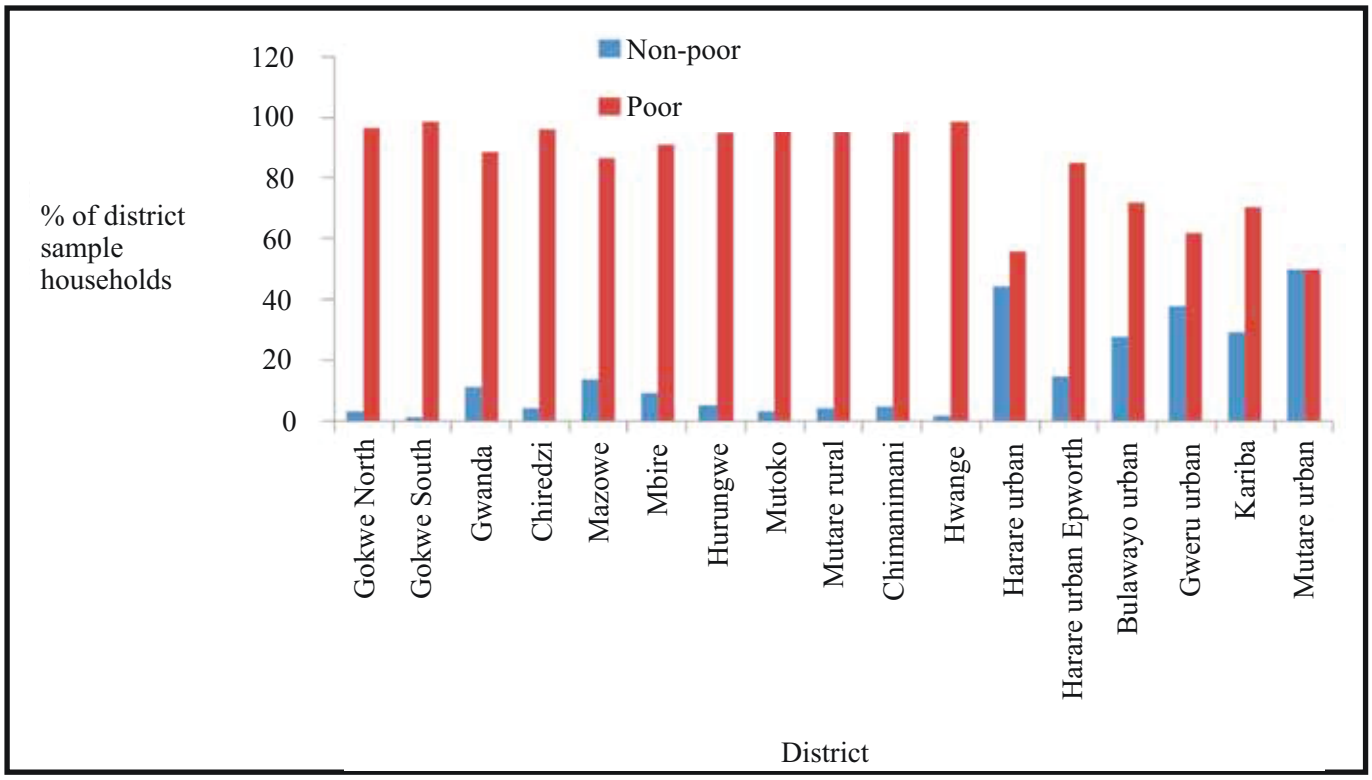

Figure 4.2: Incidence of household poverty by District

Table 4.4 Poverty indices by Livelihood Zones in 16 Districts of Zimbabwe*

Livelihood Zones	Number of households in sample	Poverty incidence PO (%)	Poverty depth P1 (%)	Poverty severity P2 (%)
Highveld Prime Communal Masvingo, Manicaland Middleveld	203	96.5	69.4	53.2
Smallholder Cattle and Cereal Farming	59	94.9	70.7	54.9
Eastern Highlands Commercial Farming	39	94.9	79.1	67.9
Highveld Prime Cereal and Cash Crop Resettlement	84	95.2	72.6	58.1
Northern Zambezi Valley Communal	203	87.6	52.4	36.1
Central and Northen Semi-intensive Farming	163	93.9	65.1	49.6
Agro-fisheries	266	98.8	79.1	65.8
Kariba Valley and Kariangwe-Jambezi Communal	60	61.7	23.3	11.1
Beitbridge South Western Lowveld Communal	184	98.9	80.5	68.2
Cereal and High Cotton Communal	84	92.9	63.5	47.9
Lusulu, Lupane and Southern Gokwe Mixed Agricultural Communal	135	96.3	47.1	59.6
Irrigated Commercial Sugar and Fruit Farming	107	99.1	75.1	64.1
	79	94.9	74.6	62.1

** The Cereal and Low Cotton Communal that covered Gokwe North and Hurungwe districts had too few respondents to provide meaningful statistics and are not included here.*

the Cereal and High Cotton Communal zone, compared to the USD 69 in the Highveld Prime Communal zone.

The survey included resettlement areas where households had benefited from the Land Reform Programme. Households in enumeration areas in the Highveld Prime Cereal and Cash Crop Resettlement[16] Livelihood Zone had a relatively lower incidence of poverty, at 87.6 per cent, and also lower poverty depth (52.4 per cent) and severity (36.1 per cent) than other agricultural livelihood zones. Households in the Agro-fisheries[17] zone had a much lower incidence of poverty, 62 per cent. Finally, based on poverty severity measure, Table 4.4 shows that poverty within the 16 districts was most severe among households in Kariba Valley and Kariyangwe Jambezi Communal[18] (68 per cent); Cattle and Cereal Farming (68 per cent); Central and Northern Semi-intensive Farming[19] (66 per cent); the Lusulu, Lupane Southern Gokwe Mixed Farming[20] zones (64 per cent); and the Irrigated Commercial Sugar and Fruit Farming zones (62 per cent)[21]. The survey also included State Land, with 33 households living in a settlement within the Mafungabusi State Forest in Gokwe South District. The poverty incidence for these households was 100 per cent. While most households were poor regardless of the livelihood zones in which they lived, these differences were important because they illustrate the considerable differences in poverty severity across zones.

Household experiences of poverty

With the vast majority of Zimbabwean households (particularly in rural areas) living in poverty, it is important to understand what this means at the household level.

[16]Parts of Mazowe, Hurungwe and Mutoko Districts fall in the Highveld Prime Cereal and Cash Crop Resettlement Livelihood Zone.
[17]Part of Kariba District falls in the Agro-fisheries Livelihood Zone.
[18]Part of Hwange District falls in the Kariba Valley and Kariyangwe Jambezi Communal Livelihood Zone.
[19]Parts of Mutoko and Hurungwe Districts fall in the Central and Northern Semi-intensive Farming Livelihood Zone.
[20]Part of Gokwe South District falls in the Lusulu, Lupane Southern Gokwe Mixed Farming Livelihood Zone.
[21]Part of Chiredzi falls in the Irrigated Commercial Sugar and Fruit Farming zone.

To put together a picture of household experiences of poverty, the survey data and regression analysis were combined with analytical insight from focus group discussions, which were conducted across the 16 sample districts to explore local perceptions of poverty.

Community perceptions and experiences of poverty

Focus group discussions revealed that at the community-level, asset-based definitions of poverty prevail. In rural areas, it is ownership of productive assets – especially land, livestock (cattle) and farm equipment – that distinguishes the poor from the non-poor. In urban areas, it is access to regular paid employment, property ownership, access to capital for income-generating activities and the ownership of machinery that were perceived to distinguish between these two groups. There were also several determinants of welfare status that were common across urban and rural areas, namely access to adequate nutrition and clothing, type of shelter, and the ability to meet education and health bills, as discussed in the following sections.

Food

Across focus group discussions, the accessibility of food, both in terms of *type* and *quantity,* were commonly identified as an indicator of poverty. Respondents argued that poor households eat food of poor nutritional quality and sometimes eat once or twice per day because they cannot afford three meals per day. In one area, the respondents said, *'chikafu chacho ndechekutamburira'* (meaning the food is obtained after a struggle). Hunger and malnutrition, therefore, are central to experiences of poverty and extreme poverty in Zimbabwe. Local people may not be able to differentiate between foods in terms of kilocalories, but demonstrate clear knowledge of the types of food that poor and non-poor households eat (Box 4.1).

A meal which is equated to poverty consists of the maize staple *sadza* with vegetable relish (possibly collected from the wild or garden weeds such as *nyevhi* and *mowa)* cooked without oil. Where there are no vegetables, very poor families eat sadza with salt or wild fruit pulp. Foods regarded as 'luxury' foods are rice and potato eaten with chicken and meat at lunch or dinner, as well as bread and tea for breakfast. 'Take-aways' and fast foods such as fried chicken are considered foods of the urban better off. The PASS report for 2003 observed that the per cent share of cereals, sugar, fats and oils and vegetables increased as households became poorer, while consumption of meat, poultry, eggs, dairy products, fruits and beverages increased as households became less poor (GoZ, 2006). This indicates that poorer households have more starchy diets than less poor households, thus making poorer households more vulnerable to malnutrition.

Shelter

Focus groups in both rural and urban areas highlighted that the type of house and ownership status was important in the definition of poverty, although experiences differ across these two geographic locations. In rural areas (including communal and resettlement areas), those living in houses made from pole and *dagga* (mud) were regarded as poor. In peri-urban areas, in contrast, those living in small houses roofed by plastics *(Chiimba chitukutuku, chakapfurirwa nemapepa, zvinyeda,* meaning small houses built with paper and plastics) were regarded as poor. In urban areas, the poor were defined as those living in poorly planned and unfinished houses.

The household's tenure status was also considered a key definition of poverty in all areas. In urban and peri-urban areas those in overcrowded rented accommodation, usually with rooms divided by curtains, were considered poor.

In peri-urban areas, another dimension was the legality of the place where the house or shack is constructed. Those who build houses on illegal spaces usually have no proper water and sanitation facilities. In rural areas the poor were regarded as those who do not own the land but work on, or keep the land of absentee owners who reside in cities or outside Zimbabwe.

Education

Focus groups also characterised the poor by their inability to send children to school given the prohibitive costs of education. In addition, the need to help parents in trying to eke out a living also adds to the high school dropout and absenteeism rates among children from poor households. These findings were reflected in the survey, which found school attendance, especially for secondary school, to be lowest amongst the very poor.

Box 4.1: Poverty in Hwange

The community group in Sidobe village noted that one of the major features of poverty in their community was lack of food, especially for children. A mother of three said *'Abantwana bethu bayaddla isitshwala lomubhida that is why bengakhuli. Ngiyathi nginothile nxa abatwana bami besidla inyama,uncago ledhobi'.* (We feed our children with sadza and green vegetables that is why they cannot grow fast. I will say I am rich if I can feed my children with milk, meat and peanut butter). Poor households are also characterized by lack of blankets, and use cloth in lieu of blankets.

Table 4.5: Children's school attendance by poverty status and per capita expenditure quintile

	Children 6-12 years	Children 13-18 years	Children 6-18 years
	Percent	Percent	Percent
All	87	64	76
Poverty Status			
Non-poor	94	72	82
Poor	86	63	76
Very poor	83	58	72
Per capita expenditure quintiles			
1	83	56	71
2	83	60	73
3	90	69	81
4	93	70	82
5	93	72	82

Table 4.5 shows that when enrolment rates were correlated to the household's status on the welfare distribution, there was a ten percentage point difference in school attendance for children aged 6 to 12 years between the bottom per capita expenditure quintile (1) and top quintile (5).

For children in the secondary school aged category (13 to 18 years), there were also significant differences in enrolment rates by welfare status, where only 56 per cent of children from the poorest quintile were enrolled into school, while the corresponding rate for the top quintile was 72 per cent.

The survey revealed four most frequently cited barriers to school attendance, which included a lack of books; a lack of school uniforms; the absence of teachers; and problems paying school levies (Table 4.6). A lack of books was the most cited challenge, particularly in rural areas. A lack of school uniforms also provided a major obstacle for nearly one in five households. Some of the most disadvantaged children, mainly orphans, are assisted by the Basic Education Assistance Module (BEAM) programme, but focus groups argued that its benefits did not reach enough households (See Box 4.2)

Table 4.6: Main problems experienced at school during the last 12 months, by location (per cent)

	All	Location	
		Rural	Urban
Lack of books	35.2	39.1	29.2
Lack of uniform	17.5	23.0	9.0
Lack of teachers/poor teaching/sick teachers	5.6	5.2	6.4
Non-payment of school fees/ levies	18.3	17.5	19.5
No problem at all	14.6	6.2	27.7
Other*	8.7	9.0	8.3
Sub Total	100	100	100

Notes: Other includes: shortage of classrooms; hunger; insufficient subsistence money; illness of the child; and illness of family members*

Box: 4.2 Problems with school attendance

Several of the focus groups mentioned that they would like to see the Basic Education Assistance Module (BEAM) extended. For example in Sidobe village, Hwange, the community group wished that BEAM would expand its programme so as to accommodate more poor and vulnerable children. *'Currently BEAM is only catering for orphans, which is wrong because some children with living parents are equally vulnerable, for example a number of children in this community have parents who are sick and some are disabled and cannot pay the fees'*. The communities also want supplementary feeding at primary school in the form of porridge or sadza, because they did not harvest enough last season, hence they cannot afford to feed their children, especially young ones who cannot go without three or more meals a day. In Mushimbo, Mutoko complaints about BEAM were that it targeted only double orphans, yet widows also struggled with school fees.

Box 4.3: Problems with education in Hwange

Poverty may be perceived to be as a result of lack of education or awareness. For example, in Hwange District most people do not attain ordinary level education. Out of a total of 129 household heads that were surveyed in the study, only 17 per cent had advanced up to O level and beyond. Nearly 30 per cent of household heads in Hwange had no education at all (or had not completed primary school). Female household heads fared worse, with 44 per cent having no education. This has implications for the ability of the household to cope with poverty, as the uneducated are unlikely to get formal and well paid jobs in and outside Hwange.

Lack of education had also promoted the cycle of poverty as the poor and uneducated were not able to find money to send their children to school. There was also a challenge of the availability of high schools in Hwange as well as a critical shortage of trained teachers at both primary and secondary schools; consequently the pass rate of students was low.

Box 4.3 illustrates how lack of education can result in cycles of poverty.

Clothes

All focus group discussions defined the poor by the type of clothes, their size and where they are bought. The poor relied mainly on second-hand clothes from wellwishers or second-hand markets, which is why in the majority of cases they were oversize clothes. It was stated that *'hembe dzacho dzinenge dziri dzemumabhero'* (the clothes would be coming in bales). Bales of second-hand clothes come mainly from Mozambique. In Harare, the clothes are then sold at Mupedzanhamo (a local open market) whose name in English means 'eliminate poverty'. Table 4.7 shows the average expenditure on clothing by the poor households to be almost USD 49 in the last twelve months while that of the non-poor households was USD 82. The rural poor spend half the monthly expenditure on clothes as those in urban areas – USD 36 in comparison with USD 75. Non-poor households in rural areas spend USD 52 per month, reaching to USD 90 for non-poor urban households. This reflects their ability to buy a greater volume and quality of clothes.

Drivers of poverty in Zimbabwe

The MZF household survey found that the incidence and intensity of poverty across Zimbabwe was high; focus group discussions created a broader understanding of the multidimensional nature of poverty, and the problems poor households face in accessing food, education, shelter and clothing. The survey was also able to untangle the characteristics of poor households in Zimbabwe, to identify household determinants of poverty and extreme poverty, such as the age, education, gender, and employment of the household head. Household size and composition also influence a household's likelihood of being in poverty or extreme poverty, as does a household's asset base, labour force, and receipt of money transfers, as the following sections discuss in greater detail. Three regressions were conducted to filter and identify the key drivers of poverty (Appendix 4.1). The first model regressed household consumption for all households, while the second two ran separate regressions for rural and urban households, as drivers across these two geographic locations are likely to vary. These regressions identified household size, education, economic activities and geographic location as key determinants of poverty.

Age of household head

Given that poverty was nearly universal in rural areas, the age of a household head was not a significant determinant of poverty here. At the urban and national level, however, poverty levels varied by the age of household head (Table 4.8). Urban households headed by those over the age of 55 were eight percentage points more likely to be poor and six

Table 4.7: Household expenditure on clothing – last 12 months (USD)

Poverty category	Amount (USD)		
	Rural	Urban	All
Non-poor	52.48	89.55	82.48
Poor	35.89	74.51	48.59
Overall average	36.88	79.84	54.77

percentage points more likely to be very poor. Interestingly, urban households headed by young household heads (30 to 35 years) displayed a high likelihood of being in poverty, perhaps reflecting barriers to employment to young people. For households in extreme poverty, there was a correlation with the age of household head, with the percentage of very poor households increasing in line with the age of the household head.

Education level of household head

During the focus group discussions, participants revealed the centrality of education to poverty and wellbeing (Box 4.3). Table 4.9 shows the distribution of poverty by education attainment level of household heads in rural and urban areas. As expected, the incidence of poverty reduced as the educational attainment of the household head increased. The link between education of household head and the household being very poor was even more marked. Two-thirds of very poor households were headed by people with the attainment of education below Grade 7 (primary level).

Again, there were differences in the strength of correlation across rural and urban areas. Rural household heads that had attained Form 6 education or above had a relatively high incidence of poverty (85 per cent) in comparison with their urban counterparts (39 per cent). This is likely to reflect differences in rural and urban labour markets, but these figures must be viewed with caution given the small sample available. Only 394 household heads attained Form 6 education or above, of which only 82 lived in rural areas.

Gender of household head

Female-headed households were found to have a slightly higher incidence of poverty than male-headed households, at 83 per cent and 81 per cent, respectively (See Table 7.1 in Chapter Seven on Gender). The same trend was observed for very poor households, with female- and male-headed households displaying an extreme poverty incidence of 48 and 42 per cent, respectively. These findings suggest a smaller gender difference than other surveys have found. The PASS of 2003, for example, found poverty levels in female- and male-headed households at 68 and 60 per cent, respectively (GoZ, 2006). The ZIMVAC (2011) found the incomes of female-headed households to be only half that of male-headed households. ZIMVAC (2011) also showed that nearly 70 per cent of all female-headed households were always food insecure and needed food aid in any given year.

Focus groups specified widowhood as a dimension that depicts poverty in rural areas, given the role a male household head plays as the breadwinner and the weak economic position of most women. Out of 538 widowed household heads in the MZF survey, 86 per cent were

Table 4.8: Age category of household head, by poverty category and rural and urban location

Age category of household head	All poor (percentage)			Very poor (percentage)		
	All	Rural	Urban	All	Rural	Urban
Less than 30 years	79.2	94.7	57.7	39.8	64.7	5.2
30-35 years	80.5	93.6	65.4	38.2	55.5	6.6
36-41 years	78.3	94.5	59.6	40.5	69.9	6.3
42-47 years	81.7	96.2	65.6	39.9	66.7	10.0
48-54 years	80.6	95.4	62.4	45.4	72.5	12.4
55+ years	86.4	95.9	65.5	51.5	70.4	11.6

Table 4.9: Incidence of poverty by education attainment levels of household head

Highest education attainment of household head	All poor (percentage)			Very poor (percentage)		
	All	Rural	Urban	All	Rural	Urban
Below Grade 7	93.2	96.9	72.8	66.5	74.6	21.4
Grade 7	90.8	96.3	74.2	57.8	72.5	12.6
Form 2	88.2	95.9	74.2	48.5	67.3	14.1
Form 4	76.0	92.5	65.0	27.3	58.2	6.7
Form 6 and above	48.7	85.4	39.1	12.2	48.8	2.6

poor. The majority of these (65 per cent) lived in rural areas, and these constituted the majority of those classified as poor (73 per cent). Gender differences are a result of some customary practices that predispose female-headed households to poverty, which are further explored in Chapter Seven.

Economic activities

The economic activities that support a household are a determinant of household poverty. Households whose members were permanent employees displayed the lowest poverty status of 63 per cent (Table 4.10). Having at least one member working as a permanent employee also greatly reduced the likelihood of a household being 'very poor', even in rural areas. A clear message emerging from the data is that quality employment matters in taking households out of poverty in both rural and urban households. The multivariate analysis revealed that permanent employment was associated with a 29 and 13 per cent rise in consumption expenditures in rural and urban areas, respectively (Appendix 4.1).

Although small businesses are often seen as a solution to poverty, households with a business enterprise still displayed a poverty incidence of 72 per cent, ten percentage points higher than that of households with a permanent employee. This suggests that ownership of a business enterprise does not confer as many advantages as being permanently employed, and that many businesses may be small-scale survival businesses rather than profitable enterprises. The most common enterprises revealed by the survey were small-scale vending of various commodities including vegetables, food, natural resources (such as wild fruits, mushrooms and firewood), and clothes. Business enterprises such as knitting, basket weaving and shoe repairs are regarded as low value and low income generators. Only 16 households owned a shop or butchery that generated relatively higher incomes. Most of the enterprises were engaged in as extra or part-time, supplementing activities to farming.

The multivariate analysis highlights, however, that even small-scale businesses played an important role in boosting consumption expenditures, particularly in rural areas, by up to 24 per cent. Regardless of their modest scale, this suggests that they can play an important role as a driver of escaping poverty, and need to be encouraged and supported.

Households dependant on agriculture and livestock displayed the highest rates of poverty and extreme poverty. About 90 per cent of households in the surveyed districts who depended on agriculture and livestock were poor, with over 60 per cent of them being very poor. Mining activities in rural areas play an extremely important role by offering alternative income generating activities to these options. The regression analysis showed that being involved in gold and diamond panning and small-scale mining activities raised monthly household expenditures by about 29 per cent. These activities occur in a number of districts, particularly Chimanimani and Mazowe.

Family size and composition

Although ZIMSTAT has traditionally modelled a standard

Table 4.10: Incidence of poverty of the household based on economic activities

Household characteristic	Number of households in sample	All poor (percentage)			Very poor (percentage)		
		All	Rural	Urban	All	Rural	Urban
Household has at least one permanent employee	867	62.9	85.3	54.5	13.9	37.4	5.1
Household has at least one temporary employee	520	85.5	94.1	69.3	36.5	64.4	9.4
Household has a business enterprise	661	72.0	91.1	62.2	23.6	54.9	7.5
Household is engaged in agriculture	1,741	93.7	96.9	68.1	66.9	74.0	9.9
Household keeps livestock	842	91.8	96.2	59.8	64.6	72.3	7.8
Household owns land[22]	1,461	89.4	96.1	59.3	59.7	71.3	6.8
Household has access to cultivable land	1,943	90.8	96.3	62.4	61.4	71.9	6.1

[22]This includes those with customary rights in communal lands and resettled households with permits or leases.

family of six, the Zimbabwean household has undergone significant changes, with average household sizes ranging from three to five. The migration of able bodied adults during the prolonged socio-economic crisis and high mortality rates as a result of HIV and AIDS have changed household level demographics.

The regressions highlight that family size and household composition were a significant determinant for household poverty. Larger households composed mainly of non-productive members were more likely to be poor in both rural and urban areas than smaller households. The regression model showed that having more members in the household reduced monthly consumption per person by as much as 73 per cent, with the worst effects registered in rural areas (79 per cent reduction). The family size and composition factor was so significant that when further analysis was done on the interaction amongst the variables, a high dependency ratio even eroded the effect of literacy, gender and region – rural and urban (see Table 4.11).

The presence of orphans in the household had a negative impact on household expenditures, especially in urban areas. In particular, households with orphans in urban areas had on average 13 per cent less consumption expenditures per person. Research in other African countries has revealed that orphans tend to be taken up by relatively well-to-do households (see for example Evans and Miguel (2007) research in Kenya). The MZF findings show that this was not the case in Zimbabwe, where households who raise orphans were relatively poorer.

Primacy of assets

The MZF survey revealed an interesting observation with regards to the role of land as a determinant of poverty. Access to land was not itself a determinant of poverty, especially for rural households. Instead, it was the ability to use it that matters. The focus groups, too, highlighted that the ability of poor households to use land productively was constrained by a number of factors. The multivariate analysis revealed that the ownership of productive assets, such as peanut butter machines or scotch carts, significantly improved household consumption expenditures. A lack of other farming inputs was also identified as a constraint on agricultural productivity. In Mutoko and Hurungwe, lack of production resulting in poverty was attributed to lack of farming inputs such as seeds, fertilizer and draught power, especially cattle. In Magunje, Hurungwe District, the community noted that where inputs such as fertilizers were provided, they were only given one bag (50 kgs), which was inadequate for their needs.

Focus groups revealed that livestock ownership was considered very important in all communal and resettlement areas. Households in these areas who lack livestock, especially cattle, were considered to be poor (See Box 4.4). Findings from the questionnaire survey established that overall, 44 per cent of rural poor households owned cattle, which were predominantly of the local Mashona breed. The proportion of rural non-poor households that owned cattle was low, at 25 per cent, suggesting that the rural non-poor were not engaged in agriculture, or that they used tractors (or donkeys) for ploughing. The ownership of livestock, too, improved consumption, but to a lesser extent than other covariates.

The ownership of bicycles was another determinant of improved consumption expenditures in both urban and rural areas.

Table 4.11: Effect of number of children on selected variables

Number of children	Literacy of household head		Gender of head		Region	
	Illiterate	Literate	Male	Female	Rural	Urban
0	0.8171	0.759	0.7897	0.7586	0.87	0.6183
1	0.8802	0.8382	0.8607	0.8379	0.9167	0.7271
2	0.9235	0.8949	0.9104	0.8947	0.9476	0.8142
3	0.9521	0.9334	0.9435	0.9332	0.9675	0.8781
4	0.9703	0.9584	0.9649	0.9583	0.9800	0.9222
5	0.9817	0.9743	0.9783	0.9742	0.9877	0.9512
6	0.9888	0.9842	0.9867	0.9842	0.9925	0.9697
7	0.9932	0.9903	0.9919	0.9903	0.9954	0.9814
8	0.9958	0.9941	0.995	0.9941	0.9972	0.9886
9	0.9975	0.9964	0.997	0.9964	0.9983	0.993

Box 4.4: The importance of cattle

Cattle are used for wealth storage, rather than investment of capital among smallholder farmers in Zimbabwe. Cattle have multiple uses such as draught and providing milk, meat, hides and horns. They also have spiritual and traditional values. It is traditional that bride-wealth payments *(lobola)* are made in cattle. Sometimes there is a ritual requirement for a household to keep a mature bull upon which an ancestral spirit *(mudzimu)* is installed by a spirit medium.

During discussion with communities in Chiredzi, it transpired that one of the major livelihood activities in the district was livestock rearing, including cattle, donkeys and goats. Most households endeavour to keep cattle as these are seen as a symbol of wealth and assets for production. Those owning at least 30 heads of cattle are considered better off. Some well-off families have up to 300 head of cattle. These enable families to sell some of their livestock during times of need, such as droughts, to enable their household to get some money to cover living costs. A beast was sold for as much as South African Rand 1,500 in March 2011, equivalent to about USD 200. This is, however, considerably below the real market value of cattle which is between USD 300 and 800 depending on the size of the beast.

Other forms of livestock kept included goats, chickens and guinea fowls. Donkeys were used for transportation and draught. Many farmers in Zimbabwe sell their small stock, usually goats and chickens, to meet occasional cash requirements. These small stock are mainly regarded as belonging to women.

There is also an informal (and illegal) livestock trade where local farmers cross into South Africa or Mozambique and sell or barter trade their cattle. This allows them to come home with basic products such as clothes, groceries or cash.

Photograph: J. Manjengwa

The survey found that 21 per cent of households owned a bicycle, with both rural and urban areas owning similar proportions. The ownership of other luxury items assets was considered to differentiate between the poor and non-poor in urban areas. In Epworth, a peri-urban settlement outside Harare, people emulated life in the urban areas, and focus groups defined poverty as a lack of electric gadgets such as television sets, radios and fridges, as well as lack of formal employment. The same characteristics used by respondents to measure poverty in peri-urban areas were used to measure poverty in urban areas. In peri-urban areas poverty was therefore defined in terms of a rural lifestyle.

