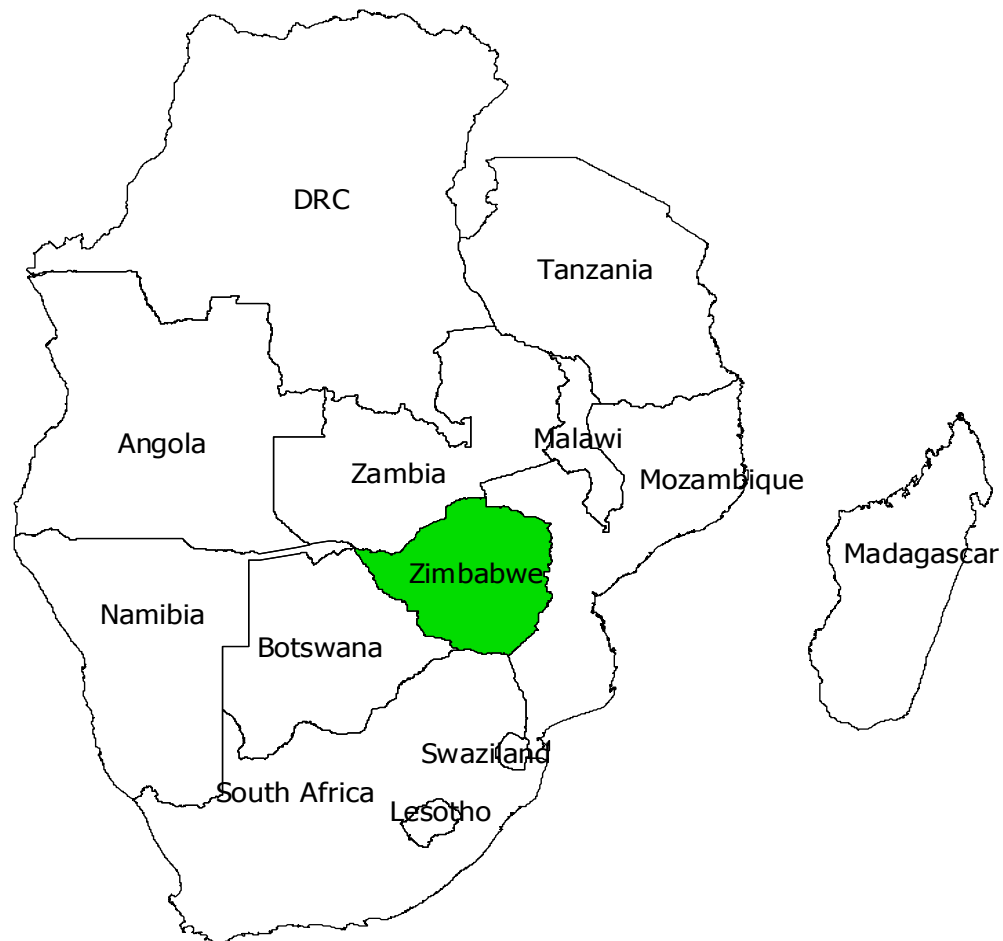


ZIMBABWE REPORT

RURAL FOOD SECURITY AND VULNERABILITY ASSESSMENTS – REPORT NUMBER 6

May, 2006



MAY, 2006
Harare, Zimbabwe

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Ministry of Health and Child Welfare,
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Preface

The May 2006 Zimbabwe Food Security and Vulnerability Assessment Report presents the detailed results of the fifth rural food security assessment conducted by the Zimbabwe Vulnerability Assessment Committee (ZimVAC) which is a sub committee of Poverty Eradication and Social Services Delivery Development Action Committee (PESSDDAC). This Committee is chaired by the Food and Nutrition Council (FNC), which is part of the Scientific and Industrial Research Centre (SIRDC). These annual assessments started in August 2002 with technical support and part funding from the SADC Food Agriculture and Natural Resources (SADC-FANR) Regional Vulnerability Assessment Committee (RVAC). This followed the SADC Ministers of Agriculture meeting in 2001, which set out a medium term strategy to combat food insecurity in the region.

To date, four rural and one urban food security and Vulnerability Assessments (VA) have been carried out in Zimbabwe. These assessments have increasingly become an important instrument for understanding and updating food security and vulnerability information in the country. They have provided the Government and other stakeholders with vital information for policy formulation, planning, decision-making, evaluation and research at both national and sub-national levels. The Ministries of Health and Child Welfare as well as Public Service, Labour and Social Welfare and the development partners have been using the VA reports for targeting their intervention programmes.

This report seeks to further guide interventions in areas where issues concerning food availability, accessibility and utilisation, education, household health, water and sanitation have gone below acceptable levels.

It also provides highlights and major findings in line with the specific objectives of the assessments, defines methodology used in both data collection and analysis. It goes on to address sectoral issues like health and nutrition, child protection, water and sanitation, education and agriculture and then concludes with recommendations.

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 - Scientific and Industrial Research Development Centre
 - Ministry of Agriculture – AREX & NEWU
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 - UNDP
 - UNICEF
- NGOS
 - Save the Children (UK)
 - Famine Early Warning System Network (FEWSNET)
- Others
 - University of Zimbabwe - Department of Agricultural Economics & Extension
 - University of Zimbabwe -,Department of Statistics
 - SADC Regional Vulnerability Assessment Committee

Field researchers were drawn from Government, NGOs and UN Agencies.

ZimVAC acknowledges this invaluable support from these organizations. Last but not the least; we would also like to acknowledge the support of our communities. This assessment would not have been possible without their corporation and participation.

Acronyms

AREX	Agricultural, Research, and Extension Service
BEAM	Basic Education Assistance Module
COSV	Coordination Committee for Solidarity Volunteers
CRS	Catholic Relief Services
CSO	Central Statistical Office
EA	Enumeration Area
EHHs	Elderly Headed Household
FANR	Food, Agriculture and Natural Resources
FAO	Food and Agricultural Organization
FEWSNET	Famine Early Warning System Network
FEZ	Food Economy Zone
FHHs	Female Headed Household
FNC	Food and Nutrition Council
GMB	Grain Marketing Board
GoZ	Government of Zimbabwe
HBC	Home Based Care
HHs	Households
LBVA	Livelihoods Based Vulnerability Analysis
MHHs	Male Headed Households
OVC	Orphans and Vulnerable Children
PESSDDAC	Poverty Eradication, Social Services Delivery Development Action Committee
RVAC	Regional Vulnerability Assessment Committee
SADC	Southern Africa Development Community
SC (UK)	Save the Children United Kingdom
SIRDC	Scientific and Industrial Research and Development Centre
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Education Fund
UNWFP	United Nations World Food Programme
VAC	Vulnerability Assessment Committee
VCT	Voluntary Counselling and Testing
ZDHS	Zimbabwe Demographic Health Survey
ZimVAC	Zimbabwe Vulnerability Assessment Committee

Glossary of terms

Child	A person aged between 0-17 yrs
Chronically ill	A person who has been ill to the extent of being unable to do normal productive activities for at least 3 months of the past 12 months
Coping Strategy	Coping strategies refer to the specific efforts that people employ to reduce or minimize stressful situations.
Dependency Ratio	A measure of the portion of a population which is composed of dependents (people who are too young (0-17) or too old (60+), chronically ill (18-59)). The dependency ratio was calculated by dividing the sum of the number inactive (0-17, 60+, chronically ill 18-59) by the number of active (18-59) people.
Dietary Diversity	Is the number of different foods consumed over a given period of time.
Food Consumption Index	A measure of dietary diversity of the household. Households that consume a less diversified diet have a low FCI and are likely to be food insecure.
Food Economy Zone	A geographical area in which people obtains food in more or less the same ways.
Food Insecure Households	Households that are not able to meet their daily minimum energy requirements of 2100 Kcals per person (of which at least 70 percent will be from cereals), at all times during the period between harvests i.e. April 2006 to March 2007.
Food Secure Households	Households are able to meet their daily minimum energy requirements of 2100 Kcals per person (of which at least 70 percent will be from cereals), at all times during between harvests i.e. April 2006 to March 2007.
Food Security	Access to adequate food through own production, purchases and direct sources for productive and healthy living at all times.
Head of Household	The key decision maker in the household as perceived by the respondent.
Household	People living and eating together
Livelihoods Based Vulnerability Analysis	Acknowledges that access to food is not exclusively related to food production or availability, but also the ability of people to purchase and use other food entitlements at their disposal
Livelihoods	All the activities that the households engage in to earn a living.
Village	An administrative unit headed by the head of village
Vulnerability	The level of exposure of a household or community to particular shock (external vulnerability) and their capacity to cope with that shock (internal vulnerability)

Executive Summary - Highlights of the 2006 ZIMVAC Report

1. Food Security Persists Despite Good Rains

- A cumulative total population of 1.4 million people, 17% of the rural population will not meet their annual cereal requirements in 2006/07 without aid. While this is a marked improvement from 2005/6 when 36% of the rural population was food insecure, the figure is still very high for a rural population with a demonstrable potential to produce more food than its consumption needs.
- A total of 91,000 MT of maize will be required to meet the household deficit for this population.
- The highest concentration of food insecure people (24% of its rural population) will be in Matebeleland North Province followed by Masvingo (20%) and Matebeleland South (20%) respectively.
- Midlands and Mashonaland West Provinces will have the lowest proportions of food insecure rural populations at 13% each respectively.
- The districts predicted to have the highest concentration of food insecure people (between 30 to 40% of their rural populations) are Kariba, Hwange, Rushinga, Mudzi, and Chiredzi. These districts were amongst the top twenty food insecure districts again last year.
- Macroeconomic instability and domestic agricultural policy failures are increasingly becoming the major underlining causes of rural and national food insecurity - perhaps more important than seasonal climate conditions in determining rural poverty, hunger and vulnerability to famine in 2006/7.

