

5. RISK, VULNERABILITY, AND POVERTY

A. Introduction

5.1 The second and third chapters analyze the levels and distribution of welfare in Zambia and present a profile of the characteristics of the poor. They touches upon some of the underlying processes that have contributed to the country's high observed levels of poverty, as well as reasons for poverty persistence. Many factors combine to explain the dynamics of wealth and poverty. Exposure to risk is one of these factors, and in high risk environments, characteristic of many low-income countries in Africa, looking at risk directly helps us better understand the dynamics by which households move in or out of poverty or remain chronically poor. The analysis of risk and vulnerability in this chapter is thus a natural complement to the more traditional poverty analysis in Chapters 2 and 3 and deepens discussions of risk and pro-poor growth in the previous chapter.

5.2 The analysis of risk and vulnerability typically encapsulates two separate areas of attention. First, it focuses on the role of risk in the dynamics of poverty and the strategies households use to address the exposure to various sources of risks. Here, the focus is on the impact of risk on poverty, taking into account the informal and formal mechanisms of risk reduction, mitigation and coping available to households. Second, there is a focus on specific vulnerable groups that are characterized by limited resilience to avoid poverty and few opportunities to escape chronic poverty.

B. Approach

Social Risk Management (SRM)

5.3 This report approaches risk and vulnerability from the viewpoint of Social Risk Management (SRM), which provides a framework for analyzing *how societies manage risk*. Two important assumptions underpin the SRM approach: first, that some members of society, in particular the poor, are more exposed to risk than others, and second, that the poor have less capacity to manage shocks when they do occur. Individuals and households confront a number of barriers that cause many of them to be poor and undermine attempts to escape poverty and improve their economic well-being. Some of these are predictable and known, i.e. linked to past and present policies, institutions and structural features of the economy. Others are linked to adventitious shocks and unexpected adverse events that impact on individuals, households and on the wider community.

5.4 Poverty in Zambia is persistent and self-perpetuating but far from static. The Urban and Rural Participatory Studies' fieldwork and follow-on consultations with low-income communities revealed that a few fortunate households are able to escape poverty through dint of hard work, good fortune, and the relative absence of major shocks. Many others hover on the brink of

economic calamity and may suffer a catastrophic loss in welfare when a shock occurs. Adverse events are all too common in Zambia: households described frequent illnesses, injuries, deaths of breadwinners, losses of employment, crop failures, fires, thefts, droughts, and floods.

Households also described an array of instruments—including informal, community, market-based and public sector policies and programs—that help them manage these risks. Analysis suggests that poorer households not only have more limited resources but also less access to risk management instruments and thus are likely to descend even deeper into poverty when serious shocks occur. Moreover, many poor households employ coping strategies that work in the short run but have adverse impacts over the longer-run, e.g. pulling children out of school, reducing meals, and prostitution. Households that run down critical assets like human capital and productive inputs may end up perpetually trapped in poverty. But households that shun risky, high-return economic activities (e.g. cultivating cash crops) with the aim of protecting fragile livelihoods may also remain trapped in poverty. (Dercon, 2002, 2004; Carter and Barrett, 2004; Barrett, Mesfin, and Abdillahi, 2000)

5.5 To summarize, good risk management strategies are important for poor households in Zambia because they

- help to prevent shocks that can derail growth and asset accumulation;
- promote risk taking, innovation, and entrepreneurship;
- broaden participation (of poor men and women) in growth;
- help to counteract irreversible depletion of assets.

Vulnerability in Zambia

5.6 The term “vulnerability” is used in many different ways in the development literature. For purposes of this work, we follow the definition developed by Zambia’s Social Protection Sector Advisory Group (SP SAG)⁴¹, “vulnerability implies susceptibility to the impact of risky events, as a result of particular weakness or lack of defenses, and resulting in a worsened situation for the sufferer(s)”. (SP SAG, 2005)

5.7 As noted above, the work on vulnerability in this report focuses on two complementary areas of concern.

5.8 Exposure to Risk: *Risks* are potentially dangerous events that are likely to cause economic loss or damage when they occur, while *shocks* are the actual occurrence of a risk. Although poor households are more likely than others to be exposed to risk, e.g. because of poor nutrition and hazardous living conditions, certain risks (such as potential infection with HIV/AIDS) appear to be common and widely distributed within the country at all economic levels. The shocks and set-backs that damage vulnerable households are normally classified into two types: covariate and idiosyncratic. *Covariate shocks* – such as droughts and floods -- are those that simultaneously affect a large number of households (usually those in close geographic proximity to one another). *Personal or idiosyncratic shocks* include household-specific problems

⁴¹ The Government of Zambia (GRZ) has set up a number of Sector Advisory Groups (SAGs) to monitor the implementation of the first PRSP and to advise on the development of the Vision 2030 study and the Fifth National Development Plan (NDP), which will fully integrate poverty concerns and replace the PRSP. Social protection was not adequately reflected in the first PRSP. The SP SAG is developing a national social protection strategy that will become a part of the Fifth NDP. See Chapter 6.

such as serious or chronic illness, loss of a breadwinner through death or desertion, and loss of property through fire or theft.

5.9 Although idiosyncratic shocks can be singularly devastating, it may be even more difficult to cope with the aftermath of covariate shocks. Households struck by droughts, crop failures or natural disasters may not be able to gain assistance from their traditional networks of support, since neighboring and kinship-related households have also suffered losses. In a severe drought year, for example, small cultivators will not only lose their own crop, but will also find less work in other's fields. They will also receive scant assistance from neighbors and relatives, since the harvests of other village households will be no better than their own. Among the poor, the risk pool is small and it possesses few resources. Some covariant shocks, moreover, affect the poor more often or more severely than the non-poor. Poor households may be relegated to marginal lands that are flood or drought-prone or urban neighborhoods without safe water or adequate sanitation. Idiosyncratic shocks also may disproportionately affect the poor. A family whose members are malnourished due to poverty may suffer more illnesses, deaths, and disabilities than households that are wealthier and better-nourished.

5.10 The boundaries between idiosyncratic risk and covariate risk are often not clear in low income countries. An idiosyncratic risk or shock suggests that the event and problem are particular to the individual or household that faces them, while a covariate shock implies that the impact and response is affected by the fact that others are simultaneously experiencing the same shock. The threat, incidence, and impact of Zambia's most devastating idiosyncratic risks and shocks are respectively so widespread that they are becoming *de facto* covariate. For example, the incidence of HIV/AIDS is sufficiently large that people are experiencing its impact as part of a widespread epidemic, rather than as a unique and personal event.

5.11 Vulnerable Groups: The severely poor are always vulnerable. In addition, many countries identify individuals and households characterized by factors that are in addition to low levels of income/consumption poverty as members of *vulnerable groups* and therefore deserving of special assistance. In Zambia these include e.g.

- Orphans, street children, other at-risk children;
- female-headed households, particularly widows;
- households with disabled or ill individuals (including HIV/AIDS related illnesses), or recent deaths;
- the "incapacitated poor," identified as those "living in severe and chronic poverty and without members to carry out productive work" (PAG, 2004).

5.12 The presence of orphans or disabled persons may exert an additional economic strain on low-income households. Households headed by women may lack the physical capacity for heavy manual labor, particularly if they are caring for young children or individuals who are seriously ill. They may also not have skills in for essential tasks that are traditionally the role of men. They may face social stigmatization and other forms of discrimination. Households that have lost a male breadwinner may also have lost property rights or access to lands or assets that belonged to the deceased household head. In matrilineal communities that adhere to traditional inheritance patterns, the property of a deceased male is inherited by his matrilineal kin (usually his sisters and their children) rather than by his own children. The Government of Zambia has passed legislation aimed at protecting the inheritance rights of widows and orphans, but it has proven difficult to implement these new laws in practice.

5.13 This chapter looks specifically at the links between risk and poverty in Zambia, while Chapter 6 focuses on vulnerable groups and Zambia's emerging Social Protection Strategy.

Measuring and Analyzing Vulnerability: Methods and Sources of Information

5.14 The chapter draws on information from a number of sources – the LCMS surveys, 1990 and 2000 Census of Population and Housing, Zambia DHS surveys, the Urban and Rural Participatory Studies, as well as other micro studies and qualitative field surveys, including those carried out by the Poverty Assessment Group (PAG) and CARE. Household surveys in Africa are increasingly likely to include special modules on vulnerability, risk, and risk-coping. The Zambia LCMS surveys in 1996, 1998, and 2002-03 included modules on self-assessed poverty and household coping strategies, which we use extensively in this chapter.

5.15 Attempts have been made in other countries to use information from household surveys to calculate a “headline” indicator of vulnerability, in the same way the poverty headcount is used as a headline indicator of poverty. While it is easy to define the concept of vulnerability – high risk exposure combined with limited capacity to manage risks – it is difficult in practice to develop quantifiable vulnerability indicators. Calculating the poverty headcount is more straightforward: the conventional approach equates poverty with material deprivation and defines the poor as those with a level of consumption below some minimally agreed level, i.e. the poverty line. In the case of vulnerability, however, we rarely know the full set of risks that households face, what strategies and resources they can use to manage these risks, and what would be the expected loss in welfare due to an uninsured shock.

5.16 Attempts to measure vulnerability directly have met with mixed success. Most studies aim to measure “vulnerability-to-poverty”, typically defined as the probability that a household will fall below the poverty line, based on the characteristics of the household, the community, and other risk factors such as rainfall. Efforts to calculate vulnerability-to-poverty using data from household surveys implemented in a single-year have been particularly problematic: information on risks and variations in household behavior over space (in a single time period) is not the same as variation in behavior over time (across multiple time periods). Studies based on panel data (repeated observations of the same household over time) have yielded more interesting results, but panel data are available for only a small set of low-income countries⁴² and these surveys are rarely representative for the population as a whole. (see, for example, Chadhuri et. al., 2001; Pritchett et. al., 2000; Ligon and Schecter, 2003; Chadhuri, 2002)

5.17 Given methodological difficulties and data limitations, the report does not attempt to measure vulnerability directly but instead looks at outcome indicators, with the aim of developing a better understanding of (i) the extent to which risk contributes to Zambia's high and persistent levels of poverty, as well as (ii) its role in downward mobility and resulting levels of acute poverty and destitution. Consistent with the earlier discussions, poverty is assumed to include material deprivation as well as other dimensions of well-being, e.g. deprivations in human capital, lack of social capital and traditional systems of support. Shocks may have important adverse impacts on non-income dimensions of poverty: for example, the inability of poor households to cope with production shocks in rural areas may be reflected in higher levels of morbidity and malnutrition, particularly among young children, and lower school enrollment rates.

⁴² Panel surveys have been conducted in sub-Saharan Africa under the guise of research programs e.g. in Kenya, South Africa, Tanzania, and Mozambique.

Overview of the Chapter

- 5.18 In this chapter, we draw on various data sources to demonstrate that:
- Exposure to risk and the incidence of shocks are extremely high in Zambia, and there are important links between risk, economic growth, and poverty reduction.
 - Nearly all households have viable strategies for managing risk, and in many cases these strategies have proven effective in preventing drastic shortfalls in welfare.
 - However, poor Zambians are more exposed to risk and largely depend on traditional support networks and informal risk management strategies. Many of these strategies, while successful in the short-run, may undermine their ability to manage shocks in the future.
 - There is disquieting evidence that exposure to risk is increasing for the poor and resilience is deteriorating. HIV/AIDS is an important factor. Given high prevalence rates and risky behavior, the likelihood of contracting HIV/AIDS is high and the effects of the disease itself undermine the ability of AIDS affected households to successfully manage other risks.
 - Many of the poor live in isolated regions characterized by pervasive market failures. Under these circumstances, market-based risk management strategies do not work well, and the onus is on the public sector to strengthen services and programs in these areas.
 - Public policies and programs designed to promote security and address the needs of the poor and vulnerable have low coverage and are under-financed and poorly implemented. Moreover, they are largely financed through aid flows, which are themselves uncertain. Current policies rarely include *ex ante* preventative measures, and the impacts of many of the major shocks in Zambia could be prevented and/or reduced if the Government of Zambia, working in collaboration with all stakeholders, would better anticipate and plan for these.