In the case of mobile phones, 55 per cent of all households owned a mobile phone. Mobile phone ownership was much more prevalent in urban areas, where 87 per cent of households owned one. In contrast, only one in three rural households had a mobile phone. During focus group discussions in Hwange, Mbire and Chiredzi, people complained that they did not have cell phone coverage. This suggested that the percentage of mobile phones in areas where there was network coverage was considerably higher than 55 per cent. In the case of Chiredzi, those nearer the border used a South African service provider, MTN.

Financial transfers are important

Receiving cash transfers was also found to be a determinant of poverty, whether through remittances from relatives, and handouts from the government or donor organizations. Cash transfers were particularly important in urban areas, where households receiving cash transfers had, on average, higher consumption expenditures by 15 per cent.

Exposure to shocks

Zimbabwean households can be hit by a variety of shocks that influence their wellbeing. Agricultural-related shocks that affect entire communities can be particularly detrimental.

The only consistently significant shock revealed by the MZF survey was the experience of food shortages in the past 12 months, which was found to reduce current consumption expenditures by 17 per cent in rural and 26 per cent in urban areas. This suggests that food shortages have more detrimental effects in urban areas. The insignificance of other shock variables may be partly explained by the high correlation between shocks. Droughts, for example, are most likely to cause food shortages and food shortages may have a knock-on effect to account for the other shocks experienced by the households. Shocks and their influence on movements into poverty will be discussed further in the following chapters.

Extent of income inequality in the surveyed districts

Inequality is a broader concept than poverty. Rather than focusing only on the portion of the population that lives below the poverty line, it is defined over the entire population (Haughton and Khandker, 2009). Inequalities are not just the result of poverty; they help to generate it, and if left unchecked make poverty reduction even more difficult to achieve (Berg and Ostry, 2011).

Inequality is a measure of skewness in the distribution of resources such as land or income relative to households or population. Inequality can be assessed using the Lorenz curve which relates the share of households to the share

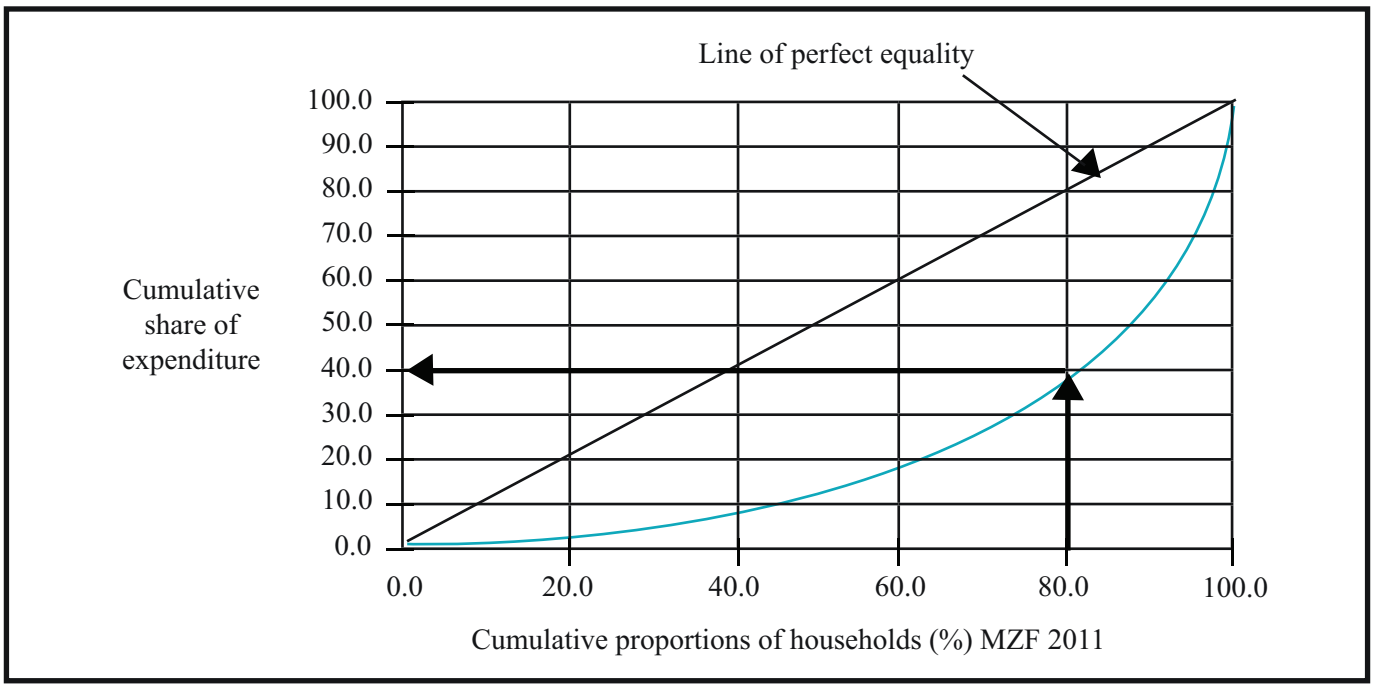

Figure 4.3: Lorenz curve, Moving Zimbabwe Forward study 2011

of valued resources. Figure 4.3 shows the Lorenz Curve based on the survey. Results indicate that the largest share of expenditure – 60 per cent – was concentrated amongst only 20 per cent of sample households. Approximately 80 per cent of the sample households had an expenditure share of only 40 per cent (Figure 4.3). In 2003 income distribution was slightly more skewed with 80 per cent of households having an income share of about 35 per cent (GoZ, 2006).

The Gini coefficient which indicates the extent of income inequality for the 16 districts, was 0.50 suggesting a relatively high level of inequality. However, this is lower than previous Gini's calculated for Zimbabwe, which were over 0.6. The coefficients for Zimbabwe's neighbours were South Africa 0.77; Zambia 0.526; Botswana 0.425; and Mozambique 0.396 (Schwabe, 2004; CPRC, 2005). While Zimbabwe must attain high growth to reduce poverty (Hawkins, 2009), this is not sufficient on its own to reduce poverty. The government can play an important role in making sure that the benefits of growth reach poor households through taking appropriate redistributionary measures, such as social protection.

In 1991 it was estimated that 50 per cent of the population received less than 15 per cent of total incomes, while the richest three per cent received 30 per cent of the total (Stenflo, 1993). The Gini coefficient for the country at that time was estimated to be 0.57 (Killick, *et al,* 1998). By 1998, the national Gini coefficient, based on mean consumption per person, had risen to 0.63 (GoZ 1998). Kinsey (2010) suggested that underlying the high inequality of that time was the highly skewed distribution of ownership of land, where the Gini coefficient for inequality was actually worse in rural areas than urban. By 2003, inequality had reached a peak of 0.64 (GoZ, 2006).

Although not directly comparable with these previous surveys, the current study suggests that inequality has reduced between 2003 and 2011, from 0.64 to 0.50.

Further studies will be required to establish if this is a trend and what factors are influencing it. Mazingi and Kamidza (2011) have put forward that decisive steps to reduce resource-based racial inequalities were taken after 2000 when the government embarked on the Fast Track Land Reform Programme. This resulted in a more equitable distribution of land resources.

Conclusions

The extent of poverty in Zimbabwe is striking, and should be an important policy priority. Four out of every five households sampled across the country were poor, and more than 40 per cent were classified as 'very poor', and unable to meet their minimum food requirements. While the proportion of extremely poor households has fallen since 2003, the number of households in poverty has increased. In rural areas, 95 per cent of households were poor.

The MZF survey reveals a number of determinants of poverty and extreme poverty. A household is more likely to be **poor** if:

- it is located in a rural area
- it has a high dependency ratio
- the head of household is older than 49 years
- the head of household has less than 13 years of education
- it has no-one in permanent formal employment
- it has a female head
- it receives no migrant remittances, or cash transfers.

A household is likely to be **very poor** if it has all these features and is also:

- located in a rural district in Agro-ecological Region IV or V.

The depth of poverty is also a concern. The deepest and most severe poverty was found in rural areas, with the depth of poverty in rural areas twice that of urban areas. In urban areas, income inequality was a greater concern. Although national inequality appears to have dropped, it remains high. The narrowing of the gap may be attributed to more smallholder farmers accessing higher potential agricultural land, under the Fast Track Land Reform Programme.

A two-pronged strategy is evident, including the need both to increase agricultural productivity and open up alternative livelihood options. There is a need for ensuring increases in productivity in rural areas as households depend on their own production for food security. There is need to adopt and implement a comprehensive rural development strategy to address the root causes of rural poverty and inequality. The Land Reform Programme is helping to reduce poverty, particularly in areas of high agricultural potential, such as in the Highveld Prime Cereal and Cash Crop Resettlement Livelihood Zone. In these areas, land shortages are no longer a major cause of poverty, rather it is the lack of ability to utilise the land effectively. Smallholder agriculture and other rural livelihoods need to be supported to increase production and boost incomes. There is need for a massive injection of resources into infrastructure, particularly roads and irrigation; and into farming equipment. Available and affordable inputs are crucial, and a subsidies package for small-holder farmers (both communal and resettlement) for inputs, tillage and irrigation would go a long way towards revitalising the

rural areas and reducing poverty.

In urban areas, employment is a critical priority. Relevant training and affordable loans are needed for start-up capital for business enterprises. There is need for a drive towards resuscitating industries to improve employment, together with encouraging the education of children as these have a significant bearing on reducing poverty. Having explored the extent and depth of poverty, alongside some local definitions and determinants of poverty in Zimbabwe, the following chapter now investigates poverty dynamics in Zimbabwe, to better understand what causes households to move into and out of poverty over time.

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Chapter Five

Poverty Dynamics in Zimbabwe

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Main messages

- *Poverty in Zimbabwe has continued to increase from the 1990s.*
- *On a ten-step 'wellbeing ladder', 90 per cent of respondents thought they were currently on the bottom five rungs of the ladder, with 3 being the average step.*
- *Most respondents thought that their wellbeing had not improved since five years ago.*
- *However, most respondents thought that they would be at least two steps higher up the ladder in five years time.*
- *Strategies out of poverty hinge on having more money, and the means of getting more money through more and better jobs; increased agricultural production; and more and better education.*
- *A multi-stakeholder approach is required that commits the government, non-governmental organizations, international development partners and the private sector to working together to implement strategies that will address poverty in Zimbabwe.*

Introduction

Chapter Four indicated a high incidence and depth of poverty in the sampled households across Zimbabwe, as well as some of the key determinants of poverty in urban and rural areas. It is also important, however, to recognise that poverty is not a static condition, but a dynamic one. Households may fall – or fall deeper – into poverty as a result of one or an accumulation of shocks. Likewise, over time, they may also experience incremental improvements that allow them to move out of poverty. The MZF survey and qualitative components also wanted to get an understanding of the factors driving these movements into and out of poverty, as presented here. Section one of this Chapter traces changes in Zimbabwe's poverty levels using available datasets. Section two then looks at the experiences of households in our sample, asking households both where they currently stand in comparison with five years ago, and where they expect to stand in five years time. Sections three and four then look briefly at the nature of shocks facing poor households and strategies deployed by Zimbabwean households for escaping poverty, before section five investigates community perceptions of 'development'.

How has poverty changed over time in Zimbabwe?

Although an analysis of poverty dynamics is best based on panel data sets, a lack of panel data sets in Zimbabwe means we must instead look at other past survey data, while recognising they may not be as strictly comparable as a panel dataset would have been[23]. Over the years Zimbabwe has conducted four nationally representative data surveys, with a fifth, the 2012 Poverty Income Expenditure Survey (PICES), currently under way. Data from Income Consumption and Expenditure Surveys (ICES) carried out in 1990 and 1995 and from the Poverty Assessment Study Surveys (PASS) of 1995 and 2003 form the basis of current knowledge on poverty in Zimbabwe.

Data from the 1990 and 1995 ICES showed that real household consumption declined by 24 per cent between the two surveys (Alwang, *et al.*, 2002). The Poverty Assessment Study Surveys (PASS) also confirmed that income poverty continued to increase from 1995 to 2003, with the proportion of households living under the poverty line increasing from 42 per cent in 1995 to 63 per cent in 2003 (GoZ, 2006) (see Table 5.1).

Between 1995 and 2003 the cost of living or income required to meet minimum acceptable consumption increased. Survey results from the 2003 and 1995 PASS showed that in real terms the food poverty line increased, highlighting that the cost of maintaining minimum daily food requirements of 2,100 kilo-calories had increased. This was accompanied by an increase in the Total Consumption Poverty Line by 359 per cent, highlighting the inflation that also increased the cost of non-food items and services. The increase in the cost of living was higher in urban areas, and by 2003, it had become more expensive to live in urban areas. Among urban areas, Harare and Bulawayo experienced the highest increase in poverty lines during that period (GoZ, 2006).

During the same period real incomes, as measured by household expenditures and Gross Domestic Product (GDP) per capita, declined, pushing more and more households into poverty (GoZ, 2006). The depth of poverty also appears to have grown. The poverty depth

[23]As mentioned in Chapter Three the only panel study being conducted in Zimbabwe is by Bill Kinsey of resettled households and is not nationally representative.

Table 5.1: Household poverty levels by land use area from the 1995 and 2003 Poverty Assessment Study Surveys

Land use Area	Total Consumption Poverty *The poor* (per cent)		Food Poverty *The very poor* (per cent)	
	1995	2003	1995	2003
Overall	42	63	20	48
Communal	53	66	24	51
Resettlement Area	52	58	25	46
Small Scale Commercial	32	58	15	43
Larger scale commercial	34	52	11	38
Urban Areas	31	53	10	29

Source: GoZ, 2006

in the MZF survey at nearly 53 per cent, is considerably higher than the 16 per cent reported during the PASS of 1995 and the 34 per cent reported in the 2003 PASS (GoZ, 2006). Although the data from the different surveys are not directly comparable, they all indicate deepening poverty, with more people not only becoming poorer but being entrenched in poverty as they fall further below the poverty line. It will take, therefore, more resources and much stronger assistance to reverse this process.

Poverty data throughout 2004 to 2010 is limited to the periodic ZIMVAC and Multiple Indicator Monitoring Survey (MIMS). However, there is a general consensus in the literature that poverty levels peaked in 2008 and have begun to tail off since 2009 (GoZ, 2011).

Household perceptions of past, current and future poverty status

Surveyed households were asked where they thought they were on an imagined poverty/wellbeing scale. Using a 10-step ladder, where the bottom step (step 1) represents the worst possible life, and the top step (step 10) represents the best possible life, households were asked where on the ladder they thought they currently stood, where they stood five years ago, and where they expect to stand in five years time.

Ninety per cent of households placed themselves currently on the bottom five rungs of the wellbeing ladder, which displays household peaks for steps one and

Table 5.2: Perceptions of poverty status

Current position on step ladder	All (number)	All (per cent)
Step ladder 1 (worst condition)	803	23.8
Step ladder 2	568	16.9
Step ladder 3	518	15.4
Step ladder 4	449	13.3
Step ladder 5	709	21.0
Step ladder 6	161	4.8
Step ladder 7	83	2.5
Step ladder 8	40	1.2
Step ladder 9	10	0.3
Step ladder 10 (best condition)	30	0.9

five (Table 5.2). Notably, nearly one in four households highlight that they currently stand on the bottom rung of the poverty ladder. The rural and urban differences in poverty revealed by the survey are also reflected in this exercise, with a higher proportion of rural respondents placing themselves on the lower rungs than urban respondents (Figures 5.1 and 5.2). These findings also reveal that aspirations of mobility were much higher in urban areas. Not only did a higher proportion of urban households place themselves currently on steps five to ten, a much higher proportion also indicated they envisioned household improvements over the next five years. While 15 per cent of urban households viewed themselves on the top rung of the ladder in five years time, only five per cent of rural households did.

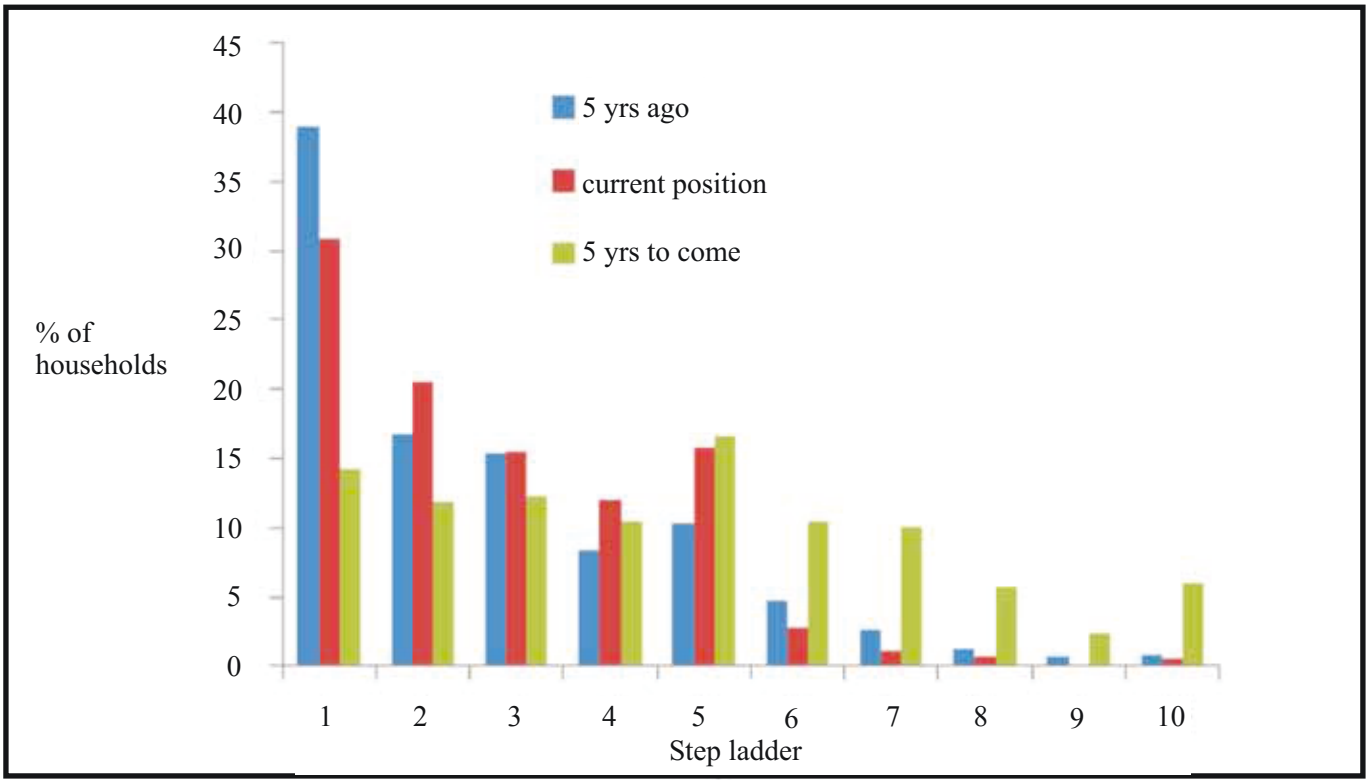

Figure 5.1: Rural perception of poverty status

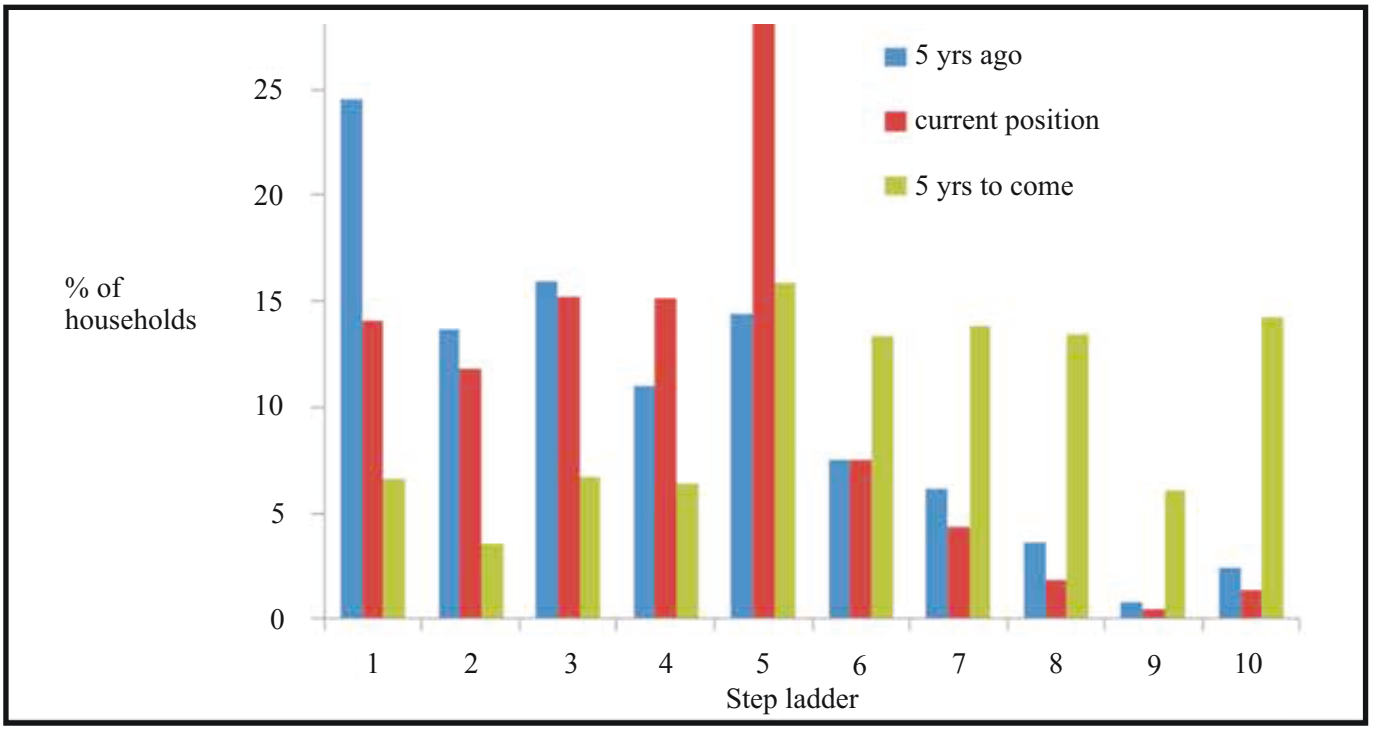

Figure 5.2: Urban perceptions of poverty status

Figure 5.3 shows the people's perceived current poverty status on the step ladder and actual household consumption poverty status from the survey data. As would be expected, more of the non-poor saw themselves on higher steps than the poor. Over a quarter of those from poor households thought they were currently on the lowest step, while one quarter of the non-poor perceived themselves on step 5. Figure 5.3 however, also shows that there is no clear correlation between perceived poverty status and actual household consumption/ expenditure poverty status. Just under one per cent of the poor thought they were on the highest step of the ladder, while 13 per cent of the non-poor thought that they were on the first step of the wellbeing ladder, that is, experiencing the worst possible life.

Looking at the average (arithmetic mean) of stated steps for households based on poverty categories and key background characteristics, Table 5.3 indicates that households in the sampled districts on average perceived themselves to be at the third step and believe that there had been no change in their welfare status over the past five years. While very poor households perceived that they were slightly better off than they were five years ago, for the majority, the general perception is that nothing had changed. These results suggest that the up-turn in the macro-economic environment registered since 2009 is yet to trickle down and benefit the poor.

Households were more optimistic about their future, expecting that they would, on average, move two steps higher in the next five years.

Urban residents were slightly more optimistic in this respect. This perception of a two-step upward mobility was consistent regardless of current welfare status (as measured by household consumption, employment status or experience of shocks over the past 12 months). For the urban, non-poor category and those households with at least one member in permanent employment, the average wellbeing status expected in the next five years was over 6 steps on the ladder.

Why are people poor? Covariant and idiosyncratic shocks

There are two types of drivers of poverty in Zimbabwe, namely covariant or structural drivers which affect all households in a community, and idiosyncratic or individual drivers which target specific individuals, households or social groups. The widespread nature of covariant drivers in Zimbabwe means they often require long-term national policy-programming responses at scale. Covariant drivers such as agricultural or economic crises and jobless growth, breakdown in claims and entitlement, and inadequate markets, are often seen as being more lethal, because their generalised nature often implies that individuals and communities cannot help each other in meaningful ways to climb out of poverty (PRP, 2012). On the other hand idiosyncratic drivers, including access to assets, shocks and stresses such as illness and crop failures, hurt individual entities but there is scope for localised interventions through specific programme responses. While a household may be able to withstand one or several small crises, however, the accumulation of multiple shocks over time slowly depletes their resilience to future shocks as well as their current wellbeing. Focus groups revealed two major covariant and one major idiosyncratic shocks that influenced poverty dynamics, which are discussed briefly below, before being more thoroughly explored in Chapter Six.

Shocks related to agriculture

In rural areas the predominant explanation for why poverty persists was attributed to low agricultural productivity.

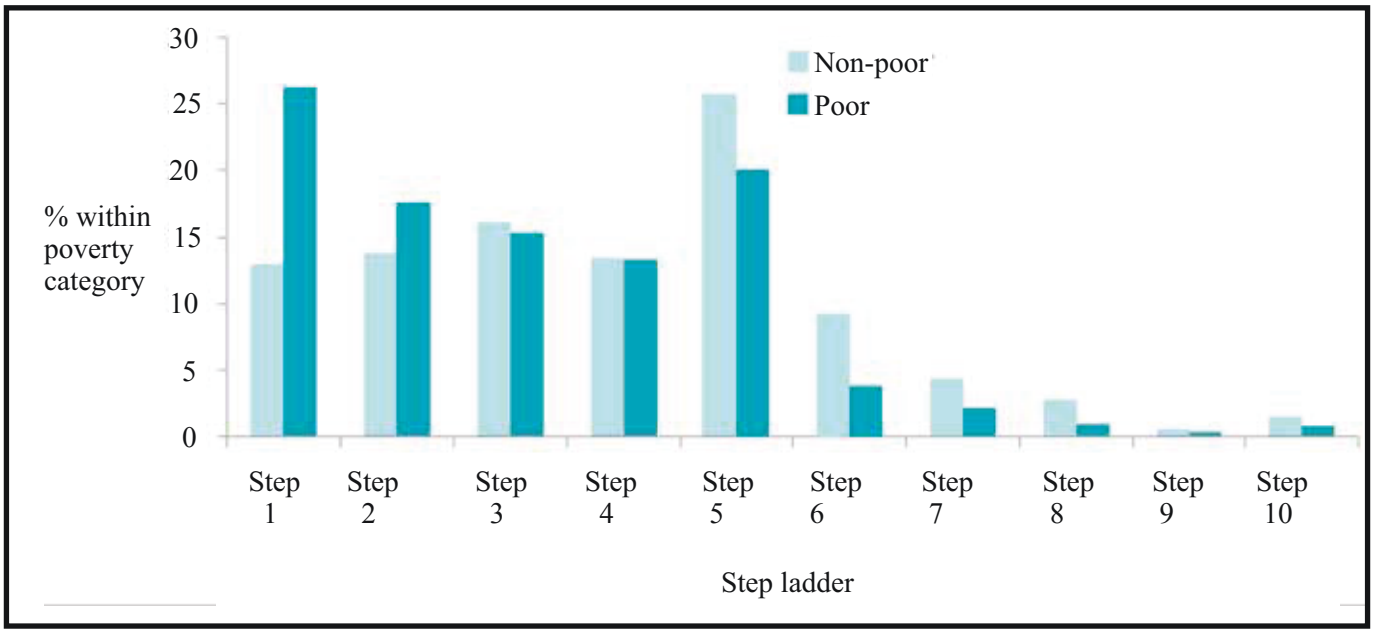

Figure 5.3: Perceived poverty status and household consumption poverty status

Widespread crop failure was noted in many of the sample districts during the survey and focus groups. Focus groups proposed a number of reasons why they could not produce enough, including erratic rainfall, continuous droughts, lack of farming inputs and problems with marketing. In Chiredzi, one participant lamented *'we have experienced persistent droughts leading to poor or no harvests at all. By persistent I mean we experience it every year'*. As well as crop failures, droughts mean there is not enough drinking water for livestock or household members. In Hwange, for example, locals complained that access to drinking water was constrained by drought and the fact that the majority of boreholes in the communal areas were not working.