1.1 Characteristics of Food Insecure Households:

The food insecure households are more likely to be:

- Large households with orphans
- Households headed by people with low educational levels
- Households without relatives who assist
- Households with a mentally or physically challenged member
- Households headed by the elderly
- Households with chronically ill head or member

2. Nutrition health and Incidence of Chronic Diseases

- 23% of the household indicated that they had at least one chronically ill member and most of the chronically ill members were in the economically active age group of 18 – 59 years.
- The main diseases mentioned by households were HIV and AIDS - related such as tuberculosis (19%), meningitis (2%) pneumonia (6%) and diarrhoea (6%). Headaches (6.5%) and malaria (9%) were also mentioned.
- In 2006, 88.5% of rural households (compared to 40% in 2005) enjoy a diversified food diet. But almost all of these households remain food insecure with inadequate intake of vitamins and animal proteins.
- Although wasting has improved overall, children from rural households headed by females were more likely to be wasted.

- Of all those children not in school, (33%) (29 percent in 2005) were aged 6-12 years. This result is showing a growing problem of children dropping out of school at primary education level.
- Among the dropouts, the major reason for being out of school (68%) compared to 60 percent last year was lack of school fees.
- Of the food insecure households, 79% of them were headed by household heads whose education levels were primary education and below.

4. Emerging Development Issues in Agriculture, Water and Sanitation

4.1 Agricultural recovery is crippled by shortages of inputs:

- Shortage of fertilizer was the major problem faced by farmers across all farming sectors, draft power shortage was a problem for communal, A1 and small scale farmers
- Lack of dipping chemicals, animal diseases and deaths were the main livestock problems faced by farmers

4.2 Water & Sanitation remains poorly developed increasing the risks of epidemics

- At national level 73% of the households had access to safe water while 27% of them were using unsafe water and 80% are in the communal areas.
- At provincial level, Mashonaland West, Matabeleland North, Matabeleland South had the most households, which were using unsafe water sources the most that is unprotected wells, ponds, rivers and dams.
- At national level most households use the bush for sanitation; this is mainly in Matabeleland North, Midlands, and Masvingo.

4.3 Community challenges and priorities

- The major challenges identified by communities in order of severity were: shortages of food, transport, unstable prices, water and sanitation and health problems.
- The main needs in order of priority identified by communities were water, education, agricultural inputs, livestock, transport, health and income generating projects.

4.5 Strategic National Role of ZIMVAC and Need for Increased Support

- ZIMVAC has played a critical role in assessing drought-induced famine requirements to inform famine relief interventions
- As drought becomes less important while socioeconomics and policy determinants of poverty, hunger vulnerability become dominant in a deteriorating national economic environment, ZIMVAC policy research role will have to shift strategically towards food security and hunger vulnerability mitigation issues of informing national Food Security Protection as well as Livelihood Promotion
- Such a transformation requires new institutional mandate, diverse skills and competencies in policy analysis research and resources to finance continuing research more than monitoring and evaluation of current situation

1.0 Introduction

1.1 Background of Assessment

Although the 2005/06 cropping season was a marked improvement over the last four seasons Zimbabwe's complex food security crisis is expected to worsen during 2006/7. The complex domestic socioeconomic situation prevailing in the country highlights that rainfall while essential is no longer the primary constraint to national food production or the key determinant of food security. Despite good rainfall in most parts of the country, farmers could not implement their optimal production plans as they were confronted with severe shortages of key inputs such as tillage services, diesel fuel, seed, fertilizers and chemicals for pest and weed control. Aggravating the domestic shortage of agricultural inputs in 2005/6 was the continued deterioration of the domestic macroeconomic situation and price controls. [Rugube and Mano, 2006]. Domestic input producers and importing merchants had to drastically scale down their market supplies in response to a severe shortage of foreign currency, rising cost of money under hyperinflationary domestic conditions amidst a crippling price control policy for agricultural inputs.

On the demand side of the food security equation, rising poverty among both rural and urban populations after five years of poor agricultural and economic growth in a hyperinflationary environment has rendered a growing population of previously food secure households increasingly vulnerable to food insecurity. Formal employment has declined from 75% in 1998 to 20% in 2006 while real minimum wages have declined precipitously below the poverty datum line curtailing the strategic flow of remittance income from urban based family members which historically has been pivotal in financing Smallholder agricultural growth in the absence of complete rural financial markets. Zimbabwe's rural population also faces additional stressors to their food security systems arising from shouldering the economic and psycho-social burden of high rates of HIV and AIDS related morbidity and mortalities (Mano & Matshe). The relatively wet season also brought with it higher incidence of malaria and cholera outbreaks whose debilitating effects on vulnerable, poorly nourished populations rivals that of HIV and AIDS.

Rising incidences of chronic poverty and food insecurity among Zimbabwe's rural population has been an issue of great concern to national government and to the international humanitarian community. Yet over the past five years, Zimbabwe has suffered reduction in pro poor investments in agricultural and economic development most notably from the international development assistance. The level of humanitarian support has also been inadequate as the country only managed to secure 60% of its food aid requirements in 2005 at a time when more resources were required for famine relief as well as for food security recovery through investments in productive asset rebuilding. Given that forty percent of perceived food aid requirements for the country was not secured in 2005, a significant proportion of the vulnerable rural poor in actual need of food aid were left to endure hunger, bear risk of being malnourished while sinking deeper into chronic poverty as they liquidated their residual stock of productive assets. These vulnerable households surviving 2004/5 season on inadequate food aid entered 2005/6 with a reduced capital base to sustain agricultural growth and food security recovery in 2005/6 season – with or without good rains.

The 2005/6 rural assessment of food security vulnerability situation, conducted under Zimbabwe's increasingly complex socioeconomic environment, posed a number of conceptual and methodological challenges. This report is a product of an innovative attempt to broaden understanding of the domestic food

1.2 Purpose of the Rural Assessment Study and Report

ZIMVAC rural assessment exercise aims to provide Government and relevant stakeholders at various operational levels with strategic information for food security management planning and policy decision-making. The broad objectives of the vulnerability assessment report is primarily to improve understanding of rural household vulnerability to food insecurity and to appraise the country's rural food security situation in order to identify areas and populations at risk of famine. From improved understanding of the dynamics of hunger and food security vulnerability of the rural populations, it is the expectations of regional VACs that these reports provide short and medium term policy options for improving rural livelihoods.

The specific objectives were:

- To ascertain how macroeconomic trends affects food security dynamics of vulnerable rural populations
- Examine the key factors affecting rural food security and livelihoods including gender dimension, education, livelihood asset ownership, nutrition health, chronic illnesses, water and sanitation.
- To identify geographic concentrations of the socio-economic groups likely to be food insecure in the 2006/07 Marketing year:
 - To estimate the number of food insecure households (chronic and transitory), where they live, their characteristics and possible ways to address their food insecurity.
 - To estimate the number of rural households who are *likely* to become food insecure during the 2006/07 marketing year, where they live, their characteristics and possible ways to address their food insecurity.
 - To examine the linkages of food security in rural livelihoods to various sectors, including urban livelihoods, the gender dimension, education, child protection, health, HIV and AIDS and water and sanitation.
 - To link household food security with the nutritional status of vulnerable groups such as women of reproductive age and pre-school children.
- To identify key variables for monitoring during the 2006/7 marketing year in order to track rural food security and famine situations and provide early warning of famine crises?