C. What Risks are Common in Zambia?

5.19 The lives of the Zambia's poor are fraught with risk and uncertainty. At Independence, Zambia was one of the wealthiest countries in Africa. The economy has been going downhill steadily since the early 1970s, and the overwhelming majority of Zambians perceive themselves as poor and increasingly vulnerable to events over which they feel they have no control. Respondents gave voice to their fears and frustrations in the Rural and Urban Participatory Studies, (Box 5.2) and their views are also reflected in the recent 2002-03 LCMS survey. (Table 5.1 and

Table 5.2, based on the LCMS module on self-assessed poverty and coping strategies).

Box 5.1 Consultations with Poor Men and Women—Shocks

During the Rural and Urban Participatory Studies, informants were asked to describe shocks or catastrophic events that caused them to suffer a significant drop in earnings and welfare over the past 5-10 years. Notably, many listed changes in government policy as one of the major shocks they have experienced. In addition, rural informants frequently mentioned the following:

- Crop loss due to drought or flood,
- Damage to crops by wildlife or insect pests,
- Loss of livestock to disease or theft (and attendant loss of draught power),
- Chronic or serious acute illness or in the household,
- Death of the household head or main breadwinner,
- Household fires,
- Violent crime.

In contrast, urban informants were more likely to mention:

- Loss of formal employment
- Inflation, in particular sharp increases in food prices
- Death of the primary income earner
- Illness – including both chronic illness and acute illnesses (malaria, diarrhea)
- Social exclusion as a result of HIV/AIDS stigma and discrimination
- Droughts (urban and peri-urban agriculture are common sources of food or income)

Source: Rural Participatory Study

**Table 5.1: Self-reported Reasons for Poverty in 2002-03:
Rural Households by Consumption Quintile**

<i>RURAL Households</i>	<i>Percent Reporting as Either 1st, 2nd, or 3rd Reason</i>					
	<i>Quintile</i>					
<i>Self-reported Reasons for Current Poverty Level</i>	<i>Poorest 20%</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>Wealthiest 20%</i>	<i>All Households</i>
Economic decline of country	25	24	26	26	28	26
Access/price of ag. inputs	61	61	59	54	51	57
Low agriculture production	19	15	15	13	14	15
Low output prices, inadequate markets	15	14	14	12	12	13
Insufficient land	3	4	3	4	4	3
Too few cattle or oxen	22	29	30	32	36	30
No capital to start/expand farm or business, no credit	42	45	40	42	39	42
High debt	0	0	0	1	0	0
Lack of employment opportunities	9	10	8	10	9	9
Wages too low	3	5	6	8	12	7
Prices too high	22	16	20	21	16	19
Shocks						
Drought	7	8	11	9	10	9
Floods	2	3	2	3	2	2
Death of cattle or oxen	2	3	4	3	5	3
Disability in the household	3	1	2	1	1	1
Death of a breadwinner	9	6	7	6	5	6
Other causes	11	9	6	9	7	8

Source: 2002-03 LCMS tabulations

**Table 5.2 Self-reported Reasons for Poverty in 2002-03:
Urban Households by Consumption Quintile**

<i>URBAN Households</i>	<i>Percent Households Reporting 1st/2nd/3rd Reason</i>					
		<i>Quintile</i>				
<i>Self-reported Reasons for Current Poverty Level</i>	<i>Poorest 20%</i>				<i>Wealthiest 20%</i>	<i>Total</i>
Economic decline of the country	60	69	68	65	58	63
Access/price of ag. inputs	9	8	7	5	3	6
Business not doing well	8	10	11	8	8	9
No capital to start/expand farm or business, no credit	38	35	34	32	22	30
High debt	0	1	0	1	0	1
Lack of employment opportunities	31	31	28	20	15	22
Salary, Pension too low	32	36	40	49	48	43
Prices too high	52	54	54	56	54	54
Shocks						
Retrenchment	8	7	4	5	3	5
Disability in the household	1	0	2	0	0	1
Death of a breadwinner	9	10	8	6	4	7
<i>Other causes</i>	8	6	6	6	4	5

Source: 2002-03 LCMS tabulations

5.20 These diverse sources of information paint a consistent picture: in rural areas households suffer from crop failure and its causes—droughts, flooding, damage to crops by wildlife, and crop destruction by insect pests. Livestock deaths were also mentioned frequently. Moreover, the likelihood of experiencing specific crop-related shocks was found to be greater in some agro-ecological zones, e.g. drought is far more common in the south. In the 2002-03 LCMS, 11 percent of rural households cited drought and floods as an important cause of poverty, although the survey period captured only the tail-end of a drought period. Additional tabulations by province (Annex Table 4.1) show that 30 percent of survey respondents living in drought-prone Southern Province ranked drought as the most important cause of poverty for their households. Not surprisingly, loss of secure employment and inflation were reported as the most common and devastating shocks in the Urban Participatory Study. Tabulations from the 2002-03 LCMS show that 20 percent of urban households in Zambia had at least one member who was unemployed and actively seeking work; in Lusaka alone, 28 percent of households had at least one unemployed household member. (Annex Table 5.1) Retrenchment is viewed as an important cause of poverty in Lusaka's cities and towns, and it has had a particularly adverse impact on the poorest households: 8 percent of the poorest households in urban areas cited retrenchment as a primary cause of their poor economic status as compared to 3 percent of the wealthiest households. (Table 5.2)

5.21 Although differences between urban and rural areas were striking, rural and urban respondents both reported one type of shock with high frequency – the illness and death of a breadwinner or other productive adult household members. While HIV/AIDS rates are higher in urban areas, the prevalence of HIV/AIDS in rural areas is still very high (an average of 12 percent). Other diseases such as malaria, cholera and typhoid also threaten members of rural households. The 2002-03 LCMS suggests that mortality risks have a greater impact on the poorest households: 9 percent of the households in the bottom quintile identified the death of a breadwinner as a major cause of poverty, as compared to 5 percent of the wealthiest households. (Table 5.1 and Table 5.2) While deaths, particularly those caused by AIDS, affect Zambians in all

walks of life, resource poor households are less able to cope, as are female-headed households. Across all wealth quintiles, nearly 18 percent of female-headed households reported death of a breadwinner as a major cause of their low economic status. (CSO, 2004).

5.22 While there is clear evidence that risk contributes to poverty in Zambia, it is important to keep in mind that not all poverty is risk-related. Structural factors linked to policies and institutions are enormously important. Chapters 2 and 3 discuss many of the structural factors in the economy that contribute to high and persistent levels of poverty. The tables above also demonstrate the high and pervasive impact across wealth quintiles of structural (longer-run) factors including overall economic decline, lack of capital for investment of business expansion and low access to credit, low salaries and limited opportunities for employment (urban), high agriculture input prices (rural), and high consumer prices (throughout Zambia). Both urban and rural households registered particularly concerns about access to agriculture inputs e.g. fertilizer and seeds.

5.23 Drawing together the existing evidence⁴³, the major risks in Zambia can be grouped into three categories: (1) climate risks, including droughts and floods; (2) health risks and animal and plant diseases; and (3) macro and related price shocks, including policy fluctuations and reversals.

Climate Risks

5.24 Farming in Zambia is almost exclusively rainfed, which makes it inherently risky. As described in Chapter 3, much of the farming is done in arid and semi-arid regions, where climate variability is high, making climate risk an important source of income variability. Maize dominates cereal production in Zambia, accounting for about 85 percent of both area cultivated and production of cereals in 2000-04 (del Ninno, 2005 – Food Aid and Food Security). Zambia experiences periodic droughts and floods, and it has been particularly drought-prone over the past decade. The country suffered droughts in the 1991-92, 1994-95, 2000-01 and 2001-02 seasons (del Ninno, 2005; Tschirley et al., 2004; Chilangwa and Cromwell, 2004). Agricultural production has suffered as a result of drought, particularly in the Western and Southern Provinces, as well as other environmental shocks. In riverine areas, fields have sometimes been washed away by flooding associated with the siltation of Zambia's rivers.

5.25 Droughts and flooding have large impacts on farmers, due to the loss of crop production and livestock. They also harm consumers through increased prices of food commodities in general and maize in particular. Most rural households purchase maize and other staple foods during pre-harvest months and are thus vulnerable to price increases due to weather or other factors. Drought also tends to reduce employment opportunities in rural areas, which are an important source of additional income for smallholders and poorer households that cannot afford to cultivate their own fields.⁴⁴ While rural labor markets in Zambia are relatively underdeveloped (White et. al., forthcoming), many of the poorest households earn extra income by working on the fields of others.

⁴³ "Social Risk Management in Zambia: A Working Paper Presented to the Conference on Dynamic Social Risk Management." Government of the Republic of Zambia. Paris, June 30 – July 4 2003.

⁴⁴ In the rural qualitative study, examples were cited of labor deficit households, also those caring for sick members, who could not cultivate sufficient land. Some households could not afford seeds and basic inputs.

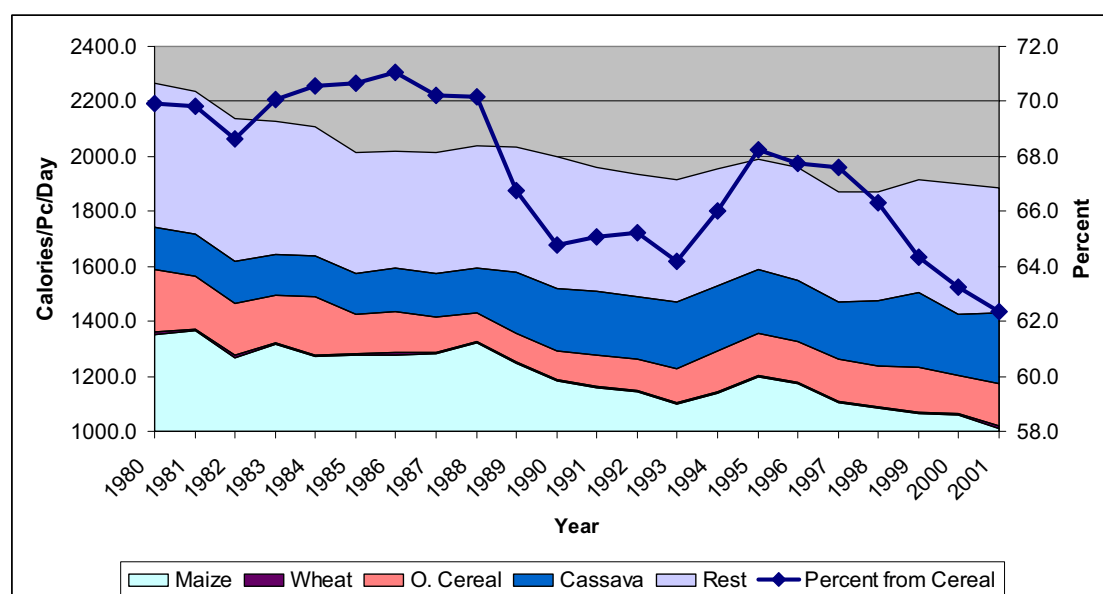
Food Security and Drought in Zambia

5.26 Zambia experienced its last major drought between 2001 and 2003. Poor rains over two consecutive crop years (2000-01) and (2001-02) caused severe production and supply shortfalls in Zambia and elsewhere in southern Africa that were not relieved until the 2002-03 crop was harvested early in 2003. In 2000-01, prolonged dry spells in Southern and Western provinces, combined with excessive rains and flooding that destroyed crops in other areas to cause a 29 percent decline in cereal production relative to previous years. Cereal production was equally poor in the following cropping season due to a more extended drought that affected larger parts of the country. Maize prices increased up to 5 times the five-year average and in some southern regions, maize was not available on the market. (WFP 2003) At the peak of the crises, the Zambia Vulnerability Assessment Committee (VAC) estimated that 2.9 million (26 percent of total population) were in need of food assistance (VAC, 2003), although there was subsequent criticism of the methods they had used to make this assessment.

