

# **Poverty and Vulnerability in Zambia, 2004**

## **A Qualitative Study**

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### **Executive Summary**

The Zambia Poverty and Vulnerability Assessment (ZPVA) was launched in 2003 with three principal goals: to update the current understanding of poverty and vulnerability in Zambia, to assess the design and implementation progress of Zambia's Poverty Reduction Strategy Paper (PRSP), and to draw attention to key policy challenges that remain if Zambia is to effectively address poverty and vulnerability. As a component of the ZPVA, a participatory qualitative study of rural poverty and vulnerability was carried out by the World Bank, DFID, and their partners at the University of Zambia in Jan-March 2004. The study addressed both the persistent and dynamic aspects of poverty by examining, first, the factors that determine who is chronically poor and why, and second, the factors, events, shocks and set-backs that precipitate vulnerable households into further destitution.

Utilizing an array of six instruments designed for this study, three research teams carried out focus group discussions, semi-structured interviews, social mapping and wealth ranking exercises, in villages and settlements of all three of Zambia's major agricultural/environmental zones. Principal findings include the following:

#### **Characteristics of the Poor and Trends in Poverty:**

1. Poverty is perceived to be on the increase due to changes in climatic conditions, an increase in morbidity and mortality (primarily due to the HIV/AIDS epidemic), and shifts in government policies that have placed agricultural inputs beyond the financial reach of most poor cultivators.
2. Some small growers participate successfully in out-grower or other agricultural schemes, and others have reverted to indigenous crops because they lack the inputs or water required for maize cultivation. The majority, however, are risk-averse and firmly committed to smallholder production of the staple crop, hybrid maize. Due to lack of access to markets and market price instability, the poor tend to view crop diversification as likely to increase the vulnerability of their households.
3. The study did not find wide discrepancies between the economic standing of the poor and the better-off. While this may protect the poor from exploitation by local elites, it also deprives them of potential patrons who could provide emergency loans or employment beyond daily casual labor paid in kind.

4. The issue of access to land was not raised as a factor in poverty, but the ability to acquire the inputs and, in some cases, labor needed to cultivate land was widely cited as the pivotal factor that separates the self-sufficient from the food deficient.
5. There are essentially three types of impoverished households, and the same assistance strategy will not work for all three:
  - In the majority of poor households, the primary constraint on agricultural production and food self-sufficiency is lack of affordable access to fertilizer, seed, and other inputs.
  - In the second type of poor household, there is no healthy adult who is capable of cultivation. These labor-deficient households (many of them HIV/AIDS affected) would not benefit from programs that improve access to inputs, or that require physical labor.
  - The third type is the household constrained by lack of water. Irrigation systems are virtually non-existent; and so even if inputs are provided, arid regions may fail to benefit from crop improvement schemes.

#### Vulnerability, Shocks and Coping Mechanisms:

6. Co-variate shocks such as droughts, damage to crops by wildlife or pests, floods, etc. were mentioned most of often as the critical risks faced by rural households. Idiosyncratic shocks, however, particularly those resulting from diseases in humans and livestock, also trap households in poverty; and households described as the poorest were predominantly those that had lost labor power to HIV/AIDS, TB, cholera or other fatal illnesses.
7. After experiencing serious shocks, some impoverished households have no recourse but to employ coping mechanisms that cause further damage to the economic well-being of the household and its potential to recover. Other ex post coping mechanisms damage the environment and deplete common property resources.
8. Pressure on fragile environments and limited natural resources emerged as a significant factor in the growth of poverty and vulnerability. The rapid depletion of these resources will remove a traditional safety net from the small array of coping mechanisms available to the poor. It is their over-use in response to repeated shocks, however, that is placing these resources under threat.
9. Households employ a range of defensive and preventive strategies to reduce the risk of destitution in the event of shocks, such as stockpiling grain, breeding small animals for sale, crop substitution, multiple plantings etc. These risk reduction and risk mitigation strategies were generally found to be less destructive to long-term economic viability than ex post coping mechanisms.
10. Possession of livestock is an indication of economic standing, a productive asset, and a cushion against the impact of catastrophic events. Threats to these assets,

such as disease and theft, are on the increase; and loss of livestock was emphasized as a destabilizing shock for poor households.

11. The extended family, Zambia's traditional safety net, is eroding to the extent that many who experience shocks can no longer rely on its economic assistance mechanisms. Community organizations promoted by government, such as Village Committees and farmer's cooperatives, do not compensate for this loss since they do not fill the same functions.

#### Services and Policies:

12. Many government services, particularly agricultural policies and programs, came under severe criticism from informants. Agricultural extension services (which are critically needed at this time) were reported to have broken down in every site visited.
13. Although payment problems remain at higher levels of these systems, informants did express approval of the removal of user fees for primary education, the establishment of health posts in rural communities and, in some areas, the provision of clean water through borehole installation. Nevertheless, these services do not adequately meet the need for health, education or water services in rural areas.
14. Private sector initiatives, particularly contract farming and out grower schemes, were favorably received where they were available (mainly Zone 2). These arrangements offer a solution to the problems of securing inputs and market access. Private traders and middle-men were less favorably assessed by informants, but they provide the only access to markets for most poor cultivators.

#### Recommendations

A number of recommendations emerged from these observations. Among them are;

- Private sector involvement (particularly in out grower schemes and contract farming) should be promoted and supported by capacity building initiatives where these are needed.
- Any proposal to provide free or heavily subsidized inputs would be unsustainable. Instead, a feasible way to enhance access to inputs for households with healthy laborers might be through a program that provides inputs or cash to cultivators in payment for part-time or temporary labor on rural infrastructure.
- A separate strategy would be required, however for households that lack a healthy adult capable of labor (usually as a result of HIV/AIDS or other illness shocks). These households may need direct nutritional assistance or other safety net programs over an extended period.

- A third strategy may be called for in chronically water-deficient environments. Large-scale water management systems could benefit these areas, or cultivators could be encouraged to emphasize livestock, instead of crop, production.
- Government, donors and NGOs working with rural communities should develop a plan for sustainable natural resource management.
- Increased emphasis should be placed on programs that improve the breeding, care and sale of livestock.
- To combat the growing crime problem, the capabilities of neighborhood watch groups and local law enforcement agencies should be strengthened.
- Traditional leaders, including chiefs, headmen and church leaders, constitute an underutilized resource. These authority figures should be employed more extensively to promote and sustain GRZ, NGO and donor anti-poverty and anti-AIDS initiatives.

## **I. Introduction and Background**

Despite decades of poverty eradication efforts on the part of the Government of the Republic of Zambia (GRZ) and its partners, 73% of Zambians – almost three-quarters of the population—was classified as poor in 1998<sup>1</sup>. Fifty-eight percent were classified as extremely poor. Stunting was found in 56% of Zambian children in that year, and 60% of households were described as food insecure. These figures represent a decline in material well-being since the peak of the copper mining industry two decades ago, but the full range of factors causing and maintaining long-term poverty are still under debate. What is clear, however, is that poverty and human development indicators are not improving and may even be deteriorating. Analysis of the 2001 Zambia Public Expenditure Review reveals that poverty had increased slightly since the early 1990s, when it was estimated at 70%. What is worse, life expectancy has declined from 49 in 1990 to 38 a decade later.<sup>2</sup> School enrollments fell during most of the 1990s<sup>3</sup>, plateauing from 1997-00 and have only started to recover in the last three years (MoE 2003). What is more, the literacy rate for adults aged 15-24 is below that of older adults.<sup>4</sup>

The GRZ has assumed a commitment to strive toward achievement of the Millenium Development Goals (MGDs), which include a 50% reduction in poverty between 1990 and 2015. Its strategy for achieving that goal is described in the 2002 Poverty Reduction Strategy Paper (PRSP). The PRSP was developed by the GRZ in collaboration with key stakeholders from civil society, academia, church groups, the international donor community, etc. It outlines an array of measures aimed at reducing poverty levels. DFID and the World Bank have commissioned an evaluation of PRSP implementation and the report's draft concludes that there is slow but steady progress in building the institutions required to monitor the PRSP. Difficulties in matching expenditures with PRSP priorities has led to an interim focus on the Poverty Reduction Programme resourced with HIPC funds.

In addition, a consortium of NGOs, Civil Society for Poverty Reduction, issued a July 2003 report assessing progress during Year 1 of the PRSP. The report indicated that, although some success has been achieved in activities such as disbursement and use of HIPC funds to improve social infrastructure, and although food security appears to have improved in some areas, there is little understanding of the PRSP at the local government level, and serious impediments to its full and successful implementation have been encountered country-wide. The report concluded that, despite some positive changes, there is no indication that poverty levels have been reduced after a year of PRSP implementation.

Planning for a second PRSP is now underway. It is hoped that the framing of the new PRSP will benefit from the lessons learned during implementation of the first. To support the development of a stronger and more context-specific PRSP, it is critical to

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<sup>1</sup> Zambia Human Development Report 2003

<sup>2</sup> Zambia Population Census, 1990 and 2000

<sup>3</sup> Based on World Development Indicators, 2003 and *BESSIP Core Indicators Performance Report*, Dec. 2002.

<sup>4</sup> Zambia Population Census, 1990 and 2000.

identify the factors that have constituted impediments to the success of the first PRSP, and to the poverty alleviation strategies of the past decade more generally. Many of these factors are experienced as shocks and sudden set-backs by poor Zambian households. In this context, the Ministry of Community Development and Social Services (MCDSS) has been tasked to coordinate the development of a social protection strategy that will be incorporated into the next PRSP. The MCDSS's approach has three components: 1) an assessment of recent shocks and risks experienced by poor Zambians, 2) a review of existing safety nets and targeted programs that protect the vulnerable against these shocks, and 3) the design of a multi-sectoral social protection strategy for Zambia.

The World Bank has been given the responsibility of carrying out the first of these tasks. As part of its response to this challenge, the World Bank in collaboration with DFID and other partners has launched a new initiative, the Zambia Poverty and Vulnerability Assessment (ZPVA). The ZPVA has three principal purposes: to update the current understanding of poverty and vulnerability in Zambia, to assess the design and implementation progress of the PRSP, and to draw attention to key policy challenges that remain if Zambia is to effectively address poverty and vulnerability.

The ZPVA embarked on these activities in Sept. 2003, with the development of a background inventory of existing documents and publications relevant to the topic. There is a rich body of research and information on poverty in Zambia, and so a wealth of information was compiled. It was observed that the existing body of information, extensive though it is, needs to be brought up to date and augmented by a thorough exploration of poverty and vulnerability issues as they are experienced and described by the poor and vulnerable. To address these needs, two participatory studies, one in urban areas of Zambia and the other in rural areas, were developed and carried out using qualitative methods of data collection. This report presents the results of the rural qualitative study of poverty, risk and vulnerability in Zambia.

## **II. Approach, Methodology and Procedure:**

### ***A. Approach and Principal Research Questions:***

The two qualitative studies were designed to reflect the understanding that poverty is a complex phenomenon that is based on an interlinking set of economic, social and political, and environmental factors. What is more, while chronic and persistent poverty is a serious concern in Zambia, poverty is not always a static phenomenon. It is often dynamic – individuals and households can escape poverty given favorable conditions, but the poor are particularly vulnerable to the risk of downward mobility caused by a variety of shocks and set-backs. The rural component of the ZPVA addresses both the persistent and dynamic aspects of poverty, by examining both the factors that determine who is chronically poor and why, and the factors and events that precipitate a low-income household into further destitution.

In response to shocks and other threats to economic stability, the poor and vulnerable attempt to deploy an array of coping mechanisms and risk reduction strategies. Some of these strategies confer long-term benefits in terms of protecting the vulnerable and

allowing them to regain lost ground. Other coping mechanisms are less positive in their long-term impact. Actions aimed at coping with immediate and short-term emergencies may compromise the long-term viability of the household. Chronic indebtedness or loss of irreplaceable assets may be the result. In general, coping mechanisms are more damaging the later they occur in the process of responding to shocks. Ex ante coping mechanisms, including preventive and risk reduction measures, are usually less costly in the long run than are efforts to cope with an emergency once it has occurred. In recognition of this, the study views shocks and coping mechanisms through the lens of the Social Risk Management approach. SRM broadens the issue of risk management to include ex ante prevention and mitigation strategies in addition to the more conventional safety nets and ex post coping mechanisms.