2.0 Methodology

2.1 Conceptual framework

The Livelihood Based Vulnerability Analysis (LBVA) framework adapted for use in Zimbabwe by ZIMVAC provide the fundamental conceptual framework for food security vulnerability assessment. This framework acknowledges the two interrelated dimensions of the food security vulnerability equation viz: availability and accessibility. The ability of rural people to afford a calorie adequate diet depends not only on their subsistence food production but also on their institutional access to food available through the domestic food markets and through other non market transfers including food aid. Given the centrality of own production in determining food security outcomes of rural agricultural populations faced with incomplete food markets, there are three categories of factors determining capacity of smallholder agricultural families to produce adequate food on their own, to acquire adequate supplementary food from the market and to adequately self-insure against risks of food insecurity. The livelihood framework provides a comprehensive framework for organizing these factors into a dynamic food security system and organic change theory.

Agricultural household's holdings of the five core livelihood capital assets – social capital, human capital, physical capital, natural capital, financial capital - are important determinants of household's agricultural production capacity or in general ability to sustain livelihood and remain an important focus of Zimbabwe's rural vulnerability assessment. The capital asset levels net of the minimum requirements for productive purposes determine the ability of rural agricultural families to self insure against food security risks i.e. cope with short-term production shocks and/or market price shocks. Thus assessing the current household food production levels relative to their caloric needs for food security only provides a measure of the food security gap. It does not provide an accurate measure of deficit in food intake to be met through food aid since some rural households may have their own internal mechanisms for addressing their anticipated or unplanned food security shortfalls from their own farm production. Thus monitoring off-farm income earnings from wage employment, remittances, profits from cottage industries such as beer brewing, gardening, knitting, informal trading, wood curving, construction, mining (including gold panning) – is important component in assessing food security situation as it provides rural households with an important source of weather-free income especially in years of crop failure. Monitoring changes in livelihood asset holdings of agricultural populations especially around some defined minimum critical levels would provide policy planners with a robust measure of medium and long term measures of household vulnerability to food insecurity and capacity to cope and recover from transitory food security shocks.

The livelihood framework also includes an assessment of the economic policy and institutional context underlining the household choices of livelihood strategies and outcomes. However when a country is enjoying prolonged economic stability, economic policy and institutional factors cease to be key factor accounting for any observed year-on-year changes in domestic food security vulnerability and thus receive scanty attention in vulnerability assessment reports. Zimbabwe's macroeconomic situation has been deteriorating rapidly over the past five years and especially in 2005/6 and projected to continue on its downward trend in 2007. The semi-subsistence smallholder agricultural population has endured macroeconomic shocks – hyperinflation, growing unemployment and sustained shortages of critical inputs –

2.2 The Sampling Framework and Integrated Analytical Techniques

The 2005/6 vulnerability assessment study proceeded in two separate but related activities. The traditional empirical assessment of food security vulnerability situation of rural population was undertaken by ZIMVAC. A team from the University of Zimbabwe, Department of Agricultural Economics was contracted to undertake a national situational analysis study to examine the macro determinants of domestic food security trends and undertake a scenario analysis to forecast possible food security outlook for 2006/7. While the macro situational analysis was a desk study which relied on quantitative analysis of empirical secondary data and expert opinion, the rural vulnerability assessment is based primarily on survey data.

2.2.1 The Rural Assessment Survey Data Collection and Management

The ZIMVAC rural assessment survey is based on a scientific sampling frame in which 2768 households in 230 geographic sites representing all of the country's 23 designated Food Economy Zones (FEZ) cutting across all the eight rural provinces (i.e. not including the two urban provinces of Harare and Bulawayo). A FEZ is - geographical area in which people obtain food in more or less the same ways. The sample was further stratified using population ratios into communal areas (73% of sample size), Old resettlement areas and small scale farms (9%), newly resettled A1 areas (7%), newly resettled A2 areas (8%) and large scale commercial farms (not resettled) (3%). For the purpose of the survey large-scale commercial farms were defined as farms whose area exceeded that of the A2 resettlement model. At each of the 223 selected sites, one village was randomly selected from which 12 households were interviewed. Additionally, 227 key informants' interviews were conducted and other secondary information collected at district level to further triangulate the survey data.

The survey data was entered manually into the SPSS program and cleaned for missing variables as well as for statistical outliers. Preliminary analysis of the data was undertaken using descriptive statistics as well as aggregate measures of food security situation. The findings from these analysis provide the bulk of this report.

3. Recent Trends in Domestic Macroeconomic and Food Security Situation

3.1 Trends in Domestic Macroeconomic Situation

Zimbabwe's food security situation has in the past four years been aggravated by the domestic macroeconomic instability. Driven by declining national output and reduced tax revenue base, the national government has resorted to expansionary fiscal and quasi fiscal deficit expenditure to finance productive and non productive agricultural and non agricultural initiatives. In the absence of international financial inflows, financing of government deficits has fallen on domestic borrowing and printing money both of which have had deleterious effect on business environment and cost of living for the ordinary urban and rural person. Although a significant amount of government deficit spending has been targeting the productive agricultural and mining sectors of the economy, the poorly managed funds have failed to generate anticipated output growth due to poor conceptualization and management of these productive sector investment facilities (RBZ Monetary Statement 2006). As a result, these deficit spending programs have acted like a double edged sword in accelerating the rate of inflation from 15% to hyperinflationary levels above 1000% by end of 2006 and escalating cost of business operations. Rising cost of business operations under stringent commodity price controls amidst rising operational cost has led to rapid rate of contraction of the national economy which has fallen by 30% since 2002 and by 10% in 2005/6.

Table 1: Summary of GDP Performance 2000-06

	2000	2004	20005	2006
GDP (Usable)	7.4	4.7	3.4	3.1
GDP per Capita (%)	587	364	261	235
GDP growth rate (%)	(7.9)	(4.2)	(7.1)	(10)

Source: Word Bank website

Formal rate of unemployment has risen from 40% to 80% with many of the employed often engaged in secondary activities to supplement meagre wages in the face of rising urban cost of living and rising poverty and food insecurity in their famine-hit rural farming areas. Those retrenched from the formal economy often join the ranks of the self-employed in the growing informal sector. While GDP contributions of the informal sector (vegetable vending, petty trading, cross border trading, carpentry) is largely undocumented, its livelihood contributions have been high enough to restrict urban poverty to 60% in 2004 (GOZ, 2005) and sustain modest remittance inflows to rural areas that might have kept rural food insecure out of starvation in spite of inadequate famine relief supplies.

With escalating inflation and widespread shortages of staple food and agricultural inputs, cost of living for both urban and rural populations rose measured by the poverty datum line rose ten fold in four years from Z\$23,000 in 2002 to Z\$240,000 in 2006. The growing gap between formal monthly earnings of urban workers from their jobs or average monthly realizations of rural agricultural populations indicates that a majority of Zimbabwe's population is living below the Poverty Datum Line in poverty and increasingly vulnerable to food insecurity to declining ability to afford a calorie adequate monthly food basket. In the past years of economic growth, urban employment of family members provided rural agricultural families