5.27 The severe famine predicted for the latter half of 2002 did not in fact materialize. Households coped, although staple food prices rose sharply and rural and urban families clearly felt the pinch. In rural areas, use of traditional wild foods helped many households to secure daily meals when no relief supplies were available. While levels of acute malnutrition⁴⁵ in young children did not rise in 2001-2003 as compared to earlier years (Table 1.X) and are still well below the levels observed when there is a famine or in ongoing conflict (e.g. in Darfur and other regions of Sudan), the DHS surveys document a steady increase in chronic malnutrition (low height-for-weight, or stunting) over the 1990s, which suggests growing levels of chronic vulnerability among young children. In addition, according to FAO (FAO, 2003) the dietary energy supply in Zambia (Kcal/day per person) has fallen in absolute terms over the past several decades (Figure 5.1), and the index of domestic food production was virtually stagnant between 1990 and 2000 (World Development Indicators, 2004). While poor men, women, and children coped in the short run with the 2001-2003 food crisis, it came at a cost to levels and security of future income streams and livelihood strategies.

⁴⁵ Wasting, or low weight-for-height, is generally considered a measure of acute malnutrition. See Chapter 5 for a more detailed discussion of malnutrition.

Figure 5.1 Levels and Composition of Food Consumption in Zambia

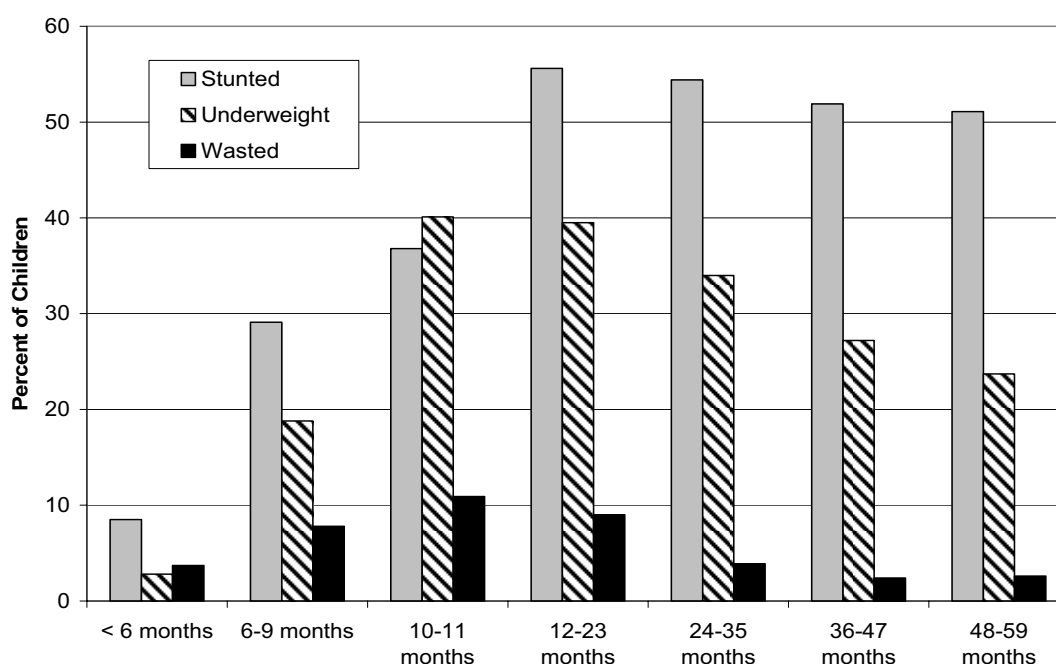


Source: FAO

Health Risks

5.28 Health risks are pervasive in Zambia as a result of HIV/AIDS, TB, malaria, cholera and other life-threatening illnesses that are common to the country. The national HIV prevalence rate among adults aged 15-49 is about 16 percent (ZDHS 2001-02). Not only is the economically active population of HIV-affected households removed from the home, but a large number of orphaned children are left without parents. Agricultural production suffers as a result of the illness and death of productive adults, and because the healthy are preoccupied with the care of the sick. Health shocks also decimate livestock, particularly high-cost draught animals such as cattle, which have traditionally provided security in the drought prone Southern and Western Provinces.

5.29 The burden of disease is overwhelmingly carried by young children in Zambia. According to the most recent DHS (2001-02), 20 percent of children under five years old had diarrhea in the two weeks preceding the survey, 43 percent had fevers or convulsions, and 14 percent reported symptoms of acute respiratory infection (ARI). (CSO, Central Board of Health, ORC Marco, 2003). A much higher incidence of all these illnesses was reported for children between the ages of 6 and 23 months as compared with other age groups. This age group also evidenced higher levels of malnutrition (Figure 5.2) While wasting (as noted above, generally considered an indicator of acute malnutrition) is low on average in Zambia, it rises sharply when children are weaned. The proportion of underweight children also initially rises, but both measures begin to fall when children pass the two year mark. The same pattern is seen in the incidence of disease. Malnutrition is a common underlying cause of many illnesses, and chronic malnutrition reduces resilience to disease and can constrain intellectual development and learning. The causes, links with poverty, and recommended responses to malnutrition are discussed in Chapter 8.

Figure 5.2 Levels of Stunting, Underweight, and Wasting, by Age

Source: ZDHS, 2001-03

Note: For all anthropometric measures, percentage below -2 SD from the International Reference Population median.

5.30 Malaria is endemic throughout Zambia and is a major public health concern. It is the leading cause of morbidity and the second highest cause of mortality, particularly among pregnant women and young children. Malaria accounts for 50,000 deaths a year in Zambia and 37 percent of all out-patient hospital visits in Zambia. (CSO, Central Board of Health, ORC Marco, 2003) Malaria's economic impact in Zambia has not yet been quantified, but is likely substantial, with regional estimates suggesting a deficit of 1.5% of GDP. Malaria incidence rates in Zambia have tripled in the past three decades from 121 cases per 1000 in 1976 to 376 cases per 1000 in 2004, according to Health Management Information System data (HMIS).. Many factors have led to this deterioration including the spread of chloroquine resistance, decreased access to quality care, HIV, and increased poverty.

5.31 Despite high levels of malaria exposure, only 35 percent of urban households and 23 of rural households own a mosquito net and only half of these are insecticide treated (ZDHS, 2002-03). Many households do not use them on a regular basis, and many households that own nets do not own enough to cover all family members.

5.32 The Zambia National Malaria Control Program found a substantially higher prevalence of malaria infection among the population in the lowest wealth quintile in a recent survey (Zambia National Control Program, unpublished data). This can be explained by the inability of poor households to obtain a bed net for the prevention of malaria and treat it regularly. Also, the poor are more likely to live in rural areas where the concentration of mosquitoes is likely to be higher. Whether or not the risk of infection varies by quintile, current evidence suggests a much stronger correlation between wealth status and the consequences of malaria infection (Barat, et al, 2004). Figures in Chapter 3 show that the rural poor are much less likely to use a health facility than

those that are better off. Filmer (2002) examined data from DHS surveys in seven eastern and southern African countries to determine differences in treatment seeking for reported fever. Among those in the poorest quintile, 41 percent did not receive any formal treatment, as compared to just 21 percent in the top quintile.

5.33 HIV-positive individuals are more vulnerable to malaria. People living with AIDS are also more likely to be more susceptible to treatment failure of anti-malaria drugs. Acute malaria is also associated with an increase in the HIV viral load and with mother-to-child transmission. Studies from Malawi showed that acute malaria was associated with a 7-fold increase in HIV viral load in co-infected patients, a change that carries a risk of increased disease progression and greater potential of HIV transmission.

5.34 HIV/AIDS is by itself an enormous challenge for Zambia, given high prevalence rates (26 percent urban, 12 percent rural) (ZDHS, 2001-02) and the maturity of the epidemic: Zambia is now entering its third decade of double-digit prevalence. Many households, rich and poor alike, struggle to cope with AIDS-related illnesses and deaths. AIDS deaths are typically preceded by a period of prolonged illness, and rural households are increasingly carrying a larger share of the burden – AIDS victims often return home (to rural areas) when they can no longer look after themselves (Waller, 1997). HIV/AIDS also has consequences for the next generation: the number of orphaned children is high and growing and there is disquieting evidence that orphans (particularly girl orphans) are less likely to attend school than other children living in the household. (Section D) HIV/AIDS places a particularly heavy economic burden on poor families – affected households must pay for medicines to treat opportunistic infections, for frequent hospitalizations, and suffer a loss in earnings when adult members become too weak to work, or must stay home and care for an ill family member. While touched on briefly here, the links between HIV/AIDS, poverty, and vulnerability are discussed in detail in Chapter 7.

Box 5.2: Shocks Experienced by the Household and the Living Conditions of Children

Are children particularly at risk when their parents or other adults in the household experience shocks such as the loss of employment, severe illnesses, and death?

Analysis was carried using the most recent 2002-03 LCMS data to explore the links between shocks at the household level (i.e. recent adult deaths, illnesses, disability, unemployment) and the well-being of children, measured in terms of malnutrition and school enrollments. The links were not found to be strong (Annex Tables 5.2 and 5.3). Although chronic malnutrition rates were slightly higher for households that have experienced shocks, these differences were generally small. The highest rates of stunting were found among those who had lost either a breadwinner or another adult. Among those who had experienced loss of a breadwinner or adult aged 15-49, 55 percent of children were chronically malnourished in comparison to 47 percent of those who had not. This suggests a pattern in which loss of economically productive adults is linked to long-term nutritional stress in children of the household.

Acute malnutrition levels are also higher (6 percent) for those who have lost an adult household member than among those who have not (4 percent). Among households reporting all other types of shock, acute malnutrition levels were not significantly higher (and in some cases were even lower) than among households who did not report the shock. In the case of drought, for example, children who had experienced drought were marginally less malnourished (4 percent) than were those who had not been affected by drought (5 percent). Although this difference is small (and may not be statistically significant), it may reflect the impact of food distribution programs that operated in drought-affected areas during the period in question.

No clear relationship was found between household level shocks and school enrollments.

The weak link between reported shocks and child welfare could reflect a number of factors. As discussed later in the chapter, the primary cause may well be due to the wide array of coping mechanisms, both indigenous and external, used by Zambian households. While many of these coping mechanisms may damage the long-term recovery of the household, they nevertheless appear to be effective in allowing households to smooth consumption and protect their children – at least to the extent that relatively few poor children are acutely malnourished.

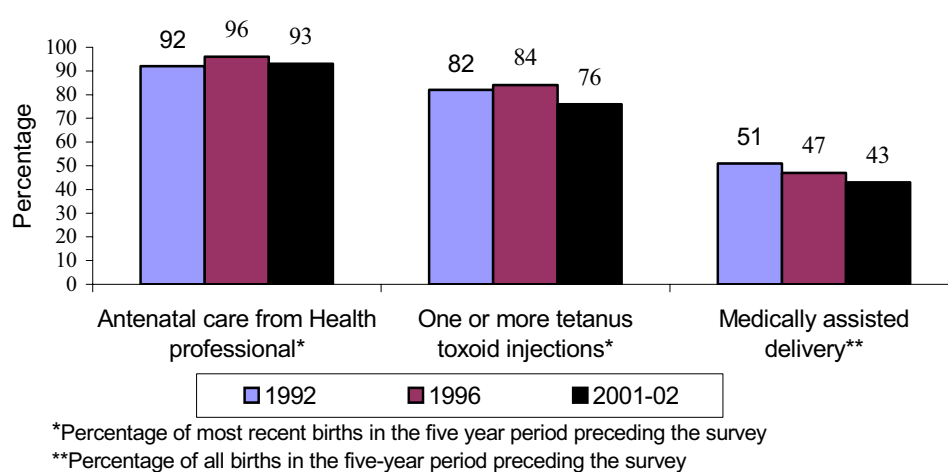
These findings also reflect difficulties in analyzing the impact of shocks using conventional household surveys. In contrast to the findings above, in the special module on self-reported poverty, 10 percent of poor urban households said they coped with shocks by withdrawing children from school.

Source: 2002-03 LCMS

5.35 Maternal mortality is also a serious health risk, particularly in rural areas. With only 28 percent of births attended by trained health personnel in rural areas, and 73 percent taking place at home (ZDHS 2001-02), often remote from any facility for emergency assistance, the risk of perinatal complications is high. In urban areas, in contrast, 23 percent of births take place at home, and access to trained health personnel is much higher. The number of pregnant women who do not receive a tetanus toxoid immunization rose between 1996 and 2001 in both urban and rural areas – from 17 percent to 26 percent of rural women, and 11 percent to 21 percent of urban women. Between 1996 and 2002, the overall maternal mortality rate rose from 649 to 729 per 100,000, and is likely to be very much higher in rural areas.