The specific research questions addressed by the rural qualitative study were the following:

1. What are the key characteristics of poverty in rural Zambia—including not only income and consumption-related factors but also important social, cultural and environmental factors?
2. How have recent changes in local conditions (including economic, policy, epidemiological, environmental and social conditions) affected the poor? Have vulnerable households lost or gained ground as a result of these changes?
3. Are basic public services improving or eroding as a result of recent changes – and do the poor have more or less access to education, health care, water, and agricultural inputs than in the past?
4. What kinds of events and circumstances commonly cause poor households to become destitute (e.g. crop failure, death of a breadwinner, chronic illness, etc.), and what do these households do to avoid, mitigate or cope with the shocks they experience?
5. In response to shocks, have some households pioneered successful preventive and coping mechanisms that can be replicated through programs and policies? What additional assistance is being provided by government, churches, donors and NGOs, and how useful is this assistance to the vulnerable?
6. What is the impact of HIV/AIDS and other serious health shocks on household productivity and economic well-being? Have social or economic roles and expectations changed to compensate for losses caused by the epidemic?
7. Given the high prevalence of morbidity and mortality, how have communities compensated for the loss of productive individuals and the presence of children without caregivers?



## ***B. Methodology and Procedure:***

Site Selection: The research was carried out in villages and settlements of all three of Zambia's major agricultural/environmental zones (see map below). In each zone, the teams visited two districts:

Zone 1 – Low rainfall area in the southern portion of the Southern and Western Provinces. (Luangwa and Siavonga Districts)

Zone 2 - Medium rainfall area on the plateau of the Central, Southern and Eastern Provinces. (Katete and Mumbwa Districts)

Zone 3 – High-rainfall area of the Copperbelt, Luapula, Northern and NorthWestern Provinces. (Mpika and Mansa Districts)

These three zones vary significantly in terms of rainfall, terrain and soil quality, as well as in the degree of urbanization and investment each has experienced. Two districts were randomly selected in each zone, and 3 villages were visited in each district. A total of 18 villages<sup>5</sup> were visited. Villages were purposively selected to reflect the range of conditions that is typical of each of these three zones. Since the data collection took place during the rainy season, the village selection process was also influenced by accessibility. As a result the impact on poverty of access to markets, schools, health care may be under reported in this study. Within each village, the village committee was requested to invite approximately 30 residents to the discussions. The rainy season is the busiest period for most rural people and therefore, the discussions in each village took approximately one week.

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<sup>5</sup> The pre-testing of the data collection instruments was conducted in two villages near Chonwe district, Zone II. This means that approximately 20 villages were visited



### ***C. Research Instruments:***

After an initial draft of the research instruments were developed, they were field tested and revised over the course of a week by the teams that would be using them in the field. As an aid to reporting and analysis, Daily Summary Sheets were distributed to each team, and a two-hour working session was scheduled at the end of each day of the pre-test for completion of the Daily Summary Sheet. The trainees were instructed to complete the Summary Sheet daily as a team effort, after discussing the day's findings in terms of key points that emerged in relation to the Principal Research Questions.

Experience has shown that daily meetings and frequent reflection on the goals of the study and the key questions it is attempting to answer are essential to maintaining an open, exploratory and proactive attitude among qualitative field researchers. Without these meetings, boredom may set in after several villages have been visited, and the researchers may begin to treat the instruments as questionnaires rather than as guidelines designed to elicit discussion. These sessions proved to be highly productive in terms of engaging the team members' commitment to and understanding of the study goals, and they resulted in a final set of research instruments that reflected the results of each day's field test. The final instruments were thus the product of experience, thinking and analysis on the part of the entire team.

The instruments provided open-ended guidelines to the following exercises:

#### The Village Fact Sheet:

For reference purposes, a brief profile of each target village was prepared upon entry into the village, using the Village Fact Sheet. Information recorded on the sheet included the village's location, size, ethnic composition, principal livelihoods, crops cultivated, distance from schools and health care facilities. Any NGO or other programs operating in the village were also noted.

#### The Social Mapping Exercise:

Residents of each study village were asked to prepare a "social" map of their own village. The objectives of the social mapping exercise were:

- a.) To provide a visual display of community members' perceptions of the physical dimensions of their village in social and economic terms. An inventory of village resources (wells, water courses, transport hubs, schools, public services buildings), and households (including the number that are poor, middle-income and upper-income) are the focus of the maps.
- b.) To pinpoint the location of village resources in relation to the households of differing wealth levels, and
- c.) To initiate discussion among participants and bystanders about past and present use of and access to local resources, and whether access is a factor in the perpetuation of wealth differentials within the village.

### The Wealth Ranking Exercise:

As a technique to focus the attention of participants on issues related to wealth and poverty, discussion groups were asked to rank a randomly chosen sample of 30 names from their village on the basis of relative household wealth. Participants were then asked to explain the criteria by which they recognized various households as “poor,” “better off,” etc. They were asked to indicate any households that have “changed piles” (moved up or down economically) in the past five years, and to discuss the factors responsible for this change. Lastly, they were asked to discuss whether the village as a whole has become better or worse off during that period, and why. The objectives of the Wealth Ranking Exercise are:

- a) To obtain an understanding of local views on the characteristics of wealthy and the poor households, and to identify the key non-economic components of wealth, as perceived by village residents,
- b) To elicit opinions on the means (and likelihood) of upward mobility among the poor, and on the most common causes of downward mobility among all income groups,
- c) To initiate discussion of why some households are able to succeed in gaining wealth while others fall behind economically. The exercise identified common shocks that lead some households to destitution.

### Case History Interviews:

Interspersed with the other exercises, team members carried out a series of 8-10 semi-structured case history interviews with lower income members of the target communities. The interviews traced the history of the family's economic well-being -- how they have earned a living, what their main problems are, what opportunities they have seized, whether they have gained or lost ground and why, and how they avoid or respond to disastrous events – deaths, serious injuries or illnesses, crop failures, and loss of employment or other income sources. The research instrument was designed to elicit a description of actual events as they have unfolded in the lives of the informants, and to highlight household decision-making – particularly decisions that may have constituted effective responses to economic threats and vulnerability. The goal of the exercise was to yield a composite picture of common responses to decision-points and life events presented by the interviewees -- enrollment of children in school, treatment-seeking in case of major illness, need for credit, food shortages in the home, shocks, etc. – in order to explore felt needs, barriers that prevent the poor and vulnerable from meeting these needs, and any successful strategies that have emerged for overcoming these barriers.

### The Community Resources Management Discussion:

In each study village, discussions were held to learn how villagers usually manage the water and agricultural resources they need to feed themselves and remain free of diarrheal diseases. The discussions included an examination of the village's capacity to carry out tasks through organized cooperation, the leadership and decision-making structures and processes that lead to joint work projects, and how the village copes with community problems such as drought and water shortages (i.e. covariate shocks).

### The Security and Vulnerability Discussion:

Although a number of shocks were discussed in the context of the Community Resource Management Discussions, these were mainly limited to co-variate shocks that affect the village overall. Covariate shocks were discussed in more detail and idiosyncratic shocks, such as illness or death in the household, were also explored in the Security and Vulnerability Discussions. The purposes of the exercise were:

1. to identify the shocks and setbacks that are of most concern to the participants,
2. to obtain their views on the impact of various types of shocks on the household in terms of income, economic well-being, labor market participation, use of health and educational resources, etc., and
3. to learn what villagers typically do to prevent, mitigate or cope with the effects of these shocks and setbacks.

## **III. Results and Major Findings**

Data collection took place during January-March 2004. In mid-March, the team members and consultants participated in a Results Analysis Workshop in Lusaka to review and analyze the study's findings. Each team presented its results, which were then discussed and analyzed in terms of four principal themes: the definitions and characteristics of the poor (Profile of the Poor), the changes and trends in poverty perceived by villagers in the past five years, common shocks and coping mechanisms, and the role of public services and programs in protecting the poor and providing opportunities to escape poverty. A special effort was made to identify the particular problems and opportunities of each of the three agricultural zones. The sections that follow summarize these results and findings.

### ***A. Characteristics of the 3 Zones:***

The map in Annex 1 outlines the three agricultural zones.

Zone 1 is a low-rainfall area in the southern portion of Zambia. It primarily borders Zimbabwe and is one of Zambia's hottest, driest and poorest regions. It includes the

valleys of the Zambezi and Luangwa rivers, where soils are sandy and fertility is poor. Zone 1 also includes a major game management area, where farming households attempt to coexist with wildlife. Maize, sorghum, groundnuts, sunflowers and cowpeas are cultivated, and the fishing industry (though now in decline) has drawn many to the area. Mats and baskets are made from reeds and sold to middle-men who visit the area for this purpose.

Zone 2 is a belt running east-west through the center of the country. It is an area with relatively good soils and receives more rainfall than Zone 1. It is therefore a more successful agricultural region; and in addition, it includes the capital city, Lusaka. Probably because of its proximity to Lusaka, it has received more intensive assistance from government, NGOs and donor organizations. Although maize is the staple crop, a wide variety of other crops is grown in Zone 2; including beans, groundnuts, sorghum, cassava, millet, sweet potato, sunflower, cotton, rice, tobacco, paprika and, to a growing extent, vegetables (such as tomatoes and onions) and fruits (bananas, citrus fruits and guavas).

Zone 3 is a high-rainfall area in the north of the country. It includes the mines of the copperbelt area, which is relatively urbanized and was once a source of prosperity for the nation. The decline of the copper industry has caused an unemployment problem in this area. Zone 3 contains major river systems, such as the Luapula and Mansa rivers, as well as numerous lakes. The major crops produced are cassava, maize, groundnuts, millet, sorghum, beans and sweet potatoes; and small-scale fishing and fish-trading is also a source of income.

### ***B. Key characteristics of poverty and wealth in rural Zambia***

Before turning to the issue of directions and trends, it may be useful to develop a static or cross-sectional view of poverty - a profile of the poor in 2004 - as perceived by rural informants. The wealth ranking exercise discussions provided a rich source of information on the traits, characteristics and visible signs by which poverty is recognized in these communities; and a number of observations emerged.

It is striking that, in comparison with rural communities in many parts of the world, Zambian villages do not appear to be characterized by wide discrepancies in levels of wealth. There are indications that the gap between well-off and poor may have been wider during the copper boom period, when villages are said to have had a variety of small shops and businesses that are generally missing from the rural landscape today. During wealth ranking exercises conducted as part of this study, however, nearly every villager was initially defined as "poor." Informants may have exaggerated the poverty of the village because they hoped that the poor were being identified in order to provide them with a service or benefit. After explanations to the contrary, and with extended probing, it became clear that there are recognized differences between three categories: the very poor, the poor and the better off. Even those households defined as better off, however, were viewed as vulnerable and their future well-being was thought to be far from certain. This was said to be true even of traditional leaders. In most study sites, the

village headman or local chief was one of the wealthiest individuals in the village, but this did not prove to be true in every case – in one village, the headman was among the very poor.

Although wide differences in household wealth levels do exist in Zambia, the truly wealthy were not found to be residing in the rural villages visited by the study teams. One consequence of this is that the teams did not find rural elites controlling local resources or denying them to the poor and powerless. Instead, a generalized condition of economic uncertainty and material scarcity prevails in these villages. A type of social and economic egalitarianism could be said to characterize these communities as a result. Another, less positive, consequence of this is that there are relatively few surplus households with enough resources to hire poorer neighbors or provide them with loans or other assistance in times of extreme need. Nevertheless, the better-off do occasionally provide emergency loans or assistance to the poor, or buy their surplus produce. In general, however, they can offer only a day's casual agricultural labor (*ganyu*), paid in food or in kind.

#### *Characteristics of the 3 wealth categories:*

##### The Very Poor:

There was a strong commonality between the three zones in the defining characteristics of extreme poverty that were mentioned. The table below presents these characteristics (and those of the moderately poor and better off) by zone. To summarize, the very poor not only lack the meager assets normally found in rural homes, they also lack some of the basic necessities of life. Food insecurity was mentioned as a primary criterion of extreme poverty in all three zones. The very poor are often unable even to eat the two meals a day typically consumed by the moderately poor. They have no stored grain and may be forced to go without meals for a full day or for days. In addition, they do not have adequate clothing and may possess no bedding. They are housed in mud huts with thatched roofs. They are unable to educate their children due to their inability to meet minor expenses such as books and school supplies, uniforms, and fees charged by the local parent-teacher association (PTA). In some areas (such as the poorest areas of Zone 1), they do not own any livestock, while in slightly better-off areas (such as many found in Zone 2), they are likely to own a single goat or 2-3 chickens. In all three zones, ownership of livestock was an important criterion for separating the better-off from the poor.