Figure 1: Recent Trends in Inflation & Wages Relative to Poverty Datum Line

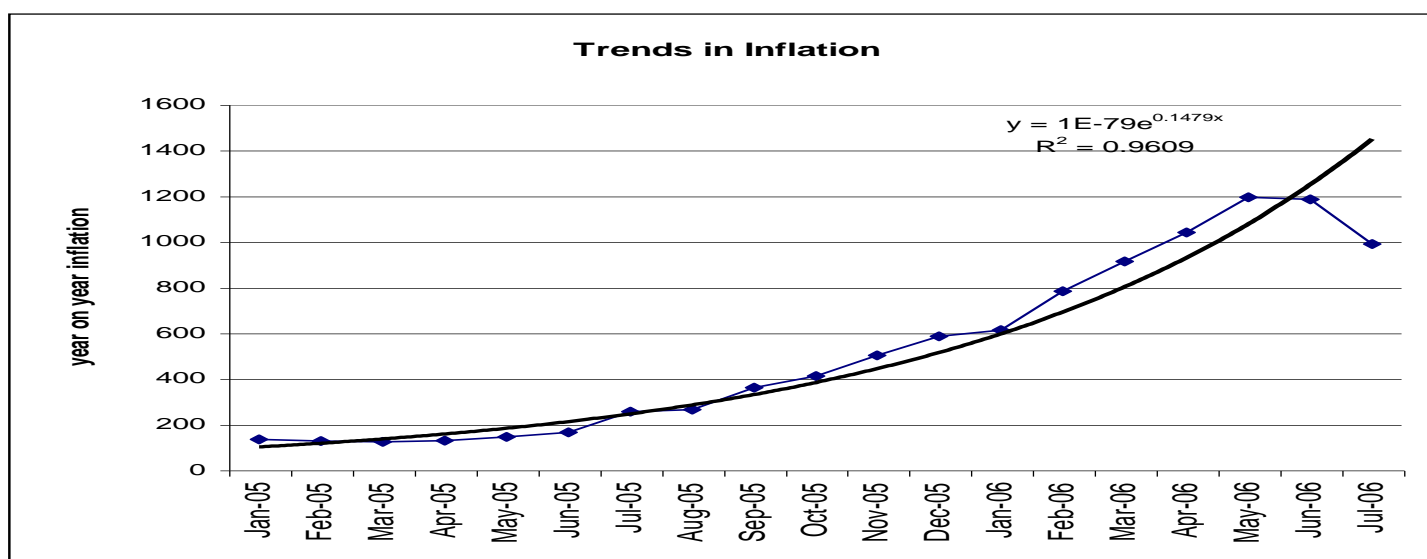
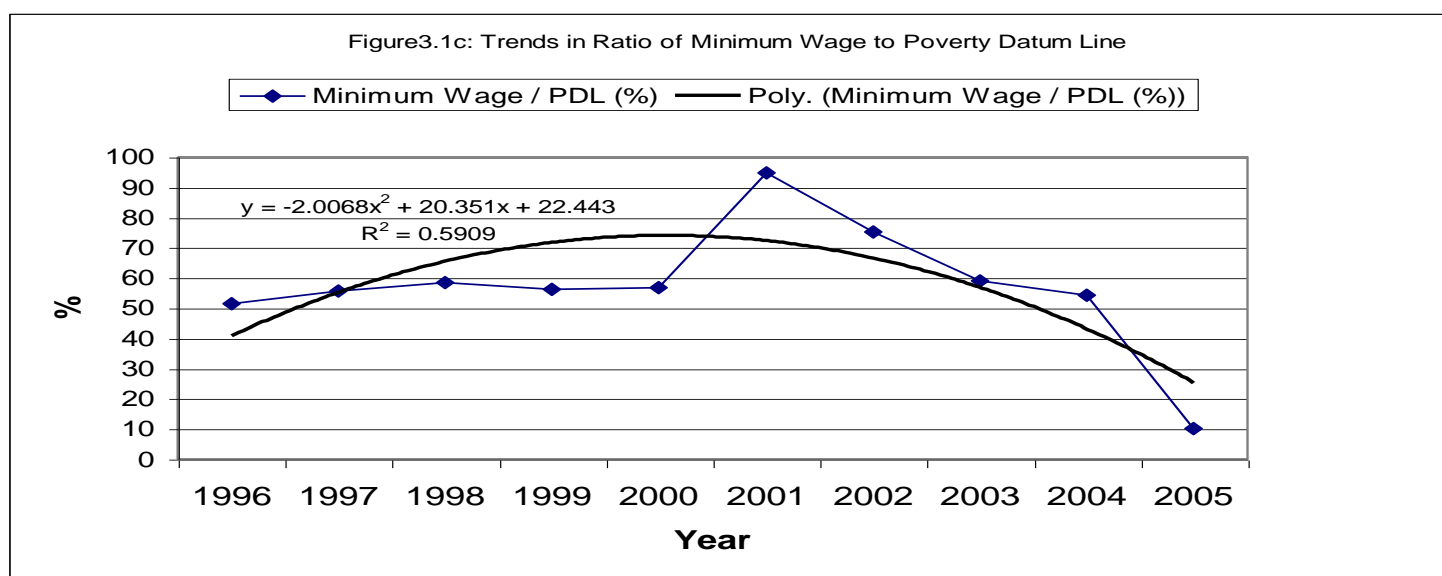


Figure 2: Recent Trends in Minimum Wages Relative to Poverty Datum Line



Source: Mano & Rugube 2006.

3.2 National Food Security Situation and Macroeconomic Dimensions

The first five years of the new Millennium are unique in that livelihood of Zimbabwe's rural agricultural population is doubly hit by joint burden of declining smallholder agriculture amidst disappearing commercial agriculture and diminishing urban industrial growth and employment opportunities. While the national cereal gap measure of food insecurity has somewhat improved from almost 50% in 2002/3 to a projected 17% in 2006/7 domestic head count measures of food insecurity and poverty has undoubtedly

Figure 3: Historical Trends in (a) Per Capita Cereal Production, (b) Cereal Production & Acreage,

Fig3a (Data: CSO 2006)

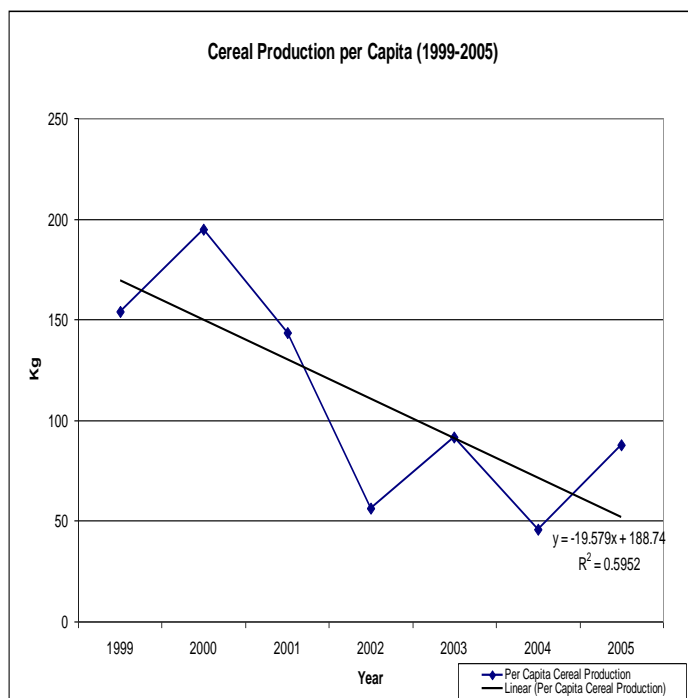


Fig3b (Data: CSO 2006)

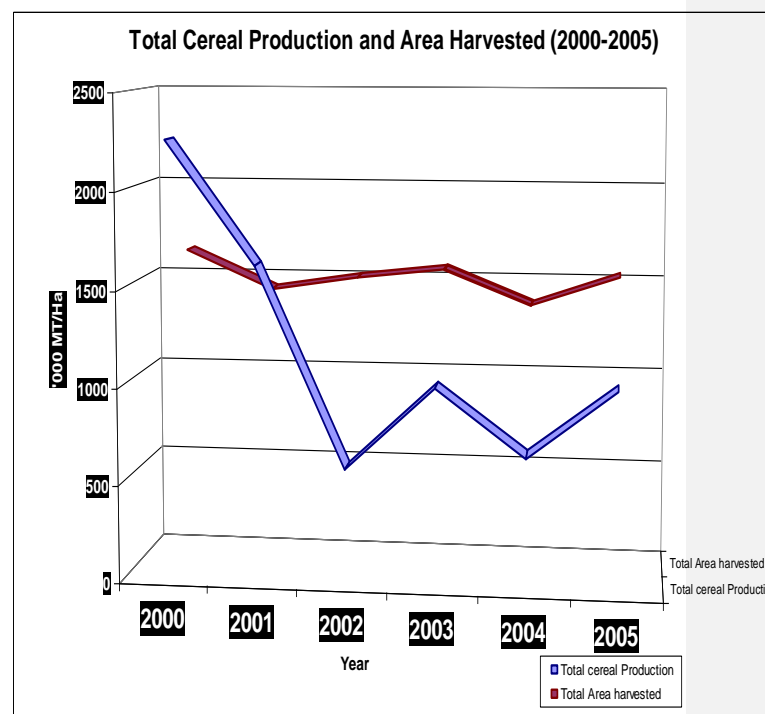


Figure 4: Trends in Rural food insecurity (data source: ZIMVAC Reports)