5.36 The costs of coping with the impacts of health shocks are very high and there is a great deal that can be done to prevent them from occurring. Mosquito nets reduce the transmission of malaria, but less than one-third of Zambian households own a mosquito net and even fewer (under 20 percent) reported they were using them at the time they were visited by ZDHS interviewers. Better antenatal care and measures put in place to ensure safe birth (tetanus toxoid coverage, medically assisted deliveries) would lower maternal mortality and other birth-related problems, and give children a better start in life. Unfortunately coverage and quality of maternal care has been deteriorating in Zambia.

Figure 5.3 Trends in Maternal Care, Zambia, 1992-2001-02



Source: ZDHS surveys, 1992; 1996; 2001-02.

5.37 Substantial efforts are being made in Zambia to make anti-retrovirals (ARVs) more widely available. This is very difficult in a country that still cannot ensure that government health centers have an adequate supply of basic drugs. Moreover, while ARVs can improve the quality and duration of life for AIDS victims, they do not cure the disease. The ARV treatment regime is difficult and only effective when there is high compliance; non-compliance creates drug resistant strains of the disease. Further, patients report problems in accessing the improved diet necessary for the drug treatment to be effective.

Box 5.1 Cost Implications of Free ARVs

Towela is a single mother living in Lusaka's Bauleni compound. She discovered that she was HIV+ about seven years ago. Although poor, she was well informed about HIV and managed to stay quite healthy. She supports her sons through selling tomatoes in the local market, and renting one of the three rooms in her house. She says that problems started when she started taking ARVs in 2004. Up until that time, her household budget had only been sufficient because her own appetite was so low. "I hadn't thought about it for so long", she complained, "but this medicine has brought back my appetite! I am so hungry now! I can't afford to buy enough food to feed myself and my boys, and also to buy their books. We must find a way out or else we won't manage to carry on".

Source: Harland (2005) Unpublished manuscript

5.38 Prevention – through changing sexual behavior – is essential. ARVs are only a partial and temporary solution of the HIV/AIDS. Drug resistance to ARV treatment will develop over time, making the drugs ineffective. Despite widespread knowledge of how AIDS is transmitted and current prevalence rates, only a small proportion of the Zambian population report using condoms in the 2002-03 LCMS (less than one-third for relations outside of marriage, and well under one-tenth for spouses and co-habiting partners – 2001-02 ZDHS). Given the extensive prevalence of HIV/AIDS in Zambia, this puts them at high risk of infection.

Macro, Price, and Other Risks

5.39 The Zambian economy has been damaged by macroeconomic fluctuations that are experienced as shocks at the individual and household levels. Primary among these has been the collapse of the copper market and the continuous downward trend in the price of copper over the past three decades. (Figure 5.4) This change has been experienced by individuals and households in Lusaka and the Copperbelt as the loss of employment, and in rural areas as the loss of remittances. The rise in oil prices has exacerbated this situation.

Figure 5.4 Trends in World Copper Prices, 1964-2001



Source: US Geological Service (<http://minerals.usgs.gov/minerals/pubs/of01-006/copper.pdf>)

5.40 Should the long-run fall in copper prices really be considered a risk? Local and international researchers, including the World Bank, have been raising concerns about Zambia's heavy dependence on copper at least since the early 1970s. Inaction on the part of the government has created a policy environment where many Zambians experience copper prices fluctuations as a risk. For example, there were a number of informants in the urban participatory who had been retrenched in the mid-to-late 1990s but were still waiting for the mining companies to hire them back.

5.41 More generally, Zambians in both urban and rural areas described policy fluctuations as a major risk. For example, when fertilizer subsidies were removed over a decade ago, many cultivators found themselves committed to a crop (hybrid maize) they could no longer afford to cultivate. In theory, this change is so long-standing that it is not within the range of events

normally considered to be a catastrophic occurrence or shock. However, policies on fertilizer subsidies (and agriculture subsidies more generally) have not remained stable since government has re-introduced partial subsidies, targeted subsidies, and other modifications over the course of the 1990s. As a result, small holder farmers perceive agricultural policy to be as unpredictable and potentially calamitous as changes in the weather.

Multiple Shocks

5.42 Despite seeking to avoid shocks or to prepare for them, all households will experience shocks, and many experience multiple shocks. In Zambia, the advent of HIV/AIDS as well as widespread poverty in rural and urban areas combine to ensure that shocks are common. Table 5.3 shows that while all households experience shocks, poor households suffer more shocks than richer households.

Table 5.3 Average Number of Shocks Reported by Quintile, Urban and Rural

	Quintile of National Distribution				
	1	2	3	4	5
<i>Urban</i>	1.4	1.3	1.2	1.2	1.0
<i>Rural</i>	1.3	1.3	1.2	1.2	1.1
<i>Total</i>	1.3	1.3	1.2	1.2	1.0

Source: 2002-03 LCMS⁴⁶

5.43 When households endure multiple shocks, coping becomes progressively more difficult, and it is impossible to disentangle their respective impacts. For example, even if a household affected by the death of a breadwinner is able to avoid acute malnutrition and resist withdrawing children from school, they are less likely to be able to cope effectively with additional shocks. Downward mobility – often experienced as food insecurity and the inability to meet school-related expenses or to cope without utilizing child labor – is almost certain to be the result of multiple shocks. Many households in the Rural Participatory Study reported that they had been affected by more than one shock (Box 5.3). HIV/AIDS has further undermined household's ability to cope. (Box 5.4)

⁴⁶ Shocks were counted based on a responses to a question in the LCMS which asked respondents to identify the reasons for their poverty. The counts do not correspond to any particular time period

Box 5.2 The Impact of Multiple Shocks

Godfrey is a 67-year old man who is blind. He has been married 37 years and has had a total of 12 children. His household produces cassava and millet, and Godfrey weaves baskets to make extra income. He feels his household has lost ground significantly in the past five years. First, thieves ransacked his house two years ago, stealing all the family's clothes, bedding, money and other assets. He has not been able to replace these items, in part because he suffered additional set-backs when his two daughters died within the space of a year. The household had been accustomed to relying on remittances sent by these adult daughters, both of whom were employed. Now, the household has not only lost its source of cash income, it has been burdened with the care of several orphaned children left by the two deceased daughters. As a result of multiple shocks and setbacks – blindness, theft, death of income earners, and the necessity of caring for orphans – this elderly man's household is barely surviving, is often food-deficient, and has had to withdraw some of the orphaned grandchildren from school.

Source: Rural Participatory Poverty and Vulnerability Study

Box 5.3 : HIV/AIDS as One Among Many Shocks

Bintu, a widow aged 61, came to live with and care for her 92 year old father in 1993, after her own husband died. That same year, Bintu's daughter who was chronically sick with HIV/AIDS came to live with her, and also brought her own four children.

Bintu's daughter was bedridden for two months during the planting season, and Bintu struggled to be a caregiver for her daughter as well as to look after the fields. She was only able to plant 1.5 hectares of maize and beans, less than the previous year, and was emotionally and physically exhausted from trying to juggle the tasks of caring for her elderly father, her daughter, and four small grandchildren.

When her daughter died, Bintu was unable to afford a coffin. In order to feed the mourners, she used a tin of maize given as food relief during the previous droughts. After the funeral, she continued to work very hard to catch up on cultivation.

Compounding this episode of long-term illness, since her daughter died Bintu has lost 23 cattle to corridor disease, and her family was hit hard by the 1994/95 drought. They starved during the rainy seasons. Now Bintu is struggling to raise her four grandchildren and look after her elderly father without any outside help.

Source: case studies from "The Impact of HIV/AIDS on Farming Households in the Monze District of Zambia", draft paper by Kate Wallen, University of Bath, 1998

D. Coping With Risks

5.44 Faced with a risk or shock, individuals and households have to adapt their normal activities and practices to encompass the impacts or demands of their new circumstances. The adaptations they make – termed coping strategies – can be effective or less so. They can come at a great cost to household members or not. They can facilitate a quick recovery or further entrench the household's vulnerability and poverty.

5.45 In this section, we examine how Zambian households and families cope with different risks and shocks, where they turn to for support in the community and beyond, and what is the impact of their coping strategies are on their present and future prospects. In Chapter 6, this

theme is addressed again from the perspective of service provision, examining Government's new social protection strategy.

Avoiding Risk

5.46 For the very poor, coping with the impact of shocks can be devastating. With few assets or opportunities to reduce or shorten the impact, the very poor and vulnerable may suffer the full impact of the shock, losing productive assets, food, education, health and housing. For many very vulnerable people, therefore, the first strategy is to avoid exposure to risk.

5.47 As a result, many poor rural farmers mistrust new horticultural cultigens and prefer to continue planting the familiar staple crop, maize, supplemented by low-value traditional crops such as cassava, millet and sorghum. This strategy is likely to trap them at a bare subsistence level. In comparison with households in the highest income quintiles, households in the poorest quintile are more likely to grow both cassava and millet but less likely to grow cash crops such as cotton, tobacco and sunflowers. Growing high-value and marketable crops such as cotton or vegetables is potentially profitable, but risky for a number of reasons. Besides inexperience and uncertainty, structural weaknesses (such as lack of infrastructure and unpredictable markets) expose poor households to a higher than acceptable risk of failure.

5.48 In urban areas, the poor may be equally reluctant to make bold but risky choices about their livelihoods. Sticking with a minimal but familiar livelihood offers less risk of a disastrous failure, even if it guarantees continued poverty. The end result is that the poor tend to limit themselves to static, unproductive and low-paying occupations, which nonetheless offer a shield against risk. This behavior can trap risk-averse individuals and households in a subsistence-level means of livelihood and perpetuate the cycle of poverty.

5.49 If risk-aversion governs the behavior of the majority of low-income households, then the potential growth of the country as a whole will be less than optimal. On the other hand, either formal or informal safety nets might provide the cushion against failure that would encourage the poor to invest in potentially profitable but uncertain enterprises.

Preparing for Shocks

5.50 Despite attempts to avoid risks, inevitably shocks occur. At different levels, people make various preparations in the expectation of future shocks.

5.51 In rural areas, the most common means of preparing for the impact of shocks reported in the participatory rural PVA study include the following:

- saving or stockpiling grain or other resources,
- breeding small animals for sale during crises or lean periods
- multiple plantings or planting in several locations (e.g. riverbank and arid highland) in anticipation of flooding or drought
- diversifying crops by planting some low-value low-input crops (such as millet, sorghum or cassava) in addition to the staple crop (usually maize)
- sending someone to seek work in town, or on a commercial farm or tourism venture
- contributing to the extended family network to ensure that relationships of mutual assistance are maintained and that informal aid will be available.

5.52 Groups of farmers often engage in measures to reduce the impact of future risk, particularly crop failure and drought. These include diversification of farming activities, seed banks, and adoption of risk-reducing husbandry techniques such as conservation farming, green manuring, soil improvement etc. Participants are often highly motivated to improve on their food security and agricultural production, although deterred to an extent by the obligations to share with others who may not have taken such measures to secure their production. Often the strategies adopted are being promoted through an external agency, including the national extension service as well as other NGOs, projects and programs. There are a number of examples of such advice being technically inadequate, resulting in damage to livelihoods. This demonstrates the imperative of careful technical review, rather than misplaced enthusiasm and hasty implementation.

5.53 While rational strategies of diversification, savings and investment help maintain livelihoods through periods of crisis, it must be recognized that not all households can engage in them. These strategies depend on access to labor, land, capital and/or knowledge that may be lacking in the most vulnerable households. While building the defenses of the poor to adopt such strategies is critical, the needs of those that are unable to adopt them should also be recognized. Support to build and maintain healthy livestock, for instance, may require a degree of subsidy at the outset but may save households from precipitous decline in the long run.