Particularly in Zones 1 and 3, the very poor were said to have no identifiable source of income. Most rely on sporadically available casual agricultural labor in the fields of better-off neighbors. They thus provide the labor pool that is available to better-off households with a shortage of agricultural labor. The very poor were described as those who are always in search of daily casual work or *ganyu*. *Ganyu* usually refers to agricultural labor that is paid in kind or with a day's supply of food. Casual agricultural work of this kind is not a reliable source of income or food, however, since it tends to be available only seasonally. Some of the very poorest are unable even to perform *ganyu*. Typically, these are the labor deficient households headed by the elderly, the disabled, or

abandoned or widowed women caring for small children. Households are similarly constrained when the only healthy adult is caring for a chronically ill family member.

**A Very Poor Household:** Doras is a widow who was born in 1938 in Kanemela village, Luangwa District, where she still resides. She did not go to school and therefore cannot write or read in any language. She is not sure of her age at marriage, but estimates that she was sixteen or seventeen. She did not know the age of her late husband at the time of their marriage. Eight children were born to her during this marriage, though only five are still living. Her household's main source of income is farming, but her household does not produce enough food to last the year – the household was out of food at the time of the interview (March). During periods of food scarcity the family eats wild fruits and skips meals. Nevertheless, all three of the orphaned grandchildren living in her home are attending school. An NGO orphan assistance program (CCF) enables them to continue in school by providing uniforms and paying school fees. Doras feels that keeping these children in school is of critical importance. If well educated, they will be independent as adults and are expected to provide support to Doras at that time.

#### The Moderately Poor:

The moderately poor, or less poor, were said to be basically food secure; although they might experience occasional food shortages during the lean season, they are normally able to maintain an acceptable level of consumption. Their homes are usually thatched with grass but, unlike the poorest, may have a cement floor. They possess a few assets in the form of beds, cooking pots, livestock (usually smaller livestock such as goats and chickens) and basic farm instruments. They are likely to possess a hoe, for example, but rarely a plough and never oxen. Reliance on hoe agriculture limits the amount of land they can cultivate, but since they are able to farm, they are considered to have a reliable source of income. Some households were placed in this category because a member had a skill such as carpentry, brick-laying or bicycle repair. In riverine areas, households in this group are sometimes able to make and sell mats or basketry made from reeds.

#### The Better-Off:

In all three zones, fewer than 10 of the 30 households categorized in the wealth ranking exercise were assigned to the “better off” group. In some villages of Zone 1, only 2-3 households were classed as “better off.” The better off were usually those that own cattle and luxury goods such as radios and bicycles. They live in homes built of burnt brick and roofed with corrugated iron. The better off households are food secure and can eat as many as three meals a day. They are able to educate their children through secondary school, since they can afford school fees, uniforms, and transport (or occasionally boarding fees).

The better-off possess livelihoods that are more reliable than those of the moderately poor and very poor. They have ploughs and draft animals, or in Zone 2, even a tractor.



They are thus able to cultivate a larger area and, since households in this category can afford to buy inputs, they produce enough maize to fill a granary and often can sell surplus produce. They often operate a small shop in the village, and they sell or trade produce, fish, etc. outside the village. Although a few moderately poor households may hire *ganyu* labor, it is the better off who usually employ members of other households to assist with planting, weeding and harvesting. These relationships generally do not develop into long-standing patron-client relationships, as they are usually ad hoc and temporary. These relatively wealthier villagers do not, therefore, constitute a reliable source of credit, employment or emergency assistance to the families they have employed.

#### The Importance of Livestock:

After basic food security, the trait that was mentioned most often when informants were distinguishing the poor from the better-off was possession of livestock, particularly cattle, pigs, goats and sheep. Domestic animals were described as both an indicator and a source of higher economic standing. The ability to plough using draught animals can dramatically increase a household's productive capabilities. Cattle, therefore, were described as the most desirable livestock assets; although they are highly vulnerable to disease and beyond the means of the average poor household in any case. Even small livestock appear to be a common means of attempting to establish security and to cushion against shocks and shortfalls in consumption. A certain number of chickens and goats are produced each year in a household with breeding animals; and these may be sold to smooth consumption, pay school fees or buy medicines when a family member is afflicted by illness.

#### Characteristics of poverty: summary

To summarize, the poorest were said to be those who lack basic life necessities and possess almost no assets. Most are reliant on casual agricultural labor, paid in kind, but some of the very poorest households suffer from an absolute labor constraint in that they have no healthy adult who is capable of casual work (i.e. households headed by the disabled, elderly or women caring for small children). The poorer households lack draught animals, and the very poorest may possess no livestock. They are less able to access public resources such as schools than are the less poor and better off. There was, however, no indication that the poorest were less able to access traditional social capital assistance through the extended family -- typically, extended family members who were unable to contribute material resources could make other types of contributions (such as cooking at communal feasts, etc.). However, they may be less able to participate in contemporary forms of association, such as the Village Committees, women's groups, etc. Because they are continuously stretched between the requirements of *ganyu* labor and labor in their own fields, they have less time to devote to voluntary village associations and activities. Households at the lowest end of this category -- those headed by an elder, child, widow or chronically ill person -- are usually unable to work for others or even to cultivate their own lands. As a result, they are chronically desperate and

reliant on food aid programs, foraging or the intermittent assistance of relatives outside the household.

Although the poorest can be recognized as essentially similar in all three zones (see Table 1), differences between zones began to emerge in the description of higher income groups. In Zone 2, for example, the better-off were likely to own their own borehole and a tractor; while a plough (with oxen) defined the better off in poorer districts of the other Zones.

**Table 1: Key Characteristics of 3 Wealth Categories by Zone**

<i>ZONE 1</i>		
<i>The Poorest</i>	<i>The Less Poor</i>	<i>The Better-Off</i>
Inadequate food Poor clothing Lack of bedding No livestock Mud/thatch house No visible source of income Aged, chronically ill, disabled Work for others ( <i>ganyu</i> ) Keep orphans Illiterate Unable to send children to school	Have steady source of income Have a skill (brick making, mat weaving) Own chickens and goats Do not own cattle Usually food sufficient but occasionally food short	Always food secure/three meals per day Own cattle (as well as pigs, goats, chickens) Have house of permanent materials Own farming implements (plough) Have off-farm income source (fishing, jobs) Hire casual labor Have stored grain (granary) Have many wives
<i>ZONE 2</i>		
<i>The Poorest</i>	<i>The Less Poor</i>	<i>The Better-Off</i>
Food insecure all year (miss meals) Use hand hoe for farming Cultivate little Lack agricultural inputs Work for others Own a few small livestock (fowl, goats) Grass-roofed house with dirt floor No remittances from outside village Old, orphans, widows, ill or handicapped	Cultivate 2-5 ha of land Use either hoes or ploughs Own small livestock (a few also own cattle) Employed as driver, tailor, etc. or own small shop in village House has concrete floor	Own cattle (as well as smaller livestock) Own vehicles Farm using draught animals or tractors Adequate food at all times Hire agricultural labor Brick house with iron roof
<i>ZONE 3</i>		
<i>The Poorest</i>	<i>The Less Poor</i>	<i>The Better-Off</i>
Food insecure at all times Own no livestock Have land but not able to cultivate it Poor clothing Work in exchange for food No remittances Poor access to public resources (schools, markets)	Sometimes food insecure Own hoe (some own ploughs but no oxen) Own small livestock	Food secure always Own farm implements (ploughs) Own oxen, cattle and cart Own bicycle, radio, a shop Able to educate all children Some receive remittances from outside village Employs others ( <i>ganyu</i> ) House has iron roof

## Explanations for Wealth Differences

Informants were asked to account for the differences between wealth categories— to offer their ideas on why some households are wealthier than others. They suggested that the better-off are often those receiving remittances from urban relatives, especially educated adult children, who were employed in well-paying jobs. The moderately poor and better off were also said to possess either a remunerative skill or a productive asset, such as a sewing machine, that could be used to generate income. In other cases, the better off were recent immigrants (such as retirees) who arrived in the village with some capital to invest in agriculture, horticulture, or livestock. The very poorest, by contrast, were often the “new poor”—households that have lost a breadwinner or are elder- or female-headed as a result of HIV/AIDS or other diseases, and individuals returning to their natal villages because they have been retrenched, have retired without a pension, or are chronically ill from TB or active AIDS.

Some implications can be drawn from these descriptions:

- In no village was lack of access to land mentioned as a cause or attribute of poverty; instead, poverty was associated with inability to cultivate available land due to lack of inputs or lack of labor power and/or draught power.
- Essentially, two types of very poor farming households were described by informants: those constrained primarily by lack of inputs and those that are also constrained by lack of labor. Among the very poor, households without a healthy adult who can perform labor are particularly disadvantaged. In Zone 1, however, even those with labor and inputs are often unable to cultivate due to lack of water. There are, therefore, three types of very poor household, if they are classed according to their most pressing agricultural constraint.
- The remittances received by many better-off households from employed adult children have boosted the demand for education in all zones. Removing a child from school was universally considered to be a last resort coping mechanism.

### ***C. Recent changes and Trends in Poverty:***

Informants were asked to comment on any changes or trends that have affected their own economic standing and that of the village overall during the past five years. Their observations included the following:

#### Poverty is Increasing:

In all three zones, villagers believe that overall poverty levels have increased during the past 5-10 years and are still increasing. The main causative factors suggested by informants were the following:

### *Changes in GRZ agricultural policies:*

Agricultural policy changes, many of which have been in place for a decade or more, were held to be at least partially to blame. Primarily, these changes involve removal of the system in which farmers were offered fertilizer on a pay-back basis (which was rarely repaid), and privatization of produce markets. During the Kaunda administration, surplus produce was purchased by government at a price that guaranteed farmers an adequate return on their investment. Now, government is no longer providing inputs or a guaranteed market for produce.

The causative factor in the growth of poverty that was mentioned most often was a continuous decline in farmers' ability to pay for agricultural inputs now that government is not providing them essentially free. The cost of fertilizer in particular has soared in recent years, while fertility has simultaneously declined in some areas due to erosion and soil exhaustion. At the time of the study, fertilizer was being sold at half price by the GRZ to selected members of agricultural cooperatives. The allotment for each cooperative was too small, however, to provide subsidized fertilizer to all, or even the majority, of its members. What is more, many of those selected to receive the subsidized fertilizer found themselves unable to pay the 50% required to take advantage of this opportunity. Reportedly, fertilizer had been returned to Lusaka in some cases because farmers could not afford to purchase it. In fact, *some informants claimed that the amount of land under cultivation in their villages has been shrinking over the past five years* – primarily as a result of the inability to purchase inputs, in combination with the loss of draught power due to cattle diseases. Though this study was not able to confirm these statements, the possibility that acreage under cultivation may be declining may merit follow-up quantitative examination.

Before the advent of reforms in government policy, the GRZ provided a guaranteed market for farm produce through NAMBOARD. The fact that it no longer does so was cited as another change in government policy that has impoverished rural cultivators. Now, the low-income cultivator cannot afford the cost of transporting harvested crops to markets, and so s/he must rely on middle-men who travel to the villages to buy produce. The farmers said they are treated unfairly by the middle men, who sometimes do not offer enough for the crop to cover its production costs. Most cultivators have no alternative market and so they feel they are at the mercy of the middle man.

The few who are able to transport their produce to market centers may fare no better. Because of varying demand and market price instability, the farmer at market is also unable to assume that the sale of his produce will meet production costs. A box of tomatoes may sell for K40,000 if no other seller is in the market, but the price may fall to K4000 by later in the day, particularly if competing sellers have appeared. When the product is perishable, the seller may have no option but to sell at the going price. In one discussion, a farmer in this situation was reported to have shot himself at the market.

### *Increased climatic variation:*

Changing climatic and environmental conditions were also mentioned as causes of increased poverty. Nearly all Zambian smallholders rely on rainfed agriculture to produce the staple crop, maize; and the rainfall pattern is perceived as increasingly erratic. Droughts are said to have become more common in most areas, while others are often flooded.