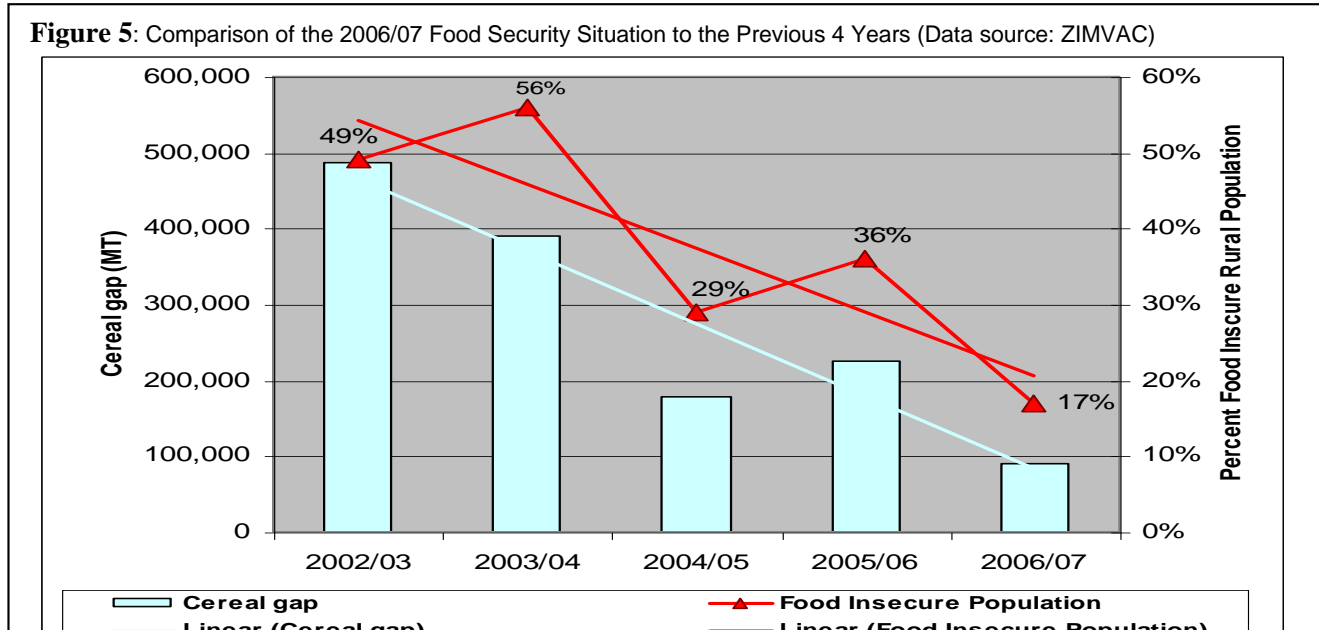


Table 2: Relationship Between Food Security Dimensions and Macroeconomics Determinants

	Macroeconomic determinants			
	Inflation	Mean Wages	Real Wages	Exchange Rate
Food Availability				
(a) Aggregate Cereal Prdn	- 0.6	- 0.63	- 2.63	-4.3
(b) GMB Closing Stocks	-4.16	- 4.16	+1.94	-0.19
(c) Govt Cereal Imports	+0.67	+0.67	- 0.22	+0.67
Food Access				
Real wages	-0.84	-0.23		-0.42
CPI	0.88***	0.99	-0.37***	0.95***
Rural Poverty	Negative	Positive	Positive	

How do rural farming communities feel the effects of macroeconomic instability? Macroeconomic instability has direct effects on food and agricultural production as it destabilizes input markets and availability of inputs to farmers reducing output and real agricultural incomes. A combination of reduced food production and foreign exchange shortages under macroeconomic imbalance causes domestic food prices to rise further increasing general inflation and reducing ability of poor and vulnerable low income deficit farmers to afford calorie adequate diet through their own means. Poor consumers are risk averse and thus their happiness is directly severely affected by lack of domestic macroeconomic stability and predictability of returns to their agricultural efforts and to wage employments of family labor that would otherwise be underemployed on the family farm.

4. Empirical Assessment of the 2006/7 Rural Food Security and Vulnerability Situation

In line with regional tradition, the ZIMVAC team conducted an empirical assessment of the food security and vulnerability situation in the rural districts of Zimbabwe. The assessment approach followed a regionally agreed survey protocol and applied simple but informative coarse measures of household food security. While the region is presently reviewing definitions and refining methodologies to develop a comprehensive holistic measure of hunger food insecurity vulnerability, the analysis summarized in this section is based on traditional measures of household food security based on household families food self sufficiency situation rather than capacity of individual households to acquire calorie adequate diet . Because ZIMVAC and indeed the regional VAC project has applied similar analysis for more than a decade now, using these similar measures allows for consistence across countries and for trend analysis using historical information generated from the ZIMVAC since inception.

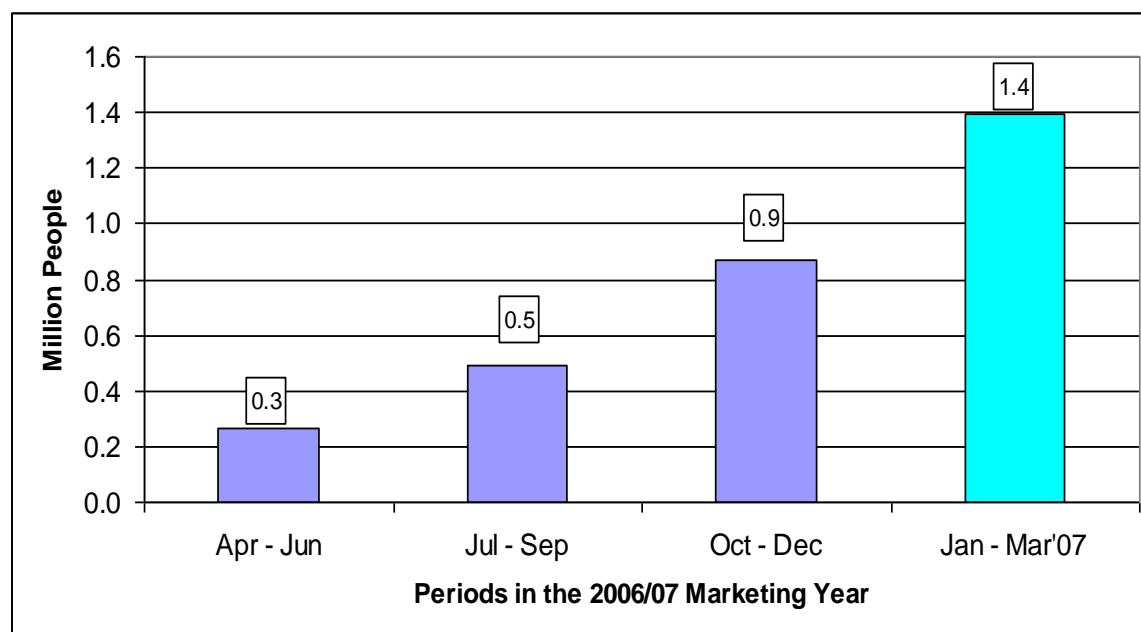
4.1 Severity of 2006/7 Rural Food Insecurity Challenge

Zimbabwe entered 2006/7 marketing year with negative stocks in its food security reserves at national level. This is also true at household level of rural agricultural populations. By the last quarter of the 2005/6

by as much as two month supply of maize grain for the rural population while accounting for reduced household need for food aid enduring the last two months of the 2005/6 marketing season.

At the time of the 2006/7 harvest in April, only 300,000 rural people (60,000 families or 4% of rural population) were adjudged to be food insecure in Zimbabwe. This figure is the lowest since the start of the land reform program in 2002/3 season. However, as usual in Zimbabwe, food insecurity situation progressively worsens over the twelve months long post the harvest period of agricultural marketing and consumption. Only a fraction of the rural population that are food secure at time of harvest possess sufficient stocks of staple cereals to last until the next harvest.

Figure 6: Quarterly Growth in Population of Food Insecure Households



As shown on **Figure 6** above, the number of rural households that are food insecure increases from 0.3million in April/May/June to 1.4 million in last quarter – January/February/March. Thus while 90% of the rural population (or 7.7million people) have adequate cereal stocks in April 2006, about 14% percent of them (or 1.1million) of those able to feed themselves during the first quarter of 2006/7 will run out of their subsistence stocks before the next harvest in April 2007. On average, thus Zimbabwe will experience a growth of at least 90,000 previously food secure households becoming food insecure and in need of food aid every month until the end of the 2006/7 grain marketing and consumption season.

If 7.7 million people in rural Zimbabwe appear to have harvested adequate stocks in 2006 to last until the next harvest in April 2006, it does not necessarily imply that they are all free of food insecurity risk during 2006/7 consumption calendar! Firstly, the staple cereal grains are vulnerable to anticipated and unexpected post harvest storage losses due to pests and theft. Secondly, given the high mortality rates, the food stocks can meet unexpected increase in unbudgeted outlays if family and village community experience more than expected deaths of kith and kinship. This is further compounded by addition of destitute HIV/AIDS orphans to an otherwise nuclear household. When urban family members of rural households that are normally expected to be self reliant workers remitting positive inflows to rural households are faced with declining

state while prices of non staple food stuffs are monitored but not controlled, hyperinflation during 2006/7 period will stimulate retail price ratio to rise against policy -controlled staple food grains. This development shall progressively reduce real income value of rural populations holding staple grains leaving them in poverty and increased risk of food insecurity – despite having adequate harvests – as the rural agricultural population shall increasingly be asked to pay more grain equivalency in exchange for all their non-grain food and non food basic and essential expenses – bread, health care drugs, school fees, manufactured foodstuffs., agricultural seed and chemicals.