5.54 In urban areas, parallel opportunities to diversify livelihoods or to save against the event of shocks is less easy for many people to access or maintain. The expense of investing in diversified livelihoods and the difficulty of saving means that preparations for crisis are very limited among the poorest. The high demand for cash means that many small shocks and contingencies absorb savings, with little or nothing remaining for times of crisis.

5.55 Saving or investing against an unknown future shock often involves deciding to reduce consumption today in order to avoid a bigger reduction in the future. For the rich, this makes little fundamental difference to their daily domestic consumption, and in any case buying the commodity of security is an obvious good. For the poor this choice can be difficult. A good example of this is the difficult experiences in running the Zambian medical “scheme”, which required a small monthly per capita payment in return for unlimited access to clinics and hospitals. Although set at a low level that made the scheme a good bargain compared to case-by-case medical fees, many poor people could not accept making a regular payment, perceiving the money to be wasted if they did not get sick that month. Since an average family would pay the price of 1 kg of meat per month – a commodity which they rarely afford – the notion that unredeemed insurance is a waste of money is understandable.

Responses to Shocks

5.56 Faced with shock events, households can take one of three routes:

- Adopt a coping strategy, often prepared for, that will enable the household to survive the current crisis without disintegration, or significant damage or cost. These viable strategies include getting help from family, church or neighbors, securing a school bursary, accessing free food, getting a loan from the employer, using savings/insurance.
- Adopt a coping strategy that enables the household to survive the current crisis, but may increase future exposure to risk and precipitous decline. These damaging strategies include selling productive assets, withdrawing children from school, engaging in commercial sex work, over-exploiting natural resources etc.

- Fail to find an effective strategy to protect well-being in the short term. Instead the household may drastically reduce consumption and suffer increased morbidity and mortality as a result. The household may lose their dwelling unit, live in a temporary shelter, individuals resort to begging or living on the streets, or even break-up.

5.57 We will now examine the diversity of coping strategies, identify key actors in supporting coping mechanisms, look at patterns of coping in rural and urban areas, in response to specific shocks, and also at migration. While not definitive and tending to merge at the extremes, all these perspectives are useful in thinking about how households respond to shocks, and where intervention might be most usefully directed.

5.58 Several things come out clearly in our analysis. First, households at all income levels are affected by risk and employ coping a range of coping strategies. Second, however, there are too few instruments to support *ex ante* risk coping, with the result that most poor men and women in Zambia depend on costly *ex post* coping instruments. The Government speaks the language of risk prevention but relevant policies and programs have not been effectively implemented. As a result, many of the poor have chosen low-risk, low-return livelihood strategies, which further perpetuates poverty.

Seeking Diverse Solutions

5.59 Even while it is convenient to look at risk prevention, mitigation and coping, it is important to remember that coping strategies are not isolated responses to exceptional circumstances. At any time, a household may be protecting themselves against predicted or unexpected risks, dealing with another shock and/or suffering the impact of others. Coping strategies are similarly diverse, drawing on domestic and family resources, social and community networks, and on private⁴⁷ and public services available locally or at further remove.

5.60 The following table illustrates the diversity of possible ex-ante and ex-post coping mechanisms that can be accessed in Zambia outside the immediate family. The table is illustrative of coping strategies that may be sought both to manage risk and to cope after a shock has occurred. It also highlights the role of different actors at community, private and public level and illustrates the fact that in reality, people adopt coping strategies within a broad environment, and this environment affects how they perceive risk and experience shocks, and offers many different types of support.

⁴⁷ Private includes market-based, and also Churches, NGOs and other private service providers.

Table 5.4 Coping with Shocks: Mechanisms Accessed Outside the Household

Shocks	Ex-Ante			Ex-Post		
	Community	Private	Public	Community	Private	Public
Agriculture failure	Diversification Conservation farming Farmers groups Cattle clubs Community 'bare-foot' vet	Insurance for commercial farmers & outgrowers	Famine Early Warning; DMMU monitoring Food security packs Fertilizer support program	Assistance from churches Food from relatives and neighbors Piece work	Private charitable responses Donations from local businesses	Emergency drought response Food relief interventions Drought Recovery Program
HIV/AIDS	Preventive messages from local leaders Churches Peer educators	Workplace preventive programs VCT services Better-parenting interventions by churches Popular music	AIDS education Youth-friendly clinics School curriculum & anti-AIDS clubs TV and radio education PMTCT interventions Safe blood	Home based care programs Church groups visiting patients	Hospices Work place programs provide access to treatment / ARVs VCT services	Provision of ARVs Training & interventions with health staff Legal protection against discrimination in employment PWAS
Disability	Trained CHWs and TBAs "Buddy" system to ensure TB treatment compliance	Supply of iodized salt & fortified sugar Health and safety at work	Ante-natal care (rubella vaccinations, malaria prophylaxis) Under 5 vaccinations Health-facility based deliveries Vitamin A program TB treatment Legislation to ensure iodination of salt Health education	Rural communities accommodating and helpful to people with disabilities Begging	Donations of wheelchairs, prostheses from service clubs, churches, private business Sheltered workshop and other employment in urban areas	Special education facilities Supply of wheelchairs, prostheses, etc Targeted employment opportunities in the civil service PWAS National Trust Fund for the Disabled
OVC	See HIV/AIDS	Community based 'good parenting'	Free basic education Victim	Community mobilization to support OVC	Psycho-social support	Free basic education Policy

		programs Civic education programs Income generation for widows	Support Unit Improved legislation to protect children See HIV/AIDS	Community schools Assistance from church groups	Better- parenting interventions NGOs and CBOs Orphanages Bursary support Street children programs Home based care groups	revisions PWAS Victim Support Unit Re-entry policy for pregnant school girls School feeding programs Bursary support
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Self-insurance: Migration and Remittances

5.61 Migration serves many purposes – it can be means for individuals to seek new economic opportunities, for households to diversify earnings portfolios and insure against risk, and as a way of responding to a specific shock. Remittances are often related to migration, and have an important redistributive and protective role in Zambia.

Migration

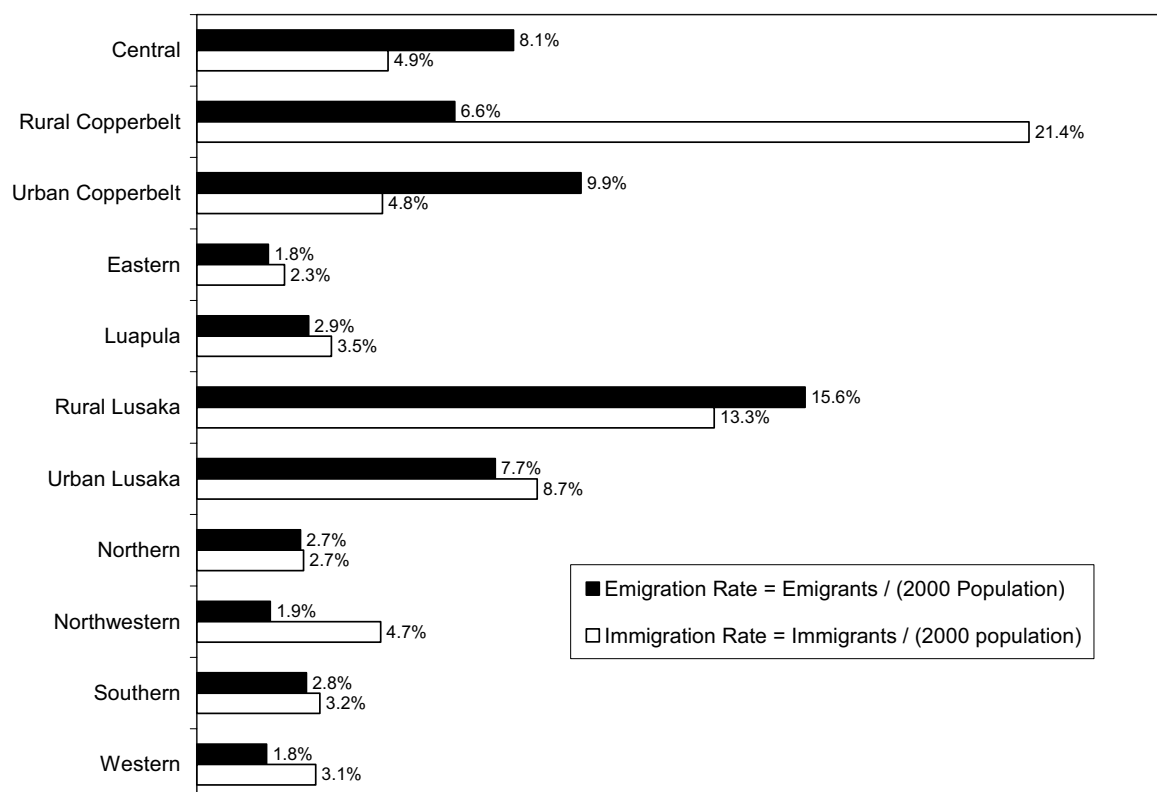
5.62 One means of responding to risks and shocks is to relocate to a setting that offers lesser exposure and/or a better possibility of recovery. For many years, rural households have been sending members to Zambia’s cities and towns to seek their fortune in the formal sector (mining and manufacturing, as well as related activities). The employed relative traditionally is expected to send remittances that will support the household through a crisis period. Less commonly, an entire household would migrate to an urban or peri-urban area. These migration patterns would very often be between specific rural and urban locations, meaning that migrants would often move to join an area where they have family members, other relatives or members of the same traditional community. These patterns are certainly detectable in Lusaka, where certain compounds have strong links with specific provinces, districts and Chieftaincies.

5.63 According to informants in the Rural Participatory Study the pace of rural-urban migration has slowed considerably in recent years because there is now a perceived dearth of employment opportunities in towns and cities. Traveling to town is perceived to be expensive and risky, with no guarantee of generating enough surplus to send home.

5.64 A snapshot of migration that took place 1999-2000 shows that while there is still considerable movement of people between urban and rural areas, there is no longer strong net migration to urban areas. Figure 5.5 shows annual migration rates by province. These figures are based on individuals’ reports in the 2000 census of where they were residing one year earlier. Rural and urban areas of both Copperbelt and Lusaka Provinces—the two provinces with substantial urban areas—are treated as separate areas for this analysis. Overall, 4.0 percent of Zambians were living in a different province the previous year. There is substantial in- and out-migration to and from the rural and urban areas of Lusaka and Copperbelt. There was large net migration from urban Copperbelt, a clear response to the decline in mining and manufacturing employment in the region during the 1990s. While the large drop in employment occurred in the mid-1990s with the privatization of the Zambian copper industry and other parastatals, large scale relocation away from urban Copperbelt was still taking place in 1999-2000, indicating a delayed

response to the employment shock. Many urban Copperbelt residents relocated to rural areas of the province. This is reflected in the substantial immigration rate for rural Copperbelt.

Figure 5.5 Annual Immigration and Emigration Rates by Province for Population Age 15 and Older



Source: 2000 Census

5.65 Among those who did migrate in 1999-2000, urban-to-urban migration was most common, followed by rural-to-rural migration. Urban-to-rural migration exceeded rural-to-urban migration. (Table 5.5)

Table 5.5 Direction of Migration by Quintile for Individuals Aged 15 and Above

Migrant status	% of Total
Non-migrant (living in same district as previous year)	93.7
Urban-to-urban migrant	2.2
Rural-to-rural migrant	1.8
Urban-to-rural migrant	1.5
Rural-to-urban migrant	0.8

Source: 2000 Census

5.66 The pattern of migration data from the census is compatible with reports from the Rural Participatory Study that migrants from urban areas are often found in rural communities. They include retrenchees, retirees, people who are chronically ill as a result of HIV/AIDS, widows,

divorcees and orphans. These individuals may be a net drain on the resources of their rural kin, with needs for care and food that exceed their capacity to contribute to the household.

5.67 Alternatively, migrants into villages can strengthen the local economy and the human and social capital of the community. Retirees and retrenchees may arrive in the village with capital to invest in agriculture, horticulture, or livestock, and may have cash to spend on locally produced goods and services. Some offer employment or other useful resources (such as a grain mill or shop). The experience of migrants into rural areas can offer invaluable help to local committees, and it is not at all unusual to find retirees engaged in development initiatives, or serving as headmen or even traditional chiefs.