Both urban and rural area respondents complained of high prices causing poverty. In Mutoko, the community complained that prices of goods in local shops were too high, as were services such as the cost of grinding cereals. These problems are exacerbated by the low market prices that the community receive for their agricultural products like cotton, maize and tobacco. Hurungwe, for example, is well known for cotton farming but the farmers lamented that the returns on cotton further condemns the community into poverty. Poor and delayed payment by grain companies was cited by the community as a major drawback leading to more poverty. Other buyers (grain dealers) offered them very low prices, leaving farmers with no money to buy inputs for the next season. When yields were good or adequate, farmers experienced setbacks with marketing preventing them from benefiting. For example in Chimanimani, farmers had no access to markets for their products, especially fruits which are easily perishable. Farmers resorted to selling their bananas to locals for *'peanuts'*.

In some areas, such as Chimanimani, infertile soils caused low agricultural production. Districts such as Mbire, Kariba, Chiredzi, and Hwange, which are close to protected areas, have large wildlife populations which bring a number of challenges to agricultural production. Wildlife such as elephants, baboons and antelope, perennially destroyed crops, while predators such as lions and leopards killed livestock. In Chiredzi, outbreaks of diseases such as Foot and Mouth, bovine tuberculosis and Newcastle can wipe out both large and small livestock.

Economic crisis

The importance of employment to poverty outcomes was emphasised in the previous chapter. In Highfields, a high density suburb of Harare, and Epworth, a peri-urban area, people identified high unemployment as the most important cause of poverty. Focus groups highlighted that the industries which closed down as a result of the economic crisis had not started operating to full capacity yet.

Urban residents complained that they were unable to accumulate the capital necessary for generating their own employment given the high costs of living and limited incomes. Although most households were relying on the informal sector for their employment, they face many challenges in this sector. For example, the Epworth Local Board requires levies amounting to USD 4 per

Table 5.3: Perceptions of wellbeing by household poverty

	Average wellbeing step for the household		
	Five years ago	Current	Next five years
All	3.1	3.3	5.3
Poverty status			
Non-poor	3.8	4.4	6.6
Poor	3.0	3.0	4.9
Very-poor	2.7	2.6	4.3
Location			
Rural	2.8	2.8	4.6
Urban	3.6	3.9	6.2
Agro-ecological Regions 1 and 2	3.3	3.4	5.7
Agro-ecological Region 3	3.3	3.6	5.4
Agro-ecological Region 4	2.8	3.1	5.0
Agro-ecological Region 5	2.9	3.0	4.6
Employment			
Household has permanent employees	3.4	4.1	6.4
Household has temporary employees	3.2	3.5	5.7
Household has business enterprise	3.6	3.6	5.8

month for vending which most people could not afford because profits were marginal. Employment was not just an issue for the urban and peri-urban sectors. Focus group participants in Mutoko, Chimanimani, Gwanda and Chiredzi complained of lack of employment opportunities, particularly amongst the youth.

Ill health

Ill health and high mortality rates due to AIDS were cited as a cause of poverty in most areas, especially when the family breadwinner was affected (see the example in Box 5.1). In Hurungwe, the issue of HIV and AIDS was cited by the community as a leading cause of household poverty. Surviving children were left to head families without farming implements or equipment. Such child-headed families were tied to poverty *(mhuri inosiiwa munzara, inongorima vo zvenzara-nzara. Hapana chaino budisa,* meaning the family that is left in hunger/poverty will also reap hunger/poverty – they cannot better their lives). In Chiredzi, participants pointed out that HIV and AIDS incapacitates, causing people to become too ill to work in the fields. When the breadwinners die the orphans have to be looked after by elderly grandparents or fend for themselves, thereby creating a cycle of poverty.

The regression analysis of the survey data found that having larger households and accommodating orphans in the household correlated with higher consumption expenditure poverty.

Strategies out of poverty

Understanding the nature of poverty is academic, and does not concern the poor who are actually experiencing it. Chambers (2006) points out that as professionals we are asking the wrong question about 'what is poverty?' Poor, marginalised and vulnerable people are more concerned with questions such as 'What can be done to reduce our bad experiences of life and living?' and 'What will enable us to achieve more of the good things in life to which one aspires?' In line with this, the MZF questionnaire

Photograph: S. Chiutsi

survey inquired about the factors that may help move households up the welfare status ladder (Table 5.4 and Figure 5.4). Furthermore, the focus group question guide asked community groups for suggestions on strategies that could lift them out of poverty.

The results in Table 5.4 (which looks at perceived pathways by location) and Figure 5.4 (which looks at poverty categories) indicate that increased incomes and spiritual blessings were the most frequently cited reasons for a household's success in moving forward. At least 25 per cent of households in both rural and urban areas cited these as the most important reasons for any possible future movement up the welfare ladder. In urban areas, where employment is central to survival and wellbeing, getting a better job or job security was the second most cited reason for possible welfare movements. Table 5.4 and Figure 5.4 also highlight the important influences of social networks and voluntary associations on mobility, such as becoming a member of a local organisation; receiving remittances; support from spouses, family, community or religious organisation; and friendship.

Box 5.1: HIV and AIDS pandemic creating widows, widowers and orphans in Gwanda

During a focus group discussion in Mtshazo area, Gwanda, HIV and AIDS were identified as major contributors of death in the community, which had killed breadwinners in most families, leaving widows, widowers and orphans suffering. Expanded households were created when a relative (for example brother) passed away and another sibling had to take care of the children on their behalf. Such responsibility tended to overwhelm the breadwinner of such families and poverty manifested in the form of inadequate food, failure to pay school fees for the children, etc.

Table 5.4: Perceptions of wellbeing: Factors that would be most important to help to move up the wellbeing ladder. Per cent, ranked and by location

Factors	Rural			Urban		
	First	Second	Third	First	Second	Third
Making more money	13.2	3.7	6.1	13.6	6.5	8.5
God's blessing	12.7	3.8	4.5	20.0	7.9	8.2
Better education for my children	3.7	3.9	4.1	5.5	9.2	5.2
Support from the government	5.4	5.8	4.5	4.6	7.0	6.2
Support from non-governmental organisations, community-based organisations or donors	6.8	8.7	6.4	2.2	3.3	4.6
More land	2.3	3.6	2.5	1.7	2.6	2.4
More cattle	7.0	10.9	6.5	0.1	0.7	0.7
Better job, job security	6.7	6.7	4.8	15.0	16.3	9.3
More farming equipment/ implements	9.6	11.8	10.5	0.6	1.5	1.9
Working harder	8.3	10.7	15.2	10.3	13.9	19.3
Good harvest	6.6	8.9	17.7	0.7	1.0	2.3
Other factors*	17.9	21.4	17.3	25.8	30.1	31.6
Sub Total	*100*	*100*	*100*	*100*	*100*	*100*

*Notes: *Other factors listed include: good luck; migrate from the town or village; better health; learning new or improving skills; becoming a member of a local organization; receiving remittances; support from spouse; family; community, or religious organizations; government loan; getting married/having a child; and friendship.*

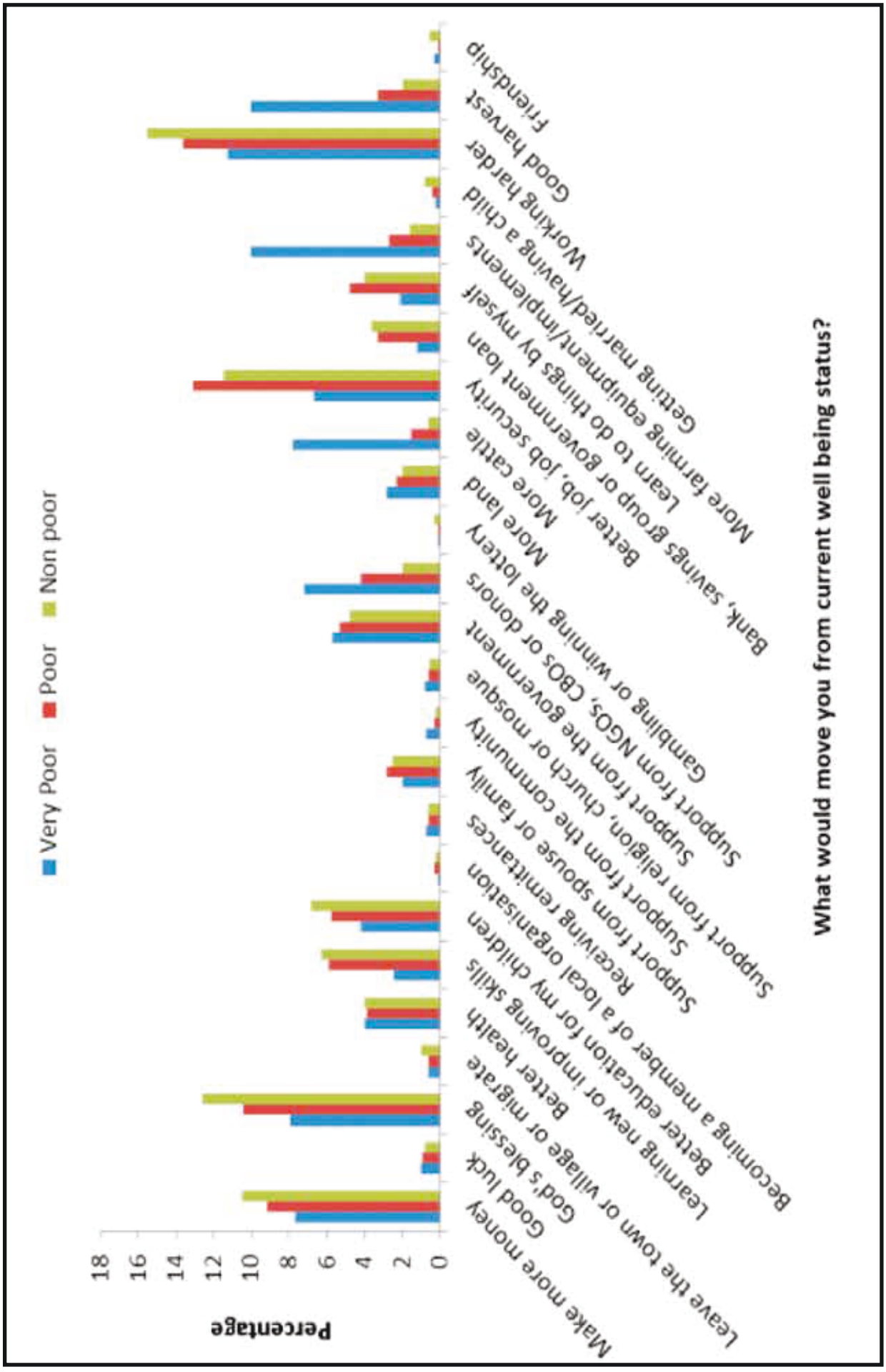

Figure 5.4: Perceptions of wellbeing by poverty category: Factors that would be most important to help to move up the wellbeing ladder.

Focus group discussions elicited information on strategies out of poverty. Most of the strategies they discussed relate to macro-level solutions rather than address micro-level changes or strategies. This is likely due to the depth and extent of poverty across Zimbabwe, which leaves households with little resources with which to pursue alternative livelihood strategies for household improvements. The three strategies and interventions highlighted by focus groups are employment, education and livelihoods. Employment creation will result in more income. Better education will lead to better job opportunities and more income. Access to education can be improved through free education up to 'O' level, and through expanding and up-scaling support provided by the Basic Education Assistance Module (BEAM) programme. A number of livelihood options were put forward including:

- Grants to start community based projects (for example, the mining Community Share Ownership Schemes, and loans for vending, see Box 5.2).
- Support to community food security schemes, such as Zunde raMambo (see Box 5.3).
- Nutrition gardens for subsistence and income generation (see example in Box 5.4).
- Government subsidies on basic commodities. This will curb against inflation.
- Irrigation schemes to grow food crops.
- More extension workers to assist with agricultural production.

Providing support for agriculture

Strategies that can effectively alleviate poverty by enhancing agricultural production focused on the call for efficient, affordable and accessible input supply systems. Many households had no draught power. For example, Hurungwe has good soils and receives good rainfall but farmers had no capacity to engage in maximum crop production. The community was of the view that government and Rural District Councils should provide tillage services at affordable rates. In Chimamimani, the focus was on provision of farming implements to farmers either on a loan basis or at subsidized prices, and provision of appropriate maize seed to the area and in time, which would increase crop production and intensify market gardening. Focus groups also highlighted that growing small grain crops such as sorghum, which does well in low rainfall areas, should be promoted in drier areas.

Box 5.2: Support for informal venders

In Epworth, focus group participants agreed that for poverty reduction to take place, the Local Board should reduce the amount of money paid by vendors as levies. The government should provide loans for projects. It seems the loans currently being given to people by the Government just benefit a few.

In Highfields, respondents argued that the municipality should not be so harsh on vendors by demanding levies that are beyond the reach of many, especially where one goes home with a profit of USD 2 per day.

Box 5.3: Assistance by government, non-government and aid organizations.

Gwanda focus group discussion: *'non-governmental and aid organizations always come in to help the poor and supply food during extreme drought years with poor harvest. However, these have in some instances been abused since some households never plough and wait solely for the aid. This has created some form of laziness in the community and as a result, food for labour has been introduced'.*

Box 5.4: Gardening in Gwanda

Gardening has been seen as one of the strategies that can be used to reduce poverty in the area of Mtshazo, Gwanda. The gardens are used to supplement the household food basket and extra produce sold for income for other uses. Marketable produce brought to Gwanda town for sale included green pepper, butternuts, onions, tomatoes, green beans and cucumbers.

In Mazowe, recipients of land from the land reform programme said that it was beneficial and should be extended to benefit more communal farmers and farm workers. Resettled farmers should be supported with inputs and tillage to enable them to become commercially productive.

Migration and greener pastures

In order to cope with frequent droughts and poverty, many of the economically active people in Districts such as Chiredzi that border neighbouring countries, work as migrant labourers in South Africa, Mozambique or Botswana. Most of them do not have travel documents and they cross the borders illegally using undesignated points. While there, they send groceries and money to build better houses and buy livestock, mostly cattle. In some cases, the husband is the one who goes first while the wife remains behind and follows once the husband settles down (See Box 5.5).

Perceptions of development

Community perceptions of poverty and the strategies that households deploy to escape poverty, is followed by a discussion of community perceptions of the inverse, namely, of their definitions of 'development'. The Brandt (1980) Report takes development to mean 'improvements in living conditions for which economic growth and industrialisation are essential. But if there is no attention to the quality of growth and to social change, one cannot speak about development….development involves a profound transformation of the entire economic and social structure.'

Development was perceived with reference to thriving businesses and industries in all areas of the MZF study, implying that these are important for peoples' livelihoods, by providing employment and also by making available certain goods and services. The issue of good road networks, good infrastructure and availability of clinics and hospitals were key to people's livelihoods, in peri-urban and rural areas. Clinics and hospitals are important due to the rates of ill health in these areas as compared to urban areas.

Rural people added access to clean water, uninterrupted access to mobile phones, television and radio transmission networks as being features of development. Limited infrastructure and services worsens the position of poor people, because no matter how much they try, their efforts are constrained by lack of supportive infrastructure. As a result, their poverty can partly be explained by the residual approach which views poverty as a consequence of being left out of processes of development, a process which Muzvidziwa (2005) calls social exclusion. The assumption here is that development brings economic growth, which sooner or later raises everybody's income. This is termed the trickle-down effect: that the benefits of growth trickle down even to the poorest groups in society in the form of increased opportunities to earn (more) income (Bernstein, 2002). Remoteness is therefore a key factor in explaining concentrations of poverty in specific areas as it limits access to markets, increases the price of

Box 5.5: Migration as a way to cope with poverty

Moletsane, a young man of 22 years, married with three children, from Chiredzi, was on his way to South Africa when he was interviewed. He said he was going to cross into South Africa illegally as he had no proper travel documents. His major reason for going down south was poverty within his household. He said he had planted crops that included maize which did not do well, as a result there was hunger at his homestead. Once he crossed the border, he was going to claim asylum. He would start by doing piece jobs on farms near the border. This would help him raise money to travel to Pretoria where he could find a better job. When the asylum is granted he would look for a job and this would enable him to start sending money and groceries to his family. Once he had settled down, his wife would then join him.

Tsotsowani, a young woman in her twenties who is now based in Polokwane, South Africa, together with her husband, was visiting her home in Chiredzi. She said that she got married at the age of 17 after coming from the initiation ceremony (a Shangaani cultural tradition). She had to drop out of school when she got married. Her husband went to South Africa in 2008 and got a job as a gardener. She joined her husband in 2009 and got a job as a housemaid, leaving her young child with the maternal grandmother in Chiredzi. Tsotsowani and her husband sent about South African Rand 1,000 every month and some groceries which were shared between the couples respective families. They had been able to buy eight head of cattle and built a brick and asbestos house at the husband's homestead. Tsotsowani said she had to go and work in South Africa mainly because:

'Life is hard in Zimbabwe for people who did not go far with school like me. It is easier to go and work in South Africa rather than here. We are fortunate as women because our husbands have allowed us to follow them to South Africa to work and we are making significant contributions to our families here'

inputs and creates obstacles to accessing economic and social services. In providing its citizens with infrastructure (roads, transportation), water, education, health care and employment opportunities, the government provides the tools that individuals use to generate their livelihoods and wellbeing.

Community groups in all areas of the study rated development in Zimbabwe as low when using these diverse measures of development. The measures of development used by people in all areas correspond to official measures which relate development to access to basic services such as water and health, employment and communication.

Conclusion

Official poverty measures in Zimbabwe are now based on the human development paradigm which takes into consideration the multidimensional nature of poverty. Nevertheless, official measures of poverty often leave out various indicators that are of cultural and social significance such as type of food and clothes, cattle, education, lack of opportunities, remoteness and isolation. Common practices in Zimbabwe such as barter and reciprocity, together with social networks and social capital are difficult to measure, but are nevertheless crucial to survival and wellbeing. By integrating qualitative with quantitative approaches, the MZF study explored how people themselves regard their poverty and wellbeing and how poverty feels and looks to the people who are experiencing it. The results reveal the complex nature of poverty, which consists of interrelated factors that reinforce each other to produce cycles of poverty. This information is important for the development of localized solutions aimed at the plight of the poor.

The study also found that local people know and understand why they are poor (which corresponds well to academic studies) and what needs to be done to reduce their poverty and increase their wellbeing. What the people identified is that 'more money' would solve most of their poverty-related problems, and the means of getting more money is through more and better jobs; increased agricultural production for better food and income; and more and better education. For the rural poor, support to agriculture such as inputs, irrigation and functioning markets, and also off-farm livelihood strategies are important to enhance their well being. In urban areas, the important issue is employment creation through progressive pro-poor policies for inclusive economic growth.

The answers to reducing poverty and increasing wellbeing are clear and practical, easily achievable and affordable, and furthermore, they are well-known and well documented. What has been lacking is commitment, at all levels, to implement strategies that will address poverty in Zimbabwe. The Zimbabwe's Medium Term Plan, which recognizes the need for a poverty reduction strategy and pro-poor economic growth (GoZ, 2011), is a good starting point. A multi-stakeholder approach is required that commits the government, non-governmental organizations, international development partners and the private sector to working together for one goal and agreed priorities.

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Chapter Six

Shocks, Vulnerability and Coping

Ngoni Mararike and Admire Nyamwanza

Main messages

- *Zimbabwe is characterised by a multiple of economic, social and natural shocks that affect the majority of the population and render them vulnerable and impoverished.*
- *Major shocks identified were food shortage, inflation, and drought. Illness related shocks were also important.*
- *The most severe shocks were weather-related.*
- *People in different wealth categories employed different coping strategies, with the poor and very poor emphasising asset depletion such as selling livestock, as well as engaging in local casual agricultural work.*
- *The non-poor emphasised strategies of further strengthening their positions against current and future risk and undertaking such activities as seeking better education, cross-border trade and establishing nutrition gardens.*

Introduction

This Chapter discusses vulnerability and coping survey findings in 16 sampled districts of Zimbabwe. It is divided into four sections. The first provides a brief conceptual review of vulnerability and coping strategies. The second provides background information on key patterns and trends on vulnerability in the country in the years leading to the survey, thereby presenting the general vulnerability context within which the survey was undertaken. The last two sections examine vulnerability and coping determinants and patterns in the 16 sampled districts.

A conceptual review of vulnerability and coping

Vulnerability

The concept of vulnerability begins with the notion of risk, where risk is the known or unknown probability distribution of hazardous events, which may be natural or man-made (Heitzmann *et al.,* 2002). In essence, a risk may either be a stress or a shock and for livelihoods, stresses and shocks may be categorised into natural risks (for example floods; droughts), social risks (emanating from such factors as demographic changes and health challenges), political risks (for example governance failures, political conflict/violence) and economic risks (for example unemployment, inflation, deterioration of input/output/labour markets)[24]. From characterising the actual risk itself, vulnerability can result in a number of options and capacity of managing the risk and risk responses, as well as the likely outcome to be generated by the risks (Heitzmann, *et al.*, 2001). This characterization fits in with Chambers' (1989) more popular definition of the concept, in which vulnerability is taken to mean 'contingencies and stress and means of coping with them'. The implication then is that vulnerability is double-faced, as there should be recognition of an external side of risk or 'external vulnerability' (which is the risk itself and the outcome that it generates) to which a system is exposed, as well as the internal side or 'internal vulnerability' which reflects defencelessness, insecurity and a lack of means to cope with and/or adapt to damaging loss (Chambers, 1989). Risks can also either be idiosyncratic, affecting and experienced in one household and unrelated to other households due to factors such as illness, death of a key household member or crop failure, or they may be covariant, affecting many households in the same locality and caused by factors such as financial crises and natural disasters (Bhattamishra and Barrett, 2008).

There is however, always an idiosyncratic component to risk, even in covariant risks, as households differ in their exposure, sensitivity and capacity to respond to these shocks and stresses.

Poverty essentially links with 'internal vulnerability', as it is characterised as the lack of opportunity for people to meet economic, social and other standards

[24]A risk becomes a stress when it is typically continuous and cumulative and therefore to some extent predictable (such as declining rainfall, HIV and AIDS, general economic hardships etc), and a shock when its impacts are typically sudden, unpredictable and traumatic (such as floods and droughts etc) (after Kratnz, 2001).

of 'wellbeing'. This manifests in the lack of capacity to earn enough income and meet material needs; speak up for oneself and possess rights; maintain health and basic education as well as maintain a sense of social and cultural affiliation (Organisation for Economic Co-operation and Development (OECD), 2001; Eriksen and O'Brien, 2007). Ellis (2000) also points out that the most vulnerable households are those that are both highly prone to adverse external events and lacking in assets or social support systems that could carry them through periods of adversity. There is thus a strong link between vulnerability and poverty, although the two are not synonymous. People in vulnerable conditions may not necessarily be poor, whilst amongst the poor there may be varying levels and patterns of vulnerability, depending on the multitude of dynamic processes through which individuals and households respond to stresses and shocks (Coetzee and Nomdo, 2002). Rising poverty is therefore a contributing factor to increased vulnerability, though poor people may not be vulnerable if they live in relatively stable contexts with good infrastructure, communications and support systems (Drimie and Zyl, 2005).

Coping

Coping has been defined as an array of short-term strategies adopted by households and communities in response to crisis (Berkes and Jolly, 2001). The coping concept became widely used in the 1970s and the 1980s in the wake of famine in the Sahel region and north-east Africa and in the analysis of household responses to this crisis (Rugalema, 2000). Since then, coping has been applied more directly in explaining household and community responses to extreme events such as droughts and floods (e.g. Scoones, 1992; Devereaux, 1993; del Ninno *et al.*, 2001; Belay *et al.*, 2005). This association of coping strategies, with short-term responses to extreme events or shocks, has often led to the concept being differentiated from adaptive strategies, which are taken to be longer-term mechanisms against dynamic adverse processes or stresses. Most adaptive mechanisms are developed over time from coping mechanisms (Berkes and Jolly, 2001). In most communities many response strategies to crisis also serve the dual role of meeting both short-term concerns and long-term goals of managing future risk (Oparinde and Hodge, 2011). Thus in reality the distinction between coping and adaptive strategies may be superficial.

Coping strategies can be conceptualised along a continuum with the increase in frequency and/or severity of the effects of shocks and/or stresses (Adams *et al.*, 1998). Depending on the various opportunities and resources at a household's disposal, this continuum proceeds from a positive end characterised by engaging in strategies that strengthen a household's position against the effects of risk. These include diversifying income, increasing production and investing in different assets. This is followed along the continuum by trade-off strategies that minimise the effects of risk, such as liquidating savings, selling assets and seeking loans from kin and friends. At the opposite end of the continuum, are strategies that are characterised by 'struggling' with crisis, through, for example, compromising health and nutrition by ignoring illness symptoms or rationing consumption, extensive resort to wild foods in place of cereal, and begging.

Successful coping involves mobilising sufficient resources to overcome the effects of shocks and/or stresses without compromising critical livelihood objectives such as maintaining sound health of household members, optimum household financial sources (e.g. land and livestock in most rural communities) and household social status.

Successful coping, at the positive end of the continuum, also becomes a reflection of resilience – a condition characterised mainly by processes of learning to live with change and uncertainty, through being able to anticipate or forecast the nature and intensity of stresses and shocks; reduce the effects of present vulnerabilities; recover from the effects of past and present vulnerabilities and thrive even in the context of a difficult livelihood environment.

Vulnerability in Zimbabwe

Successive droughts (e.g. 1997/98, 2001/2002, 2004/05 and 2006/07) and unprecedented cyclones (Eline in 2000 and Japhet in 2003); the HIV and AIDS pandemic, and an approximate 50 per cent shrink of the economy in real terms between 2000 and 2008 (FAO/WFP Report, 2009; Government of Zimbabwe, 2010), all combined to create a situation akin to what Drimie (2004) calls 'a web of entangled crises'. This situation led to the collapse of incomes, with high unemployment rates and hyperinflation (FAO/WFP Report, 2009). Poverty levels were also high, reaching an estimated 80 per cent in the same year (UNICEF, 2009). Adequate coping capacity (on the desirable/positive end of the coping continuum) for the majority of Zimbabweans under such conditions was therefore heavily compromised.

The formation of a new inclusive government in February 2009 stabilised the political and economic environment such that by the time the survey was carried out in April/May 2011, there were signs of improvement in the macro-economic environment. The projections of the Zimbabwe Vulnerability Assessment Committee (ZIMVAC) have also been positive since the consummation of the inclusive government[25].

[25]ZIMVAC is a consortium of government departments, United Nations agencies, non-governmental organisations and other international organizations which has undertaken annual rural (and a few urban) food insecurity and livelihood vulnerability assessments in the country since 2002.

The Committee for example projected that the prevalence of food insecure people in the rural areas had been dropping from 18 per cent of the total population in the 2009/10 consumption year to 12 per cent in the 2011/12 year (ZIMVAC, 2009; 2011).

The economy however remains in a relatively fragile state as investments, employment opportunities and incomes still remain low, with monthly wages in the formal sector for example averaging USD 150 to USD 300.