4.2 Geographic Distribution of Food Insecure Vulnerable Rural Populations in 2006/7

4.2.1 Incidence of Food Insecurity by Province

The geographic pattern of food insecurity remains uneven with provinces in drier agroecological regions least suited to dryland crop production enduring more food insecurity compared to wetter provinces. Matebeleland North Province remains the most vulnerable to food insecurity with 24% of its rural population being food insecure and likely to need food assistance. The second most food insecure provinces are the three Provinces of Matebeleland South, Masvingo and Mashonaland East with about 20% to 21% of their population being food insecure. Mashonaland Central and Midlands are six and seventh with 15% to 16% food insecure population. Midlands and Mashonaland West are rated as the most food secure provinces with only 13% of their population being food insecure. Figure 7 below shows graphically the rank ordering of provinces by the proportion of their rural populations which is food insecure in 2006/7.

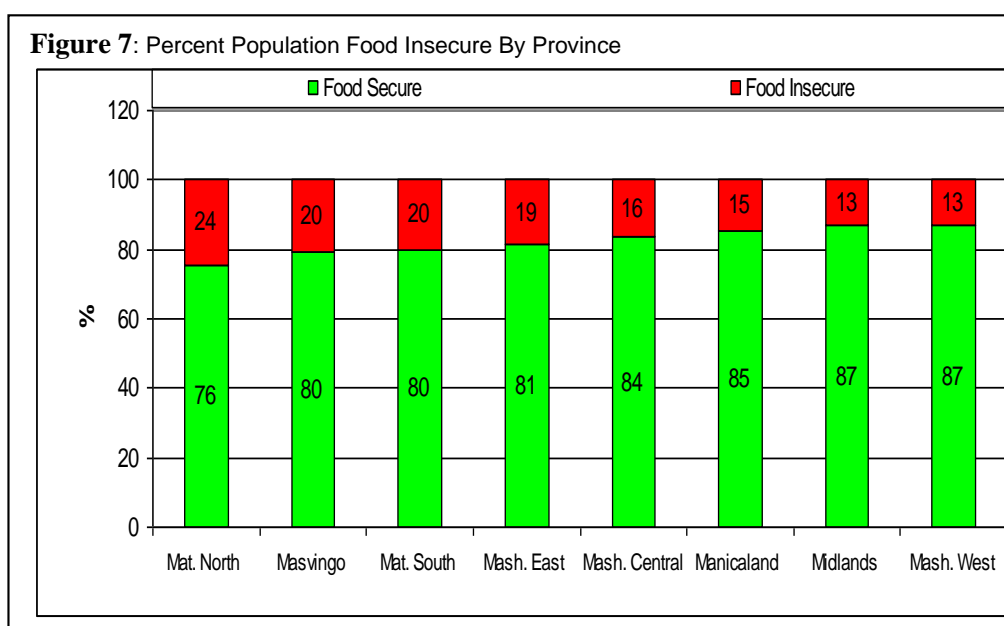


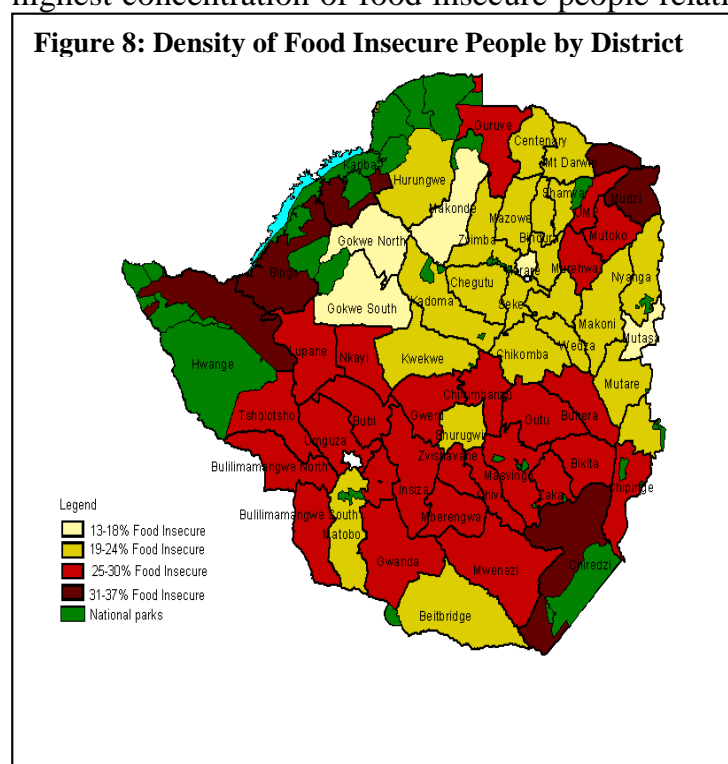
Table 3 below tracks the dynamic growth in provincial incidence of the food insecure populations from August 2006 to March 2007. In terms of absolute numbers of food insecure families the bulk of the food insecure households are found in Masvingo, Mashonaland East and Mashonaland Central Provinces and

Table 3: 2006/7 Projected Growth in Food Insecure Populations by Province (Ranks in brackets)

Province	Aug-06	Apr – Jun'06	Jul – Sep' 06	Oct – Dec'06	Jan–Mar '07	% Insecure
Manicaland	1,347,041 (1)	28,682	56,906 (5)	111,334 (3)	200,656 (2)	15 (8)
Mash. Central	1,013,231 (5)	44,861 (2)	67,294 (3)	111,122 (4)	164,390 (4)	16 (7)
Mash. East	1,046,979 (4)	54,683 (1)	77,429 (2)	125,563 (2)	194,362 (3)	19 (6)
Mash. West	957,286	34,521 (4)	54,700	83,825	125,447	13 (4)
Masvingo	1,270,954 (2)	33,125 (5)	78,828 (1)	152,003 (1)	260,292 (1)	20 (2)
Mat. North	651,969	25,286	55,866	107,916 (5)	159,597 (5)	24 (1)
Mat. South	644,281	10,968	36,612	71,531	129,726	20 (2)
Midlands	1,190,840 (3)	36,531 (3)	66,464 (4)	104,838	158,078	13 (4)
Grand	8,122,581	268,656	494,100	868,131	1,392,548	17

4.2.2 Incidence of Food Insecure Population by District

At district level, Kariba, Binga, Hwange, Rushinga, Mudzi and Chiredzi districts are expected to have the highest concentration of food insecure people relative to their respective rural populations. Between 30 and 40 percent of the rural populations in these districts will be food insecure in 2006/7. These four districts also had the highest concentration of food insecure populations in 2005/6.



The three districts with the least concentration of food insecure people are Gokwe North and Gokwe South and Makonde districts in Midlands and Mashonaland West. The maize belt stretching from north-west to north east districts of Mashonaland West and Central Provinces, Mashonaland East and Manicaland have up to 24% incidence of food insecurity. The southern half of the country has districts of Matebeland North and South as well as most of Masvingo have 25 to 30 percent incidence of food insecurity in their rural agricultural population. The unexpected outliers are Beitbridge and Matobos as well as Shurugwe with unusually low proportions of food insecure rural populations in 2006/7 in an otherwise chronically deficient southern half of the Zimbabwe. Mudzi, Gurube, Uzumba Marambaphungwe and Dande districts on the Northern region of Zimbabwe are known to be chronically deficient districts in permanent need of famine relief.

Gurube, Uzumba Marambaphungwe and Dande districts on the Northern region of Zimbabwe are known to be chronically deficient districts in permanent need of famine relief.

4.3 Characterisation of Food Insecure Rural Households for Targeted Interventions

Food insecure Households

vs.