5.68 The 2002-03 LCMS examined reasons for migration, and found that most migration was in fact not in response to economic stress. An exception is migrants who reported migrating because their previous household could not afford to keep them. Among those 85 percent were ill, including 100 percent of those who migrated from urban to rural areas. This is consistent with the remarks of the rural PVA study informants, who complained of the economic drain caused by the return of people living with HIV/AIDS for care and support during their final months of life.

Remittances

5.69 Remittances between households are substantial in Zambia, and have an important role in ensuring the well-being of elderly and female-headed households. Overall, remittances flow principally to rural areas from wealthier households in both rural and urban areas. Table 5.6 shows the percentage of households within each quintile that send remittances, by urban/rural origin and destination. Twenty-nine percent of all households in the top quintile send some form of remittance, as compared to just 13 percent of households in the bottom quintile. The traditional flow of resources from urban to rural households, which was common during the years when the copper industry boomed, still occurs, overwhelmingly from better off urban households. Many transfers also take place between rural households; 21 percent of all rural households send something in cash or in-kind to other rural households.

**Table 5.6 Percentage of Households Sending Remittances
By Quintile, Urban/Rural Source and Urban/Rural Destination**

	All Quintiles	Quintile of National Distribution				
		Poorest 20%	2	3	4	Richest 20%
% of Rural Households in Quintile Sending ...						
to Rural Households	21	14	20	20	22	26
to Urban Households	4	3	3	5	4	6
% of Urban Households in Quintile Sending ...						
to Rural Households	14	5	7	9	13	22
to Urban Households	9	2	3	5	7	15
% of Households in Quintile Sending Any Remittance	21	13	18	20	22	29

Source: 2002-03 LCMS

Note: Remittances included here are both cash and in-kind.

5.70 While remittance *sending* households are generally wealthier, remittance *receiving* households are spread evenly across the distribution, as can be seen in Table 5.7. Across quintiles, about 34 percent of rural households and 20 percent of urban households receive some form of remittance. The poorest urban households (among those receiving remittances) receive 23 percent of total income through remittances, and the poorest rural households receive on average 16 percent of total income. Note that wealthy recipients also get a considerable share of income through remittances.

Table 5.7 Who Received Remittances in 2003-04?

	All Quintiles	Quintile of National Distribution	
		Poorest 20%	Wealthiest 20%
Percent of Households receiving remittances living in			
Urban	20	24	20
Rural	34	33	34
Urban & Rural	30	31	27
For those receiving, percent of total income from remittances			
Urban	18	23	13
Rural	12	15	9
Urban and Rural	13	16	11

Source: 2002-03 LCMS

5.71 Remittances flow largely from households that are better off in terms of their productive resources to those that are more vulnerable. Table 5.8 shows that remittance income is substantial enough to affect the poverty rate. If remittance income were excluded, the national headcount rate would be 58 percent rather than 56 percent. Table 5.9 shows results from multivariate probit regressions for household remittance receiving and sending. The regression figures show that households are more likely to receive remittances if the household head is older and/or a woman, if there are no male adults in the household, if a larger share of the household is over age 50, and if there is a disabled person in the household. Households are more likely to send remittances if they have higher consumption levels, if the household head is younger and/or a woman, if the household head is more educated, and if the household is larger.

5.72 Overall, remittances are an equalizing force in Zambia. Because they flow predominantly from wealthier households to households across the distribution, the net effect is to reduce inequality in Zambia and help the most vulnerable survive. The fact that the probability of receiving remittances is nearly equal across the distribution is partially a consequence of this equalizing effect; some households that would otherwise be in the bottom quintiles are given a boost up the distribution by the remittances they receive.

Table 5.8 Headcount Poverty Rate Simulations: With and Without Remittance Income

	Actual Headcount	Headcount w/o Remittance Income
National (%)	56	58
Urban (%)	45	48
Rural (%)	62	64

Note: Headcounts w/o remittance income were calculated by subtracting remittance income received from household consumption and recalculating each household's consumption per adult equivalent.

**Table 5.9 Correlates of Remittance Sending and Receiving:
Probit Estimates**

	(1) 1=hh received remittance	(2) 1=hh sent remittance
Log consumption per adult equivalent	0.009 (0.59)	0.106** (8.16)
Log age of HH head	0.109** (3.57)	-0.042+ (1.66)
HH head is woman	0.100** (5.16)	-0.033* (2.11)
No male adults in HH	0.052* (2.47)	0.026 (1.16)
Max years education in HH	0.006 (1.59)	0.009* (2.55)
Years education of HH head	-0.004 (1.48)	0.003 (0.99)
Share of HH members age 50+	0.079+ (1.75)	-0.049 (1.08)
Share of HH member age under 15	0.020 (0.49)	-0.010 (0.29)
Log HH size	0.018 (0.78)	0.099** (5.39)
Child in HH with both parents dead	0.029 (1.45)	-0.006 (0.34)
Disabled person in HH	0.046* (2.18)	0.022 (1.15)
Drought or flood	-0.045 (1.11)	-0.030 (0.86)
Death of cattle	-0.022 (0.49)	-0.009 (0.22)
Retrenchment	0.010 (0.18)	-0.041 (1.12)
Death of bread winner	0.007 (0.25)	0.002 (0.06)
Urban	-0.029 (0.92)	-0.033 (1.26)
Observations	9225	9225

Estimates shown are marginal effects from probit regressions.

Robust z statistics in parentheses.

significant at 10%; * significant at 5%; ** significant at 1%+

Regressions also include province dummies (not shown).

Sources of External Support

5.73 A number of key actors external to the community have a significant role in helping households prevent, mitigate, or cope with shocks. These include churches, NGOs, private sector actors, and the public sector.

5.74 The majority of Zambians are church members, and many churches offer support to people suffering in the community. Church outreach activities are often directed to people affected by poverty, age, ill health or being widowed or experiencing a death in the household. The mainstream churches, which often have links to funding from other countries, are usually members of active umbrella organizations that provide extensive advice to improve the quality of social outreach programs.

5.75 There is a large number of diverse churches in urban areas. The extensive community services, including home based care and hospices, run by the Catholic Church, Salvation Army and Seventh Day Adventists comprise a significant proportion of urban social assistance provision. In rural areas, particularly around long-established missions, churches provide comprehensive services for the whole community commonly include hospitals and hospices, home based care, AIDS education, support for schooling, livelihood development, rural infrastructure and water supplies.

5.76 The impact of the church on HIV/AIDS has been somewhat mixed. Some Church attitudes towards extra-marital sex, sin and punishment have deterred people from addressing issues of sexual behavior, reduced willingness to go for testing, and at times directed public condemnation to the sick and their families. Many churches have only engaged in HIV prevention activities to the extent of preaching a strong message of abstinence before marriage / faithfulness within marriage. In contrast, Churches have been in the frontline of the response to HIV/AIDS, developing community services, supporting OVC and pioneering work with traditional leaders.

5.77 There are many registered NGOs, associations and societies working with vulnerable groups and people suffering from shocks. They range from small community groups to large organizations that operate in several locations and receive funds from diverse sources. While the combined efforts of NGOs are clearly very significant, it is difficult to estimate their activities, coverage and budgets. While registration requirements might suggest that information on NGOs is available, in fact this is complicated by the fact that there are several routes for legal compliance, and requirements to lodge annual accounts and reports are rarely observed. Further, outreach activities undertaken by churches or from health facilities are not separately registered, and are therefore hard to track.

5.78 The 2004 Situation Analysis included an attempt to assess the extent of NGO engagement with orphans and vulnerable children, focusing on organizations that have an annual budget of \$5000 or more – thus excluding the myriad of registered CBOs and associations. The study found over 400 registered organizations that stated their purpose of working with OVC, representing a substantial increase over the last five years. Activities are largely focused on urban centers, perhaps because awareness of issues is greater, or access to funding is better. Table 5.10 shows the number of registered organizations, and the ratio of organizations by population.

Table 5.10: Number of Registered Organizations and Ratio of Organizations to Population by Province

Province	# of registered organizations	Provincial population	Ratio organizations/ population
Central	45	1,012,227	22,494
Copperbelt	244	1,581,221	6,480
Eastern	65	1,306,173	20,095
Luapula	29	775,353	26,736
Lusaka	228	1,391,329	6,102
Northern	20	1,258,696	62,935
North-western	25	583,350	23,334
Southern	83	1,212,124	14,604
Western	42	765,088	18,216

Source: Situation Analysis of OVC 2004

5.79 The performance of the smaller NGOs is often enhanced by membership of umbrella organizations, which also provide an opportunity to coordinate and learn from more established organizations. Effective umbrella groups exist for organizations working with OVC, HIV/AIDS, livelihoods development, hospice care, women's groups and so on.

5.80 There is little available information on the scale of support for vulnerable groups and people suffering from the impact of shocks from the formal private sector. There is no doubt a significant demand on any profitable entity, although many businesses focus on meeting the contingency needs of employees and their families, or the immediate community in which they work, before making donations on a wider scale. Small business owners undoubtedly face significant demand from their own extended families, which further reduces capacity to support general assistance programs. Large scale companies use donations as a form of public relations, generating publicity from support to orphans, urban clean-up campaigns, education projects and similar initiatives. The numbers that use this strategy are very limited. There are no tax incentives for the private sector to make charitable donations.

5.81 People working in the formal sector are often able to access support from their employers. Notably, while workplace programming for HIV/AIDS was until recently unusual, employees are increasingly able to access such services. The availability of affordable ARVs has now presented a clear reason for employers to engage with the issue of HIV, so as to increase productivity and reduce expenditure on sick pay and other costs associated with having a debilitated workforce.

5.82 Low-paid employees traditionally expect support for school expenses for all their dependents (including dependent orphans). For many, the number of children from their households that can attend school depends upon this workplace policy. Education allowances are taxable, and there is no incentive for employers to consider supporting increased education costs for workers' children.

5.83 Formal sector workers usually expect to be able to access substantial interest-free loans from their employers, either for investment (e.g. building a house), to spread significant expenses over several months (e.g. the annual January demand for uniforms and school fees), and to meet emergency expenditures (e.g. the hospitalization of a family member).

5.84 Market based insurance and pensions are easily available through a range of companies and brokers. The range of insurance products includes health policies, death and funeral

insurance, life cover and business insurance. Life cover policy subscriptions can be cashed early, making them attractive to medium income customers who worry about tying up their money in case of shocks that go beyond their usual coping capacity.

5.85 The public sector explicitly engages in a range of risk prevention and coping mechanisms in many sectors, with particular emphasis on livelihoods, health, and education. Other risk management decisions are encompassed in macro-economic, agricultural, labor, investment and industrial policy, but rarely in clear-cut terms. Since Zambia suffers from widespread risk and shock, which entrenches poverty for the majority of the population, using a risk management framework could provide a useful approach for national development planning. Poverty reduction and risk management is seen as a sub-component of GRZ responsibilities, and hence usually addressed from a sectoral perspective.

5.86 Interventions to prevent risk and shocks are usually cited as Government's principle goal. Ideologically and politically, preventive action has appealed to the current and previous Governments, which have spoken of the need to prevent HIV/AIDS and malaria, monitor food security and strengthen rural livelihoods, and promote business development amongst the urban unemployed and retirees. In contrast, actions to support people suffering from the worst impacts of shocks are subject to scrutiny, with a reluctance to support consumption or create dependence on "hand-outs". Coping strategies that enjoy political support are usually those that promote a sustainable outcome, often associated with loans or subsidies intended to provide a kick-start for a new livelihood.

5.87 Many public sector interventions tackling risk reduction suffer from impractical planning, a lack of political prioritization, chronic under-funding and poor implementation. The nature and extent of intervention needed to reduce the major risks far exceeds the growing crises of HIV/AIDS, OVC, agriculture, employment, infrastructure and so on. The resulting lack of performance is subsequently attributed to defects in policy and capacity, thus triggering a further round of assessments, strategies, reviews and reform – but little in terms of improved performance. As a result, many actual interventions are donor-driven, through NGO funding, projects or local level sectoral intervention, resulting in inconsistent service delivery, lack of sustainability and a lack of clear information of either problems or solutions.