It is within this context that the MZF Survey component on vulnerability and coping sought to understand the sources, patterns and determinants of vulnerability and coping in the sampled districts by specifically inquiring in-depth on the following four areas:

- Natural, socio-economic and other household risks in the 12 months leading to the survey (that is between April 2010 and May 2011), including their frequency and severity as well as the likelihood of them occurring again in the 12 months after the survey.
- Patterns in coping mechanisms against the experienced risks.
- Period of household recovery from the effects of risks.
- Sources of assistance to household coping.

Sources, patterns and determinants of vulnerability

The MZF questionnaire included questions about the occurrence of different kinds of shocks during the past twelve months and various sources of vulnerability were identified across the 16 districts, ranging from covariant ones (such as droughts and decreasing development assistance from government) to idiosyncratic ones (such as family sickness, lack of domestic water, crop pests and loss of employment). In addition, information was collected on the severity of the shock based on three categories (that is, low-minor, medium-moderate, and high-major) as well as the likelihood of it re-occurring in the next 12 months. Table 6.1 shows the probability that a community had suffered from food shortage, inflation, or drought during the past twelve months was at least 43 per cent. The probability that a household had suffered health related shocks was between 27 and 35 per cent while the probability that the community had suffered from decrease in either government or donor support was 30 per cent. The latter reflects declining public resources available to fund social protection, donor withdrawals associated with sanctions placed on Zimbabwe as well as declining donor

Table 6.1: Probability of experiencing shocks in the community during past 12 months by severity of the shock

Type of Shock	Prob (x)	Severity of shock (%)			
		Low-minor	Medium-moderate	High-major	*Row Total*
Food shortages	0.452	13.9	35.1	51.0	*100*
Inflation	0.441	14.3	34.7	51.1	*100*
Drought	0.429	9.3	32.1	58.7	*100*
Family sickness	0.350	18.0	37.0	45.0	*100*
HIV and AIDS	0.332	15.5	34.8	49.7	*100*
Decreasing donor assistance	0.305	16.5	39.2	44.4	*100*
Decreasing govt assistance	0.304	13.9	38.1	48.1	*100*
Chronic illness	0.269	14.6	33.2	52.2	*100*
Crop pests	0.215	12.9	37.6	49.5	*100*
Labour shortage	0.127	14.4	46.5	39.2	*100*
Floods	0.086	19.2	29.1	51.7	*100*
Fire	0.085	23.3	41.1	35.3	*100*

[25]ZIMVAC is a consortium of government departments, United Nations agencies, non-governmental organisations and other international organizations which has undertaken annual rural (and a few urban) food insecurity and livelihood vulnerability assessments in the country since 2002.

funding due to the financial crisis in the Western world. Other important shocks include crop pests and labour shortages—with about 21 and 13 per cent of households reporting these shocks respectively. With regard to severity, Table 6.1 shows that weather-related shocks were most severe (that is, droughts and floods) followed closely by food shortages and spiralling commodity prices.

Table 6.2 investigates the probability of shocks by geographical location, and shows that droughts were more likely to affect rural areas (64 per cent) more severely, while inflation was felt more by urban dwellers (50 per cent). Nonetheless, the probability of food shortages and inflation occurring in rural areas was also very high at 54 per cent and 40 per cent respectively. It is worth noting the high correlations among the specified shocks as food shortages in rural areas are probably related to droughts while they might be related to inflation in urban areas. The relatively high probability of food shortages in urban areas may be due to higher numbers of households from high density suburbs that were included in the sample survey that are characterized by high rates of unemployment.

The survey also inquired about the shocks likely to recur during the next year and the results in Table 6.3 indicate that households in enumeration areas in Agro-ecological Region IV[26] expected that shocks like drought and food shortages were more likely than not to reoccur. Furthermore, the reponses indicated that the likelihood of droughts and food shortages reoccuring decreased from Agro-ecologial Regions V and IV to Regions III to I with higher average rainfall and agricultural potential. In Region II[27], which is characterised by regular rainfall between 750 and 1,000 mm per year, and regarded as suitable for intensive farming and crop production, the likelihood of having food shortages was 67 per cent, while for droughts it was 55 per cent. The comparable figures for food shortages and drought were 95 per cent for Region IV and 75 per cent for Region V[28]. Consequently, the relatively higher incidence of poverty observed in Table 4.3 and Figure 4.2 in Chapter Four, among households in Region IV may be partly linked to numerous weather and agricultural shocks.

Region IV is characterised by low rainfall of between 450 and 650 mm a year, with frequent droughts and relatively high temperatures. The agricultural potential for this region is semi-intensive farming with livestock and drought tolerant crops (Vincent and Thomas 1961).

Two major interrelated factors – poverty and geographical location, shaped vulnerability patterns across the targeted districts. There were sub-factors particularly under geographical location, such as the agro-ecological positioning of an area, as well as rural-urban differentiations in the determination of vulnerability

Table 6.2: Probability of experiencing shocks in the last 12 months by location

	Residence		Agro-ecological regions			
	Rural	Urban	1 and 2	3	4	5
Food shortages	0.54	0.33	0.38	0.49	0.57	0.44
Inflation	0.40	0.50	0.45	0.51	0.41	0.39
Drought	0.64	0.14	0.19	0.47	0.73	0.54
Family sickness	0.38	0.31	0.36	0.37	0.37	0.30
HIV and AIDS	0.39	0.25	0.31	0.30	0.32	0.41
Decreasing donor assistance	0.49	0.15	0.21	0.26	0.44	0.39
Decreasing govt assistance	0.40	0.17	0.25	0.26	0.41	0.35
Chronic illness	0.33	0.19	0.25	0.27	0.24	0.32
Crop pests	0.35	0.03	0.06	0.11	0.48	0.37
Labour shortages	0.19	0.04	0.07	0.06	0.26	0.17
Floods	0.13	0.02	0.01	0.04	0.36	0.03
Fire	0.13	0.02	0.08	0.06	0.12	0.09

[26]Bulawayo, Gokwe South, Mbire and parts of Mutoko, Gokwe North, and Gwanda Districts are situated in Region IV.
[27]Harare and Mazowe and parts of Hurungwe and Mutoko Districts are situated in Region II.
[28]Chiredzi, Hwange, Kariba, and parts of Chimanimani, Gokwe North, and Gwanda Districts are situated in Region V.

across the targeted districts. These factors are discussed in detail in the following sections.

Poverty and vulnerability to shocks

As noted earlier, poverty is not synonymous with vulnerability; however the poor are more susceptible to risk than the non-poor because of lack of assets and opportunities to meet socio-economic and other standards of wellbeing. Poverty also interacts with the other determinants (i.e. the rural-urban factor and the agro-ecological factor) in reinforcing conditions of vulnerability.

From MZF survey findings, 44 per cent of the households were very poor, and tended to live in rural areas as well as in the low agricultural potential regions IV and V. They typically had:

- A monthly consumption expenditure of less than 54 USD in the urban areas and a monthly consumption expenditure of 25 USD in the rural areas.
- Less education.
- One or more sick family members (suffering mostly from HIV and AIDS related illnesses).
- Elderly household heads.

These factors were therefore found to expose the poor and very poor to various risks more than the non-poor. Figure 6.1 shows the distribution of the effects of various shocks and stresses, showing the very poor suffering more risk than the poor and the non-poor across the 16 districts of the study.

Coping strategies

Coping strategies are broadly taken to mean mechanisms strengthening a household's position against risks and minimising the effects of various stresses and shocks. This can be through accumulating assets, diversifying crops and livelihood sources and conducting various trade-offs in responding to risk in ways that do not compromise critical household livelihood objectives. The conceptualisation of coping in the MZF study however also acknowledges that people may be overwhelmed by stresses and shocks and move into 'struggling' with crises, thus coping through extensive foraging, and food aid, for example. Figure 6.2 presents all the coping strategies mentioned by people in the survey while Figure 6.3 summarises the top coping strategies against the main risks mentioned by the poor, the very poor and the non-poor – since people in these categories tended to emphasise different strategies and risks faced.

The main determinants noted as driving vulnerability, namely, poverty and geographical location of an area, are the same influencing various coping mechanisms across the 16 districts. From Figure 6.3 the very poor emphasised strategies that depleted their assets or that used 'struggling' oriented mechanisms such as selling livestock, donor assistance and local casual agricultural work as their top coping strategies. The poor who are at the middle of the coping continuum, balanced trade-off mechanisms between those strategies strengthening their position against risk (for example, formal employment and establishing nutrition gardens) and minimising the effects of risk (for example, local casual agricultural work

Table 6.3: Possibility of shocks occurring in next 12 months

Shocks	Regions I and II		Region III		Region IV		Region V	
	Likely or very likely	Unlikely or never	Likely or very likely	Unlikely or never	Likely or very likely	Unlikely or never	Likely or very likely	Unlikely or never
Food shortages	67.0	33.0	81.7	18.3	94.7	5.3	74.5	25.5
Inflation	73.4	26.6	79.9	20.1	95.4	4.6	74.6	25.4
Drought	54.9	45.1	83.1	16.9	92.6	7.4	79.6	20.4
Family sickness	51.7	48.3	56.3	43.8	83.4	16.6	53.1	46.9
HIV and AIDS	66.0	34.1	69.8	30.2	94.2	5.7	73.4	26.6
Decreasing donor assistance	67.9	32.1	67.9	32.1	97.1	2.9	71.7	28.3
Decreasing govt assistance	69.5	30.5	68.5	31.5	96.2	3.8	67.3	32.7
Chronic illness	56.1	43.9	70.4	29.6	83.9	16.2	66.6	33.4
Crop pests	28.3	71.7	46.6	53.4	90.9	9.1	69.3	30.7
Labour shortage	42.0	58.0	38.9	61.1	83.2	16.9	47.3	52.7
Floods	18.8	81.2	23.1	76.9	83.5	16.5	15.6	84.4
Fire	40.8	59.2	38.8	61.2	77.0	23.0	25.6	74.5

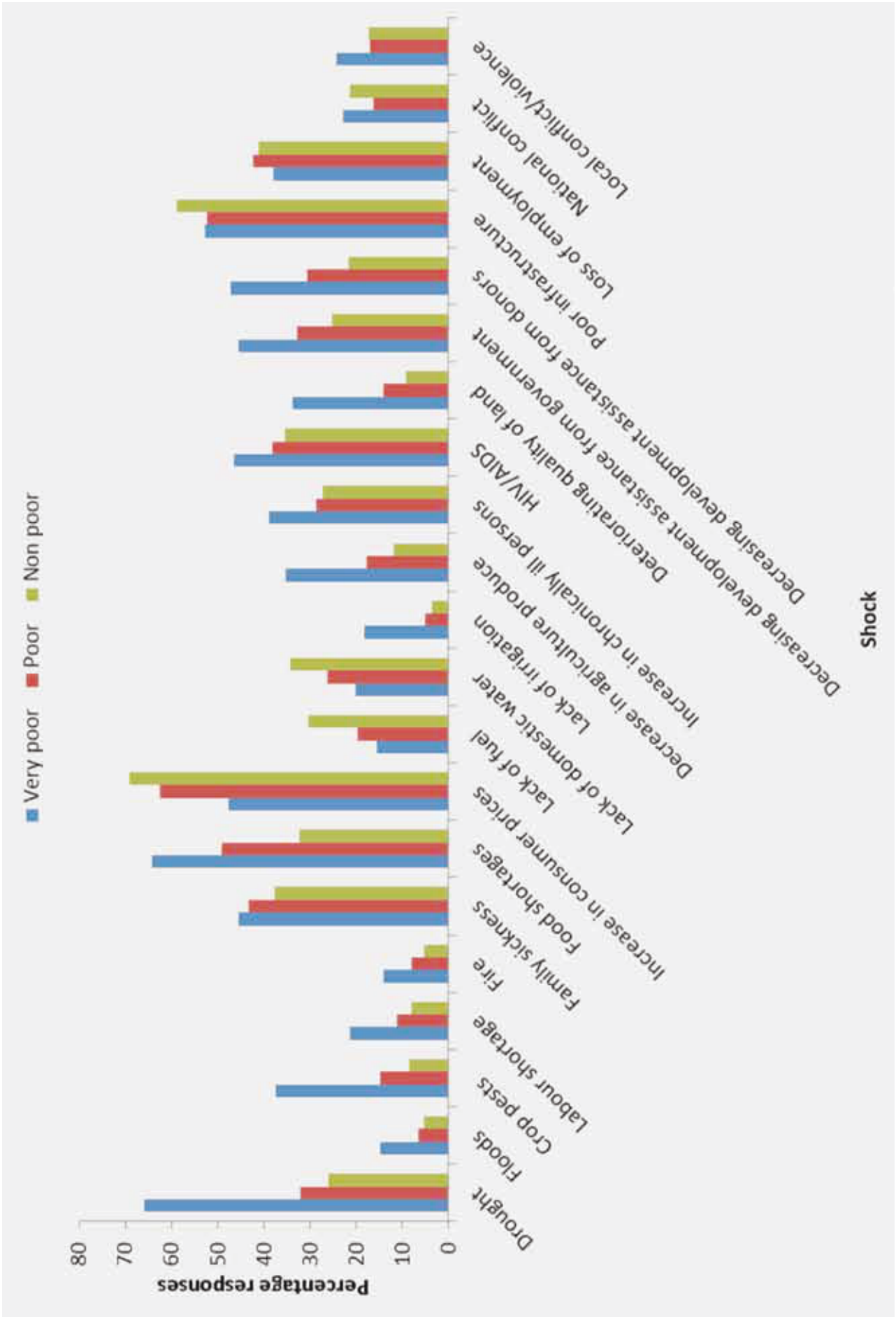

Figure 6.1: Effects of risk according to wealth categories for the 16 districts in the MZF survey

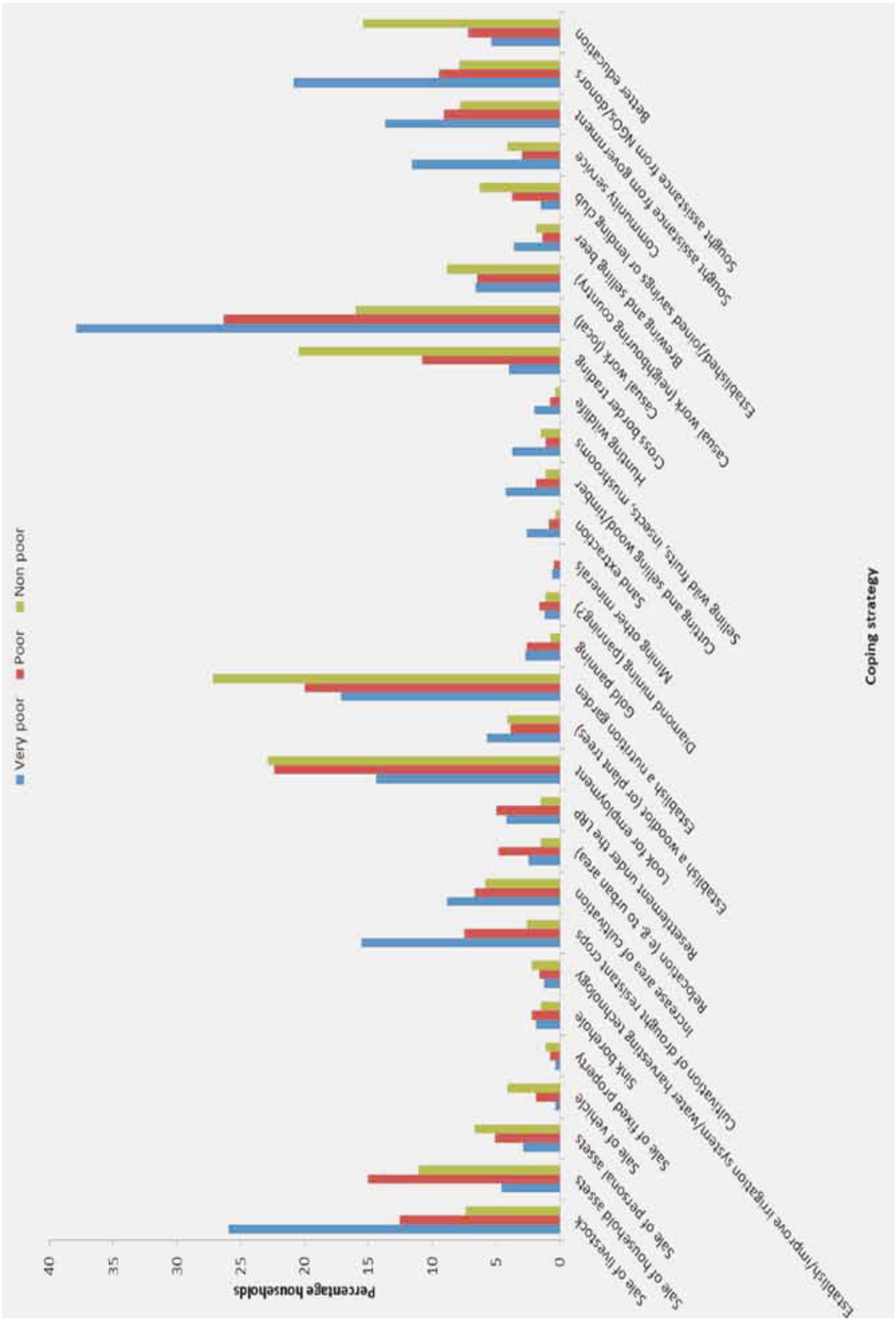

Figure 6.2: Coping strategies across the wealth categories for the 16 districts included in the MZF survey

Top Risks for the Very Poor Category	Top Risks for the Poor Category	Top Risks for the Non - Poor Category
• Drought • Food shortages • Poor infrastracture • HIV and AIDS • Decrease in donor assistance and support	• Increase in consumer prices • Poor infrastructure • Food shortages • Family illness • Loss of employment	• Increased consumer prices • Poor infrastructure • Loss of employment • Family sickness • HIV and AIDS
Coping Strategies	Coping Strategies	Coping Strategies
Very poor catergory Top 5 coping stratergies	**Poor catergory Top 5 coping stratergies**	**Non-poor catergory Top 5 coping stratergies**
• Local casual agriculture work • Sale of livestock • Seeking assistance from donors/ NGOs • Establishing a nutrition garden • Looking for employment	• Local casual agricultural work • Sale of livestock • Permanent employment • Establishing a nutritional garden • Selling household assets	• Establishing a nutrition garden • Looking for employment • Cross border trade • Casual work • Better education

Figure 6.3. Top risks and coping mechanisms for the very-poor, poor and non-poor

and selling livestock). The non-poor on the other hand are seen at the positive end of the continuum, emphasising on strategies to strengthen their positions against current and future risk and undertaking such activities as seeking better education, cross-border trade and establishing nutrition gardens.

From the focus group discussions with communities there are different coping opportunities for households in different areas. For example, people in border districts such as Chimanimani, Chiredzi and Mbire are seen to have extra opportunities for viable coping mechanisms such as cross-border trading and casual work, due to their proximity to neighbouring countries. Gold panning provides a coping livelihood strategy for some households, in Chimanimani and Mazowe, which are areas rich in alluvial gold. Diamond mining was also given as a coping strategy in Chimanimani. People in urban areas have opportunities to engage in viable coping strategies such as vending small commodities like vegetables, biscuits and eggs in Epworth and Highfield suburbs of Harare, selling curios in Bulawayo and Hwange, and setting up home industries, such as carpentry and welding, in Harare, as opposed to rural communities whose main strategies seem limited mainly to local casual agricultural work, foraging wild fruits and insects and selling livestock. Children dropping out of school was given as a coping strategy by both some rural and urban households, in Mutare Rural and Harare, respectively.

Conclusion

This Chapter has discussed the various sources, patterns and determinants of vulnerability and coping strategies across the 16 districts sampled for the MZF survey. Poverty and geographical location have been shown

to be the main determinants of both vulnerability and coping. The different assets and opportunities available to people of different wealth ranks are shown to influence the various coping mechanisms they undertake, and the idiosyncratic vulnerabilities affecting them. In the same vein, people living in areas in different Agro-ecological Regions are shown to be affected differently by different vulnerabilities; with the rural-urban factor also determining their different risk exposures.

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Chapter Seven

Beyond Income: An Analysis of Gendered Wellbeing and Poverty in Zimbabwe

Rudo Gaidzanwa

Main messages

- *Generally, women tend to bear the burden of poverty and face a number of disadvantages and problems, particularly concerning maternal health and violence.*
- *The study suggests that owing to the prolonged economic crisis, poverty is no longer as gendered as previously.*
- *Nevertheless, a number of factors predispose women, especially female-headed households, and widows, to poverty and there is still over representation of women among the very poor.*
- *The MZF study found 72 per cent of female-headed households in rural areas were very poor, compared to 67 per cent of their male counterparts.*
- *Gender-just and pro-poor economic strategies need to be developed and implemented.*

Introduction

A large body of literature on the feminization of poverty and research findings in various countries, including Zimbabwe, show that women-headed households are more vulnerable and their incomes tend to fall below the poverty line (for example Achuwilor, 2004). There are a number of factors that predispose women, especially women-headed households, to poverty. Major poverty studies on Zimbabwe, such as the UNDP Human Development Report and the Poverty Assessment Survey Study (PASS) highlight the feminization of poverty (GoZ, 1996; UNDP, 1997; GoZ, 2006).

This Chapter begins by reviewing the various studies of gendered poverty in Zimbabwe. This is followed by an analysis of the results of the Moving Zimbabwe (MZF) study which examined some gender differences, particularly characteristics of male- and female-headed households, and educational attainment of children.

Although the MZF study did not include a focus on gendered health-related issues, recent studies such as the Zimbabwe Demographic Health Surveys (ZDHS) and the Multiple Indicator Monitoring Surveys (MIMS) indicate that women are more vulnerable and face gender-specific health-related issues, particularly those linked to maternal health. Beyond the issue of income, other forms of gendered inequality are not being captured by income-based surveys, as they do not consider the varied dimensions of gender inequality and poverty. The Chapter therefore takes a broader approach to measuring poverty with human outcomes-based measures.

In the third section of this Chapter a gendered lens is used to look at a number of issues where women still continue to be disadvantaged, such as health care, violence and the impacts of HIV and AIDS. Conversely, in other areas such as the accumulation of assets, access to land, security of tenure, and educational attainment and literacy, the situation regarding women is improving, though progress is often slow.

The fourth section of the Chapter explores these areas of change where women are becoming innovators, rather than remaining passive victims, and can play a positive role in poverty reduction as depicted in Figure 7.1. In some areas, the economic crisis in Zimbabwe during the past 20 years shifted the balance of power in gender relations, for example in the informal sector, women have become more economically active than men in activities such as cross border trading and vending.

The Chapter ends with a number of recommended policy points that will continue to address and improve the situation of women in Zimbabwe, thereby contributing to the reduction of poverty and to overall development.

Studies from Zimbabwe on gendered poverty

The Poverty Assessment Survey Study (PASS) of 2003 found that poverty in Zimbabwe had become more widespread and urban poverty had increased faster than rural poverty (GoZ, 2006). Assessments of poverty by gender showed that female-headed households had a poverty prevalence of 48 per cent in 1995 while male-headed households' poverty prevalence levels stood at 39

per cent (GoZ, 1996). By 2003, the poverty prevalence for female-headed households had escalated to 68 percent while that for male-headed households had also escalated to 60 percent (GoZ, 2006).

According to the United Nations Development Programme (UNDP), Zimbabwe's human development, measured by a composite human development index, fell from 0.468 in 1995 to 0.410 in 2003 and further down to 0.376 in 2011. An analysis of the gendered human development levels in Zimbabwe shows that in 2003, the human development index for women stood at 0.373 compared to 0.429 for men. Thus, the evidence shows that human development worsened in Zimbabwe between 1995 and 2003 and that poverty was also feminised by the time of the economic and social crisis after 2003. Therefore, the inequalities in poverty deepened since the last national poverty assessment was carried out.

It was only after 2009 that human poverty levels improved slightly and life expectancy started improving to present levels of 50.4 years for men and 49.8 years for women (United Nations Statistics Division, 2012).

In 2003, female-headed households constituted 34 per cent of households but they owned only 29 per cent of the national income while male-headed households constituted 66 per cent of households and owned 71 per cent of national income (GoZ, 2006). By 2011, the Gender Inequality Index for Zimbabwe score stood at 0.583, placing the country at 118 out of 146 countries with data (OECD, 2012).

The Moving Zimbabwe Forward wellbeing and poverty survey of 2011

In the MZF sample survey in 16 districts in Zimbabwe, the total population of the districts was 15,602 people out of which 48.8 per cent were male and 51.2 per cent were female.

Of the household heads, 71 per cent or 2,448 were male, while 29 per cent or 1,000 were female.

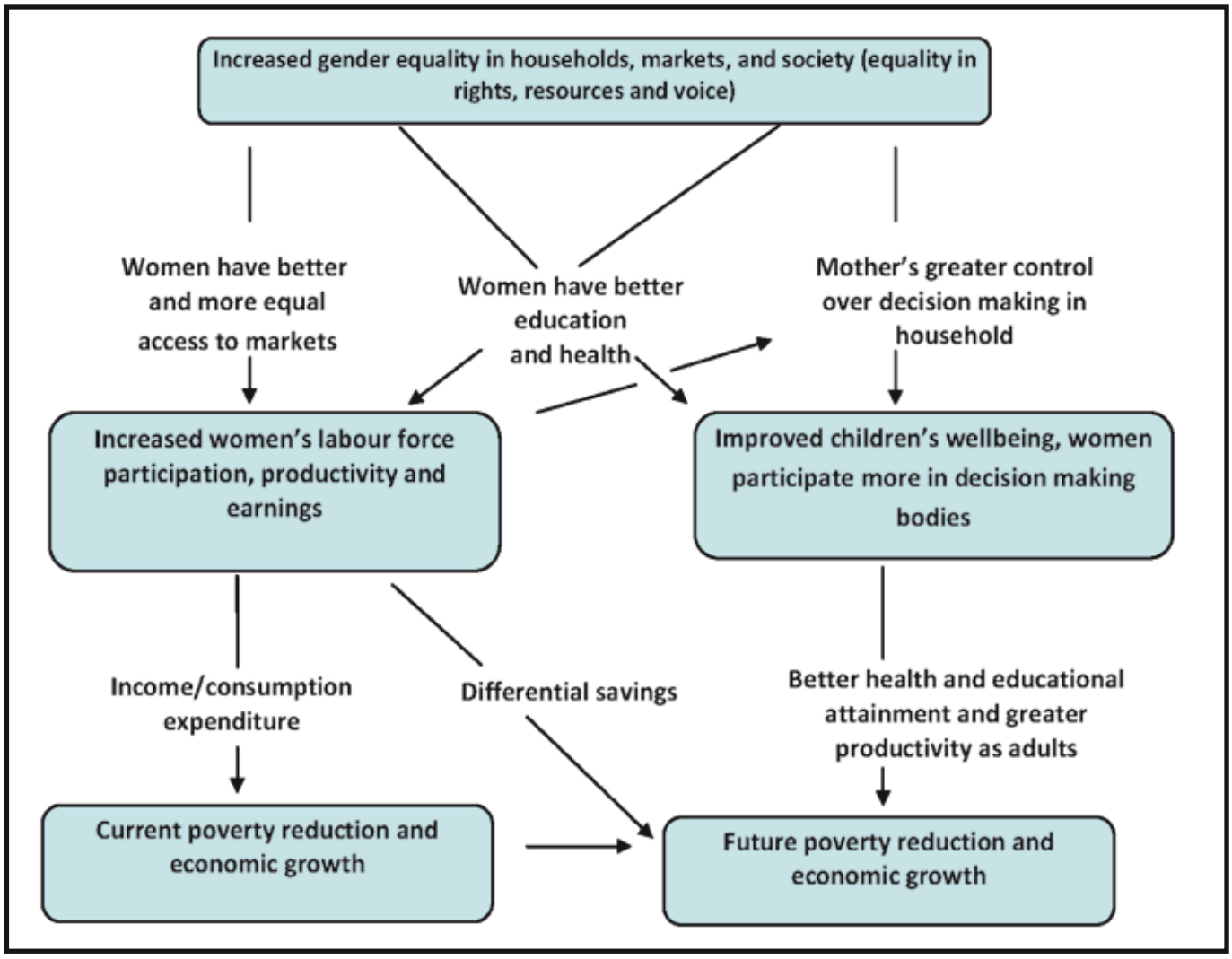

Figure 7.1: Understanding gender empowerment, growth and poverty reduction

After Morrison et al. (2007)

There was a slightly higher proportion of female-headed households, 30 per cent, in rural areas compared to 27 per cent in urban areas (see Figure 7.2). The PASS of 2003 also found that there was a higher percentage, 38 per cent, of female-headed households in rural areas than in urban areas (25 per cent) (GoZ, 2006). The number of *de facto* female heads is higher as men often migrate to towns and mines in search of work, leaving their wives to care for their families in rural villages.