*Deterioration of natural resources:*

Over-exploitation of common property resources, such as forest products, fish, wildlife, water courses, etc., have led to deterioration in the quality and abundance of these resources. In consequence, many households that relied on these resources as a fall-back option or coping mechanism in times of crop failure can no longer do so. In addition, some areas report declining soil fertility and soil exhaustion. Many households in these areas are reverting to shifting cultivation (*chitimene*) – a well-known source of deforestation -- as a result.

**Impoverishing Environmental Change:** The Luangwa area, which is watered by the Luangwa and Zambezi rivers, provides an example of the impact of recent climate and environmental changes upon the economic well-being of farming households. Many Luangwa households cultivate a combination of arid upland fields and well-watered riverbank fields (*Dambo* fields). Recently, some of the fertilizer distributed free or at subsidy in this area has been sold for food or returned to Lusaka unused, because the upland fields now receive too little rain to produce a crop even if fertilizer is applied. During the same period, many households have lost the crops growing in their *Dambo* fields as a result of flooding. The villagers blame upstream dams for the frequent floods they experience, but erosion from *Dambo* fields and removal of reeds from the river bank for mat-making have contributed to siltation of both rivers. This siltation has not only caused more frequent flooding, but has also damaged the fishing industry that attracted many households to this region in earlier times. Few fish are now being caught on the Zambia side of these rivers as a result of siltation and over-fishing; and agricultural production is also failing to meet the basic food security needs of this population.

*Increase in morbidity and mortality:*

Another factor that is augmenting poverty for some households is the increase in illness and premature death that Zambia has experienced in the past decade. HIV/AIDS is one of the major causes of this, but many households have also lost productive members to other illnesses such as malaria, typhoid, cholera and TB. When a household is affected by HIV/AIDS or other chronic illness, their economic standing is eroded for a number of reasons. The most serious of these is the loss of a breadwinner or laborer from the household, but even before this loss occurs, the cost of caring for a chronically ill family member can impoverish a household. There are heavy financial costs associated with providing for the treatment and nutritional needs of the patient, and the opportunity costs of nursing a sick individual for a period of months can rob the household of the time and labor of the only adult who is able to perform agricultural tasks. Even before the death of

a breadwinner, therefore, fields may lie uncultivated and the households resources may be expended on drugs, transport to hospital, and fees for medical services. Cost-sharing mechanisms such as medical service fees at the hospital level were mentioned in some focus groups as factors that have led to greater poverty.

*Increase in the number of orphans:*

The majority of households are not directly affected by HIV/AIDS and do not include a person living with HIV/AIDS. Even those that are not directly affected, however, may lose income when close relatives die or are chronically ill. The increase in the number of orphans requiring care and support from relatives was cited as a factor causing a strain on household resources. Zambia's value and strive to create very large families; and so many adults who die leave as many as 6-8 children to be absorbed by other households within the extended family kin group. These caregiving households may already be supporting an equal number of children of their own. Providing for the food, clothing and educational expenses of even one additional child can have an impoverishing impact on economically precarious households.

*Traditional social capital networks are deteriorating:*

In many villages, informants observed that there is less reliance on the extended family to provide assistance in times of trouble than in the past. In addition, some traditional extended family leveling and support mechanisms, such as communal meals, have broken down entirely. Others are also less common than in the past. Voluntary labor sharing between related households can still be found, but it is being gradually replaced by *ganyu* arrangements. As part of the extended family tradition, Zambians have often fostered children from related households. This is usually done either to provide additional labor for the labor-deficient or to broaden opportunities for the child. For example, rural children sometimes join the households of their urban relatives in order to gain access to better schools and services. Sometimes this constitutes an investment by extended family members in a particularly promising child (who is expected to benefit the entire group after he becomes a successful adult). This tradition, too, is said to be on the decline. Families feel the need to concentrate scarce resources on the feeding and education of their own children, and they are less certain that their investment in nieces and nephews will be repaid.

These changes were commonly attributed to a generalized increase in poverty – extended family members were said to have fewer resources to spare for relatives experiencing economic stress. These remarks are somewhat puzzling. Although poverty may have increased slightly in recent years, this increase has not been dramatic enough to bring about a significant social transformation. On the other hand, the rise of HIV/AIDS during the past two decades is certainly causing a serious strain on the extended family system, since the proportion of households in distress has grown in virtually all kin groups. Whatever the cause, there is evidence of an evolution in social norms in the direction of increasing investment in the nuclear family at the expense of the extended family. The sharing of surplus resources with other extended family households has been an

important defining value among rural Zambians. Now, however, the rural poor have begun to complain that they cannot rely on relatives – even relatively well-off relatives living in urban areas - to offer any assistance beyond emotional support. It is unclear to what extent this represents a change in cultural norms and expectations, since urban unemployment and the collapse of the copper industry have eliminated many of the remittances that sustained rural extended families in the past.

Among many ethnic groups, these social changes are related to the deterioration of the matrilineal inheritance system. In certain areas of Zambia, tribal groups have a matrilineal social structure in which property is controlled by men but inheritance is through the female line. In these areas, a man's goods and lands are traditionally distributed among his sisters' children after his death, rather than to his own. In the context of the HIV/AIDS epidemic, equal rights campaigns have drawn national and international attention to these traditions; and they have been interpreted as a form of "property grabbing" that disinherits orphans and widows. Zambia has therefore created legislation aimed at protecting the widow and orphan from loss of goods and property upon the death of the father. Although this study's informants all stated that their villages are abiding by the new *Zambian inheritance law*<sup>7</sup>, tensions remain in some areas between this legislation and traditional norms and values. Nevertheless, the change in inheritance patterns appears to be contributing to the attenuation of extended family leveling mechanisms and to the growing focus upon the nuclear family. The danger during this transitional period is that some destitute widows or orphans may fall between the two systems – rejected by the mother's brother on the grounds of modernization, and deprived of assets by the father's relatives on the grounds of traditional matrilineality.

Additionally, some deterioration in traditional social capital networks appears to be associated with changes in village composition. In Zone 2, for example, informants mentioned that villages were ethnically uniform in the past; and indeed, often composed of members of a single extended family. Now, villages are ethnically diverse as a result of internal migration. Some migration has taken place between rural areas of Zambia. The Tonga people of the south, for example, have migrated northward to escape drought and find well-watered pasture lands for their animals. Areas near urban centers have also witnessed a trend toward urban-to-rural migration (by retirees, retrenchees, etc.). Migrants do not appear to have any significant difficulty settling in areas traditionally under the control of other ethnic groups – so long as the headman is in agreement. Nevertheless, these population movements have diluted the village as a unit of cooperation based on kinship and shared history.

*Age and gender roles are breaking down:*

Primarily as a result of the HIV/AIDS crisis, traditional men's and women's roles are beginning to dissolve in rural areas. When their husbands are ill or have died, women are forced to take on the rougher work and heavy labor that is normally reserved for men.

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<sup>7</sup> The law mandates that property be shared among a deceased man's widow, children and parents or siblings; however, half of it (50%) is inherited by his children. An executor is appointed to ensure correct disbursement of the inheritance.



These tasks usually include clearing fields for cultivation, re-thatching the roof of the house, building a pen for goats, etc. A woman who is caring for a chronically ill person or small children faces an even greater challenge in assuming these additional tasks; and in some cases, even necessary work is neglected due to an absolute labor shortage in the household.

In a small number of households, men too were found to be assuming unfamiliar tasks. When women are ill or have died, their female relatives are thought to be the appropriate substitute care-givers for the children that are left. Now, with increasing illness burdens in so many households, there may be no female relative who is free to provide care. In a few cases, therefore, men have been found caring for small children and/or nursing sick wives – in clear violation of traditional gender role expectations.

If gender roles are blurring, is the impact on women primarily harmful or beneficial? The changes in social roles that informants described raise the question of whether women are merely taking on additional (and more onerous) tasks while failing to achieve the rights and privileges that are normally the prerogative of men. A definitive answer to this question would be beyond the scope of this study; however, there was some evidence that social changes that benefit women are also occurring. Primarily, women's rights and participation in the public sphere appear to be increasing. As noted above, the widow's right to inherit her husband's lands and property are now protected by law. Women are also eligible to be elected to public office, as discussed below, and to represent their communities on Village Committees and other public bodies. The extent to which women are able to exercise these rights varies greatly between areas and ethnic groups. There are, then, two processes of change in gender roles that were reported by the research teams: a break-down in traditional gender roles caused by increased death and chronic illness, and improvements in the legal rights of women that have come largely through effective advocacy. Although women's added work is a drawback, there is some evidence that the ongoing break-down of rigid gender roles is benefiting women overall.

Children, too, are being forced by necessity to take on tasks and roles that are new to them. Although very few child-headed households were encountered<sup>8</sup>, children are sometimes required to nurse a sick parent or to take on some of the household chores, cultivation and animal husbandry tasks that would normally be done by adults. Children are withdrawn from school for this purpose only as a last resort, however. Because the long-term well-being of the household is understood to depend on the preparation of its children for future employment, even distressed families keep children in school as long as possible. It is usually a lack of money for school fees, books, etc. that finally forces a household to withdraw a child from school. When children are expected to shoulder additional tasks, they usually perform them after school and on weekends. They may, however, miss days when there is a particularly critical need for their labor at home.

*The proportion of single-parent households has increased:*

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<sup>8</sup> Although there was general agreement that the extended family care and support system is under strain as a result of growing poverty and the rising dependency burden, it does not appear to have given way thus far with regard to the care of orphans.

Closely related to the above is the observation that, compared with a decade ago, the number of single-parent households has grown noticeably. The majority of these households are headed by women. This is a key issue with respect to trends in poverty levels, since recent studies (eg Curry FAO 2004, Schubert 2003) have highlighted the extent to which female headed households are heavily over represented amongst the very poorest in communities. The increase in female-headed households was said to be the result of a number of inter-locking factors:

- The HIV/AIDS epidemic affected males disproportionately in its early phase, so that there is now a shortage of men (HIV infection rates have since risen more rapidly among females than among males).
- Widows are now less confident of remarrying because prospective mates are aware that the deceased husbands may have died of AIDS.
- Polygamy is also on the decline, for economic reasons and from fear of HIV/AIDS.
- Inheritance of the widow by her deceased husband's brother (levirate) is a traditional practice that is being discouraged by traditional leaders at the behest of the GRZ.
- A growing number of men have abandoned their families because they feel unable to meet the responsibilities of a breadwinner.

The rise in single-parent, particularly female-headed, households represents a significant increase in vulnerability. The remaining parent is frequently the only source of food or income for the children, who might be left without support if s/he becomes ill or dies. This risk is exacerbated by the fact that, if left with no recourse, some destitute women were reported to be engaging in transactional or commercial sex to support their children – and they may be exposed to HIV/AIDS infection as a consequence.

*Urban-rural migration and decrease in urban-rural remittances:*

It was notable that, during discussions of poverty, destitution and crop failure, informants rarely mentioned migration to urban areas as a coping mechanism or response to these problems. Instead, there were suggestions that the migration that does take place is now primarily from urban to rural areas (though there has been some movement between rural areas to escape drought conditions). Some of the urban-rural migrants are perceived as drains upon the rural community. These include “retrenchees” (who are unemployed after a job loss, often in the mining sector) and persons living with AIDS who have returned to the village to die. Others, however, are wealthy retirees, investors and, in areas close to urban areas, weekend farmers. These better-off individuals bring resources into the rural communities they join. Some are able to offer employment or to provide a resource, such as a grain mill or small shop, that is useful to the village at large.

At times, however, these better-off immigrants are resented because they attempt to establish exclusive ownership of traditional lands. By paying a gift to the local headman or chief, they are permitted to fence off agricultural lands for their exclusive use. This is not actually viewed as bribery, since gifts to traditional leaders are expected from anyone

who wishes to take up residence in the area governed by that chief or headman. Nevertheless, it violates tradition to the extent that fencing denies neighboring households access to the common property resources (wild foods, water courses, etc.) that are normally shared by all. Some immigrants are also applying for title deeds to land. Only the better-off are able to do so, since the poor cannot afford to pay the surveying fees or the ground rents that are required. Evidence is thin at this time, but these developments suggest that a shift to private ownership of property may be beginning. This shift, if it is actually taking place, threatens to introduce a type of class system into rural land ownership, in which the well-off own deeded and/or fenced private lands while the poor persist in the traditional usufruct land system. This suggestion is ominous in that, in the context of such a shift, communally held lands are notoriously vulnerable to alienation by more sophisticated and better-resourced private owners.