Food Secure Households

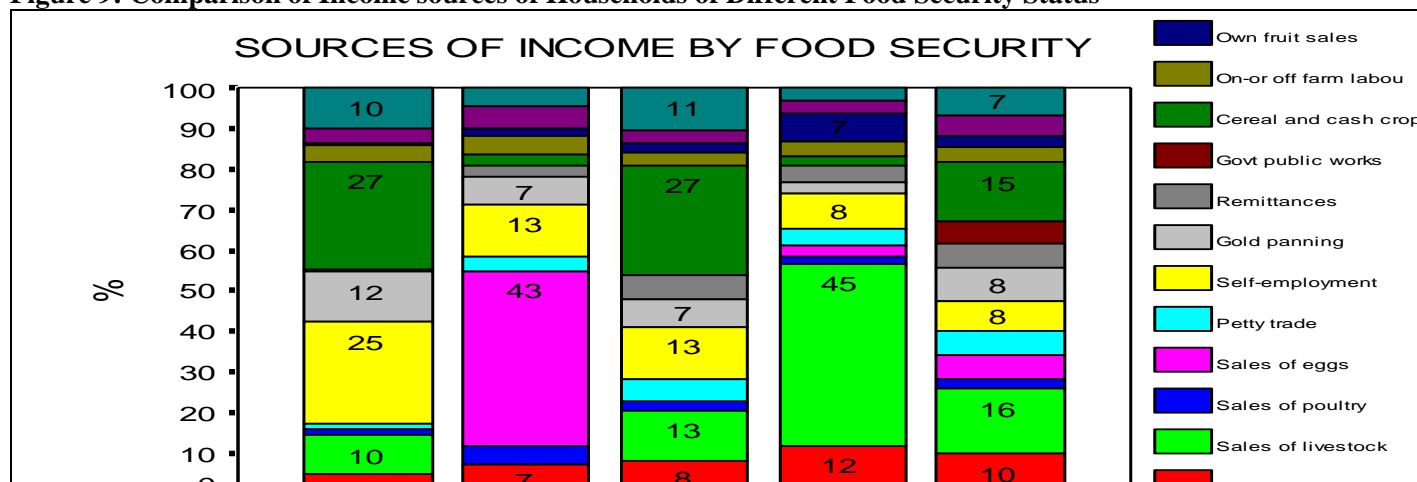
- Large families in a rural setting of limited land
 - Many orphans in the family care
 - Low educational level
 - Poor social networks of people who can assist
 - Most family members occupied in communal areas
 - Some family members are disabled
 - The head is elderly and/or widowed
 - Has one or more chronically ill member
- Small families in a rural setting of limited resources
 - Few or no orphans in their care
 - Highly educated family members
 - Rich social network of people who are able to assist
 - Family members in diverse occupations
 - No physical nor mental disabilities in the family
 - Family head is not elderly nor widowed
 - None of the family members is chronically ill

4.3.2 Economic and Livelihood Characteristic

Food Insecure rural households are generally relatively poorer in terms of ownership of social capital as well as productive livelihood capital asset. They own very little or no livestock especially cattle (also goats and sheep). Because of their limited agricultural capital asset holdings of land, financial and cattle holdings for example as well as limited social networks linking them to critical service delivery institutions, they also lack access to good agricultural land often occupying non rocky land with shallow sandy soils and access to agricultural support services. They have surplus labour which is hired by the better-off households for very little payment of cash or food supplies. Poor education and lack of marketable human capital skills combined with poor social networks renders urban employment inaccessible. Asset poverty translates to low agricultural output, poor income and chronic intergenerational food security vulnerability.

The livelihood strategies of the food insecure households differ significantly from those of food secure populations as shown in the graph below. The food insecure population have less diversified income sources and were more dependent upon local agrarian economy compared to food secure households.

Figure 9: Comparison of Income sources of Households of Different Food Security Status



income is earned through nine livelihood strategies which include informal activities, sale of fruits and livestock products as well as remittances.

In contrast, income of food insecure households is highly concentrated with top three livelihood strategies accounting for over 60% of total income realizations. These food insecure households tend to rely heavy on one or two commodity lines for their income – livestock and sale of eggs and/or sale of food grains and/or one cash crop like cotton. Thus food insecure households are much more vulnerable to market price risks especially given poor state of development of Zimbabwe’s rural agricultural markets for food grain characterized by state controls, livestock markets suffering from market fragmentation and poorly developed commodity chain. Even such cash crops as tobacco and cotton suffer from lack of competition and unbridled market power of buyers’ in setting producer prices that leave rural smallholder farmers with very little share of product profit margins to enable them to escape from poverty and food insecurity.

Despite the growing diversification of rural livelihoods with additions of mining, cottage industries, cross border trading, dryland farming remains the dominant source of livelihood in the rural areas. The Table5 below shows the household rating of importance of alternative livelihood sources.

Table 5: Rank Ordering of Livelihood Sources of Rural Families

main income activity			third income activity		
	Frequency	%		Frequency	%
Dry land farming	1459	53.7	Dry land farming	49	13.7
Irrigated farming	11	0.4	Market gardening	85	23.8
Market gardening	190	7.0	Gold panning/informal gold mining	15	4.2
Gold panning/informal gold mining	33	1.2	Petty trade	56	15.7
Petty trade	171	6.3	Formal employment	8	2.2
Formal employment	289	10.6	Informal employment	66	18.5
Informal employment	333	12.3	Other	61	17.1
Other	169	6.2	Fishing	13	3.6
Fishing	13	0.5	Formal mining	2	0.6
Formal mining	8	0.3	Other informal mining	2	0.6
Other informal mining	5	0.2	Total	357	100.0
none	36	1.3			
Total	2717	100.0			

second income activity			fourth income activity		
	Frequency	%		Frequency	%
Dry land farming	237	14.7	Dry land farming	4	16.7
Irrigated farming	18	1.1	Market gardening	6	25.0
Market gardening	429	26.7	Gold panning/informal gold mining	1	4.2
Gold panning/informal gold mining	56	3.5	Petty trade	4	16.7
Petty trade	227	14.1	Informal employment	5	20.8
Formal employment	66	4.1	Other	4	16.7
Informal employment	316	19.6	Total	24	100.0
Other	239	14.9			
Fishing	10	0.6			
Formal mining	1	0.1			
Other informal mining	1	0.1			
none	1	0.1			
Total	1616	100.0			

Despite economic decline, 27% of households surveyed still consider remittances from family members in formal employment as an important source of income and livelihood.

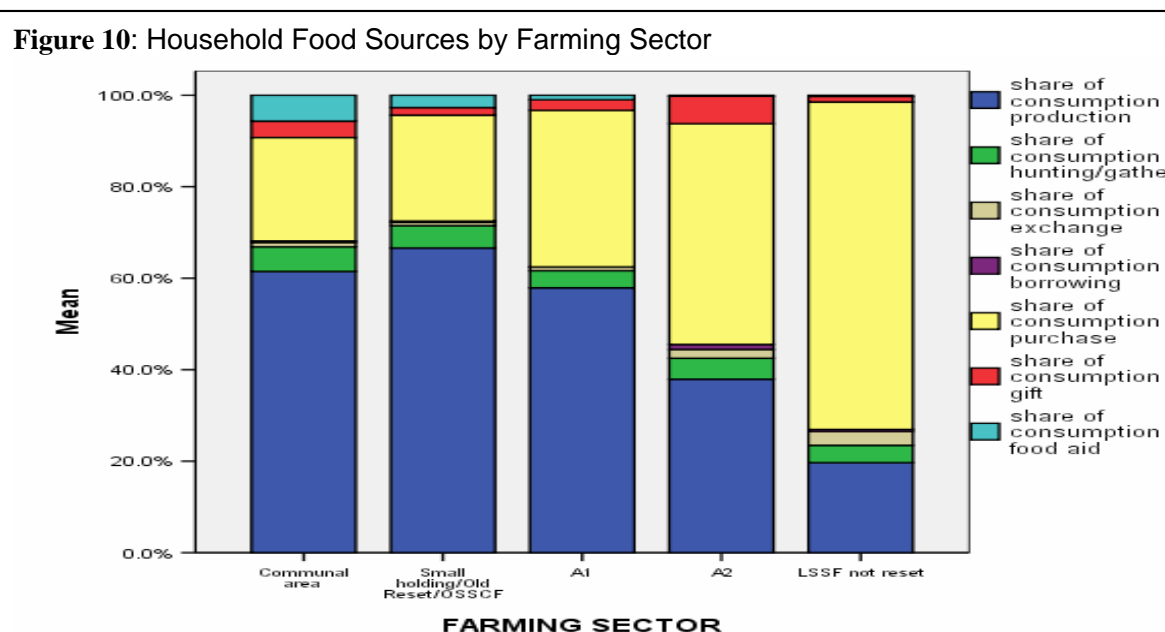
When differentiated by Province, livestock sales were the dominant sources of income in Matebeleland North (33% of income), Manicaland (28%) and Masvingo (25%) and least important in Mashonaland West (6%) and Mashonaland Central (6%). The three Southern provinces experienced widespread crop failure in 2006 due to drought and resorted to selling off part of their critically low stocks for food security compromising further prospects for recovery of their crop-based dryland agriculture. Mashonaland provinces which received almost normal rainfall need not sell any of their remaining livestock holdings as crop sales generated 23% of their income - over and above high levels of retentions of food to meet annual family needs.