The survey found that overall female-headed households had slightly higher incidences of poverty than male-headed households, at 83 per cent and 81 per cent respectively (Table 7.1). The difference is more marked in urban areas (64 per cent for female-headed compared to 62 per cent for male-headed households) than in rural areas for the poor category, where the difference between male and female-headed households (both approximately 95 per cent) is negligible.

However, for the very poor category, female-headed households in rural areas had higher incidence of 72 per cent poverty than 67 per cent for their male counterparts (Table 7.1). These results point to a concentration of very poor female-headed households in rural areas.

The study has shown that urban poverty is correlated to lack of employment and access to incomes to secure food, shelter, clothing, education and other necessities that improve people's mobility out of poverty, regardless of gender. Previous surveys in Zimbabwe such as the GEMINI Informal Sector Surveys of the 1990s showed that more women than men derived their incomes from the informal sector while more men's incomes were derived from waged work (GEMINI, 1994, 1998). Thus, men's wage opportunities have declined during the past 20 years. Since women's formal employment has always been lower than men's, there is more competition between men and women in some segments of the informal sector such as retail activity. Hence, there has been a levelling of poverty levels between male and female-headed households.

The study has also shown that regardless of gender, rural poverty is characterised by lack of access to land, livestock, farming implements, draught power and other factors that are necessary for successful farming across all farming sectors, that is, resettlement, communal lands and commercial farming areas.

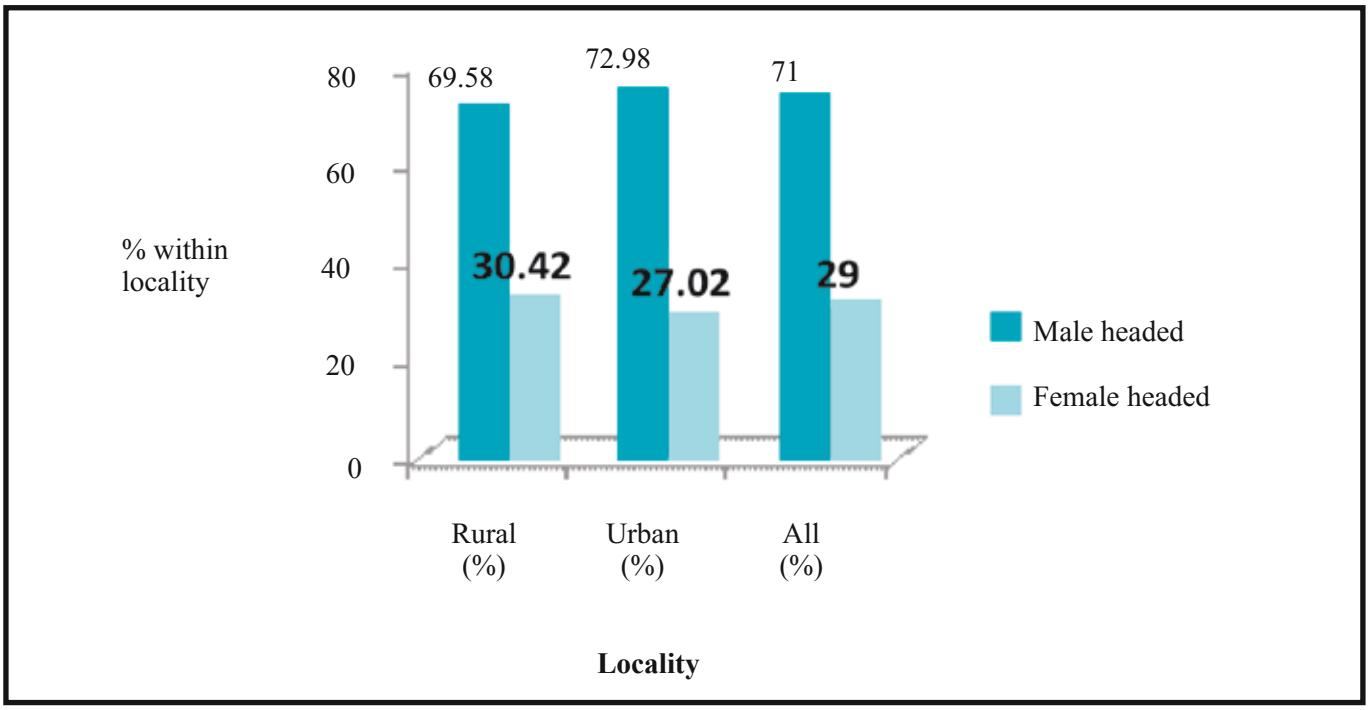

Figure 7.2: Household headship by gender and location

Table 7.1: Incidence of poverty category by gender of the household head

	Poor			Very Poor		
Gender of the household head	**All**	**Rural**	**Urban**	**All**	**Rural**	**Urban**
Female-headed household	83.0	94.9	64.2	47.6	71.7	9.5
Male-headed household	81.0	95.2	62.0	41.7	66.8	8.1

Table 7.2: Marital status and poverty for married, widowed and divorced household heads [29]

	Married		Widowed		Divorced / separated	
	Number	Per cent	Number	Per cent	Number	Per cent
Non-poor	424	18.0	77	14.0	44	25.0
Poor	1,878	82.0	461	86.0	135	75.0
All	2,302	69.8	538	16.3	179	5.4

Widows and poverty

Traumatic life events such as widowhood render previously married women vulnerable to poverty. Widows are disadvantaged in a number of ways, for example, the Demographic Health Survey (DHS) established that widows between the ages of 20 and 29 comprised the highest proportion of women who were dispossessed of property when their husbands died, with rural widows (47 per cent) almost twice more likely to be dispossessed than urban widows (26 per cent) (CSO, 2007).

In the MZF survey, there were 538 households headed by widows, 16 per cent of the total sample. The survey showed that widows had the highest poverty incidence at 86 per cent, compared with married household heads, at 82 per cent and divorced/ separated females at 75 per cent poverty incidence (see Table 7.2). It appears from the study findings that marital status is not quite as significant as other factors such as education and employment in determining poverty status.

Table 7.3 shows that the majority of widow-headed households (65 per cent) were in the rural areas with 35 per cent in the urban areas. These constituted the majority of those classified as poor (73 per cent), compared to 27 per cent in the urban areas.

Factors affecting women's and men's survival

Household consumption expenditure measures only tell part of the story regarding women's situations. Women's wellbeing is strongly related to health issues which impact upon life expectancy, fertility and maternal mortality. The MZF survey did not cover these issues. However, other surveys, namely the Demographic Health Surveys and the Multiple Indicator Monitoring Survey (MIMS), which are regularly conducted in Zimbabwe provide comprehensive information and indicate trends.

According to the Zimbabwe Demographic Health Survey of 2005-2006, Zimbabwean women's fertility declined substantially between 1985 and 2006 as shown in Table 7.4.

However, during the deepest economic crisis years of 2006-2009, and with increased availability of anti-retroviral drugs (ARV's), the fertility rate started rising again and the increase is more significant amongst rural women than among urban women. Rural women are more likely to give birth to nearly two more children (4.8) than urban women (3.1). The current contraceptive prevalence rate among rural women in Zimbabwe stands at 57 per cent. Urban women's contraceptive prevalence has declined from 70 per cent in 2005-2006 to 62 per cent in 2010-2011 (ZIMSTAT, 2011). Contraceptive use is related to educational attainment and living number of children. This decline in contraceptive use and increase in fertility is likely to put women at risk of higher mortality related to pregnancy and childbirth in contemporary Zimbabwe, and push women into poverty in ways that do not affect men. Therefore, women's survival is threatened through high fertility, childbearing under conditions of economic stress and high maternal mortality due to HIV and AIDS-related illnesses and deaths. This aspect of risk to life applies to women more than men and affects their experiences and quality of life. These issues are not reflected accurately in poverty measures based on income.

Maternal care and mortality

Men and women need health care throughout their lives. However, women's needs for health care are more intense than men's because of their child-bearing responsibilities. An examination of maternal care in Zimbabwe shows that 66 per cent of women with live births in the last five years were delivered by a health professional while 65 per cent of births were delivered in a health facility in 2010-2011. This shows a slight decline of delivery by health professionals

Table 7.3: Poverty incidence for rural and urban widowed household heads

	All		Non-poor		Poor	
	Number	Per cent	Number	Per cent	Number	Per cent
Rural	350	65	14	18	336	73
Urban	188	35	63	82	125	27
All	538	100	77	100	461	100

[29]This Table does not include all categories such as single and co-habiting, which accounted for about 8 per cent of all women

or in a health facility from 68 per cent reported in 2005-2006 (CSO, 2007; ZIMSTAT, 2011).

There is a large difference between urban and rural women's birth experiences, with 86 per cent of urban mothers being attended by a health professional, 85 per cent of them in a health facility, compared to 58 per cent of rural mothers being attended to by a health professional and 57 per cent of them delivering their child in a health facility. Thus, risk to life and higher rates of childbirth mortalities per woman are higher in rural than urban mothers.

The educational status of mothers is highly correlated to assistance by professionals at delivery and access to a health facility: 39 per cent of mothers with no education were delivered by a health professional and 36 per cent in a health facility; compared to 95 per cent of mothers with more than secondary education being assisted to deliver by health professionals and in a health facility. Thus, there is a class dimension to poverty, risk to life and mortality during childbirth.

Adult and maternal mortality

Pregnancy-related deaths constitute one of the leading causes of mortality amongst child-bearing women in Zimbabwe. The adult mortality rates in Zimbabwe more than tripled between 1994 and 2005-6 due to AIDS and continued to rise by 40 per cent among women and 20 per cent among men, between 1999 and 2005-6 (CSO, 2007). Maternal deaths associated with pregnancy and childbearing were estimated to be about 578 per 100 000 live births in 2005-6, a high figure which has escalated to an estimated 850 per 100 000 live births in 2010-2011 (ZIMSTAT, 2011). This figure has remained high since 2006 because of the economic crisis that affected Zimbabwe from 2000- 2008, as well as the levying of user fees for delivery in health facilities. Recently there has been a decline to 790 deaths per 100,000 live births in 2012, but this is still much higher than the global maternal mortality ratio of 210 maternal deaths per 100,000 live births, and the Sub-Saharan Africa maternal mortality ratio at 500 maternal deaths per 100,000 live births.

Polygyny

Polygyny is the practice of having more than one wife. This increases the number of women exposed to sexual activity with one man. The Zimbabwe Demographic Health Survey (ZDHS) of 2005-6 showed that at least 11 per cent of women in Zimbabwe were in polygynous unions (CSO, 2007). The proportions of polygynous unions increased with age, with rural women (15 per cent) found to be three times likely to be in such a union compared with their urban counterparts. Education is linked to polygyny with 28 per cent of women with no education more likely to be in polygynous unions than women with more than secondary education (2 per cent). Older men with low education and income were more likely to be in polygynous unions than educated men with higher income. This finding indicates the increased vulnerabilities of poorer women through marriage to generally poorer men that are considered to be less socially desirable.

Violence

Domestic violence has negative impacts on human health and wellbeing. The ZDHS conducted in 2005-6 and 2010-2011 established that domestic violence was widespread across all socio-economic and cultural backgrounds, although experiences of violence decreased with increased education. Forty per cent of uneducated women and women with only a primary school education reported that they had experienced physical violence since the age of 15 compared with 15 per cent of women with more than secondary school education (ZIMSTAT, 2011). Thirty one per cent of women in the lowest wealth quintile, and 26 per cent of women in the highest wealth quintile experienced physical violence (ZIMSTAT, 2011). This is a disturbing statistic showing that physical violence against women is prevalent across all socio-economic strata in Zimbabwe. It shows that the quality of women's lives may not necessarily be determined and guaranteed by their incomes or those of their husbands or their access to material goods and services.

The most frequent perpetrators of violence against women were current husbands and partners (57 per cent) and

Table 7.4: Zimbabwe fertility rates

Years	Number of children per woman
1985 - 88	5.4
1991 - 94	4.3
1996 - 99	4.0
2002 - 2003 and 2005 - 2006	3.8
2007 - 2008 and 2010 - 2011	4.1

Compiled from Zimbabwe Demographic Health Surveys 1988-2011 (Central Statistics Office (CSO), 1989, 2000 and 2007; ZIMSTAT, 2011)

former husbands and partners (20 per cent) (ZIMSTAT, 2011). Five per cent of women experiencing physical violence since age 15 reported that the perpetrators were their mothers or stepmothers, while 16 per cent of never married women indicated that their teachers were the violence perpetrators (ZIMSTAT, 2011). Spousal violence is nearly universal, cuts across income groups and is correlated to alcohol abuse. Thus, homes and educational institutions are the riskiest places for women and they are likely to experience violence and a reduction in the quality of their lives and wellbeing in these places and institutions.

Sexual violence is another dimension of gendered violence that may not necessarily be correlated to income poverty. The 2005-6 ZHDS established that women in employment were more likely than their unemployed counterparts to experience sexual violence. Thirty per cent of women in cash employment and 20 per cent of unemployed women experienced sexual violence (CSO, 2007). Divorced and separated women (44 per cent) experienced the highest percentage of sexual violence, 29 per cent of married women, 27 per cent of widows and 10 per cent of never-married women reported sexual violence (CSO, 2007). Wealth and education do not insulate women from sexual violence, as even women in the highest wealth quintile reported 18 per cent of sexual violence (although this was the lowest percentage) (CSO, 2007). A disturbing finding was that in 2005-6, six per cent of women were aged 14 or younger when they were first sexually violated while 32 per cent were aged between 15 and 19, and by 2010-11, this had increased to 9 per cent and 49 per cent respectively (CSO, 2007; ZIMSTAT, 2011).

Thus, the dimensions of poverty and lack of social power follow the contours of location, age and other factors which might be related to education, income and other non-income factors that are not easily captured through income-based measures of poverty. Women in male-headed households may be poor through lack of choices as well as control over their lives, but income-based surveys may not be able to establish these dimensions of women's misery and poverty in quality of life, control over their environments and choices. Similarly, income-based surveys may not capture the poverty in the quality of men's lives even if such men are heads of households, monogamously or polygynously married. However, if these men are violent, dictatorial, unwilling or unable to facilitate access to health care for their family members and contraceptive use for their wives, the non-material aspects of their poverty such as morality and social responsibility are not addressed in income-based surveys.

HIV and AIDS and impacts on life expectancy and human development by gender

According to both 2005-6 and 2010-11 ZDHS, more men (14 per cent in 2005-6 and 11 per cent in 2010-11) than women (1 per cent in 2005-6 and 2010-11) reported having had more than one sexual partner in the previous year (ZIMSTAT, 2011). Urban, more educated and affluent men were more likely than rural, uneducated and poor men, to have had multiple sexual partners in the previous year. Analysis of the 2005-6 and 2010-211 ZHDS shows that paid sex occurred especially amongst the educated and wealthy (22 per cent amongst the men with more than a secondary education and 18 per cent of men in the highest wealth quintile) in comparison with 10 per cent among men with no education and 15 per cent of men in the lowest wealth quintile. A positive development was that amongst all the men who paid for sex, 88 per cent used condoms during sex in the 2010-2011 ZDHS, in comparison with 73 per cent in 2005-6 (CSO, 2007; ZIMSTAT, 2011).

The impact of HIV and AIDS between 1995 and 2006 negatively affected life expectancy. According to the World Health Organisation, life expectancy fell from 61 years in 1990 to an all time low of 37 years for men, and 34 years of age for women, the lowest in the world in 2006. The gap between men's and women's life expectancy is significant and suggests the need to go beyond income in assessing poverty and wellbeing. As mentioned earlier, life expectancy has now risen again to around 50 years.

HIV prevalence in Zimbabwe has recently declined from 18 per cent in 2005-6 to 15 per cent in 2012 (ZIMSTAT, 2011). However, HIV prevalence amongst women stands at 18 per cent while amongst men, it stands at 12 per cent (ZIMSTAT, 2011).

As mentioned earlier, Zimbabwe's Gender Inequality Index, at 0.583 is relatively high, showing that there is still a large gap between men and women's development in Zimbabwe (OECD, 2012). It also points to continued inequalities and the relatively lower wellbeing and deeper poverty of women in comparison to men. The discussion above points to the fact that human wellbeing comprises diverse aspects of human development and that high income is not sufficient to ensure that people live in freedom and dignity. In Zimbabwe, the lower life expectancy of women relative to men, exposure of women to spousal and family-based violence in comparison to men, narrow choices in life and lack of dignity, all contribute to subjective and objective feelings and lived experiences of material and non-material poverty and degradation in varied women's situations.

Education

The previous sub-sections show that women's vulnerability and marginalisation, as well as women's roles in decision making, are strongly linked to educational levels. Educational attainment often determines future wellbeing and personal development. This section looks more closely at the gender dynamics of education. Education

is regarded as key to development and Millennium Development Goal (MDG) Three promotes gender equality and empowerment of women (GoZ, 2009).

MDG Three is concerned about gender equality and some of the targeted indicators for this goal include the ratio of boys to girls in school as well as the ratio of literate women to men. The MZF survey relates to some of the indicators under this MDG. Table 7.5 shows the distribution of school enrolments for children aged 6-12 years and 13-18 years by gender. For children aged 6-12 years (primary school age), there are no significant differences in the enrolment rates between boys and girls for all the 16 districts (although girls have a slightly higher percentage). This is true regardless of whether the child is in a rural or urban area.

When considering the 13-18 year age category (secondary school age), significant gender differences emerge. In particular, while 66 per cent of boys aged 13-18 years are in school, the corresponding rate for girls is only 61 per cent. Furthermore, it appears that gender differences among the 13-18 year age category are more different in urban areas—where the gender gap in enrolment is about 14 percentage points.

Another target for MDG Three is the ratio of literate women to men for those aged 15-24 years. Unlike enrolment, literacy measures some form of school attainment that is the ability to read and write. Figure 7.3 plots the literacy rates of women and men in Zimbabwe by five year categories. The Figure indicates that there are no gender disparities in literacy rates between women and men up to the age category 35 years. Disparities set in at the age category of 35-39 years and widen as individuals become older. Overall, Table 7.5 and Figure 7.3 shows that Zimbabwe has attained the MDG Three goal of gender parity—at least in terms of school enrolment (with the exception of urban areas for children aged 13-18 years) and literacy rates for the 15-39 year age categories.

Gender, security and representation in local, regional and national governance structures

An aspect of poverty and human development is the lack of significant voices at levels where decisions about people's wellbeing are made (Tolmay and Morna, 2010). The gendered representation at local and national government levels cumulatively shows that men and women have not reached similar levels of citizenship and recognition in their communities at various levels. Although the MZF

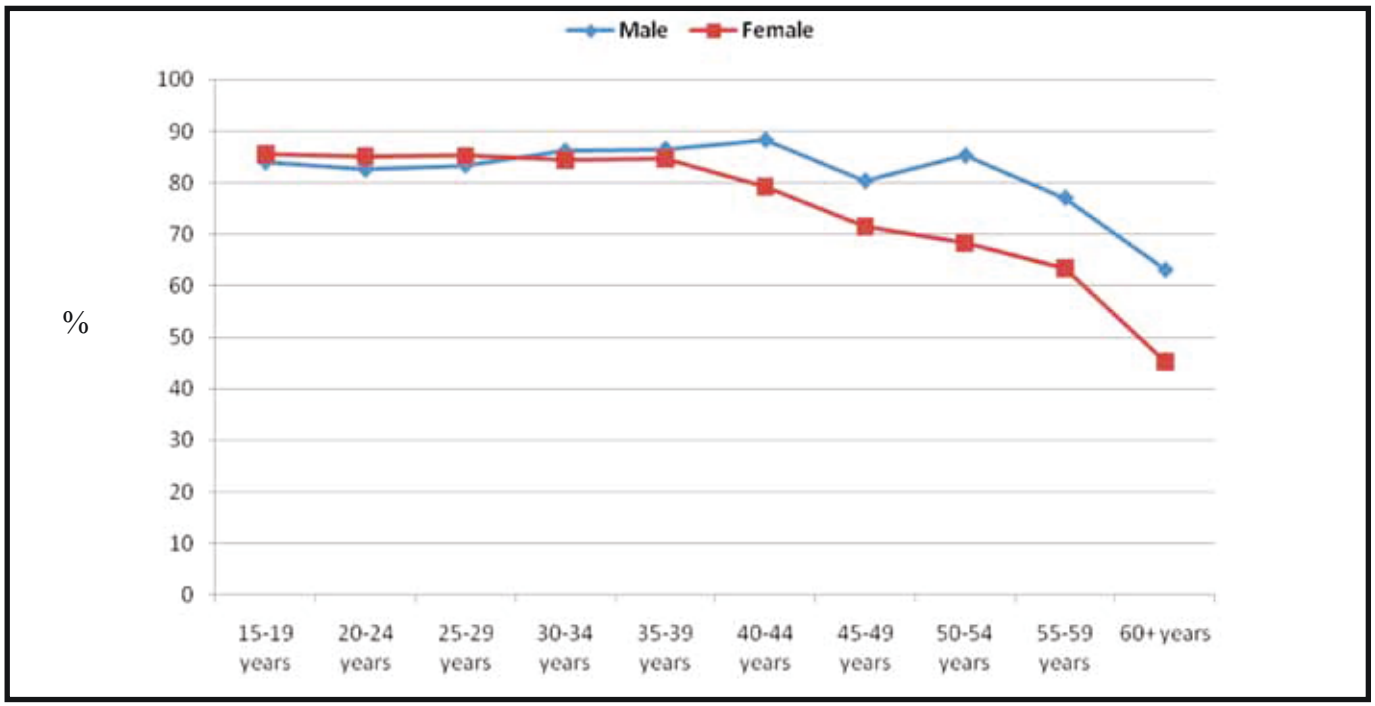

Figure 7.3: Literacy rates by gender for individuals aged at least 15 years

Table 7.5: Gender differences in school enrolment (per cent)

	Children 6 - 12 years		Children 13 - 18 years	
	Girls	Boys	Girls	Boys
All children	87.7	85.9	60.9	66.5
Rural	86.2	84.0	58.6	60.1
Urban	90.9	89.9	64.4	78.4

study did not cover women's representation in governance, several studies have documented this. Table 7.6 shows the cumulative marginalisation of women in governance structures in comparison to men in Zimbabwe since 2000. In 2010, less than 18 per cent of Parliamentarians were women, down from 21 per cent in 2005.

Equitable representation of women in governance structures leads to more important roles played by women in decision making. Women's participation in politics is of strategic importance, not only for women's empowerment but because it has wider benefits and impacts. Allocation of resources is more effective and efficient, and ultimately produces superior human development outcomes, in countries where women are more broadly represented (British Council, 2012). Men and women allocate resources differently, and women tend to favour a redistributive agenda, and to spend more on children's education, social services and health.

Gendered access to land and livelihoods dependent on land

Another area of gender inequality in Zimbabwe relates to land, a resource that sustains the majority of the population (Gaidzanwa, 1981, 1985; GoZ, 2003; Moyo *et al.*, 2009). In the communal lands, men are allocated land by their fathers or through customary authorities on marriage, while women's access is mediated through the male who holds customary rights over that land as a husband or father. However, the situation is more encouraging in resettlement areas where land is allocated by the government, and women are accessing more land in their own right through the land reform process (Hanlon *et al.*, 2012). With the introduction of the policy of joint ownership by including names of both spouses on resettlement permits and leases, women have now more secure tenure, particularly in the event of death of the husband. This sense of ownership has incentivized women to enhance household food security and be more productive.

Nevertheless, women experience general insecurity, especially in the communal lands, since they are at high risk of losing their land rights upon widowhood or divorce (Gaidzanwa, 1985). Property grabbing from widows is a well documented phenomenon in patrilineal cultures globally and in non-pooling marital regimes women risk loss of property, including land, to husbands' relatives on divorce or widowhood.

The situation seems to be improving and women are gaining more access to land and other assets. The MZF survey found that regarding access to land there was not much difference between male- and female-headed households owning land (Table 7.7). Table 7.7 shows that in the MZF sample of households, those headed by women actually had a higher percentage for access to land, including land for cultivation, than their male counterparts.

Women in urban areas

Normally, divorced women are not allowed to stay on in their ex-husbands' villages and exercise or share land with the husbands relatives. On divorce, a woman has no option but to leave with her children if the husband permits it. Thus, divorced women usually relocate to their maiden villages or establish themselves in urban areas.

Schlyter (1989) researched women's options in some low-income urban areas of Harare. She found that widows and divorced women in Kuwadzana, then a new township in Harare, had chosen to relocate to Harare because they could access land to build houses without needing to secure their husbands' permission. In 1991, the Deeds

Table 7.6: The numbers and percentages of women in politics and governance structures in Zimbabwe between 2000 and 2010.

Year	2000			2005			2010		
	Total	Women	% Women	Total	Women	% Women	Total	Women	% Women
National Assembly	150	14	9.3	150	24	16.0	214	32	15.0
Senate				66	21	31.6	99	24	24.2
Combined parliament	150	14	9.3	216	45	20.8	313	56	17.9
Cabinet				31	4	12.9	41	7	17.1
Local Authority				2,500	355	14.2	1,989	373	18.8

Source: Tolmay, and Morna (2010).

Resettled women farmers
Photograph: J. Manjengwa

Table 7.7: Household's access to land in Zimbabwe

Gender of household head	Have access to land in Zimbabwe		Have access to land for cultivation	
	Number of households	Per cent	Number of households	Per cent
Male	1,444	53.15	1,242	58.99
Female	600	60.17	577	60.00
Total	2,044	55.19	1,819	59.28

Registry Act that had previously barred married women from purchasing land and homes without husbands' permission was repealed. Before that, only single, divorced and widowed women could buy and hold property in their own right. Schlyter's research showed that most of the women heads of household in Kuwadzana were divorced and had moved into Harare from various rural areas. The women were mainly domestic or factory workers.

In Zengeza 5, another high-density low-income area, the women were domestics or self-employed. Schlyter found that the women who were household-heads or owners of residential land completed building their houses faster than married couples despite the fact that female-heads of households had lower incomes than male-headed households. Women-heads of households gave a higher priority to housing investment so that they could live with siblings, children and kin from rural areas. Housing also provided secure retirement incomes through letting of rooms to increase family incomes, and houses could be used as business premises and shelter for families. By 1991, women and men were migrating out of rural areas in equal

numbers, showing that women were no longer content to depend on marriage for their survival and access to land in rural areas.

In urban areas, women comprise the bulk of applicants for land but councils tend to prioritise male heads of household on the assumption that women are dependents of men in all circumstances. Thus, urban housing policies have not taken diverse women's needs for housing into account, pushing women into alternative housing arrangements with housing co-operatives.

The case study in Box 7.1 illustrates some of the benefits accruing to women through independent access to land and housing. It also helps to explain the relatively higher ownership tenure status of urban houses by female-headed households in the MZF survey. The survey enquired about the tenure status of dwellings and found that 53 per cent of female household-heads owned their urban dwelling, compared to 36 per cent of the male household heads. Furthermore, 30 per cent of the urban female household heads were subletting, compared with 19 per cent of male household-heads. However, in rural areas, ownership is the primary tenure status for both male- and female-headed households, with females having a higher percentage at 86 per cent, while for male heads it is 78 per cent. Sub-letting in rural areas is minimal, at about 3 per cent.