In addition to immigrants, rural villages are receiving resources from urban areas in the form of remittances sent by relatives (usually adult children, nieces or nephews) who have found lucrative employment in towns and cities. These remittances are often used for the purchase of fertilizer and other inputs that will allow the household to attain food security through agricultural production. For this and other reasons, receiving remittances is often the factor that distinguishes the destitute from the less poor. In some villages, however, it was reported that fewer households were receiving remittances than was the case five years ago. This change was attributed to the fact that urban poverty has increased to a greater extent than rural poverty; and so many city-dwellers are unemployed and unable to meet even their own needs. In addition, the general attenuation of extended family obligations has been particularly noticeable among urban households. These households are now more likely to decide they must concentrate resources on the nuclear family instead of remitting large shares of their incomes to more distant rural relatives.

#### Some Changes Have Benefited the Poor:

Although the study teams compiled a long list of economically damaging changes, there have also been trends and changes that were perceived to have benefited the poor:

##### *Better access to basic services:*

The improvements mentioned most often included increased access to basic primary health care and to primary education. Health posts have been established in many rural communities, and Community Health Workers are visiting them with some medicines, bringing the first level of the referral system closer to the users. School fees have been abolished for the primary grades (grades 1-7). As a result, informants said that their satisfaction with the country's health and educational systems has increased. Problems remain, however, in the form of fees charged for secondary school enrollment and for hospital treatment. Stock-outs of essential medicines were reported at various levels of the health system. The cost of transport to hospitals and secondary schools was also mentioned as a limitation on the accessibility of these services. These findings are consistent with the Government's policies to prioritize

the delivery of basic services, rather than secondary or tertiary services in health and education – an improvement that may be viewed as pro-poor. Overall, despite their criticism of secondary level services, informants conveyed a general sense that change in these sectors is moving in the desired direction. In addition, many informants in Zone 2 expressed satisfaction with the fact that boreholes had been established in their communities (boreholes have also been installed in Zone 1, but are under-utilized due to salinity).

*Democratization of traditional governance institutions:*

Another positive change is the increasing democratization of local institutions. Traditionally (although customs vary by tribe), village headmen were appointed by the local chief, usually from a family of his own lineage. In those times, a headman could eject a small holder from land if he was insulted or displeased. Now, members of the village open vote for the successor from the lineage of the village headman,, and either sex may qualify. This change has to some extent acted as a check on abuses by headmen, who in the past could be controlled only through appeals to the chief. Although a few cases of misconduct by headmen were reported by informants, they were outnumbered by positive examples of leadership. Chiefs and headmen have been enlisted by the GRZ, with some success, to help suppress traditional practices that may contribute to the spread of HIV/AIDS. Some traditional leaders (particularly in Zone 2) were also reported to be attempting to enforce resource conservation laws that have been enacted by the GRZ. In the view of the research team, these traditional leaders constitute a resource that could be employed more extensively to promote and sustain GRZ, NGO and donor anti-poverty and anti-AIDS initiatives.

Another local institution that is benefiting many villages is the Village Committee and its offshoots (women's groups and interest/user groups). These committees have grown out of the Village Productivity Committees established by the Ministry of Local Government and Housing in the early 1970s. Members of the Village Committees are freely elected now, though in the past they were usually selected from among members of the headman's extended family. In some villages, women were found to be members, while in others, membership was exclusively male. The poorest are technically qualified to be elected to the Village Committee, but there is reason to believe that they are not well represented there. The very poor were said to be unable to spend time in village activities because their unremitting efforts to find daily food absorbs all their time. These public leadership institutions are tasked with allocating land, settling disputes and performing liaison with government offices and services. Their mandated activities are thus limited and do not encourage them to substitute for the mutual aid functions, now said to be in decline, associated with the extended family. Women's groups possess a broader range of potential functions, but these were found to be dormant in the less well-off villages of Zone 1.

*Out growers and conservation farming:*

Some of the constructive changes mentioned by informants were concentrated in Zone 2. Among them was the growth of contract farming or outgrower schemes in this region of Zambia. Crops such as cotton, paprika and tobacco are being produced by small farmers under contract to either large companies (such as Dunavant and the Clarke Cotton Co.) or independent entrepreneurs. Typically, the contractor provides inputs and buys the agricultural product the farmer produces. This arrangement benefits the small farmer in a number of ways. It is more labor-intensive than mechanized commercial farming, and it solves the common difficulties involving acquisition of inputs and finding reliable markets. It is therefore, unclear why the demand for contract farming arrangements is not stronger. Although the study did not find communities that had refused contract farming outright, many said they would engage in it only as long as it took to achieve a short-term goal such as roofing their house with iron sheeting.

The explanation may lie in the complaints heard from some villagers who had undertaken these contracts. They feel that the labor required to produce these crops is harder and more strenuous than that required to produce the preferred crop, maize. They also feel they get too little payment for the harvested crop, and that they are often cheated. For example, the payment for a paprika crop is determined by its quality or “grade.” It is the contractor who judges the grade, however; and there is no incentive for him to assess it as top quality. There is a conflict of interest, therefore, in this arrangement. Nevertheless, these schemes were generally described favorably as options that have raised some household incomes.

Another positive development that has primarily benefited Zone 2 is the Conservation Farming (CF) approach that is now being assessed. Although Conservation Farming was initially concentrated in Zone 2, efforts were made under the FAO-FSP to expand it to Zone 1. After a year of implementation, the results were found to vary significantly according to the composition of the soil and level of rainfall. Some farmers in both Zone 1 and 2 expressed positive views about CF, but results were apparently better in Zone 2. However, complaints were heard from both zones. CF requires digging basins before the beginning of the annual rains, and then planting maize within the basins. Some informants found the effort of digging in dry, hard soils to be beyond their capacities, given the paucity of tools. Others reported that their basins had dried up or become water-logged. Clearly, CF is not a universal panacea that is suitable to all parts of Zambia, but comments from informants were more often favorable than unfavorable. In addition, it should be noted that CF techniques do not deliver their full benefits for several seasons and that most trials are only one to two seasons old.

#### Risk Aversity and Crop Diversification:

A quick scan of these perceived changes might lead the observer to question the stubborn commitment of the smallholder to production of maize. If the required inputs are truly beyond the purchasing power of most small farmers, and if droughts and floods are destroying maize crops more often than in the past, then perhaps the cultivation of maize is becoming increasingly untenable. In fact, many Zone 3 farmers reported that they have reduced or abandoned maize cultivation in favor of cassava and millet; and a few

cultivators in Zone 1 have ceased producing maize in favor of sorghum. Cassava does not require fertilizer, it is a traditional crop in Zone 3, and (although difficult to process) it is easy to grow in this ecological zone. Sorghum is drought-resistant and hence more appropriate to Zone 1, a low rainfall area. A number of Zone 2 and 3 farming households have also begun to intensify their investment in horticulture. This was said to have improved the nutrition and food security of those households, as well as providing cash income if markets can be found for the fruits and vegetables they produce. Still other farmers have opted for contract farming, where such arrangements are available.

Despite these exceptions, the majority of the villagers who participated in the study expressed a firm dedication to continuing in smallholder maize cultivation. Households that have abandoned it would still prefer to cultivate maize – it is thought to be more palatable, more nutritious and far easier to process – but they find it increasingly beyond their capacity. Maize is the staple crop of the country, and rural Zambians feel that no meal is complete without it. They are well familiar with maize cultivation but may lack information on the requirements for growing other crops. What is more, the GRZ has for many years promoted maize production for small farmers.

Small cultivators resist diversification for these and a number of other reasons. The reluctance of precarious households to invest in potentially risky ventures is well known. Because they have no savings or insurance to cushion them against destitution, the poor often limit themselves to static, unproductive economic strategies that appear to them to be relatively safe. Highly vulnerable households perceive innovations to be potentially destabilizing because, in their experience, changes have often been injurious. When attempts to improve their economic standing move them into unknown territory, the very poor fear the outcome. In this context, the mistrust rural Zambians display toward new crops is based primarily on the difficulties they encounter in identifying markets for these commodities, and on the wide fluctuation in market prices. These uncertainties undermine the willingness of small cultivators to invest in crops that cannot be stored and eaten if unsold.

Overall, it is because of the flexibility of maize that it appears to be a safer choice to the risk-averse poor. It is a subsistence crop, a cash crop and a safety net. Although maize is produced primarily for consumption by the household, any surplus can be sold as a cash crop or, if an acceptable market price is not found, it can be stored and consumed during lean periods. What is more, it produces good quantities of fodder for livestock and can be eaten early (green) in the season if alternative food is not available. Other crops offer fewer of these advantages. Markets for sorghum, cassava and millet are smaller and unpredictable; and perishable market garden vegetables must be disposed of immediately even if the going price is ruinous.

#### ***D. Downward Mobility: Shocks and Coping Mechanisms***

Not only are the majority of rural Zambians chronically poor, they are also exposed to a wide variety of disasters, emergencies, and unexpected set-backs that threaten to plunge

them into further destitution. Not only are adverse shocks more likely to occur among the poor than the better off, but the impact of these shocks on the overall well-being of the poor is generally greater. Because their stock of resources and assets is far smaller, any shock or set-back is likely to absorb a larger share of these resources.

In the worst case, a poor household may enter a vicious circle in which a food shortage caused by a catastrophic loss results in severe malnutrition, which leads in turn to a second shock -- illness with its attendant costs. Once they have become destitute, it is usually impossible for the afflicted household to regain basic economic security.

Destitute households with small children may recover lost ground after these children are old enough to provide labor; but for many of the very poorest, destitution is a hopeless and long-term (even permanent) condition. To add to their difficulties, these households or individuals may receive less social support because they are perceived to be unable to contribute to the ongoing exchange of help and favors that is expected within the extended family. Traditionally, those without resources to contribute would be expected to repay favors by providing labor at communal meals and other gatherings. Now, these gatherings are rare, and a growing number of destitute households are in this position because they have suffered the catastrophic loss of all adults who are capable of physical labor. A disabled elder who is caring for orphaned grandchildren may be unable to participate in any way in labor, whether as part of a paid arrangement, an exchange of favors, or in their own fields. On the other hand, if the elder lives until her/his grandchildren are older, they may provide labor and resources that could lift the household from the lowest income group.

Risks and catastrophic events are usually classed as either covariate (affecting many households in the same community) or idiosyncratic (individual- or household-specific). Although idiosyncratic shocks may be particularly severe, households that suffer them may find it relatively easy to access help from families and neighbors. During covariate shocks, all households may be equally stressed, so that none is able to assist others. The risk pool is small and possesses few resources; particularly in times of community-wide catastrophic events.

Rural Zambians are highly aware of the risks they face, and they have developed an array of risk management strategies and coping mechanisms. Conventional analyses of the coping mechanisms of the poor have focused upon measures that are taken to compensate for a shock that has already occurred. There is, however, a growing awareness that the poor can take actions that will prepare them effectively for unexpected set-backs, or, in some cases, prevent them from occurring. This awareness has been formalized in the Social Risk Management (SRM) framework, which is becoming an important tool for the analysis of risks and coping mechanisms. SRM classes risk management strategies into three categories: Risk Reduction Strategies, Risk Mitigation Strategies and Risk Coping Mechanisms. These categories correspond roughly to the period before, during, and after the occurrence of a shock. The study team examined the shocks and coping strategies reported by informants using this framework.

#### Frequent Causes of Downward Mobility: Shocks and Catastrophic Events

Informants indicated that the number of households that had experienced downward mobility during the past five years is much larger than the number that had managed to improve their economic standing. Many of the reasons they advanced, including the adverse events that constitute threats to basic livelihood maintenance, have been reported in the preceding section. In this section, these conditions and events will be discussed in terms of how they affect households, and how household members respond to them.

Informants were asked to describe events that have caused households to lose income. Many listed changes in government policy (i.e. liberalization) as one of the shocks they have experienced. This change has been gradual and long-standing, however, and so it is not within the range of events normally considered to be a catastrophic event. The events, which differed somewhat by zone, were the following:

Zone 1 Shocks: Droughts, damage to crops by wildlife, floods, loss of livestock to disease (and attendant loss of draught power), chronic illness in the household, laziness, and death of the household head.

Zone 2 Shocks: Floods, droughts, inability to purchase fertilizer/inputs, human and animal diseases, death of a breadwinner, theft of livestock, and cost of health care

Zone 3 Shocks: Droughts, floods, cholera outbreaks, crop destruction by pests, livestock diseases, chronic illnesses, death of adult members of the household, fire, and violent crime/theft.