Coping with Shocks

The LCMS III module on self-reported poverty and risk coping provides an interesting view of how different types of households in Zambia cope with shocks. Table 5.11 shows the diversity of coping strategies used by households at different levels of income.

5.88 The poor resort to coping strategies more intensively than the better off, and are more likely to use destructive coping strategies in response to shocks e.g. with draw children from school, reduce consumption and resort to wild foods. While all households report selling assets, wealthier households have greater access to credit and other market-based smoothing methods. It is encouraging to note that in 2002-03 the poor also were more likely to receive relief food and support from food-for-work programs.

Table 5.11 Coping Strategies Used by Zambian Households, 2002-03, By Per-Capita Consumption Quintile

Coping Strategies	Quintile of National Distribution					Total
	Poorest 20%	2	3	4	Wealthiest 20%	
Farm piecework	29	21	16	10	5	13
Other piecework	44	34	33	23	16	26
Food for work programs	11	7	5	4	1	5
Relief food	7	6	4	3	1	3
Eating wild food only	17	12	8	5	3	7
Sub. ordinary meals with mangos, etc.	73	69	63	58	41	56
Reducing number of meals	82	78	76	70	53	67
Reducing other purchases	77	76	75	69	58	68
Informal borrowing	45	46	45	43	38	42
Formal borrowing	7	9	9	12	18	13
Church charity	7	8	7	4	3	5
NGO charity	5	5	4	3	1	3
Pulling children out of school	18	12	10	7	4	8
Sale of assets	17	20	18	15	13	16
Petty vending	27	27	19	15	10	17
Asking from friends, neighbors, relatives	71	74	70	65	56	65
Begging from streets	2	1	1	1	1	1

5.89 The next two sections look in detail at urban and rural coping strategies, drawing on the LCMS III as well as rural and urban participatory studies. Before doing so, however, it is important to note that the percentage of households using various coping strategies has been increasing over time, which suggests rising vulnerability and greater inability to cope. The use of these strategies has become more common over the past six years, possibly as a result of the widespread impact of HIV/AIDS and entrenched conditions of poverty.

Table 5.12 Percentage of Households Who Report Having Used Each Coping Strategy For Times of Need in Past 12 Months

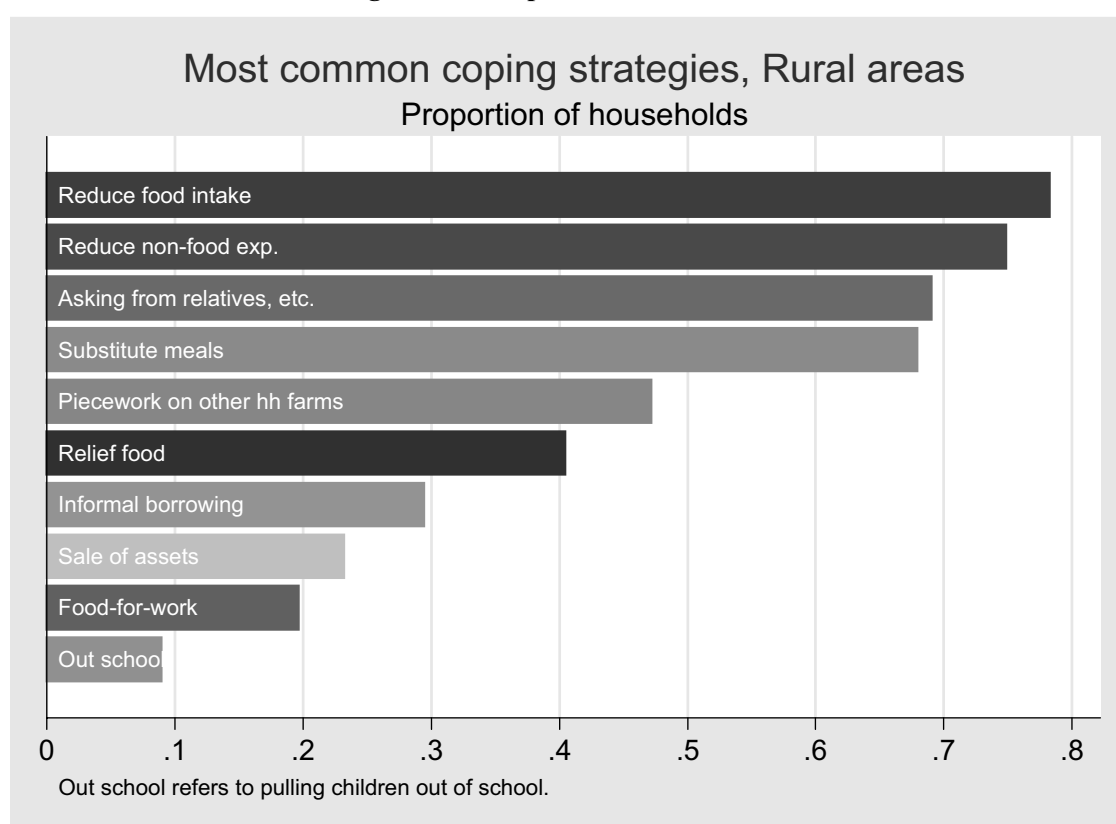
	1996			1998			2002-03		
	All	Rural	Urban	All	Rural	Urban	All	Rural	Urban
Any coping strategy	84.6	87.8	78.7	90.4	91.6	88.2	94.63	97.08	89.83
Sold assets	10.6	11.9	8.3	15.5	16.7	13.4	18.61	20.0	15.9
Borrowed informal	22.6	17.3	32.4	28.8	23.8	37.7	33.67	29.3	42.3
Reducing number of meals or food intake	54.8	57	50.6	63.8	65.7	60.4	74.76	78.5	67.4

Source: LCMS 1996 and LCMS 1998 (Filmer and Hammer, 2000), LCMS 2002-03.

Rural Coping Strategies

5.90 In rural areas, the most common coping strategies involve a reduction in consumption. Reducing food intake, reducing non-food expenditures and substituting meals⁴⁸, all of which deplete access to basic needs for all or most household members. This is most certainly a matter for concern; these strategies, either singly or in combination, are a potential threat to the nutritional status of household members (particularly to children of the household). In the long term, the physical and mental development of children will be compromised by a poor diet and insecure access to food, which has a significant impact on the future of those individuals, as well as in sum on the prospects for national development (discussed further in Chapter 7).

Figure 5.6: Proportion of Households



5.91 Reverting to foods and sources of income derived from natural resources is a long-standing traditional coping mechanism. Often based on a detailed knowledge of local plants and other resources, households gather wild foods and other products for consumption or sale. In many places, the bush can yield reliable sources of carbohydrates, fruits, vegetables, mushrooms, honey and protein. Rather than valuing such reliable supplementary sources of food, external agencies and the media often decry these strategies as primitive and undesirable (“*local people are eating grass and roots*”). These sentiments have reduced the degree to which younger generations are learning about wild food from their parents and grandparents.

⁴⁸ Changing the content of meals to a cheaper foodstuff, such as eating mangos instead of nshima.

5.92 Other natural resources have long since provided a reliable source of income in times of crisis. Fish, charcoal, poached meat and timber products can all be sold into a ready market. To the extent that the off-take is sustainable, these strategies are reliable if not always legal⁴⁹. With widespread poverty, multiple shocks and the need for cash to access school and health services, in many places the off-take of natural capital has become unsustainable.

5.93 In the event of shocks, the poor will often seek piecework, often in agricultural labor. Even in the event of a drought, which usually reduces yields rather than wiping out a crop (thereby affecting the poor more than the rich), the poor often secure piecework to help them cope. Piecework may be sought from commercial sources or employers external to the community, in which case the transaction will be uncomplicated, but poorly paid.

5.94 Seeking piecework or gifts of food or money within the community is more complex. Traditionally, the rich are usually obliged to provide support for the poor in times of crisis, by giving them food or meals, or payment in cash or kind for labor. In some areas this obligation may be explicit and systematic; in others it is simply understood. Although they will eat, such arrangements can be humiliating for the recipients, as the donors often loudly highlight their status and kindness, provide poor food, or insist on very laborious work in exchange for the most basic food supplies. From the perspective of more progressive farmers, the obligation to support the poor in this way is cited as a deterrent to take up labor-intensive conservation farming (which increases security of production in poor rainfall conditions) and other new technologies, since their own household security is compromised by the poor yields of others. Indeed, such obligations act as a deterrent for wealthier urban retirees to return to their home villages, and such people often seek land on resettlement schemes instead.

5.95 Selling assets may be a viable strategy or not, depending on the timing and scale of the sales. Where assets such as livestock herds are built up as a buffer against shocks, selling in times of need can demonstrate the benefits of preparing for contingencies. Problems arise when the shock is co-variant (e.g. drought) and a great many households seek to sell the same assets, thereby flooding the market and reducing prices. Further, a drought may affect the condition of livestock, further reducing the value of stocks as the animals become thin and weak. Where sales of accumulated asset reserves are not sufficient, households may go further than anticipated, selling breeding stock and other productive assets, that have long term effects on their capacity to recover.

5.96 Figure 5.6 indicates that 40 percent of rural households reported having accessed relief food as a coping mechanism during the previous twelve months, with nearly 20 percent saying they had participated in food-for-work. The research period for the LCMS was coincident with the emergency drought relief program that followed the widespread 2001-2002 Southern African drought. With 45% of the national rural population targeted for food relief, the high prevalence of households reporting food relief as a coping strategy is likely to be unique to that year. Indeed, a higher proportion of richer households reported accessing relief food and food for work during the LCMS period, suggesting that the better are better at connecting with sources of external aid.

5.97 Pulling children out of school is one of the least common reported coping strategies in rural areas. This offers little reason for comfort, however. With a primary net attendance rate in rural areas of only 53% (Census 2000), it is likely that many children from households most vulnerable to risks and shocks do not attend school in any case – and therefore can't be pulled

⁴⁹ For activities that are illegal, people who engage in them risk being caught, necessitating a bribe or leading to a fine or imprisonment. Illegal activities therefore pose an addition risk to the household.

out. With few other buffers to shocks and contingencies, withdrawing children from school is more common amongst poorer households than richer households, suggesting that where other strategies can be employed, households will protect children's access to education.

5.98 The highest rural quintiles reported more informal borrowing and more sales of assets, which is because they had better access to sources of credit and more assets to sell. Informal credit (kaloba) is discussed at greater length the discussion on urban coping strategies, below.

5.99 The question of whether specific shocks tend to result in particular coping strategies can be examined using the LCMS data. The data is somewhat indistinct, because over one-third of households experienced more than one shock, while the one-third households that experienced no shocks also used coping strategies. Some observations that can be made.

- Suffering the effects of a drought makes households particularly likely to access relief food or support from an NGO, sell assets and cut consumption.
- Becoming unemployed makes households more likely to pull children out of school and seek piecework, and access support from a church. Unemployment reduces access to informal credit, presumably because of the known bad risk.
- Having an orphan in the house does not increase the likelihood of adopting any of the coping strategies identified in the research.
- Having a sick person in the house increases the chances of seeking piecework, taking informal credit, and asking for support from friends and neighbors
- Being disabled means that the household is more likely to resort to begging, or to access relief food
- Having a recent death of an adult or breadwinner in the household increases the chances of begging, informal borrowing, seeking piecework and reducing consumption.

5.100 In rural areas, support may be sought from within the community. Help with caring for the sick would traditionally be offered by the extended family or community social networks. Households with more resources, including more social capital, may attract more help and material support from their peers than households with less resources or capital, as others have greater obligations and greater future expectations from the wealthier households. The spread of HIV/AIDS has reduced the number of offers of help that any household may expect to receive when caring for a patient, and in particular restricted the chance of being assisted by a distant relative or non-relative.

5.101 Communities traditionally provide material support when some dies. There will be a clear understanding of who should contribute food, money, firewood, transport, labor, a coffin or simply time for making arrangements or spending with the bereaved. Other than in the smallest villages, the allocation of responsibilities will depend on the family's social networks and status. Unless there is a clear reason for doing so, failing to fulfill expectations will damage a person's standing in the community, or even expose them to superstition and accusation.

Urban Coping Strategies

5.102 In urban areas, people usually derive their income on a daily, weekly or monthly basis. For most people, the need for cash is daily, for food, fuel, rent, transport and other basic needs⁵⁰.