The case described in Box 7.1 shows some of the dilemmas women face in their transition from rural to urban life. The strains between men and women in marriage under conditions of economic stress are acute. Muchaneta's story shows the significance of women's investment in urban residential land. It illustrates how their struggles to move out of poverty are premised on the acquisition of residential urban land for their own use.

Conclusion

The MZF household survey found that female-headed households, on average, tended to only have slightly higher incidences of poverty than male-headed households. These results suggest that, after the prolonged economic crisis, poverty is no longer as gendered as before. However, there is still over representation of women amongst the very poor.

Policy possibilities

Gender-just and pro-poor economic strategies might involve the following:

- The most serious problems facing women in Zimbabwe are health-related. There is need to enforce laws against gender-based violence and improve maternal and pre-and post-natal care for women to reduce maternal and child mortality. Thus it is also necessary to provide compulsory and appropriate health care, with minimal payment of user fees for children and expectant women.

- Safeguarding women's property rights across all sectors of the economy so that rural women's contributions to family life in marriage are suitably recognised and compensated in cases of divorce or widowhood.

Box 7.1: Muchaneta and her quest for a house

Muchaneta is a young woman who dropped out of school at 18 after the deaths of her parents from AIDS. She has a younger sister and brother who stayed on in the rural family homestead after their parents died. Muchaneta fell pregnant by a neighbour's son whose parents had a house in a township in Harare. She had a daughter by her boyfriend and moved in with him in Harare where he had a job as a salesman in a furniture shop. Muchaneta was very happy with her relationship because it had provided her with the means to leave the rural area. She was excited about being in Harare and starting her own family. Unfortunately, her husband lost his job after the company he worked for went bankrupt after 1995. Muchaneta and her husband had to give up their one room lodgings and move in with her husband's mother who still lived in the family house after Muchaneta's father-in-law's death.

Life became difficult for the young couple and Muchaneta's husband started drinking alcohol and spending his time on the streets with his neighbours and friends. With a small baby, Muchaneta had no income and the couple started quarrelling over money for the baby's food and clothes. Eventually Muchaneta started a vegetable business. She ordered fresh produce from Mbare-Musika, a large farmers' market in Mbare, Harare. She would get up at 4 o'clock every morning, get onto a bus and order kale, spinach, tomatoes, onions and other vegetables for sale. She grew her business and became established as a vegetable vendor in her neighbourhood.

Meanwhile, tensions were increasing between Muchaneta and her husband as well as her mother-in-law who always sided with her son, even though he was a drunk and did not contribute to the household welfare. Muchaneta joined an apostolic sect and went to prayers on weekends when she was not at her vegetable stall. The church members introduced her to a housing co-operative and she started to subscribe for a house in a nearby township. Ten years later, Muchaneta's house was completed, and she was finally independent of her abusive husband and unsupportive mother-in-law.
(Gaidzanwa, 2012).

- Providing an equal and enabling legal, regulatory and general policy environment for women's and men's businesses and other economic activities, as well as improved gender-sensitive economic opportunities on and off the farms. Gender-sensitive farmer incentives, support services and infrastructure such as research and extension, gender-appropriate and affordable farm technologies and equipment are necessary.

- More varied and better marketing and pricing policies, food processing and farm-based value-addition are needed to increase women and men's incomes on the farms and to create jobs in rural areas.

- It is imperative to tackle urban poverty, improve employment and income-earning opportunities through the small and medium scale sector and rehabilitate the infrastructure necessary to support small and large manufacturing; services and other sectors. In this connection, health, transport, education and related infrastructure are key for supporting the micro and small scale sectors which absorb labour and generate incomes for the majority of urban households in Zimbabwe, particularly those run by women.

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Chapter Eight

Environment, Natural Resources and Poverty Reduction: Capturing and Sharing the Gains of Natural Resources Exploitation

Jeanette Manjengwa

Main messages

- *Natural resources have great potential to move people out of poverty. They can be used commercially as well as for household consumption and food security.*
- *Zimbabwe has one of the highest endowments of natural resources, such as gold, diamonds and platinum, which can fuel economic development and wealth creation.*
- *Economic hardships and poverty have pushed more people to over-use and misuse the environment and natural resources causing significant degradation.*
- *Natural resources must be utilised and managed in a careful manner to be sustainable.*
- *Agricultural productivity should be enhanced, while maintaining ecosystems integrity and environmental quality.*

Introduction

On a global scale, Zimbabwe has one of the highest endowments of natural resources (Chasi, 2012). The government's Medium Term Plan 2011-2015 (GoZ, 2011) points out that natural resources serve as a cornerstone for economic development and wealth creation. The country's economy relies heavily on natural resources, with the mining sector accounting for about 50 per cent of the country's exports (GoZ, 2011). The agricultural resource base supports the livelihoods of at least 70 per cent of the population in the rural areas (GoZ, 2011) who depend directly on the productivity of the environment for their livelihoods. For the rural poor, this dependence is nearly absolute, to the extent that they depend on subsistence agriculture and the extraction and harvesting of natural resources from their environment (Frost, 2001). Indeed, it is these abundant natural resources which provide opportunities for a wide range of livelihood strategies which are invaluable for the survival of households, especially during times of shocks and stresses when the environment remains the only safety net for most of the vulnerable rural communities. Thus the environment and natural resources must be an integral part of Zimbabwe's poverty reduction strategy.

This Chapter identifies the various natural resources that are used for household food consumption, livelihoods, and commercially. There is potential for these resources to be used more effectively and the Chapter explores how natural resources can be exploited in a more commercial manner, and be made more lucrative by value addition, so as to be more profitable and effective at raising incomes.

One of the ways in which natural resources can be used and managed more effectively is through community empowerment initiatives. This Chapter looks at some of these initiatives, such as, community share ownership trusts, the Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) and natural product enterprises. These initiatives have important multiplier effects on food security, income generation and job creation. The Chapter explores issues around gold panning, putting forward suggestions for a sustainable gold panning approach that can benefit poor communities, while maintaining environmental quality. Besides valuable minerals, the Chapter also looks at a range of wild foods that are essential for food security and improved nutrition, as well as having significant economic potential to raise incomes of the poor.

The deterioration of the economy over the past twelve years has driven more Zimbabweans to rely on nature and natural goods than ever before. Globally poverty normally drives those that can access nature to 'mine' resources with little regard to what may happen in the future. In Zimbabwe, poverty is driving environmental degradation and the two are locked together in a downward cycle that is widening (Feresu, 2010). Cliffe (1988) argued that ecological problems in Zimbabwe can only be addressed when poverty is eliminated. The Chapter therefore begins with looking at the links between environment, natural resources and poverty and examines Zimbabwe's progress

towards sustainable development.

The MZF study investigated issues of environmental management because for resources to be sustainable their use has to be regulated and properly managed. The Chapter also looks at environmental awareness and knowledge, and implementation of natural resource rules and regulations. It ends with a number of policy suggestions of how the environment and natural resource base can contribute towards poverty reduction and sustainable development.

The link between environment and poverty

Zimbabwe has espoused sustainable development which integrates human development and environmental conservation. Despite the popularity of this concept, worldwide there is evidence that poor people are getting poorer and the environment continues to be degraded. The linkages between poverty and environment are complex and context specific. Environmental degradation in Zimbabwe is being driven by poverty which has its roots in the economic and conservation dualism of colonial policies. This was manifested in the unequal racial distribution of land resulting in overpopulation in the communal areas most of which have low agro-ecological potential on one hand, and under utilisation of land in the commercial farming lands. Inequitable access to land was perceived by the current government as being at the heart of poverty, food insecurity and lack of development in Zimbabwe, which observed that sustainable development is not possible without agrarian reform (GoZ 2003). Although the land reform programme has assisted in decongesting the overcrowded communal areas, which resettled of over 244,000 households since 1980, this has not kept pace with natural population increases in communal areas, and consequently decongestion has been negligible (Hanlon *et al.*,2012).

Progress towards sustainable development in Zimbabwe

For sustainable development to occur it has been suggested that the poor are not the problem but are the solution (Chambers 1988). The poor must be able to sustainably manage and benefit from the rich and abundant natural resources to address poverty and promote inclusive growth in Zimbabwe. Poverty reduction and sustainable development can be achieved through effective implementation of the sound and progressive environmental policy framework, namely the National Environmental Policy and Strategies, and the Environmental Management Act [Chapter 20:27] and its regulations, together with other national legislation such as the Indigenization and Empowerment Act.

The Ministry of Environment and Natural Resource Management's slogan is 'The environment is everybody's responsibility' and one of the principles of the Environmental Management Act is that development must be socially, environmentally and economically sustainable. Another of the Environmental Management Act's progressive provisions is the recognition of environmental rights as human rights and principles of environmental management. Section 4 (1) (c) states that 'it is everyone's right to participate in sustainable management and use of natural resources while promoting justifiable economic and social development'. Traditional leaders are the custodians of environmental management at local level.

Table 8.1: Agricultural conservation in rural areas

Agricultural conservation measure	Number of rural households	% of total rural households
Application of manure	594	27.3
Mulching	124	6.2
Crop rotation	427	21.2
Intercropping	143	7.1
Permaculture	22	1.1
Use of nitrogen fixing plants	21	1.0
Contour ridging	331	16.5
Terracing	14	0.7
Afforestation (planting trees)	25	1.2
Gully reclamation	27	1.3
Fallowing	71	3.5

Zimbabwe has also adopted the Millennium Development Goals (MDGs) as a planning framework for a strategy to achieve sustainable development. National time-bound targets and indicators for the eight goals were set through a consultative process and are being monitored.

On MDG Seven: 'Ensuring Environmental Sustainability', progress has been made in the last ten years in environmental management with afforestation programmes, land reclamation and natural resource conservation programmes being put in place (GoZ, 2009). However, capacity to gather statistical data and tracking of environmental indicators is weak due to limited technical and financial resources. There has been no progress on water and sanitation as these facilities have deteriorated in both rural and urban areas (GoZ, 2009).

The Moving Zimbabwe Forward study

In recognition of the integral link between environment and poverty, the Moving Zimbabwe Forward (MZF) Wellbeing and Poverty Study included themes on the environment and natural resources in both the questionnaire and focus group discussion question guide. This builds on the work done in the national Poverty Assessment Survey Study implemented in 2003 by the Department of Social Services, where Chapter 18: 'Environment', looked at the linkages between land degradation and poverty and the benefits of incorporating environment into sustainable development (GoZ, 2006).

The household questionnaire used in the MZF survey contained a number of questions relating to natural resources, namely on land, water, harvesting wild/forest products and minerals. The focus group discussions with communities included environmental issues and natural resource use.

Land

Agriculture and conservation

Land is a crucial natural resource in Zimbabwe which must be utilised in a sustainable manner. Zimbabwe has a long history of agricultural and conservation extension and farmers are generally knowledgeable and practice conservation measures on their land. However, in the past, during the Liberation War of the 1960s and 1970s, government-prescribed conservation measures such as contour ridging, were purposely neglected by many farmers as a token of resistance to the oppressive UDI (Unilateral Declaration of Independence) regime, as well as being deemed inappropriate methods of conservation (see for example Witoshynsky, 2000). This association of contour ridges with repression continues today, and in some areas, small-scale farmers resist constructing ridges. The MZF survey found that farmers are involved in a wide range of conservation activities. The most popular conservation measures are application of manure and crop rotation (see Table 8.1).

The survey found that the majority of farmers (54 per cent) used animal drawn ploughs for tilling their land while 28 per cent dug their field with a hoe (badza), and 16 per cent used zero tillage. Some of the land was left fallow (see Table 8.1), possibly because ploughing is preferred to zero tillage. In fact, responses from focus group discussions indicate that the preferred method of tillage was by tractor, but only a few farmers had access to a tractor, as only two per cent of the households indicated that they used tractors.

Water

Zimbabweans obtain their water from a number of different sources, which vary between rural and urban households. The MZF survey found that the majority of rural households used protected wells or boreholes (37 per cent) as their main water source for drinking and washing. About 21 per cent used piped water, mainly from outside the house or from a community tap. However, 19 per cent obtained water from unprotected wells, while another 19 per cent sourced water from rivers or dams.

In the urban areas, the picture was different with 56 per cent having piped water into their houses while a further 35 per cent used piped water from outside the house or from a community tap. Only two per cent used unprotected wells. Although this is relatively low, it has serious implications regarding water borne diseases such as cholera and typhoid. For example, a serious typhoid outbreak in Bindura, Mashonaland Central Province in early 2012, cost several lives and was found to have originated from an unprotected well in a new suburb on the outskirts of the town, which was not connected to the municipal water supply.

In urban areas, only four per cent of households had to travel more than 500 metres to obtain water, while in the rural areas, 52 per cent had to travel more than 500 metres, 31 per cent up to one kilometre and 17 per cent more than a kilometre to collect water for the household.

Regarding perceptions of water quality, overall 62 per cent perceived their water to be of very good or good quality. Slightly more of the rural sector households (66 per cent), compared to the urban sector (57 per cent) perceived their water to be of very good or good quality. Just over nine per cent of the urban households and seven per cent of the rural households thought that their water quality was very bad. Again, although this is a relatively low percentage, it has serious health implications.

Access to water in urban areas is increasingly becoming problematic due to constant municipal water shortages. Water cuts, often for several weeks, are common in both

low and high density suburbs. The Urban ZIMVAC (2011) found that 60 per cent of the sampled households reported that they had experienced water supply interruptions. This situation has led to a proliferation of shallow wells in urban areas which are potentially unsafe. There is also an increase in the number of boreholes and this will have implications on the water table and underground water reserves. Furthermore, some households are buying water.

Harvesting wild products

A large proportion of Zimbabweans obtain significant nourishment from wild foods found in natural habitats. Over 54 per cent of Zimbabwe is covered by woodlands and forest, with an estimated 6,000 plant species, 672 bird species, 156 reptiles, 196 mammals and 132 fish species (GoZ, 2010). Thus Zimbabwe is rich in biodiversity. A wide range of wild products are harvested including wild fruits, wild vegetables, mushrooms (fungi), insects, honey and fish. Other natural products such as fuelwood, grasses and medicines are also harvested from the woodlands and forests.

The MZF survey investigated natural resource use and found that a relatively high proportion of the population, predominantly those in rural areas, regularly harvested wild foods to supplement household nutrition and contribute to food security.

Table 8.2 shows the harvesting of various wild products by rural households by poverty categories, non-poor and poor. There were 2,012 rural households in the MZF sample of which 95 households were non-poor and 1,917 were poor. Wild products were harvested by both poor and non-poor households. The proportion of the poor harvesting wild products was generally slightly more than the non-poor. However, in the case of wild fruits and mushrooms, the proportion of non-poor households who harvested these was higher than the proportion of poor households, although numerically there were more poor households harvesting them. Previous studies have shown that poorer households tend to depend more on natural resource extraction than relatively wealthier households (Clarke *et al.*, 1996; Cavendish, 1997).

Wild fruits

Fruits are particularly nutritious. Vietmeyer (1990) asserted that wild fruits were once Africa's most nutritionally important food resources, being especially critical to the lives of children, but now fruits are one of Africa's most neglected food resources as all emphasis is on cultivated crops, especially grains. The fruits and nuts which are obtained from indigenous fruit trees are good sources of relatively cheap plant protein and other essential nutrients such as minerals and vitamins (Okafor, 1988). Furthermore, they are obtainable at strategic periods of the year when cultivated annual staples are largely unavailable or scarce. Fruits are also important sources of nutrition during famine.

The MZF survey found that 5 per cent of rural households indicated that eating wild fruits was a coping strategy during food shortages. Research in Wedza District, found that wild foods, particularly fruits, contributed 20 per cent of the wealthier farmers and 40 per cent of the poorer farmers' energy intake (Mapfumo, 2011). Figure 8.1 shows the importance of wild foods in times of drought to farmers in Wedza. In times of famine, wild fruits can also be traded for grain. For example, during the drought of 2007, some households in Binga who had critical food shortages sold 70 buckets of baobab fruit for 70 buckets of maize (Chasi, 2012).

There are more than 63 species of wild fruit trees in Zimbabwe, 42 of which are also known to have medicinal properties (Mutimba, 1996). Fruits are widely eaten in the country and many households plant fruit trees around

Table 8.2: Harvesting of non-timber forest products by households in rural areas

Wild products harvested	Non-poor		Poor		Total harvesting	
	Number	%	Number	%	Number	%
Wild fruits	47	49.5	826	*43.1*	873	*43.4*
Wild vegetables	31	32.6	613	*30.0*	644	*32.0*
Insects	15	15.8	338	*17.6*	353	*17.5*
Honey	10	10.5	248	*12.9*	258	*12.8*
Mushrooms	25	26.3	431	*22.5*	456	*22.7*
Medicine	14	14.7	293	*15.3*	307	*15.3*
Fish	14	14.7	318	*16.6*	332	*16.5*
Thatching grass	28	29.5	723	*37.7*	751	*37.3*
Total	**95**	**100**	**1,917**	*100*	**2,012**	*100*

their residences. Furthermore, farmers tend to leave wild fruit trees in the fields when clearing for agriculture. The MZF survey showed that over 43 per cent of all rural households surveyed had harvested wild fruits in the last 12 months. There was little difference between poor and non-poor households, as Table 8.2 indicates that almost half of the non-poor rural households harvested wild fruits. This points to the importance and popularity of supplementing diets with wild fruits by all income groups.

Some important wild fruit trees used by Zimbabweans are described in Box 8.1.

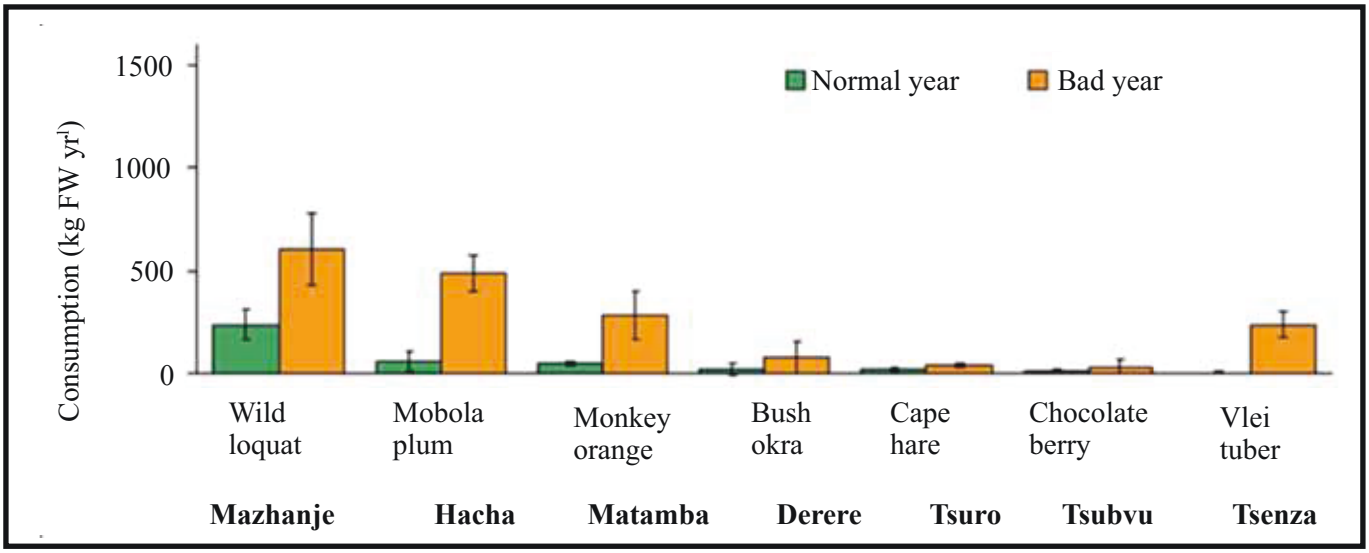

Figure 8.1: Wild food consumption in Wedza Zimbabwe

Source: Mapfumo, 2011

Box 8.1: Wild fruits of Zimbabwe

Wild loquat/ *muzhanje/ mushuku/ Uapaca kirkiana* is an example of a tree that is often left in fields and around homesteads as it produces poplar fruits rich in Vitamin C. Local customs sanction the harvesting of fruit for sale and cutting down of fruit trees. However, these customs are now generally overlooked due to commercialisation of the fruit which is sold along the main highways and in urban centres (Mutimba, 1996).

Mobola plum/ *muhacha/ muchakata/ Parinari curatellifolia* is another popular fruit tree which has fruits *(chakata/hacha)* that are eaten directly and also made into a paste *(mahanya)*. The juice is used to sweeten porridge, and also for beer (Mutimba, 1996).

Collectively people in Africa eat the fruits of more than 60 tropical wild fig trees /*Ficus species/ mutsabvi/ muonde/ inkiwane/ umkhiwa*. There are about 31 species of wild fig trees in Zimbabwe. Figs contain sugar and fibre. They are rich in calcium, iron and phosphorus. They contain moderate amounts of Vitamins A and B, but only small quantities of Vitamin C.

The fruit of *Sclerocarya birrea/ marula/mupfura* is consumed fresh as well as made into juice and is the basis for several alcoholic beverages, including mukumbi, and the commercially produced Amarula. Traditionally oil from the nut is used as culinary oil, and also for preserving meat. Marula is a very marketable product with huge commercial potential. The mapfura fruits are also used to make porridge in times of drought. In fact, it appears that these wild fruits are produced in abundance during drought years, particularly in the drier Agro-ecological Regions, IV and V, of Zimbabwe.

Water berry/ *mukute/ muisu/ Syzygium guineense*, and the chocolate berry/ *mutsvubvu/ mukubvu/ Vitex payos* are two more of the numerous examples of trees which produce commonly eaten fruits. The fruits of both trees are rich in Vitamin C and minerals including potassium and calcium (Mutimba, 1996).

Although not so widely known in Zimbabwe, *Ricinodendron rautanenii* or the Mongongo tree/ *mungongoma,* which is found in northern Zimbabwe, produces a particularly nutritious wild fruit, which has flesh rich in carbohydrates, potassium and thiamine. In addition, it has nuts (seed kernels) that are rich in fats (45-58per cent) and provides good quality vegetable protein (26-29 per cent) and is rich in minerals, such as calcium, magnesium and iron, and vitamins B and E (Peters, 1987). Mongongo can provide high quality nutrients all year round and is important in times of famine.

Wild fruits are also important as animal fodder, for example, mopane *(Colophospermum mopane)* and acacia pods, eaten by livestock, especially in drier areas of Zimbabwe.

Other wild foods

Vegetables provide vitamins, essential minerals, protein and some carbohydrates. The nutritive value of the wild vegetables is as good as, or superior to, most exotic vegetables, especially in carotene. Dark green wild vegetables not only contain more protein than exotic ones, they also contain more calcium and iron (Kumwenda and William, undated).

Indigenous or wild vegetables have always been eaten as relish together with the starch staple in Zimbabwe. There are more than 16 species that are commonly eaten, including spider flower/ *nyevhi/ runi/ Cleome gynandra* and pigweed/ *mowa/ Amaranthus hybridus* which are semi-domesticated as women collect the seed and sow it around the homestead (Mutimba, 1996).

The MZF survey found that 32 per cent of rural households harvested wild vegetables. The wild vegetables are clearly for household food only, as the survey found out that only just over one per cent of those who collected wild vegetables, sold them.

Insects are another nutritious traditionally popular wild food, as they are rich in animal protein. In Zimbabwe, edible insects, which include caterpillars of the emperor moth *Imbrasia belina* (westwood) commonly known as mopane worms/ *madora/macimbi/ masondya;* edible ants such as *ishwa/Hodotermes mossambicus; mandere/ Eulepida mashona; harurwa/ Encosternum delegorguei* and many others are delicacies that provide a source of protein relish (Mutimba, 1996). The MZF survey found that 17.5 per cent of rural households harvested insects.

Edible mushrooms/*howa* provide a seasonal food during the rainy season and are a good source of the B group Vitamins, as well as minerals including selenium, copper and potassium. Some popular wild mushrooms eaten by Zimbabweans are: *uzvutwe, firifiti, nhedzi, dare, dedza, nyakasheche* and *nzeveyambuya* (Mutimba, 1996). The MZF survey found that 22.7 per cent of rural households harvested mushrooms.

Fish are an excellent source of protein and other nutrients and are harvested from streams, rivers and dams. Fishing is a popular activity amongst Zimbabweans. The MZF survey found that nearly 16.5 per cent of rural households harvested fish.

Honey is a good source of carbohydrates and it is collected in the wild, and also from domesticated bee-hives. The MZF survey found that 12.8 per cent of rural households collected honey.

Wildlife can contribute to household food security and provide a rich protein source, particularly for communities adjacent to protected areas where wildlife is abundant. The MZF survey found that communities living in Mbire, Chiredzi, Kariba, and Hwange Districts that are adjacent to National Parks and Safari Areas, benefit from the wildlife. The MZF survey found that 10 per cent of households had access to wildlife meat.

Medicines

Around 80 per cent of the world`s population relies on medicinal plants for primary health care needs. Traditional medicines, derived mainly from plants are widely used in Zimbabwe. The MZF study indicates that about 15 per cent of rural households harvested medicines from indigenous plants. A study carried out in five districts, Chipinge, Chimanimani, Matobo, Mangwe and Bulilima established that an estimated 90 medicinal plant species are used in each district (Chasi, 2012). The study prompted the Environmental Management Agency to develop legislation aimed at community rights over genetic resources. Statutory Instrument 61 of 2009 of the Environmental Management Act provides for equitable sharing of benefits from genetic resources and protection of intellectual property rights (indigenous knowledge systems) (Chasi, 2012).

Other natural products

Thatching grass is an important roofing material, especially in the rural areas. Thatch roofs are not only water proof, they are also good insulators, against heat in summer and the cold in winter. However, the thatch needs to be replaced every few years. Thatching grass *(Hyparrbennia* spp) is widespread throughout Zimbabwe.

The MZF survey found that 37 per cent of rural households collect thatching grass for use in roofing houses and other buildings, such as chicken runs. Those rural households that do not harvest thatching grass buy from others who engage in collection and preparation of the grass.

Some natural products such as ilala palm (*Hyphaene petersiana)* are harvested for making artefacts, such as baskets and mats, and wood from certain trees such as mukwa *(Pterocarpus anglolensis)* is used for carving. The MZF survey found that 11 per cent of households harvested ilala palm, while 12 per cent harvested wood for carving. Both of these are economic activities with potential to be lucrative once the tourism market picks up.

Natural products enterprises

Fruits and other wild products can also be sold to get income. For example, Madora are collected and processed and have a ready market both locally and across the

region. Trade in natural products has been shown to have the potential to be more profitable than agriculture in southern Africa, and in Zimbabwe in particular (Bennett, 2006). For example the fruit pulp of marula has the potential to produce 880,000 MT/yr in southern Africa, worth USD 260 million, involving 2.4 million households in production (Bennett, 2006).

Community-based natural product enterprises are commercial ventures which seek to supply markets with value-added natural products in order to bring greater benefits to communities that manage and use natural resources. In Zimbabwe, there are a number of successful natural products enterprises such as: the Amacimbi Development Association in Gwanda, which recorded a return on investment of 166 per cent; Creative Oils Investments, in Rushinga which attained self-sufficiency within the first seven months of operation, after repaying a loan of USD 700 for machinery and working capital; the Buwerimwe Honey processing enterprise in Mutare; and Mutoko Bee Keepers Association (Chasi, 2012). The Twalipeda Baobab processing in Binga purchases baobab *(Adansonia digitata)* fruit from producer groups to market the baobab pulp and oil (Chasi, 2012).

However, the MZF survey found that only four per cent of households that harvested fruits, also sold them. This shows that the majority of households use wild fruits for food security and improved household nutrition, rather than as an income generating source.