#### *Climatic and environmental*

As the list of shocks illustrates, climatic variables figure prominently among the adverse events that cause households to lose ground economically in all three zones. Although these events are largely outside human control, some of them (such as flooding due to siltation) cannot be separated from the problems of environmental degradation and over-utilization of natural resources. Some of these catastrophic events, then, are theoretically avoidable; although it is difficult to imagine how natural resources can be better managed in regions such as Zone 1. There, soils are very poor, and in many years rainfall is too scanty for cultivation even when inputs are provided. The alternative means of livelihood (goats rearing, mat and basket making, fishing, etc) that they identified are currently utilizing natural resources in an unsustainable way.

#### *Disease*

The second category of shocks that were mentioned in every zone (indeed, in every village) were those associated with illness, disability and death. Although the rate of chronic illness and loss of productive household members has risen dramatically since the advent of the HIV/AIDS crisis, informants were quick to point out that they also lose productive laborers, and sometimes incur heavy treatment costs, due to a variety of common acute illnesses such as malaria and cholera. In one of the villages visited by the



team, four adults had recently died of cholera. All of them had left orphans who did not have obvious substitute care-givers to rely upon. Some informants suggested that the emphasis upon HIV/AIDS has drawn attention away from the impact of other diseases, which can be equally devastating to a household's economic security. It is likely that the reverse is also true – that the high rate of mortality caused by other diseases has blunted the popular awareness of HIV/AIDS. As a result, the rural poor may be inclined to take HIV/AIDS less seriously than does the international community. In the words of one informant “This is just another disease to us.” Nevertheless, every community agreed that the frequency of economic losses associated with chronic disease and premature death had escalated in recent years.

Human diseases are not the only ones that destabilize households. The research teams working in all three zones were impressed by the emphasis informants gave to livestock losses in their discussions of risks and shocks. Domestic animals tend to be the only asset the poor possess beyond their own labor. The poorest may own no livestock, but even very poor households tend to own a few chickens or a goat. Small animals can reproduce and serve as a safety net or source of needed cash if they are not destroyed by disease or stolen by thieves. Theft of livestock, as well as other crimes, was said to have risen steeply (particularly in Zones 2 and 3) as a result of growing poverty; and livestock owners undertake a number of activities aimed at protecting their animals from theft, as discussed below.

### The Cumulative Impact of Shocks and Catastrophic Events

Adverse events are sometimes cumulative, in that a single shock can initiate others. Any set-back that destroys food security can lead to malnutrition. A malnourished family is vulnerable to chronic or acute illness, high treatment costs, and in the worst cases, loss of a productive member of the household. In addition, it is widely recognized that chronic illness, particularly in a male household head, can absorb all the productive labor of the household – since daily nursing requirements prevent the spouse from carrying out essential and time-sensitive agricultural tasks. If the fields go unweeded as a result, or the crop is planted or harvested too late, then crop failure may follow. Similarly, loss of livestock to disease or thieves not only removes a saleable asset; but if the animal is a cow or ox, it may also prevent the household from engaging in plough cultivation. Resorting to the hoe instead is certain to diminish the amount of land under cultivation, leading to significantly reduced yields and possible food shortages. These cumulative impacts often propel a household into a downward spiral from which they cannot recover.

Given the density of risks affecting these rural communities, many families also suffer multiple shocks that are unrelated:

<p><b>The Impact of Multiple Shocks:</b> 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</p>
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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.

### Risk Reduction Strategies and Coping Mechanisms:

It is obvious that appropriate coping mechanisms depend upon the nature and duration of the set-back in question. Since these coping mechanisms were similar for many of these shocks, the study team has grouped them into categories that reflect the economic effects of these shocks:

#### Crop Failure:

Crop failure may be caused by several of the events listed above, although drought and flood were the most frequently cited causes. Crops may also be lost to fire, to damage by wildlife or insect pests in some areas, and when illness strikes, by the death or disability of household members who are capable of weeding and harvesting. Households attempt to cope with the possibility of crop failure through a variety of mechanisms that are applied both before and after then event. Among them are the following.

#### *Risk Reduction Strategies:*

- Crop Substitution: Many households, especially in Zones 1 and 3, have acted to prevent crop failure by abandoning production of hybrid maize in favor of indigenous crops (cassava, millet, sorghum, native maize) that are more suitable to the environment.
- Crop Diversification and Multiple Plantings: In addition to planting conventional crops such as maize, some households also plant vegetable gardens (particularly those with access to *Dambo* fields). In flood prone areas crops will be planted in both low lying and higher ground. If one crop is water-logged or dries up, then the other may produce either food or a saleable commodity.
- Improved Agricultural Practices: Conservation farming and agro-forestry schemes (in which soils are enriched by inter-planting nitrogen-fixing trees, whose leaves are used as mulch or fertilizer, with standard crops) have been adopted by some to foster yields.
- Stockpiling Grain and Breeding Livestock: Although these options are not available to the poorest, the less-poor breed animals for sale during lean periods, or store maize in a granary for subsistence or sale in case of crop failure.

- Livestock and granaries substitute for cash savings, which are largely absent in rural areas of Zambia.
- Fallowing: In Zone 2, fields have been left fallow to regenerate when farmers are unable to afford fertilizer.

*Risk Mitigation Strategies:*

- Watering crops (by hand or by digging a small channel to a water source)
- Intensifying cultivation of *Dambo* fields and kitchen gardens

*Risk Coping Strategies:*

- Ganyu: Casual Day Labor: After a crop failure, a household with healthy adults but no stored grain or livestock is usually forced to offer their services as agricultural laborers in the fields of other households. They are normally paid in kind.
- Selling Livestock or Other Assets: Though the poor have few assets, they may be forced to sell household items, bicycles, or breeding livestock after a catastrophic loss in order to obtain food and other basic necessities.
- Livelihoods Diversification: The poor also possess few skills; however, many make and sell mats or baskets, cut trees for charcoal making, and sell wild foods such as honey or caterpillars, during times of food shortage.
- Foraging: Households near game reserves may hunt for wildlife (legally or illegally) when they experience food shortages. A variety of wild plant foods are also eaten in emergencies, through their availability is seasonal.
- Seeking Assistance: Direct food distribution, food-for-work (FFW), and other emergency response programs have helped some food deficit households to survive after crop failures.
- Reducing Consumption: Usually, fewer meals are eaten per day, and a smaller number of foods are eaten, after an adverse event.

Illness (Loss of Labor and Cost of Treatment)

Acute illness, caused primarily by malaria, cholera and acute respiratory diseases, are a persistent problem in Zambia; and the spread of HIV/AIDS and tuberculosis has exacerbated the problem of chronic illness during the past two decades. Particularly when a productive adult is chronically ill, households face a multi-dimensional shock in which: 1) labor power is lost, 2) the time of other productive adult(s) is consumed by the requirements of nursing the sick family member, and 3) high treatment costs may be incurred for drugs, transport and hospital user fees. Efforts to cope with this persistent threat include the following:

*Risk Reduction Strategies:*

- Undertaking preventive health measures (immunization, hand washing, latrines, cleaning water with chlorine)
- Abandoning traditional practices that may transmit HIV/AIDS (death cleansing, widow inheritance, *fisi* initiation of girls, etc.)
- Changing personal behavior to avoid infection with HIV (adopting abstinence, monogamy, condom use)

*Risk Mitigation Strategies:*

- Obtaining treatment and drugs from the government health system
- Obtaining treatment from traditional healers
- Household members assuming work that is thought inappropriate to their age or gender
- Seeking assistance with daily nursing tasks from extended family members
- Obtaining help from church or NGO home-based care programs

*Risk Coping Strategies:*

- Performing *Ganyu* day labor in the fields of other households
- Selling livestock
- Borrowing food, money or assets from friends, family
- Relying on child labor
- Withdrawing children from school (a last resort)
- Selling food (especially fruits, vegetables and beans) that was stored for the household's consumption
- Eating fewer meals

Loss of Livestock (Through Disease or Theft)

The death or theft of an animal may remove the household's access to plough cultivation if the loss is of a draught animal. Because households rely on the sale of smaller livestock to see them through periods of food shortage, the death or theft of these animals is perceived to be actually life-threatening to members of affected households. These losses are thought to be increasing because livestock diseases have permeated international borders and because extension and agricultural support services have deteriorated throughout Zambia. In addition, thefts of livestock and other criminal acts are increasingly common due to the press of poverty. Rural Zambians have therefore developed a variety of strategies for preventing these losses:

*Risk Reduction Strategies:*

- Purchasing additional livestock for breeding
- Obtaining preventive veterinary services (immunization) for livestock

- Obtaining information on livestock care from government extension services, where possible
- Forming Neighborhood Watch Groups to prevent theft
- Building pens in sight of the house or keeping animals in the house compound.
- Hand-watering livestock (so they will not be stolen on the way to water courses)
- Lending livestock to relatives/friends in order to disperse or separate the animals (to avoid disease transmission)

*Risk Mitigation Strategies:*

- Obtaining treatment for sick animals
- Slaughtering sick livestock
- Pursuit and apprehension of livestock thieves

*Risk Coping Strategies:*

- Re-stocking through NGO programs (Heifer International, etc.)
- Acquiring replacement animals from relatives
- Hiring oxen for ploughing (better-off households)

Loss (by Death or Abandonment) of a Breadwinner: Not only have adult death rates increased as a result of the HIV/AIDS epidemic, but growing numbers of male breadwinners are also reported to be abandoning their dependents<sup>9</sup>. Although few risk reduction and risk mitigation strategies have developed to cope with this problem, affected households engage in a wide range of risk coping strategies, both traditional and modern.

*Risk Reduction Strategies:*

- Preventive health measures (as above)
- Cultivating extended family relationships and obligations

(no Risk Mitigation Strategies were reported for this shock)

*Risk Coping Strategies:*

- Widow inheritance (by brother-in-law)
- Other remarriage
- Obtaining extended family assistance
- Females, children assuming male labor responsibilities
- Selling livestock, ploughs or other assets

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<sup>9</sup> Abandonment was widely attributed to males' inability to cope with the responsibilities of providing for a family in the context of rising poverty and diminishing agricultural yields.

- Early marriage of daughters to acquire *lobola* (brideprice) or support for the daughters.
- Cutting forest trees for charcoal making; selling charcoal
- Hawking fruits, vegetables from market or kitchen gardens
- Seeking loans from women’s clubs or NGOs
- Engaging in poverty-driven transactional sex.

Discussion: Coping Strategies of Vulnerable Households

Although relatively few risk mitigation strategies were mentioned, the rural households visited by the teams described a surprisingly wide array of risk reduction and risk coping strategies.

Coping mechanisms are not equal, however, in terms of their impact on the future economic potential and long-term well-being of the household. A single coping mechanism – such as sale of livestock – can either foster or damage the long-term well-being of the household. If the animal is one of several offspring of a breeding female, then its sale may constitute a constructive coping mechanism or an effective means of gaining cash income even in the absence of a shock. Since a nanny goat produces 2-4 kids yearly, controlled selling of goats does not necessarily decimate even a small herd. In the case of a severe shock, however, or of several successive bad harvests, it may be necessary to sell even breeding livestock, leaving the household with no insurance against further shocks. Under these circumstances, the household’s vulnerability has significantly increased.

Though there are exceptions, it is generally the case that coping mechanisms are more likely to increase future vulnerability if they are ex post rather than ex ante. Taking actions to insure against a loss and accumulating savings to cushion a shock are rarely harmful to long-term economic viability. In the absence of such cushions, households after a shock are often forced into a position in which meeting immediate needs undermines future security. An example that was mentioned often in this context was the fact that when individuals engage in *Ganyu* day labor in order to acquire the day’s food, they are then unable to cultivate their own fields or to produce food for the year ahead.

Economically strategic actions could be said to form a continuum, from productive investments to damaging ex ante attempts to meet basic needs after a shock:

Strategy	Productive investment	Risk Reduction	Risk Mitigation	Ex Post Coping
	Purchasing livestock for breeding or draught power	Obtaining immunizations, veterinary services for livestock.	Selling surplus livestock	Selling breeding stock

Clearly, programs aimed at reducing the vulnerability of poor households should attempt to shift behavior from the ex-post toward the ex ante.