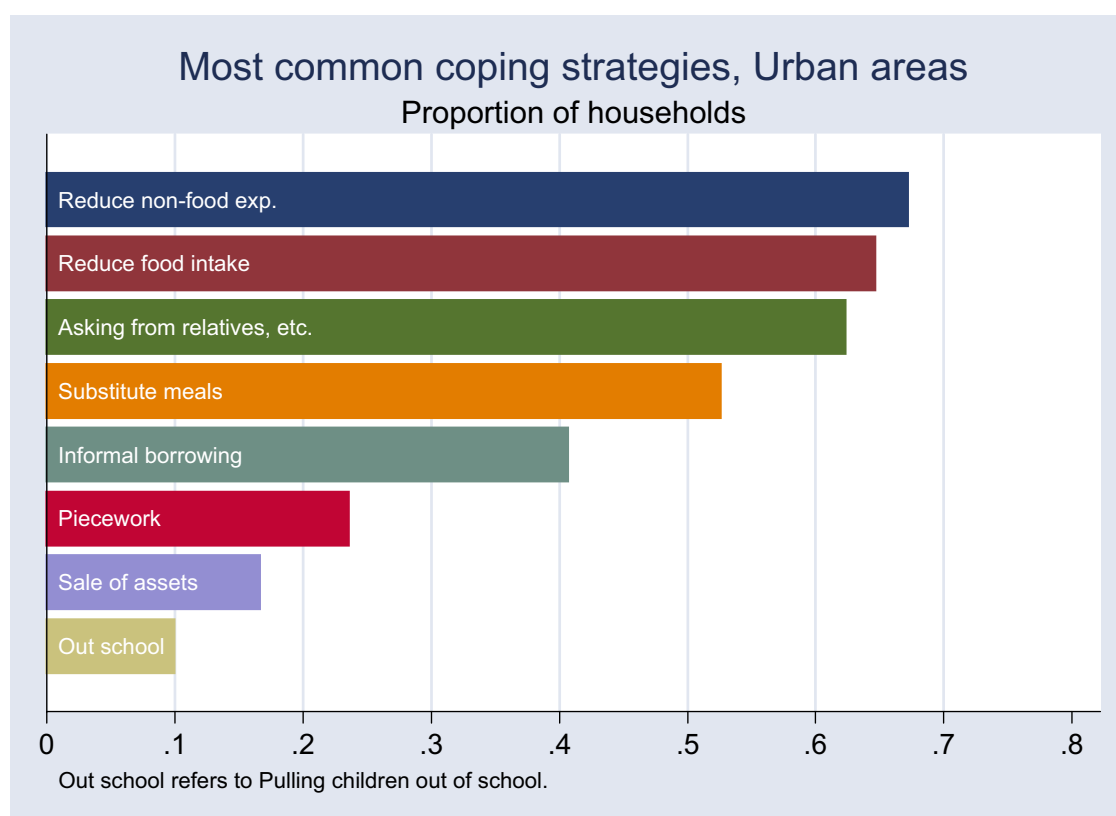
⁵⁰ In strong contrast with rural households, where cash income is sometimes no more than annual, and many households may exist for months without any actual money.

Because of the daily need for cash, people often find it hard to accumulate savings or assets against future shocks.

5.103 When shocks occur, either the opportunity to engage in livelihood activities is reduced, or the demand for cash increased. Coping with shocks therefore demands an adjustment to livelihoods, accessing cash from elsewhere, or decreased consumption. It could be said that poor households continually adapt to the presence of shocks by building these measures into daily activities and routine decision-making. Even the most careful and risk-averse household, however, is likely to experience adverse events from time to time.

5.104 Figure 5.7 below shows that the most common coping strategies involve reducing consumption of food and non-food items. Asking from relatives is also common, although it would be unrealistic to assume that relatives who respond are able to meet more than a small proportion of the contingency needs their extended family.

Figure 5.7: Most Common Coping Strategies, Urban Areas



5.105 In urban areas, there are opportunities to diversify and supplement normal income and thereby avoid the worst impacts of shock. In Lusaka’s informal settlements, most people work in the provision of unskilled services as small-scale traders of building materials, charcoal, foodstuff, and petty household items. Those with more skills or capital run small restaurants, cinemas or hair salons, recharge batteries, or work as traditional healers. A few lend money on the markets, and most house-owners rent out rooms. In Copperbelt towns, services are mostly in trading, either on local markets, or across the border. In non-metropolitan towns such as Kasama, economic activity is more limited to the processing and trading of agricultural produces. In all

places, the young and the poorer provide unskilled labor carrying goods in wheelbarrows or water atop their heads, working as domestic helpers, or washing cars.

5.106 Groups of community members earning a regular income in urban communities often run 'chilimba' clubs. Under this arrangement, people pool a fixed sum from their income each month, giving the combined amount to each member in turn. This enables each person to enjoy a periodic 'jackpot', which is often used to make productive investments. This system is quite common amongst low paid workers. The group nature of chilimba introduces pressure to hand over the agreed sum each month, and means that the capital sum is immediately available without the problems of preserving capital against the demands of all kinds of contingency.

5.107 In urban centers outside Lusaka, most households supplement their income and food consumption by growing produce and raising livestock in their backyards or on vacant land. Agriculture is indeed a main element of poor urban dwellers' livelihoods, except maybe in Lusaka, where the shortage of land forces people to walk long distances to find cultivable land.

5.108 Although some mechanisms to cope with degrading urban living conditions and poverty have negative effects in the long run,⁵¹ most are constructive and demonstrate the ability of the urban poor to provide for themselves, even if, in many cases, their individual coping mechanisms can only be considered as short-term, leaving them vulnerable to further shocks.⁵²

5.109 Some of the urban informal economic activities indeed have potential for growth, such as the production of building material, which ranges from low-skill jobs making and transporting cement blocks, aggregates, or timber, to the more skilled manufacturing of window, doorframes, and furniture. These activities were in high demand in all settlements visited. Some skilled informal producers even had contracts with formal resellers in Zambia and in neighboring countries.

Box 5.4 Community-based Organizations and Support for Vulnerable Groups

Bwafwano community association was formed in 2000 to educate orphans and disabled children in Chazanga (Lusaka), and to provide life skills to widows and widowers. Its executive committee is composed of a chairperson, seven women, and five men. By early 2004, it was running programs for vulnerable community members: a community school for orphans and disabled children, a training program for women in tailoring, knitting and flowerpots making, a theater course to out-of-school children, the distribution of food to child headed-households, the referral of neglected children to the welfare department, and of abused women to the police's Victims Support Unit. Its beneficiaries were 20 disabled children and 25 adults, 500 children attending the community school, 150 widows, and 20 persons attending adult education. They have a team of forty home-based caregivers, and derives support from a range of private donors and international NGOs.

⁵¹ For instance removing children from school to work when parents cannot afford their education and need them to provide an income. An other prevalent approach is for poor women (often widows or teenagers) to engage in commercial sex to make ends meet, an extremely risky activity given the high prevalence of HIV/AIDS and their lack of bargaining power to protect themselves. Some coping strategies destroy the environment, such as the extraction of sand and stones sold as building materials, which leaves holes in common areas, in which people fall and where garbage rot in stagnant water.

⁵² A main problem of most activities is that their low returns do not allow people to build savings to fall back on in the event of shocks, or to invest in more profitable activities. Engaging in multiple jobs does supplement a low income, but does not provide opportunities to increase earnings durably. It does not seem to help people get out of poverty or to protect them from shocks that could push them into poverty.

5.110 For many years, community groups and clubs have been formed to address specific issues, and are now common, particular in urban areas. The purpose of these groups may be to serve other members of the same community, or to benefit or support its members. Groups that serve other members of the community have often been formed to provide home based care for people suffering from HIV/AIDS, and enhance care for orphans and vulnerable children. Such groups may be formed from a church congregation, or as components of existing groups such as the Neighborhood Health Committees. Active volunteers providing direct care for the needy usually mainly comprise women, since cultural traditions reinforce the idea that care and service are principally women's responsibility. Where community groups have decision making authority over resources, or where status may be derived from its leadership, women are marginalized and men become dominant.

5.111 The number of groups of widows and other single women heading households has increased in recent years, as incidence of female headed households increases, and with greater recognition of their marginalization and the vulnerability of children growing up in these circumstances. The groups often promote income generating activities for their members, combining training to strengthen their capacity to manage their ventures with microcredit to provide access to capital. Successful initiatives all emphasize close engagement by the group with the business of each member, through regular sharing of experience, joint liability for loans, or even cooperative ventures. Groups are more successful where at least some of the members have had previously been economically secure, usually prior to being widowed. Such members provide leadership and guidance for uneducated and inexperienced members. Indeed, reaching the poorest members may only be possible through such intermediaries.

5.112 Many people suffering from the impact of shocks resort to the informal sector private money lenders, or *kaloba*. Loans of several hundred thousand kwacha (often up to \$100; less often above that) can be obtained even in poor communities, usually repayable within one month at 100% interest per month. Loans are secured by threats, as well as by the prospect of having household items grabbed, even beyond the value of the loan and interest. Taking credit on *kaloba* is very expensive and risky, but may be the only solution to unforeseen contingencies and illness. The poor are most dependent on this system, while richer people use their social networks to borrow money from their peers when necessary.

5.113 A considerable perk of being employed in the formal sector is access to emergency loans, which protect workers from hazardous *kaloba*. Formal sector workers usually expect to be able to access substantial interest-free loans from their employers, either for investment (e.g. building a house), to spread significant expenses over several months (e.g. the annual January demand for uniforms and school fees), and to meet emergency expenditures (e.g. the hospitalization of a family member).

5.114 The diversity of livelihoods, shocks and coping mechanisms is greater in urban areas than rural areas. It is thus harder to make strong connections between specific shocks and coping mechanisms. Some statements can be made in this respect:

- Unemployment is a shock that affects urban people more frequently than rural people. Besides depending on any diversification and alternative incomes that may already have been developed, people facing unemployment are very likely to seek piecework and engage in petty vending. People facing unemployment are less likely to secure informal credit, presumably because they are seen as a bad risk.

- Households caring for the sick are more likely to secure informal credit. While this may provide resources to meet short term needs, *kaloba* can create more problems in the long term.
- The likelihood of pulling children out of school is twice as great when a death occurs as for any other shock.
- The highest probability of formal borrowing is for households affected by disability. This probably reflects the number of programs extending livelihood development with accompanying micro-credit services to the disabled.
- All types of shock result in high levels of consumption reduction.

E. Conclusion

5.115 Risk and shock present major problems to the majority of Zambia's population, undermining growth and development and more deeply entrenching poverty. While these shocks may be covariant or idiosyncratic, idiosyncratic shocks including HIV/AIDS, health problems, poor access to education, unemployment and other livelihood shocks are so common that they are both predictable and widespread.

5.116 While households find ways to cope with risk and shock, this is often at the expense of consumption, or at cost to investment in future opportunities and welfare. The poorest and most vulnerable people face more shocks, and have least capacity to cope with them effectively. Many people can only access limited assistance from traditional support networks, which have themselves become burdened by multiple demands.

5.117 In rural areas, where crop failure and market failure are common, many households suffer from repeated shocks. While rural livelihoods should be able to accommodate shocks through the accumulation of surplus and the use of natural resources, shocks have become so harsh and frequent that these fall-backs are depleted and unreliable.

5.118 In urban areas, where the need for cash is daily and the incidence of minor shocks and contingencies is high, it is hard to accumulate enough cash against major contingencies. The cost to today's consumption is too high for many people to save or invest. Hence, despite the more diverse range of low-income livelihoods in urban areas, there is little resilience to the impact of risk and shock.

5.119 Some people secure help in preventing or coping with risk and shock from diverse external sources. Churches and NGOs offer substantial services in some areas. Public responses have low coverage, and suffer from low political priority, poor planning, under-financing and poor implementation. As a result, responses by other actors are hard to monitor or guide, and often operate in isolation. Moves to strengthen umbrella organizations reflects a felt need amongst other actors to be better coordinated and to improve practice, and an attempt to achieve these goals in the absence of support from Government.