There is great untapped potential in the commercialisation of natural products which could benefit the rural poor, especially women. The existing enterprises should be supported and new enterprises encouraged.

The CAMPFIRE model would work well, where emphasis placed on private sector-community partnerships can

Baobab tree
Photograph source: G. LeBreton

improve expertise to run viable community-based enterprises, strengthen financial resources and provide marketing capacity. Key factors for the success in the community-based enterprise model include the availability, quality and quantity of the resource, as well as availability of markets and tangible benefits to the community. Product research and development is needed together with creating incentives to invest in the products. Market linkages are crucial. Communities should understand the market context and be able to raise awareness of a new product within the market.

The importance of natural capital in securing rural livelihoods comes into sharper focus when viewed against the background of fragile agricultural systems and frequent crop failures that characterise the communal lands of Zimbabwe where people live in areas of marginal agricultural potential, such as Regions IV and V. Under these conditions, and in the context of livelihood diversification, commercialising natural resources can have poverty reduction outcomes (Gondo and Mugweni, 2007).

Fuelwood

One of the most useful natural products is fuelwood, which is the primary energy source particularly in rural areas. Fuelwood is normally dry wood collected from dead branches and dead trees in surrounding woodland. Similar to other surveys such as the PASS (GoZ, 2006), the MZF survey found that in the rural areas, the majority of households (92 per cent) indicated that they used fuelwood as their major energy source for cooking. Use of other natural materials for energy, such as cow-dung, sawdust, gas and coal, were negligible. The category 'other' for energy for lighting consisted mainly of solar. In the MZF survey 'other' was indicated by 15 per cent for rural, and 7 per cent for urban households. Although there are a number of successful solar initiatives, there is still tremendous potential for more solar energy developments.

The results of the MZF survey indicated that 17 per cent of the urban households also used fuelwood for cooking and furthermore, the Urban Zimbabwe Vulnerability Assessment Committee (ZIMVAC, 2011) indicated that nearly 24 per cent of urban households used wood or charcoal. There appears to be a trend in the increasing use of fuelwood in urban areas, as the PASS indicated that in 2003, only 14 per cent of urban households used fuelwood (GoZ, 2006). This increase in the use of fuelwood in urban areas is symptomatic of problems with declining and intermittent electricity supply. Increasingly, use of fuelwood by urbanites is becoming a serious environmental concern as woodlands around cities and towns are rapidly disappearing.

This is resulting in deforestation in peri-urban areas. Another cause of concern is the use of indigenous woodland to cure tobacco by the rapidly increasing number of small-holder tobacco farmers, now estimated at 70,000 who produce 65 per cent of the crop.

There are a number of tree planting efforts by the Government of Zimbabwe and non-governmental organisations (NGOs). The Forestry Commission is promoting a 'Plant Ten Million Trees' per year campaign. Although the MZF survey indicated that the majority of Zimbabweans are aware of the regulation that prohibits tree cutting only one per cent of farmers are involved in tree planting conservation activities. Furthermore, the survey also found that four per cent of rural households cut trees and sell wood as a coping strategy in response to shocks. However, more encouragingly, six per cent of rural households also indicated that they would establish a woodlot as a coping strategy in response to shocks. The Forestry Commission is also spearheading a programme of woodlot planting with tobacco farmers. When farmers buy tobacco seedlings, they are also provided with tree seedlings to establish woodlots.

Minerals

Zimbabwe is richly endowed with minerals, including substantial alluvial gold reserves. The gold price was around USD 300 per ounce from 1998 through 2002 and started rising to USD 400 per ounce in 2005, to USD 800 in 2008, and to more than USD 1,700 in 2011, which made gold increasingly attractive for individual miners and panners. Rising gold prices which made gold panning more profitable than farming, plus the hyper-inflation of 2007-08 meant many more people joined the gold panners.

Panning is uncontrolled and carried out unsystematically, usually in river beds, banks and flood plains with no concern for the environment. Trees are cut down haphazardly, pits several metres deep are dug and alluvial soil is removed resulting in erosion and siltation of rivers as the soil and rocks are washed into the streams. No rehabilitation is carried out. Although the Environmental Management Agency is energetic in issuing tickets and stop orders, gold panning continues unabated and is actually increasing, because it is so profitable. Uncontrolled panning and small scale mining are damaging the environment. Furthermore, local communities are not benefiting much from the mineral resources. Middle-men and gold buyers profit most, with little contribution to communities or the national reserves.

Alluvial gold is widespread throughout the major river

Box 8.2: Minerals improving wellbeing in Chimanimani

Focus group discussions with communities in Chimanmani revealed that panning for gold and diamonds was an important livelihood strategy, as well as a coping mechanism. During the economic hardships of mid 2007 to 2009, members of Nemawuyu village in Derera communal area explained that they were involved in diamond panning in the nearby Marange village as a coping mechanism. This uplifted their lives and some of the money was used to build proper houses and toilet facilities. They were also able to use cash when purchasing goods at the business centre, rather than accepting credit facilities payable by month end.

In Nemaramba West, also in a communal area, households relied mainly on farming maize, beans, sorghum and wheat. However, the area is generally dry resulting in low yields over the years. One of the coping mechanisms they had adopted was to engage in illegal diamond panning, whilst a few have been employed by a diamond company which is operating in the area. The fees for Chaseyama secondary school were unaffordable for many families, resulting a high dropout rate. Some of the young boy dropouts were engaged in illegal diamond panning in the Marange area.

In Nyabamba A1 resettlement scheme, some of the new farmers were engaged in gold panning in the Nyabamba River. However, because this panning is done in an unsustainable manner it had disturbed the flow of the river.

basins of Zimbabwe and the MZF survey found that gold panning occurred in 12 out of the 16 Districts sampled. Altogether, 69 households indicated that they were involved in gold panning, while a further 51 households were involved with extracting other minerals, including diamonds, emeralds and chrome. Regarding the households involved in gold panning, 41 per cent of these households were in Chimanimani and 13 per cent in Mazowe. These two Districts are amongst those renowned for gold panning, where panning is now an important livelihood strategy for a large number of households in these Districts (See Box 8.2).

The majority of households involved with mineral extraction are rural based, and furthermore, over 90 per cent belong to the poor category. Altogether, households involved with mineral extraction constituted almost 4 per cent of the MZF sample. However, this may well be an underestimate of the actual number of households engaged in panning; as it is an illegal activity, respondents to the household questionnaire would be reluctant to disclose this information. In 2003 the PASS, found that six per cent of households were involved with mineral harvesting (GoZ, 2006).

Gold panning was regarded as a coping strategy as a response to shocks, experienced by 3 per cent of the respondents in the MZF survey, with a further 2 per cent indicating diamond and other panning as coping strategies in response to shocks (see also Box 8.2).

Of the panners in the MZF survey, only 17 sold alluvial gold, while seven households sold precious minerals. Those that did not sell their gold were most likely part of a syndicate, or employed by middlemen.

Gold is a valuable resource which if managed carefully can give economic benefits, while maintaining environmental quality. In fact, the regression analysis of consumption expenditure of the MZF data to investigate the correlation between wellbeing and poverty shows that being involved with panning and mineral extraction activities in rural areas appears to be very important, as it raised monthly household expenditure by about 29 per cent. There is definitely potential to explore the possibilities of developing CAMPFIRE-type mechanisms for supporting sustainable gold panning. Another model is for small-scale miners to pan and sell to big mines in the area and get technical and material support, similar to contract farming.

To facilitate corporate social responsibility amongst mining companies, the Indigenisation and Empowerment Act Chapter 14:33 (2008) provides for the establishment of Community Share Ownership Trusts to ensure that communities benefit from the minerals in their areas. The mining company provides a one-off payment to the trust to kick-start income generating activities identified by the communities. The trusts then receive revenue from the ten per cent community share-holding. Community Share Ownership Trusts thus provide communities with another source of funds, rather than depending only on limited financial allocation from the national fiscus.

So far forty mines have been targeted and several large-scale mines have established community trust funds where ten per cent shares are ceded to communities. For example, Zimplats Mine allocated 10 million USD for each administrative district in the vicinity of the mine (Mhondoro Ngezi, Chegutu and Zvimba). Similarly, Unki mine in Shurugwi district and Mimosa Mine in Zvishavane have allocated funds under the same scheme

(Chasi, 2012). The money is being used in community development projects as dictated by community needs. Projects include infrastructure development such as the building of schools, clinics and irrigation schemes.

Other materials are extracted from the environment, such as stones, sand and clay. The MZF survey found that 112 households harvested rocks and stones from the environment. Although these households were spread across 13 of the sample districts, almost half of them were in Hurungwe District. Overall, 97 per cent of the households that harvested rocks and stones were in the poor category. Traditionally, clay is used to mould bricks for building, and brick moulding presents a lot of opportunities in sustaining livelihoods for the poor. However, the bricks are usually fired in a kiln using indigenous timber. The traditional kilns are not energy efficient and much timber is wasted. The MZF results indicated that sand extraction is a coping strategy as a response to shocks for three per cent of the households surveyed.

Environmental rules and regulations

From childhood environmental ethics are instilled both at home from cultural traditions and norms, and at school with Environmental Science in the primary curriculum. Generally, Zimbabweans are environmentally aware and respect the environment and natural resources. Research has shown that secondary school children are environmentally knowledgeable and have relatively high levels of indigenous knowledge (Manjengwa, 1998).

There is a wide range of traditional rules that govern the environment and natural resource use, such as taboos for killing pregnant or young wildlife, and practices of not ring barking trees when collecting medicinal bark, and getting permission from local leaders to cut down trees. However, more recently due to economic hardships, this respect is more often in principle rather than in practice as more people have been driven to exploit natural resources in an unsustainable manner.

The MZF survey looked more closely at how much people know about environmental rules and regulations (Figures 8.2 and 8.3, and Box 8.3).

As can be seen from Figures 8.2 and 8.3 the MZF results showed that there was relatively high levels of awareness of environmental regulations amongst the respondents.

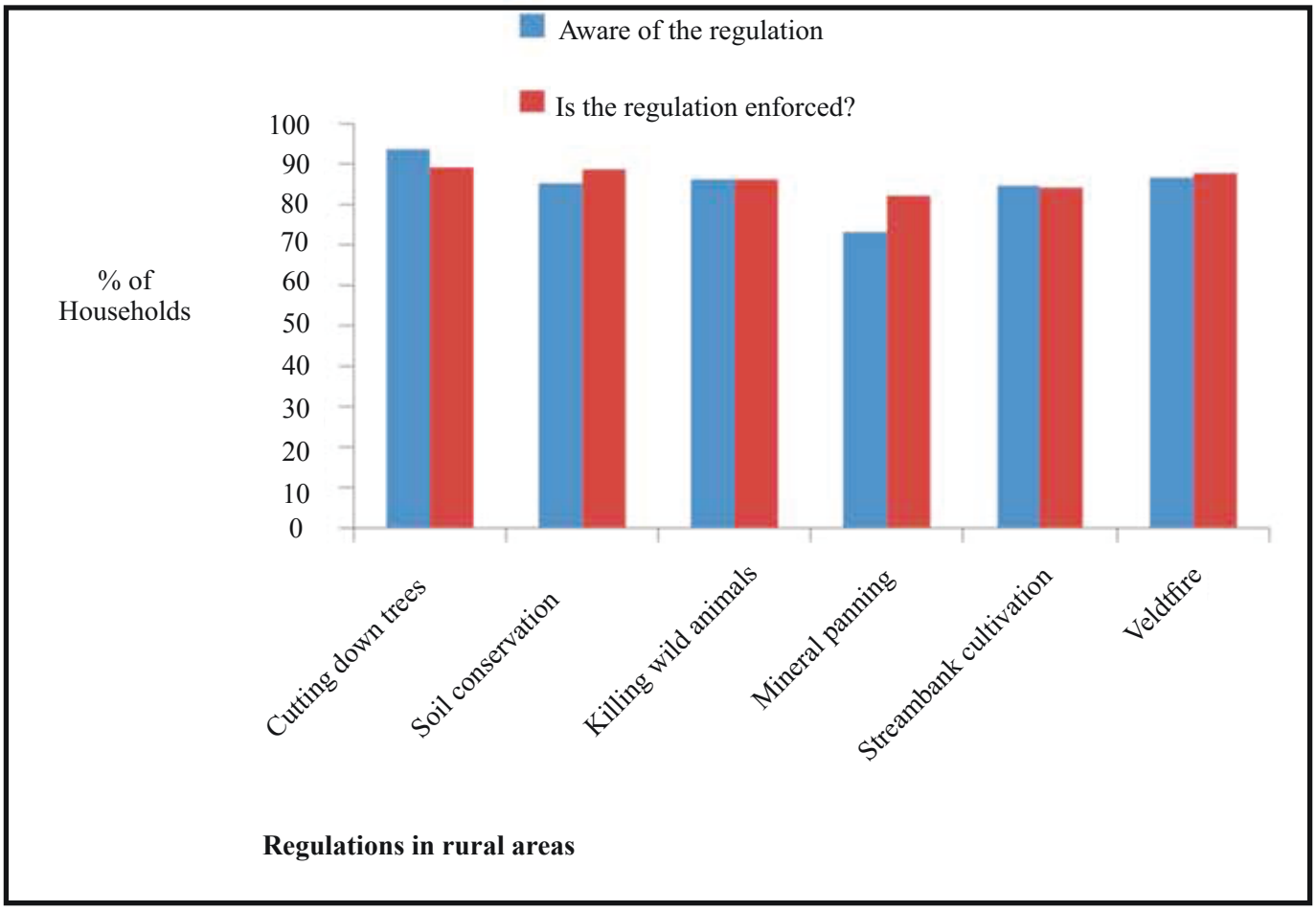

Figure 8.2: Awareness of natural resources regulations in rural areas

Respondents were also asked if these regulations were being enforced in their community, and generally, the proportion of respondents who were aware of the regulations was similar to those who thought that these regulations were being enforced. In the case of soil conservation and mineral panning, there were slightly more respondents that thought that the regulations were being enforced, than those who were aware. In the case of gold panning there was generally more ignorance, especially by panners about the specifications of the regulations. However, due to the high profile government campaigns against uncontrolled panning enforced by the police (such as the Operation Chikorokoza Chapera) and the Environmental Management Agency, there was a general perception that these regulations were being adhered to.

In urban areas (Figure 8.3), the main environmental regulations pertain to water and air pollution, solid waste disposal and littering. Most people were aware of the prohibition of littering, but the perception was that littering regulations, included in the Environmental Management Act, were not being well enforced. Indeed, littering is becoming a problem, especially in towns and along main roads where passengers in vehicles routinely throw rubbish out of the windows.

Box 8.3: Awareness of environmental regulations among participants of focus group discussions, Nyamuzuwe village, Mutoko District

'Trees cannot be cut down without the permission of the kraal head, but the problem is that some people are not following the regulations. Although there has been a reduction in tree cutting, it is ongoing because some people are cutting down trees for survival to sell wood because of poverty'

Nyabamaba A1 resettlement, Chimanimani District

'There are certain penalties levied against those who break the rules with the culprit expected to show up at the headman's dare (court). Some examples of penalties are:

- *Ten dollars for cutting down a tree*
- *A chicken for cutting down traditional trees such as muhacha and muonde.*
- *25 dollars or a goat for causing a veldt fire'.*

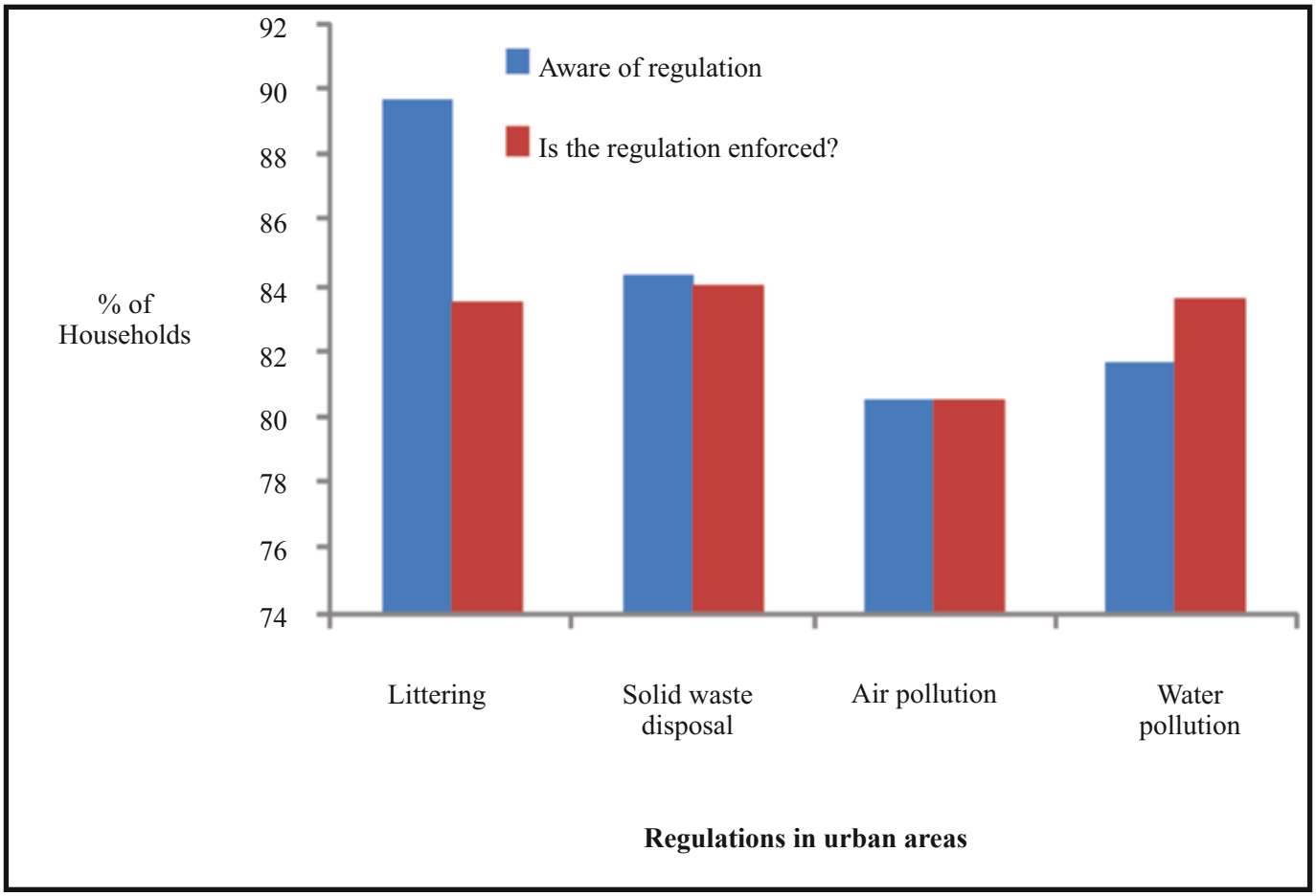

Figure 8.3: Awareness of regulations in urban areas

The respondents were asked who they thought was enforcing the various environmental regulations. The responses reflected the different institutional arrangements in the rural and urban areas. The MZF study found that community leaders in rural areas, such as headmen and councillors, were perceived to be the main enforcers of all the environmental regulations, with government agencies (such as Agriculture Extension (AGRITEX), the Environmental Management Agency (EMA), the Forestry Commission (FC); Parks and Wildlife Management Authority), coming a distant second (Figure 8.4).

On the other hand, Figure 8.5 shows that in urban areas local authorities, namely the Municipalities, are perceived to be the main enforcers of environmental regulations, followed by government agencies. Community leaders play a much smaller role in enforcing environmental regulations in urban areas.

Table 8.3 shows that in the MZF study the non-poor were slightly more aware of environmental regulations than the poor. The difference is larger regarding awareness of pollution and mineral panning. Considering that the

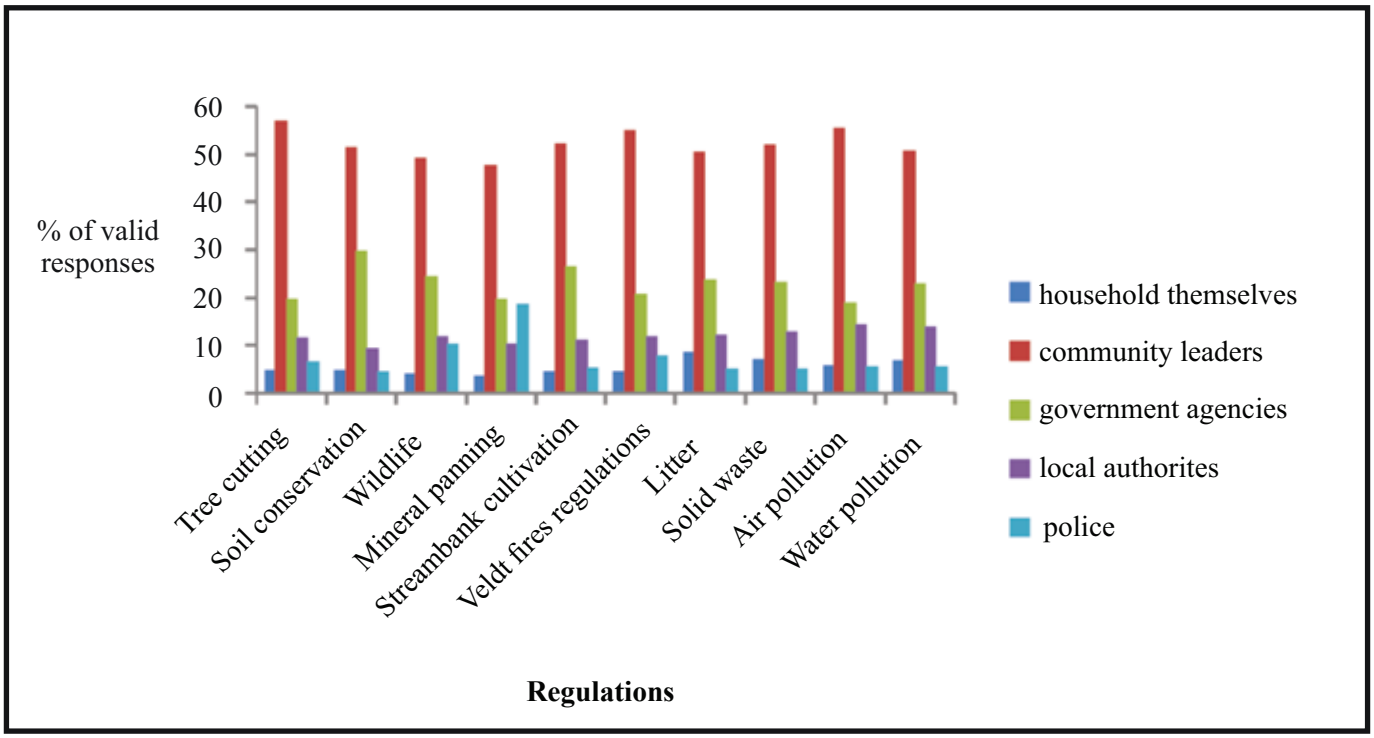

Figure 8.4: Perceptions about who enforces environmental regulation, in rural areas

Table 8.3: Awareness of natural resources regulations by poverty status

Regulation awareness	Non-poor		Poor		Total	
	Number of households	%	Number of households	%	Number of households	%
Cutting down trees	88	92.6	1758	91.7	1846	*91.7*
Soil conservation	84	88.4	1560	81.4	1644	*81.7*
Wild animals	85	89.5	1576	82.2	1661	*82.6*
Mineral panning	76	80.0	1294	67.5	1450	*72.1*
Stream bank cultivation	80	84.2	1541	80.4	1705	*84.8*
Veldt fires	84	88.4	1594	83.2	1766	*87.8*
Littering	77	81.1	1296	67.6	1454	*72.3*
Solid waste disposal	74	77.9	1260	65.7	1412	*70.2*
Air pollution	72	75.8	1094	57.1	1242	*61.7*
Water pollution	73	76.8	1263	65.9	1413	*70.2*

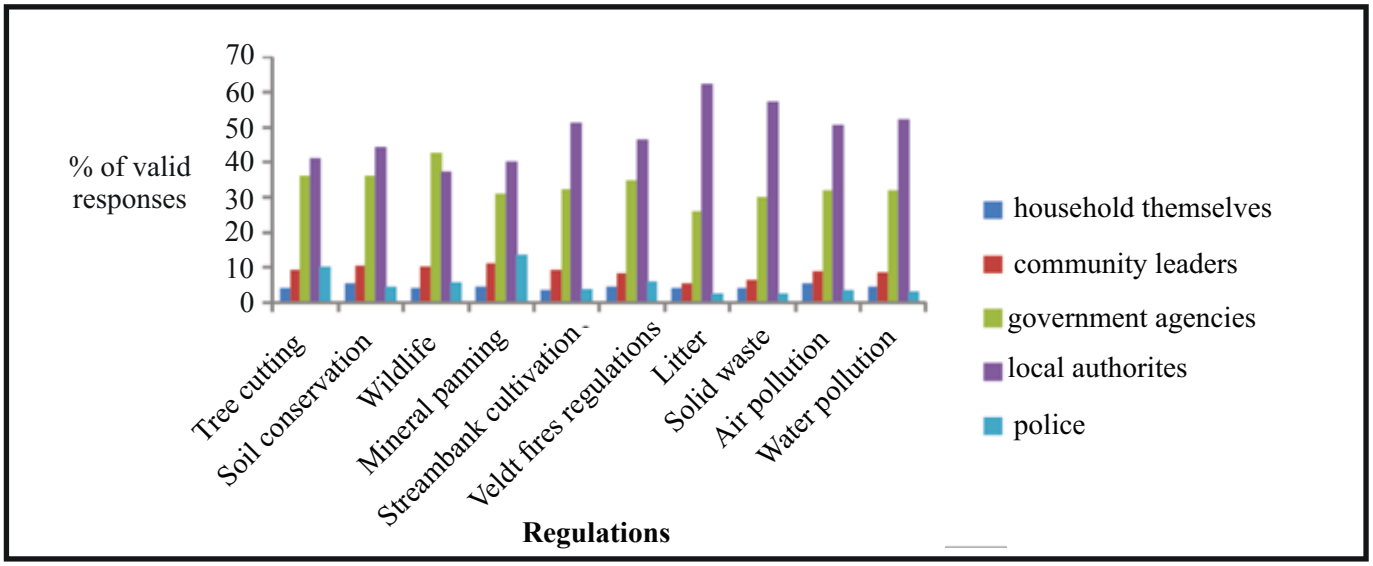

Figure 8.5: Perceptions about who enforces environmental regulation, in urban areas

majority of the non-poor are in urban areas, it would be expected that they are more conversant with regulations pertaining to urban issues, such as pollution. For example, air pollution is not an issue in rural areas. Furthermore, access to information regarding environmental issues is generally greater in urban areas than rural areas, and therefore, the relatively high level of knowledge in the rural areas is impressive. The Poverty Assessment Survey (PASS) for 2003, found that the very poor were more aware of environmental regulations while the non-poor were the least aware. This implied that non-compliance and continued environmental degradation by the very poor is driven by factors other than lack of awareness of environmental issues and regulations (GoZ, 2006). Consequently, awareness alone will not effect attitude change of communities to engage in sustainable environmental management practices. They need to be offered incentives to enable them to manage the environment in a sustainable manner.

Fires

Bush or veldt fires are one of the most difficult environmental problems in Zimbabwe. Low intensity veldt fires are part of the miombo ecology, keeping the undergrowth clear, but there are indications of an increase in frequency and intensity of bush fires in recent years. This is causing massive damage to vegetation and property. The fires also emit tonnes of carbon dioxide into the atmosphere.