It should also be noted that some of the most common coping mechanisms are damaging not only to the long-term interests of the stressed household, but also to those of the community more generally. Particularly during times of drought and crop failure, the poor turn to common property resources to fill the gap. The cutting of trees to produce charcoal, a highly saleable commodity, is deforesting many areas. Cutting reeds for mat-making has contributed to the problem of erosion and siltation of rivers. Over-fishing, in combination with siltation, has nearly exhausted fish stocks in drought-prone areas of Zone 1. This pressure on fragile natural resources and environments adds an urgency to the need for programs aimed at reducing risk and vulnerability.

### ***E. Public Services and Programs***

#### **Inventory of Services and Organizations**

Since 1991, the Government of Zambia has pursued structural adjustment programs in the agricultural sector to liberalize the market and reduce and/or rationalize the activities of public sector organizations. This approach emphasized reduction/elimination of subsidies, reduction of trade restrictions, and privatisation of most of the agricultural parastatals. In addition, the private sector and other service providers were encouraged to play a leading role in the provision of services to develop the rural areas. Over the years, the number of organizations providing services to the rural areas has increased. The communities visited identified the broad categories of the major sources of services: Government supplied services, donor project services, private sector services, and NGO/church services:

#### **Government Services**

The Government is still the major source of educational, health, extension, input supply, water services, and advisory services to encourage sustainable utilization of natural resources. These services are provided through the various ministries and their networks. In addition, ZAMSIF and the donor community were praised by informants for helping to rehabilitate and develop community infrastructure. A few churches and NGOs are also involved in establishment and running of the community schools and health facilities, and in sinking of boreholes to provide clean water.

#### ***Educational Services***

Educational services are mainly provided through the Ministry of Education (MOE). In addition, some churches also run a few schools. Most communities visited were happy with the fact that a great many schools have been rehabilitated, the number of primary schools has been increased, free education up to Grade VII has been introduced, and

some primary schools have been upgraded to basic schools. It was pointed out that these developments have helped to increase school enrolments in the communities where they took place.

Despite the many positive observations regarding education, some informants indicated dissatisfaction because many schools have not yet been rehabilitated; are located very far from many households; and have too few teachers. In many communities, it was urged that the rehabilitation of rural schools should continue. Community members were also dissatisfied with the fact that senior and high schools are very few and therefore distant from most villages. What is more, only those who can afford to pay the school fees (including transport, school fees, boarding fees, and PTA fees, etc) are able to continue their education past the primary or basic level. They indicated that most children are withdrawing from school at Grade IX because their parents cannot afford the cost of further education. It was observed that children are an investment and that they should be given a chance to complete Grade XII. Many people requested that, if the Government and donors can find ways of making higher education free, the potential contribution to individual and national poverty reduction will be significant.

### *Health Services*

In the rural areas, participants indicated that the Government continues to provide most of the health services through the Ministry of Health (MOH). In a few areas, churches with significant GRZ support operate hospitals and/or clinics. In addition, informants noted that a few NGOs have helped to construct community health centres. The evidence from all three agro-ecological zones is that participants were happy with the establishment of community health centres, and that this has enhanced access to basic medical services.

The Community Health Worker initiative also received approving comments. Nevertheless, participants indicated that the effectiveness of the C.H.W.s is frequently constrained by shortages of health kits, lack of needed tools, and a weak logistics system. For example, traditional birth attendants often run out of surgical gloves and disinfectants and are forced to work without the necessary protection. In addition, their coverage is limited by lack of bicycles. Drug shortages are common, and when they occur, community level health care workers prescribe the medicines and instruments that patients must buy. Many participants indicated that the majority of the poor could not afford the prescribed drugs and supplies.

In addition, many communities are unhappy that clinics are not located within easy travel distance, and that many districts have less than two hospitals. Since most districts are large, this implies that patients who are referred to clinics and hospitals have to travel long distances to access any treatment beyond basic primary health care. The poor transport services and the high cost of transport often discourage people from going to clinics and hospitals, even when referred there by CHWs or health centre staff. In addition, fees are charged at this level, and these costs further discourage patients. As a result, many households continue to rely on traditional healers. Although traditional healers must be paid, patients can negotiate for appropriate payment terms and payment is often in kind rather than cash.



### *Water and Sanitation Services*

Water and sanitation services are provided through the Ministry of Water and Energy (MWE). Study participants recognized the importance of having access to safe water, especially in areas with no readily available sources of water. Many communities reported that the Government, donors, and NGOs have all attempted to improve access by sinking community boreholes at public central points. Many areas in Zone 2 experience water shortages in the dry season, and this zone reported the highest number of boreholes per community. In some villages, it was reported that a few better-off households have sunk their own boreholes.

There was general agreement that the boreholes must serve too many households and that the ratio of boreholes to households is generally inadequate. A borehole in one community was said to be serving over 80 households. Because they are few, boreholes are located far away from some village households. Women, therefore, have to travel long distances to get safe water. In some communities it was also noted that boreholes have dried or collapsed; or that the pumps are no longer functioning. This was blamed on poor location of the boreholes, and ineffective maintenance committees. In a few villages, maintenance organizations were operating with general public support. To ensure this support was provided, households that did not contribute to the borehole maintenance fund were being refused water. This is a plausible approach to dealing with the free-rider problem; but it may also have the effect of denying clean water to the poorest and least able households.

In Zone 1, participants noted that many of the boreholes have salty water and therefore, are not suitable for human consumption. These boreholes have been abandoned. Because of this combination of factors, access to safe water was judged to be generally inadequate despite the efforts of water and sanitation programs. Many households are still dependent on unsafe water from wells, rivers, and dams. In a few communities, some participants reported that chlorine is available in local shops and that they add it to water. However, this practice appears to be uncommon, because many households cannot afford chlorine.

### *Sustainable Utilization of Natural Resources Services*

The Ministry of Tourism, Environment, and Natural Resources (MTENR) is supposed to provide for the development and protection of natural resources. The study found that most communities derive a large portion of their livelihoods from gathering wild fruits, fishing, making reed-mats, making palm-leaf baskets, charcoal burning, etc. Members of these communities indicated that they are well aware that natural resources are depleting at a very rapid rate, and that unless conservation measures are quickly implemented, these important sources of livelihood will disappear. Informants expressed the fear that, if the natural resources were completely depleted, the poverty situation will be exacerbated and important coping mechanisms will be lost. They do not, however, feel they have any current alternative to the continued exploitation of these resources. Many of them

requested support for the development of community capacity to manage the sustainable utilization of their natural resources.

### *Agricultural Services*

Agricultural services are provided through the Ministry of Agriculture and Cooperatives (MACO), donor funded projects, NGOs, and churches. Most of the participants in the discussions indicated that they depend on agriculture-related activities as their primary source of livelihood, and that they attach a high value to any services that can improve the productivity of agricultural activities. However, they observed that even though there are MACO extension workers in their villages, they do not provide any extension services to enhance production and they do not serve as good models in the community. As a result, there is no one to assist farmers to identify markets for their products, adopt improved techniques to increase production, reduce fertilizer costs, or to reduce livestock diseases and deaths. Many participants noted that extension workers used to visit farmers in the past, but they no longer do so. In some cases, extension workers ask farmers to buy them fuel to enable them visit farmers and attend to their problems. This is beyond the means of most. As a rule, therefore, farmers have abandoned the effort to seek extension services from government.

In the opinion of most cultivators, maize is the major staple food of the country and self-sufficiency in maize production is an important local and national goal. According to farmers, begging for food is deeply embarrassing in this culture. In recent years, shortfalls in maize production have placed many households in danger of beggary. Many who are qualified for food aid would prefer to cultivate their own food. They would therefore like to do everything possible to increase maize production. Would-be cultivators often remarked that they cannot understand the readiness of Government and donors to import food and distribute food aid, when Zambian farmers could be enabled to produce adequate food for the country and even for export. They appealed for support to expand food production; but in most cases, the support they envisioned would entail the provision of free or virtually free inputs.

It was widely indicated that, for most households, the major constraints to increased maize production are lack of fertilizer and a guaranteed market and price. Many participants stated that they could not afford to buy fertilizer at the market price. Therefore, some of them praised the Government for introducing MACO-FSP as a way of enabling farmers to access fertilizer and hybrid maize seed. However, most participants said that they had failed to raise the 50% contribution towards MACO-FSP; that the package is too small to permit increased production; and that the reach of the program is too limited. At the other end of the production cycle, informants reported that the few farmers who produce a small surplus in maize are very disappointed with the failure of FRA to buy their maize at reasonable prices. With no alternative to the private middle-man, they believe they are forced to sell to these traders at unfair prices. Farmers complained that their revenue from surplus maize sales could not finance the following years' fertilizer and seed requirements.

In response to the recent push to diversify agricultural production, participants argued that there are no guaranteed markets for other crops and livestock, and that farmers are therefore unable to develop a feasible plan to diversify away from maize production. On the other hand, some farmers said that they have been forced to reduce production of hybrid maize, since it requires the purchase of fertilizer and has no guaranteed market or price. These informants indicated that this has often involved falling back on subsistence production of traditional maize, cassava, sorghum, sweet potatoes, beans, and groundnuts. Traditional maize, though it can be grown without expensive inputs, is low yielding and therefore does not generate any surplus that might pay for school fees or other basic needs. In Zone III, many participants indicated that they have reverted to the “*Chitemene*” system (shifting cultivation) to enable them to obtain reasonable yields.

### *Social Services*

Social services are the responsibility of the Ministry of Community Development and Social Services (MCDSS). The Ministry’s initiatives are complemented by interventions from NGOs and churches. In the last two years, for example, MCDSS contracted with PAM to manage the distribution of Food Security Packs to the viable but vulnerable farmers throughout Zambia. Participants indicated that they are very happy with PAM-FSP because they were required to repay only a small quantity of grain for the establishment of a community grain bank. They reported that the Food Security Packs they received through this program contained more planting materials (grain, tuber, and a legume) than they had received under the MACO-FSP.

Some complaints about this program were also heard. Many participants commented that the Food Security Pack is too small and that only a few packs are distributed per community. In some cases, participants indicated that they have been forced to share one pack between households, and that this reduces the contribution of the pack to food security. Some participants thought that the beneficiary selection criteria were not transparent, and that the guidelines for repayment in kind are not clear. Many participants also expressed surprise that PAM has not yet established any of the planned community grain banks from their recoveries.

Despite these reservations, PAM was generally felt to be a valuable program. Most farmers, however, are aware that free inputs cannot be distributed forever; and so informants expressed the worry that this important program could be discontinued. Although poor households lack the cash to purchase inputs, they do possess labor power that could provide a feasible substitute for money. Asked if they would labor on public works in return for the Food Security Pack, many farmers said yes; they would be willing to contribute their labor as a way of ensuring that the program continues and reaches more people. ZIAT [2003] reported similar findings. AIC [2002] has already proposed a plan for supplying agricultural inputs as payment for work on public works projects. These proposals emphasize the importance of involving the community in identifying the appropriate inputs based on the comparative advantage of each area.

### *Police Services*

Police services are the responsibility of the Ministry of Home Affairs. Most of the participants indicated that police services are not available in their communities, however. There was a general complaint that thefts have increased in most rural areas and that this forced many people to locate kraals and chicken runs very close to the house. In some areas, informants indicated that they have abandoned production of some products and livestock because they are too vulnerable to thefts. It was also reported that some communities have formed neighbourhood watches committees to combat the rising incidence of crime. These committees have had some favourable and some unfavourable results. Participants reported that, in the absence of official law enforcement, some of these neighbourhood watch groups have administered instant mob justice. They also indicated that in some areas, the neighbourhood watch approach is not working well because of inadequate capacity and the free rider problem.

### *Roads*

The Roads Board under the Ministry of Roads, Transport, and Communications is responsible for the maintenance and development of rural roads. Rural roads are very important for transporting consumer goods, supplying inputs to the rural areas, and delivering rural products to markets. Even though most rural roads are in very poor condition, few complaints were heard about roads – though some participants did indicate that the roads connecting them to neighbouring villages are very bad and should receive immediate attention. The general silence on the question of rural roads is probably due to the fact that the study was conducted during the rainy season and therefore, it only be implemented in communities that are accessible during this period. Villages that are cut off during the rainy season would be those most likely to raise the issue of inadequate roads; and these villages could not be visited.

### **Private Sector Services**

Since 1991, the government has been encouraging the private sector to adopt some of the functions it was relinquishing. Although there is much variation by area, this effort has been met with moderate success in some areas and sectors. The communities visited (particularly in Zone 2) indicated that out-grower schemes, traders, and transporters are now providing private sector services in their villages.