Fires are part of the conventional agricultural management practices in Zimbabwe. Cotton farmers are required by law to burn cotton stalks by a certain date after harvest. Cattle farmers burn the dry grass to improve grazing. Sometimes fires are caused by poachers or during hunting of small mammals such as mice and rabbits, or during land clearance. In 2010, the Environmental Management Agency reported over 9,000 fires on over one million hectares; 25 human lives were lost, as well as 29 elephants. An elderly woman and two children were burnt to death in 2010 in a veldt fire at the Xanadu Farm resettlement, Mazowe district.

Alongside shocks such as food shortages, droughts, inflation and illness-related shocks experienced, recorded in the MZF survey, was that of experiencing fire. Apart from isolated incidences of house fires, this refers predominantly to bush or veldt fires. The probability that a community suffered a fire shock on average was 9 per cent. With regard to severity, fire-related shocks were regarded as medium to high severity. Regarding the fire shock recurring during the next year, the MZF results indicate that 13 per cent of the respondents expected that the fire would re-occur.

Conclusion

Natural resources have been identified as one of the major pathways out of poverty for Zimbabweans. High value natural resources such as minerals can boost the economy and raise the Gross National Product, as well as provide revenue to fund social protection programmes. Furthermore, a host of other resources including land, timber, wildlife and forest products provide improved nutrition, food security, livelihoods and income generating activities for many Zimbabweans. Similar to other surveys, such as the PASS (GoZ, 2006), the MZF survey has shown that a wide range of natural resources are extracted and used, particularly by the poor, and also that natural resources can provide coping strategies during times of experiencing shocks. The regression analysis of the MZF data indicated that mineral extraction activities significantly increased household wellbeing. The environment provides a rich reservoir of goods and services that can move people out of poverty, if used wisely.

There is a need to mainstream environmental issues in the

national developmental framework policies, programmes and strategies, highlighting the linkages between poverty and the environment. However, in an attempt to satisfy basic needs, poverty can drive people to undertake activities that are responsible for environmental degradation. To address this, options and opportunities must be secured to enable Zimbabweans to benefit from the abundant natural resources and utilise them sustainably. Zimbabwe's Medium Term Plan 2011-2015 points out that the key principle of sustainable development is that people have the right to use environmental goods and services for their benefit, but also have the responsibility to look after the environment to ensure that the next generations are able to derive similar benefits (GoZ, 2011)

Policy points

- The high poverty levels in the rural sector, which is comprised predominantly of smallholder farmers, call for urgent strategies and actions to enhance agricultural productivity, while maintaining ecosystems integrity and environmental quality. Access to land for resettled farmers is no longer the major issue, but rather lack of draught power, equipment and inputs that are limiting production. There is a need to address these problems in order for farmers to optimise productive land use. Off-farm livelihood options should also be promoted.

- Minerals have been identified as an important natural resource which has the potential to move households and communities out of poverty. High gold prices mean gold panning has become a vital source of income for many Zimbabweans and mineral extraction certainly appears to be a major activity in raising household income. However, at present, it is largely environmentally and socially unsustainable. The CAMPFIRE approach could be applied to alluvial gold and other mineral resources, to ensure that farming communities benefit directly from their natural resources and extraction. Communities could monitor and police themselves, and ensure that pits were filled and streams rehabilitated. There is potential to explore the possibilities of developing CAMPFIRE-type mechanism for supporting sustainable gold panning.

- Natural products also have great potential for moving people out of poverty. For example, while wild foods make important contributions to the diet, improving nutrition and food security, especially during droughts, they also have huge commercial potential, which could contribute to the rural economy by generating income, thereby improving the wellbeing of rural people. The existing natural product enterprises should be supported and new enterprises encouraged. Natural products, particularly trees which provide fruits and fuelwood, are renewable natural resources which if utilised and managed in a sustainable manner can greatly enhance people's wellbeing and move them out of poverty and deprivation. Wild products and their many important uses should be popularised through awareness raising campaigns. Commercialisation of natural products requires community-private partnerships where the private sector can secure lucrative international markets.

- Natural resources must be utilised and managed in a careful manner to be sustainable. The policy and institutional frameworks are in place. An audit of natural resources and the environment in Zimbabwe would provide entry points for interventions and ensure that environmental management is effective and natural resources provide a way out of poverty.

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Chapter Nine

Conclusion and Implications for Policy

Jeanette Manjengwa and Admos Chimhowu

Main messages

- *There are extremely high levels and depths of poverty in Zimbabwe, especially in rural areas.*
- *Poverty traps include lack of education, lack of quality employment, low total productivity, and health issues.*
- *Zimbabwe has the pre-requisites for addressing poverty, namely progressive policies, functioning systems, abundant high-value natural resources, and above all excellent human capital.*
- *The poverty traps can be addressed by:*
  - *improving total factor productivity with a focus on agricultural production;*
  - *providing quality employment and education;*
  - *restoring the urban areas as industrial, manufacturing and commercial centres; and*
  - *continuing to provide comprehensive social protection to the destitute and labour constrained households.*
- *Research on poverty knowledge together with dissemination are essential to inform sound policies and practices.*

The persistence of poverty

The MZF study was motivated by the desire to better understand current wellbeing and poverty in Zimbabwe in order to come up with and promote workable solutions to address poverty. Building on poverty knowledge from the numerous national and sector poverty studies, the MZF study, using both quantitative and qualitative approaches, provides an up-to-date picture of the current nature of poverty in Zimbabwe. Three clear findings of this study are of concern. Firstly, this study has shown extremely high levels of poverty in Zimbabwe, with four out of every five households sampled having consumption/ expenditure levels below the poverty line. Secondly, the poverty depth is quite large. At nearly 53 per cent this reflects that not only are many Zimbabweans poorer but that they are so far under the poverty line that it will take concerted efforts do draw them up and above the line. A third finding is the large disparities between the urban and rural areas. A majority of the poor are still found in the rural areas and the poverty depth there at 71 per cent is even larger compared with 27 per cent for urban areas.

This study has analysed the drivers of this level of poverty in Zimbabwe. While the causes are complex, interrelated, and consist of multiple factors, which reinforce each other to produce cycles of poverty, the study finds that this is compounded by a number of economic, social and natural shocks that affect the majority of the population and render them vulnerable and impoverished. The study identifies four traps or pitfalls that account for much of the poverty encountered during this study. The next section focuses on these.

Poverty traps in Zimbabwe

The MZF study found that local people know why they are poor. Reasons described range from recurrent droughts and crop failure; and lack of traction, inputs and functioning markets; to high prices, unemployment and lack of education. The regression analysis of the expenditure and consumption data found that key factors correlating with poverty in Zimbabwe are rural locality, large household size, lack of education, lack of employment and business enterprises and lack of productive assets. From an analysis and interpretation of the information gathered through this study, together with knowledge gained from other studies, four poverty traps are identified, namely lack of education, lack of quality employment, low total productivity, and health issues, which are discussed below.

Low rural land and labour productivity

Nearly 98 per cent of productive land in Zimbabwe is now in the hands of smallholder farmers yet both land and labour productivity levels are still below what they could be. In many of the areas visited during the study access to land is no longer the issue, rather it is the ability to use land that is creating the productivity constraints. Agricultural production is severely constrained by: lack of sufficient tillage (tractor and animal-drawn); lack of affordable, timely and available inputs such as seed, fertiliser and pesticides; inadequate irrigation and water; and lack of market linkages and non-functioning markets. Farmers, despite their hard concerted efforts, are failing to make maximum use of all their land. The result is

that productivity per hectare is still low for many of the smallholder farmers with a majority only managing less that a tonne per hectare compared to expected potential above three tonnes.

The MZF survey found that about one half of households failed to cultivate all their land, across all the land use sectors. Table 9.1 shows the reasons for not cultivating. Unfortunately, 77 per cent of those households who did not cultivate all of their land in the 2010/2011 season thought that they would be problems in cultivating all of the land in the next season, 2011/2012.

Even when yields are good, farmers experienced setbacks with marketing, causing them not to receive maximum benefit from their farming activities. Most rural areas, especially those districts in the periphery of the country, such as Chiredzi, Hwange, Mbire, Chimanimani, and Gokwe, which are far away from main transport systems, have dirt roads, which are often in poor condition and sometimes impassable during the rainy season.

Lack of education and its effects on access to opportunities

The MZF study found a correlation between higher levels of poverty and low levels of educational attainment of the household heads. Community groups described the poor as not being able to send children to school due to a number a reasons, primarily that they cannot raise the school fees, and other expenses such as levies, uniforms and books. It is mainly amongst the poor that high rates of school dropouts and absenteeism are observed. The survey found that school attendance, especially for secondary school, was lowest amongst the very poor. Whereas only 56 per cent of children from the poorest quintile aged 13-18 years were enrolled into school, the corresponding rate for the top quintile was 72 per cent. The quality of education is also important (Box 9.1)

The study found that primary level education, especially in urban areas, does not have much influence in moving households out of poverty. In urban areas, it is only attainment of Form 4 education that significantly increases household consumption/expenditure.

The study also found that education alone was not enough to move people out of poverty, particularly if the household was located in the rural areas. Household heads in rural areas that have attained at least Form 6 education level still had a relatively high incidence of poverty (85.4 per cent) compared to their urban counterparts (39.1 per cent).

Lack of quality employment

The employment status of the household emerged as a crucial determinant of poverty. In Zimbabwe, the concept of employment has changed from being viewed as a waged job in the Public Sector or in industry, to embrace self employment and own businesses, particularly with the massive expansion of the informal sector. The growing informal sector is engaged in economic activities under sub-optimal conditions. Unfortunately, business

Table 9.1: Major reason for not cultivating all land in rural areas

Major reason for not cultivating all land	Number of rural households	Per cent
Lack of draught power	386	37.9
No ploughing implements	186	18.3
No seed or fertilizer	178	17.5
No or little rain	106	10.4
Labour cinstraints	102	10.0
Illness	17	1.7
Insecurity of tenure	5	0.5
Other	39	3.8
Total	1,019	100.0

Box 9.1: The link between poverty and low educational achievement

In Nekabandama ward of Hwange, where 99 per cent of the households were classified as poor in the survey, there is one secondary school, which is shared with a primary school. The primary school had only two trained primary school teachers out of eight, the rest being temporary teachers, and recorded a zero per cent pass rate at Grade Seven in 2011. *'Such an environment is very fertile for poverty to increase because the untrained teachers are most unlikely to equip the students with the required information for them to pass their examinations and at the end of the day they join the ever increasing pool of the unemployed'.*

enterprises tend to be low value and low income operations, primarily of vending vegetables, food, clothes and other commodities. Only about 1 per cent of the MZF sampled households had more lucrative business enterprises such as shops, bottle stores or butcheries.

The survey found large differences in household poverty levels between those that had members in full employment, and those households with temporary employed and unemployed members. While the regression model found that permanent employment significantly improved household consumption expenditure, with households with permanent employees having the lowest poverty status, on one hand, temporary employment did not necessarily improve the household's wealth status on the other hand. Households with permanent employees were less likely to be very poor even in rural areas.

Health

Health issues, such as HIV and AIDS, malaria, bilharzias, diabetes and hypertension; infant mortality; and maternal health, undermine productivity and capital accumulation. In most areas, ill health and high mortality rates due to AIDS were cited as a leading causes of poverty, especially when it affects the family breadwinner. Regarding shocks suffered by the household in the past 12 months, around 33 per cent of households listed illness and HIV and AIDS.

HIV and AIDS and other debilitating diseases incapacitate, causing people to become too ill to work in the fields. The high adult mortality rates as a result of the HIV andAIDS have changed household level demographics.

When the bread winner dies, the orphans have to be looked after by elderly grandparents or other relatives, or fend for themselves, as child-headed households, thereby creating a cycle of poverty. There are around one million orphans in Zimbabwe.

The MZF study showed that expanded households, especially through accommodating orphans, are more likely to have higher rates of poverty. Widows of AIDS victims often live a life of poverty when the male heir decides to limit their access to productive resources.

From the household survey, 24 per cent of household heads had suffered from some illness in the past three months. The most common illness cited was malaria. HIV and AIDS and other diseases have imposed an extra burden on the health service, which has been shrinking since the 1990s. By 1993, a third of Zimbabwe's doctors had left the country, and many more doctors, nurses and other health personnel left during the economic crisis, during the 2000s, leaving health facilities grossly under-staffed. The health institutional questionnaires also revealed a widespread lack of appropriate drugs and equipment.

Making poverty history

While high levels and depths of poverty, especially in rural areas, are the main findings of the MZF study, the main message of this report is that poverty in Zimbabwe can become history. Zimbabwe has the pre-requisites for this, namely progressive policies, functioning systems, abundant high-value natural resources, and above all excellent human capital.

In the 1980s Zimbabweans sought to build their future based on the ideology of equity and equality as put forward in the Growth with Equity policy document (Government of Zimbabwe, 1981). Growth with Equity, based on socialism and the elimination of inequalities, led to healthy economic growth in the early days of independence together with impressive growth in the social services, including health and education (Chung, 2012). Zimbabwe adopted and implemented progressive policies well before many of the world's leading aid and development agencies were propounding similar or identical ideas (Riddell, 2012). For example, in the 1980s, Zimbabwe increased access to both preventative and curative health services which were in line with the Millennium Development Goals (MDGs) that were agreed in the year 2000, while, on the education front, Zimbabwe succeeded in providing tuition-free primary education almost a decade before this was announced as a global target at the World Conference on Education for All, held in 1990 in Jomtien, Thailand (Riddell, 2012).

Regarding human capital, Zimbabwe has one of the most highly educated populations in the world. Despite all the problems associated with the economic crisis, which saw for example a decline in the education system and recruitment by neighbouring countries of Zimbabwe-trained mathematics and science teachers, Zimbabwe still has the highest literacy rate in Africa, at 93 per cent. The MZF study reflected the importance with which education is regarded by Zimbabweans. Generally, the country is on track for achieving the targets set in the Millennium Development Goals for education. The MZF study found that enrolment rates for children aged 6-18 years were quite high and there were no gender differences in enrolment rates. However, there were differences between rural and urban areas. At least 85 per cent of primary school age children in rural areas were in school compared to 90 per cent in urban areas. For children in the secondary school

age category enrolment rates were high at 64 per cent.

Zimbabwe has one of the highest endowments of natural resources in the world and natural resources can provide the base for economic development and for moving Zimbabweans out of poverty (Chasi, 2012). One of the key strategies for poverty reduction that the Government can adopt and improve on is to empower the poor by promoting sustainable natural resource utilization initiatives through:

- Enabling utilization of the land redistributed to small holder farmers.
- Establishment of community based natural resource management projects in locations endowed with high value natural resources.
- Investing in value addition.
- Commercialization and marketing of natural resource products.
- Training and empowering local communities in natural resource management.
- Community benefit sharing mechanisms through the indigenization of the mining sector.

Natural resources are also important for household consumption and food security. They provide opportunities for a wide range of livelihood strategies which are invaluable for the survival of households, especially during times of shocks and stresses. The environment remains the only safety net for most of the vulnerable rural communities.

Coping strategies and resilience

The MZF study focused on strategies that people thought could lift them out of poverty. Overall, people identified that having more money, and the means of getting more money through more and better jobs, increased agricultural production, and more and better education, would solve most of their poverty-related problems.

Households are already employing a number of coping mechanisms that strengthen their position against risks and minimise the effects of various stresses and shocks through building up assets, diversifying crops and livelihood sources, and conducting various trade-offs

Gold panning in Chimanimani
Photograph: Allied Timber Holdings

in responding to risk, in ways that do not compromise critical household livelihood objectives.

Escaping the poverty traps

Ways out of poverty are well known and have been articulated in literature, reports, policy documents and statements. Zimbabwe, along with other countries has set numerous targets to achieve the Millennium Development Goals. The economy is improving, especially with increases in mineral production, and it is imperative that the economic growth is inclusive, providing jobs and benefits to all Zimbabweans. The government's Medium Term Plan (GoZ, 2012) is a blueprint for development for the next five years and supports pro-poor policies. Sector ministries have policies, strategies and plans for the social, economic and environmental sustainable development in Zimbabwe. What is needed now is coordinated, rigorous implementation of these policies and plans, so that poverty in Zimbabwe can be reduced.

To escape, or at least to address, the poverty traps that the majority of Zimbabweans are living in, there is need to improve total factor productivity with a focus on agricultural production; provide quality employment and education; and restore the urban areas as industrial, manufacturing and commercial centres. Furthermore, comprehensive social protection will continue to be needed. These are elaborated in the sections below.

Improving total factor productivity with a focus on agricultural production

A large proportion of Zimbabweans are smallholder farmers and considering the wide prevalence of poverty amongst rural households, a concerted effort, involving all stakeholders, is needed to promote smallholder agriculture with practical ways in which to implement best practices and models in Zimbabwe for both inclusive pro-poor growth and sustainable development. Emphasis for agricultural policy should be on small-scale agriculture rather than large-scale commercial agriculture. Sustained investments by state and non-state actors for both labour and land will boost agricultural production and enable maximum utilisation of land and other natural resources. Opportunities are available for increasing production and making smallholder farming commercial and sustainable, rather than being subsistence farming for household food security only. This can be achieved through:

- ***Providing farmers with the necessary skills*** to farm more commercially, such as farming as a business and adoption of new technologies. Farmers also need to study the complete commodity chain to make sure that their farming efforts will be effective in the long run.
- ***Appropriate technology and mechanisation.*** It is clear that many with access to land do not have the capacity to use it due to lack of draft power. In many situations the marginal environment makes it a challenge to produce at optimum levels. It is clear that there is need to introduce appropriate technologies, such as small tractors, that can bridge the productivity gap. Promising technologies like conservation farming with mechanisation need to be resourced. Lack of tillage was the main reason given in the MZF study why farmers are not cultivating all of their land. Centres for tractor hire could be established at ward level.

'It takes five days to plough a field which would take only a few hours with a tractor. The donkeys that we have are slow and very stubborn; this is a major challenge to our farming activities'.

(Resettled woman farmer in Midlands Province).

- ***Supporting smallholders with agricultural inputs.*** A package of key inputs –seed, and fertiliser – would kick-start agriculture on communal and resettlement land dramatically. After the initial gains from a basic agricultural package have been achieved, smallholders would need to improve their earnings through innovation.
- ***Massive investment in irrigation,*** especially in the drier regions. This should include infrastructure, formation of irrigation management structures, and training for maintenance of the irrigation system. Water efficient methods such as drip irrigation and water harvesting should be promoted.
- ***Diversification of agricultural production*** to maximise profits by growing high value crops. However, at the same time, farmers can be encouraged to grow more strategic crops for food requirements (such as maize and wheat), by providing incentives.
- ***Value addition*** of produce such as drying and canning, should be encouraged and facilitated. Processing industries would boost rural growth points and provide employment.
- ***Markets.*** Productivity growth for smallholders must be linked to lucrative markets. Both state and non-state sectors, especially private companies with corporate social responsibility programmes, will need to be involved in identifying these markets and linking the smallholders with them. Contract farming arrangements should be constantly monitored so as ensure fairness and efficiency on both sides.

- ***Farmer producer groups*** would give farmers stronger negotiating positions with agricultural commodity buyers and purchasing cooperatives could organise for inputs in bulk, thus reducing costs through economies of scale. Groups of farmers need to lobby for a more balanced commodity chain so that they get the most from their production, rather than the middle men and end buyers.

Social protection

The levels of poverty are so deep that any small incremental adjustments to income will take a long time to have an impact. Therefore there is a need for continued and scaled-up innovative social protection, consisting of a package of cash transfers, educational and health assistance and cash (or food) for work. A comprehensive social protection programme is needed, particularly to cover the very poor, who are far below the poverty line. Many destitute households with members who are chronically ill or labour constrained, or that are child-headed will always require protective social protection. Furthermore, very poor, but not labour constrained households require promotive social protection that can move them over the poverty threshold. Money from the public work programme has been very good for assisting poor households. The government's public works programme can be scaled up, whereby the poor could be guaranteed at least three or four month's employment a year. This would greatly boost their income and the household consumption expenditure level.

Social protection is a right not a privilege and the present level of assistance should be scaled up to all households that require it. For example, the MZF focus group discussions heard that while the Basic Education Assistance Module (BEAM) is much appreciated, it does not reach all the needy children in poor households and needs to be expanded. Following the passing of the Elderly People's Act, the Government is planning an old age pension scheme.

Quality employment and education

Quality employment can only emerge from sustained productivity growth over time. Increased agricultural production will lead to increased economic growth as well as boosting rural incomes. This will result in increased demands for goods and services, and jobs will follow.

A clear message emerging from the MZF data is that quality employment matters in raising households out of poverty, in both rural and urban households, but particularly so for the urban households.

Quality education is also key to quality employment. The industrial and education policies should be linked and there is need to come up with a cadre of industrialists. The Ministry of Education has embarked upon a technical vocational programme in an attempt to empower learners with technical skills to become 'job creators' rather than 'job seekers'.

Restore the urban areas as industrial, manufacturing and commercial centres

Revitalising industry in the urban centres will increase economic production and create quality jobs. This will have a knock-on effect in enhancing the rural situation. Income from wages will enable urban households to purchase adequate food and other essential goods, and also to pay rents and the various user fees, which are generally much higher than their rural counterparts. Electricity and water fees are particularly high for urban residents.

The importance of poverty knowledge

It is evident that a considerable degree of poverty will remain in Zimbabwe for some time, until the poverty reduction strategies take effect. There is need for systematic poverty research to generate poverty knowledge and monitor poverty dynamics. Deeper understanding of poverty demands an effective combination of qualitative and quantitative methods and interdisciplinary analysis (CPRC, 2005). Panel surveys which illustrate poverty trends over time would be more informative and useful for policy formulation. Unless there are evidence-based public policy responses to poverty there is the likelihood that the policies that have not worked in the past are continued.

Poverty can only be addressed through understanding its complex, dynamic nature, providing solutions informed by sound evidence. Longitudinal data sets would assist in examining the scale and dynamics of poverty. Creation of poverty knowledge and its application to policy and implementation should be swift, particularly in a rapidly changing situation. To be effective in reducing poverty in Zimbabwe, generation of poverty knowledge must be intimately linked with policy-making processes.

The establishment of a poverty dialogue 'think tank' would provide for the coordination of poverty research and the commissioning of research to address knowledge gaps and stakeholders demands, disseminate poverty research findings to relevant stakeholders and provide a platform for debate and discussion of policy issues.

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Appendix 4.1

Determinants of household monthly expenditures

Log of per capita monthly household expenditures

Dependent variable	All	Rural	Urban
*Agro-ecological Region**			
Region III	0.002	0.081	0.006
	[0.08]	[1.66]	[0.12]
Region IV	-0.085	-0.093	-0.064
	[2.10]*	[1.98]*	[0.60]
Region V	-0.124	-0.191	0.159
	[3.45]**	[4.20]**	[2.47]*
Urban	0.442		
	[10.66]**		
Log of household size	-0.73	-0.795	-0.659
	[33.52]**	[28.60]**	[18.68]**
Household head is female	-0.009	0.054	-0.061
	[0.28]	[1.35]	[1.21]
Log of age of household head	0.024	0.031	0.045
	[0.66]	[0.70]	[0.73]
Highest grade attained by head (cf: No Education)			
Grade Zero	-0.033	-0.012	-0.151
	[0.69]	[0.23]	[1.12]
Grade 7	0.048	0.064	0.001
	[1.17]	[1.39]	[0.01]
Form 2	0.051	0.106	-0.029
	[1.25]	[2.25]*	[0.32]
Form 4	0.191	0.223	0.169
	[4.62]**	[4.41]**	[1.98]*
Form 6 and above	0.402	0.274	0.437
	[8.01]**	[3.52]**	[4.85]**
Marital status (cf: Never Married)			
Married	0.01	0.065	-0.076
	[0.20]	[0.90]	[1.18]
Divorced/Separated	-0.006	0.033	-0.054
	[0.10]	[0.34]	[0.60]
Widowed	-0.007	0.029	-0.082
	[0.12]	[0.34]	[0.98]

Other	-0.078	-0.087	-0.056
	[1.22]	[0.98]	[0.58]
Household has at least one orphan	-0.069	-0.042	-0.136
	[2.38]*	[1.17]	[2.80]**
Log of values of cattle owned	0.011	0.022	-0.008
	[2.38]*	[4.27]**	[0.73]
Household received cash transfers in the last 12 months	0.082	-0.007	0.147
	[2.82]**	[0.17]	[3.61]**
Household received rental income in the last 12 months	0.134	0.103	0.152
	[3.15]**	[1.03]	[3.14]**
Household involved mineral harvesting in the past 12 months	0.271	0.286	0.053
	[4.26]**	[4.46]**	[0.17]
At least one household member moved out in last 12 months	0.023	0.011	0.055
	[0.92]	[0.35]	[1.36]
Household has at least one permanent employee	0.231	0.294	0.135
	[8.02]**	[6.21]**	[3.56]**
Household has at least one temporary employee	0.001	0.042	-0.089
	[0.03]	[1.00]	[2.00]*
Household operated a business enterprise last year	0.173	0.244	0.115
	[6.12]**	[5.50]**	[3.05]**
Household cultivated crops last year	-0.146	-0.137	-0.12
	[4.31]**	[3.35]**	[1.94]
Household has access to cult land in Zimbabwe	-0.007	-0.085	0.06
	[0.21]	[1.98]*	[1.21]
Household has access to electricity	0.244	0.31	0.114
	[7.95]**	[7.04]**	[2.51]*
Water sources (cf: Unprotected Well)			
Piped water inside house	0.369	0.262	0.279
	[7.13]**	[2.84]**	[2.35]*
Piped water outside house	0.196	0.201	0.127
	[4.31]**	[3.75]**	[1.09]
River/stream/dam	0.162	0.19	0.41
	[3.53]**	[4.08]**	[0.65]
Protected well/borehole	0.075	0.097	0.104
	[1.98]*	[2.46]*	[0.83]
Other water supply	0.192	0.173	0.197
	[3.52]**	[3.10]**	[0.90]

Household water source more than 1km	-0.003	0.011	-0.342
	[0.07]	[0.26]	[1.42]
Household ownership of assets			
Household owns a bicycle	0.142	0.143	0.142
	[5.12]**	[3.93]**	[3.34]**
Household has a mobile phone	0.162	0.125	0.202
	[5.76]**	[3.70]**	[3.95]**
Household has a peanut butter machine	0.335	0.442	0.269
	[3.94]**	[3.19]**	[2.48]*
Household has plough	-0.092	-0.1	-0.043
	[2.50]*	[2.56]*	[0.41]
Household has scotch cart	0.231	0.245	0.19
	[5.47]**	[5.45]**	[1.65]
Experience of shocks at the household level			
Household experienced food shortage in the past 3 months	-0.202	-0.167	-0.258
	[8.70]**	[5.51]**	[7.12]**
Household experienced drought in the past 12 months	-0.034	-0.012	0.001
	[1.20]	[0.36]	[0.02]
Household experienced floods in the past 12 months	0.11	0.146	-0.036
	[2.40]*	[2.93]**	[0.29]
Household experienced pests in the past 12 months	0.035	0.068	0.053
	[1.09]	[2.02]*	[0.49]
Household experienced labour shortages in the past 12 months	-0.045	-0.039	0.004
	[1.27]	[1.02]	[0.04]
Household experienced fires in the past 12 months	0.104	0.105	-0.163
	[2.57]*	[2.44]*	[1.47]
Household experienced rising prices in the past 12 months	0.164	0.129	0.178
	[6.84]**	[4.00]**	[4.81]**
Household experienced reduction in donor assistance in the past 12 months	0.035	0.056	0.002
	[1.30]	[1.70]	[0.03]
Constant	3.833	3.779	4.399
	[25.77]**	[19.57]**	[17.09]**
Observations (Number of households)	3,354	1,940	1,414

*Absolute value of the statistics in brackets * significant at 5 per cent; ** significant at 1 per cent. Variables with * show that they significantly influence poverty levels of households by the factor indicated. If the factor is negative then the influence is also negative, that is the factor increases the likelihood of the household falling into poverty.*