#### **Out-grower Scheme Services**

In Zone 2, many participants indicated that several private firms operate out-grower schemes to produce high value cash crops, such as cotton, paprika, tobacco, etc. According to participants, these firms provide inputs, train farmers on how to produce these crops, and offer a guaranteed market for the products. Zone 2 informants noted that many households are taking advantage of these opportunities. However, some people reported difficulties in working with out-grower schemes. The field activities are labour

intensive and sometimes beyond the capabilities of individual households. Furthermore, cultivators have no say in establishing the grade and the price of the product.

In Zones 1 and 3, no formal out-grower schemes were reported by the study's participants. It may be assumed, therefore, that these opportunities are generally unavailable outside Zone 2. An expansion of out-grower and contract farming would likely be welcome in the other zones, since many participants indicated that these schemes offer the only good opportunities to supply inputs to the rural areas and put money into cash-strapped communities. In the analysis workshop, members of the study team recommended finding ways of expanding the operations of out-grower schemes based on the comparative advantage of each area.

### Trader Services

Trading has become a major source of livelihood for many people in urban areas. Traders buy products from rural areas and then transport them to urban markets. They purchase surplus products on cash or barter. It was widely asserted by informants that traders swindle them, because it is known that traders receive high prices in urban areas for products they purchased for a fraction of that price. Asked if they have tried to take their products to urban markets themselves, some participants indicated that they had; but the experience was not encouraging because transport is very expensive and it sometimes takes many days to sell the products. This notwithstanding, some participants still thought that some public marketing institution should be provided in the interests of fairness. However, many participants in Zone II indicated that their experience with FRA does not support this claim and that what is needed is capacity building for traders.

### Transport Services

Private sector transporters play an important role in moving products from rural areas to urban markets. Light trucks are used to transport both people and rural products. Participants indicated that some of these transport vehicles are very old and often break down en route. When this occurs, perishable products may go to waste before they reach the market. Another common complaint is that transport is not always available when needed. Informants who possess these vehicles indicated that they have been forced to raise the price of transporting people and produce because of the high cost of fuel and the poor state of rural roads. In addition, they indicated that it is not economically feasible to transport only a few people with small quantities of products – which limits the frequency of runs.

## **Non Governmental Organizations, Churches, and Donor-Funded Projects**

Donors provide funding to these organizations as way to ensure that benefits reach the target population at the community level. Informants observed that there has been a large increase in the number of NGOs and churches operating in rural areas. Most NGO and church activities focus on distribution of relief food and inputs to communities that have experienced a shock or combination of shocks. Participants noted that some NGOs are also involved development projects, such as sinking of boreholes, construction and running of community schools, contract management of food security interventions, and

human rights promotion. However, it was pointed out that NGO interventions are short-term and so they may not be an appropriate approach to ensuring long-term development. Very often, the intervention winds down just when the community is beginning to understand and appreciate it. What is more NGO programs usually cover only a very small area and they are seldom scaled up, even when successful.

A few donor-funded projects are also operating in some of the communities visited. These programs generally promote targeted development interventions, such as agribusiness promotion, production of high value products, etc. Some participants indicated that these projects are helping to reorient farmers' attitude towards agriculture, and they are recognized to have promoted the development of local entrepreneurs. The participants also noted that, unlike GRZ extension workers, the extension workers associated with these initiatives tend to work very hard and to visit farmers regularly. Again, participants observed that these are short-term interventions designed to build capacity. Although most services are terminated at the end of the project period, many people do get a chance to participate in capacity building programs. Some informants said, however, that there are too many experiments of this kind, and that the time is now ripe for selection of the most promising ones for expansion and long-term implementation.

### **Summary: Public Services and Programs.**

Since 1991, Zambia has implemented structural adjustment programmes to correct the imbalances that existed in the economy. In the rural areas, the vast majority of households depend on agriculture; therefore, the reforms that have had the most significant impacts in these areas are those that focused on agriculture market liberalization and provision of efficient services to link the markets. Rural cultivators were found to be highly aware of these changes in government policy and most of the feedback they provided was negative. In particular, they were displeased with the withdrawal of heavy government subsidies on inputs and the end of guaranteed markets provided by the GRZ. They stated that these changes had placed a severe strain on their ability to cultivate enough produce to cushion them against shocks, to meet critical expenses such as school fees, and in some cases, even to maintain basic food security. Very few suggestions for feasible solutions were offered, however; and so this issue remains an open question whose resolution is far from obvious. On a limited scale, private sector initiatives such as contract farming and outgrower schemes have shown promise as sustainable means by which small cultivators can secure access to both inputs and markets.

On the positive side, community consultations revealed that the educational and health services now being provided at the community level are highly appreciated. At higher levels of the health and educational systems, however, less satisfaction was expressed. The study found that the beneficiaries are not happy with secondary school services or hospital services because these facilities are generally located far from the community, because they do not have money to pay for transport, and because user fees are levied at this level. Provision of clean water was also reported to be unsatisfactory in so far as

existing boreholes are too few, too far, and serve too many households. Informants therefore requested that these services should be extended to communities that do not have them. In addition, they urged government to ensure that fully qualified people are assigned to manage community-level services and that they be provided with the necessary tools, equipment, and logistics.

#### **IV. Conclusions and Recommendations**

##### ***A. Summary and Major Conclusions:***

1. Wide discrepancies between the economic standing of the poor and better-off were not found in the study villages. Although the egalitarianism of these communities is pro-poor to the extent that it prevents elites from controlling resources and denying them to the disadvantaged, it is also unfavorable in that the better-off are generally unable to provide informal credit or employment beyond a day's casual labor paid in kind.
2. The issue of access to land was not raised as a factor in poverty, although the ability to acquire the inputs and, in some cases, labor needed to cultivate land was widely cited as the pivotal factor that separates the self-sufficient from the food deficient. Other than in areas adjacent to major urban centers, the study found little or no evidence of pressure on land.
3. Pressure on fragile environments and limited natural resources did, however, emerge as a significant factor in the poverty cycle. A growing population is over-exploiting common property resources such as fish, forest products and water sources; often as a coping mechanism when crops fail or other disasters strike. The rapid depletion of these resources will remove a traditional safety net from the small array of coping mechanisms available to the poor. It is the over-use of common property resources in response to repeated shocks, however, that is causing them to be under threat.
4. As a consequence of the inability to secure agricultural inputs in combination with the loss of draught animals, residents of some villages claim that the amount of land under cultivation is actually declining (though this study could not confirm these statements). In addition, the absence of reliable prices and markets has led to a fall in prices; and this was described as a disincentive to increasing crop production beyond subsistence needs.
5. Possession of livestock was found to be a vital issue -- as an indication of economic standing, as a productive asset (particularly with reference to cattle) and as a cushion against the impact of catastrophic events. Threats to these key assets, such as disease and theft, are on the increase; and loss of livestock was emphasized as a destabilizing shock for poor households.

6. The extended family, Zambia's traditional safety net, is eroding to the extent that many who experience shocks can no longer rely on its economic assistance mechanisms. Community organizations promoted by government, such as Village Committees and farmer's cooperatives, do not compensate for this loss since they do not fill the same functions. There is danger that, without the traditional support of their extended families, the vulnerable will suffer greater damage when shocks occur and have less ability to recover in their aftermath.
7. After experiencing serious shocks, some households have no recourse but to employ coping mechanisms that cause further damage to the economic well-being of the household and its potential to recover, such as seeking casual day labor in neighbors' fields (to the neglect of their own) or selling breeding livestock. Other ex post coping mechanisms, such as charcoal production damage the environment and deplete common property resources.
8. Many of the households described as better-off had achieved that standing as a result of pensions from employment or remittances they received from employed adult children, usually residing in urban areas. The anticipation of employment or remittances has boosted the demand for education in all 3 zones. Removing a child from school was universally considered to be a coping mechanism of last resort, since the future economic well-being of the family is understood to depend upon the ability of these children to find well-paid employment.
9. Although payment problems remain at higher levels of these systems, informants expressed enthusiasm over the removal of user fees for primary education, the establishment of health posts and Community Health Workers in rural communities and, in some areas, the provision of clean water through borehole installation. However, boreholes are not utilized in Zone 1 where the water they provide is saline; and in the other zones, the per-population distribution of boreholes is too low for all households to have reasonable access.
10. Although some had participated successfully in out-grower or other agricultural schemes, and a growing number are growing vegetables for sale or have switched to indigenous crops, the majority of rural Zambians are highly risk-averse and firmly committed to smallholder production of the familiar staple crop, maize. Due primarily to poor access to markets and market price instability, many view crop diversification as risky and feel it is likely to increase the vulnerability of their households.
11. There are essentially three types of food-deficient households, and the same assistance strategy will not work for all three. The primary constraint on productivity mentioned in the majority of poor households was a lack of affordable access to the inputs they need to produce their staple crop. The second type of food-deficit household is characterized by having no healthy adult capable of cultivation. These labor deficient households, many of which are HIV/AIDS affected, would not be able to benefit from programs aimed at improving access



to inputs, or from other programs that require physical labor, such as food for work (FFW). The third type is the household constrained by lack of water. Even if inputs are provided, water-poor areas may fail to benefit from crop improvement schemes.

### ***B. Recommendations and Suggestions for Action***

1. Both traders and out-grower schemes have an important role to play in linking small scale-farmers to markets. Government should seek to develop a business environment where the private sector has the incentive to try and expand the numbers of small cultivators undertaking contract farming. As effective competition between traders for smallholder produce is unlikely in the immediate future, transparency in grading and pricing of products would help to assure farmers that they are not being exploited by buyers.
2. The viability of many communities is threatened by environmental degradation and depletion of natural or common property resources. It is recommended therefore, that government, donors and NGOs work with rural communities to develop a plan for sustainable natural resource management. This could be integrated into existing district level planning processes. Alternative and appropriate technologies that have been developed for other stressed environments should be considered for replication in rural Zambia, in so far as they prove to be appropriate. Communities must be brought into the planning process so they can agree on a viable set of rules and enforce them, with the help of local headmen and chiefs.
3. The study found that many households still depend on unsafe sources of water because the number of boreholes is inadequate and they are located far away from many households. The evidence suggests that current policy and institutional arrangements are failing to deliver or maintain safe water supplies in rural areas. It is recommended therefore that government and donors should support the establishment of more boreholes in rural areas. Borehole water should also be tested properly to ensure that it is adequate and safe for human consumption. In communities that have failed to maintain their boreholes, payment of water fees in kind should be encouraged to support borehole maintenance; and the possibility of privatizing the water supply should be explored.
4. Community members expressed an urgent need for assistance in coping with the rising level of rural crimes and thefts, especially theft of livestock. To control this problem, capacity building for community neighbourhood watch committees, and strengthening of law enforcement institutions in rural areas, are recommended.
5. Because the importance of livestock to the rural poor has not been fully recognized in the past, it is recommended that emphasis on livestock breeding and disease control programs should receive significantly greater emphasis. In some

areas (such as the driest portions of Zone 1), encouraging and supporting the acquisition, care, breeding and sale of livestock could be a more successful approach to providing sustainable livelihoods than conventional crop-based programs have proven to be.

6. It is suggested that a feasible way to enhance access to inputs for households with healthy adult laborers might be through a program in which inputs or cash are provided to cultivators for part-time or temporary labor on rural infrastructure. A pilot test of this approach could demonstrate synergies between the agricultural and transport sectors; particularly if it were located on roads leading to areas in which traders express the desire to purchase produce from villages that are currently difficult to reach.
7. A separate approach will be required for the households in which, often as a result of HIV/AIDS or other health shocks, there is no capacity for labor. This includes households headed by the disabled, the elderly, the chronically ill, a child, or a female caring for pre-school children and/or the chronically ill partner. These households may need direct assistance through safety net programs over an extended period. In addition, community support mechanisms should be built (perhaps through Village Committees or Women's Groups) for chronically dependent households.
8. A third strategy may be called for in chronically water-deficient environments. Large-scale water management systems could benefit these areas, or cultivators could be encouraged to emphasize livestock, instead of crop, production.
9. In the view of the study team, traditional leaders (chiefs and headmen) are an under-utilized resource for health and development programs. Most have demonstrated a willingness to cooperate in recent government and NGO initiatives, such as the discouragement of traditional practices that increase the risk of HIV transmission. It is recommended that they be offered a more active role in the planning and implementation of all programs and activities that are targeted to their villages and areas.