Gold panning, a risky illegal informal mining activity, is now a major source of income in Mashonaland provinces, the Midlands as well as Manicaland were gold and diamonds sales now account for 19% of rural income. Despite the high risk and uncertainty of its income, gold panning offers poor rural youths the chance of striking it rich and escaping from poverty enough to persuade rural young males to abandon farming for the illegal gold fields. The impact of gold panning on food security and agricultural production at local district levels requires a separate study as it involves complex trade offs with agriculture production while stimulating local market demand for food and non food commodities.

5. Empirical Assessment of the 2006 Nutritional and Health Situation

For the rural population, nutrition and health situation is closely associated with food consumption which in turn is dependant primarily on food production of agricultural households. Consumption of nutritious food is key to sustaining good health and reducing incidence of nutrition related illnesses and mortalities in rural areas. This section assesses food consumption patterns among the rural poor, the nutritional wellbeing of the vulnerable rural population and lastly the incidence disease and mortalities among the food insecure rural population.

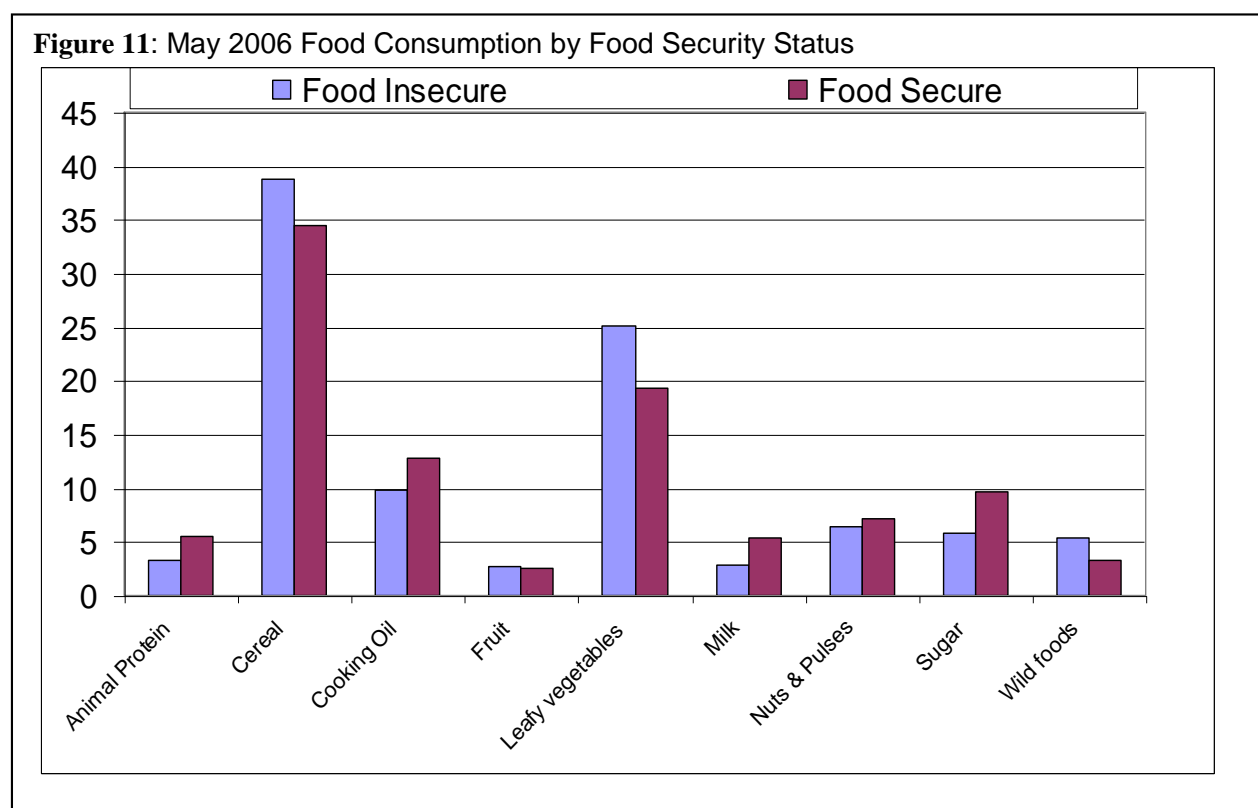
The Figure 10 below shows that on farm production



5.1 Consumption and Nutritional Profile by Household Food Security Status in 2006

5.1.1 Consumption Pattern by Food Security Status

Food secure rural populations tend to consume relatively more protein (meats, milk and nuts), fats (vegetable oils) and refined sugar but less starchy food stuffs and vegetables than their poorer food insecure populations. Both rural sub populations consume very little fruits and thus run the risk of vitamin and micronutrient deficiencies. Given the dangers of cholesterol and obesity, the rural households unlikely to endure hunger due to adequate staple food stocks might suffer from suboptimal nutrition due to poor nutrition education. There is a need to educate the rich and the poor alike about consuming affordable balanced diets that include all food groups in their annual intakes.



By the time of the survey in July, food insecure households were already engaging in negative coping strategies with 79.5% of them having reduced the number of meals eaten per day from three to two and even one solid meal a day. At the same time in 2005, only 62% of rural families reported reducing number meals to below three in a day. With reduced humanitarian activities in the rural areas, local availability of maize/maize meal has worsened. To alleviate their hunger, 53% of food insecure households indicated that they were engaged in casual labour in exchange for food rather than cash. Indeed 9% of the population which is acutely food insecure reported that they have engaged in begging for food which is the most undignified coping strategy of last resort.

5.1.2 Nutritional Status of the Vulnerable Rural Population and Health Implications

commonly characterised by inadequate dietary intake, it can also be the result of the body's inability to absorb nutrients, regardless of the amount of food consumed. Thus nutritional status of pregnant and lactating mothers as well as of under age children is commonly recognized as having three underlying causes: food security, care practices (e.g. maternal breast feeding practices and introduction of safe complementary weaning foods) and adequate access to health care and access to safe environment.

(a) Nutritional Situation of Under age Children from Food Secure and Food Insecure Families

The nutritional status of children is measured using three international yardsticks – weight-for height measure of underweight, height for age measure of stunting, and weight for age measure of wasting – for which WHO standards are internationally recognized. Table 6 below summarizes the findings from 2006 ZIMVAC Nutritional Survey by Province, Type of Farming Settlement and by Age Group and Gender of children under five years of age. The analysis shows that by international standards, Zimbabwe has a chronic problem of stunting of children under the age of five years. This problem is most pronounced in Matebeleland and Manicaland followed by Mashonaland East and Mashonaland Central Provinces with Matebeleland North registering the lowest incidence of stunting.

Table 6: Nutrition Indicators by Province, Farming Sector and Demography

Characteristic	Underweight w/a<-2s.d.'s (MDG monitoring)	Stunting h/a<-2s.d.'s (chronic)	Wasting w/h<-2s.d.'s (acute)
<i>WHO Cut-off points</i>	<i>high if > 20%</i>	<i>high if > 30%</i>	<i>high if > 10%</i>
<i>National Cut-off Points</i>	<i>same</i>	<i>same</i>	<i>high if > 7%</i>
	% (head count)	% (head count)	% (head count)
Province			
Manicaland	19.6 (84)	34.8 (148)	4.2 (18)
Mashonaland Central	15.0 (74)	31.2 (153)	2.9 (14)
Mashonaland East	15.6 (45)	31.0 (89)	3.1 (9)
Mashonaland West	19.8 (58)	28.3 (82)	4.2 (12)
Matabeleland North	14.9 (109)	24.6 (179)	4.1 (30)
Matabeleland South	18.9 (56)	37.1 (106)	3.5 (10)
Midlands	12.2 (42)	30.2 (104)	0.6 (2)
Masvingo	13.9 (51)	31.2 (114)	2.8 (10)
TOTAL	16.0 (519)	30.3 (975)	3.3 (105)
Farming Sector			
Communal	15.4 (371)	29.7 (710)	3.5 (83)
Old smallholder resettlement Areas	16.7 (46)	34.6 (94)	2.6 (7)
A1	19.0 (39)	28.7 (58)	2.5 (5)
A2	17.3 (44)	31.6 (80)	3.6 (9)
LSCF not resettled	20.0 (19)	34.7 (33)	1.1 (1)
Age Category (most)			
0-2 years	16.2 (52)	30.2 (107)	3.2 (10)
3-5 years	15.8 (47)	30.4 (104)	3.4 (10)

age, children between age of 12 to 23 months are clinically stunted and underweight. Male children are being more vulnerable than female children to nutritional deficiencies.

Figure 12a -d: Nutrition and Health of Children 6 – 59 months, Zimbabwe 2006.

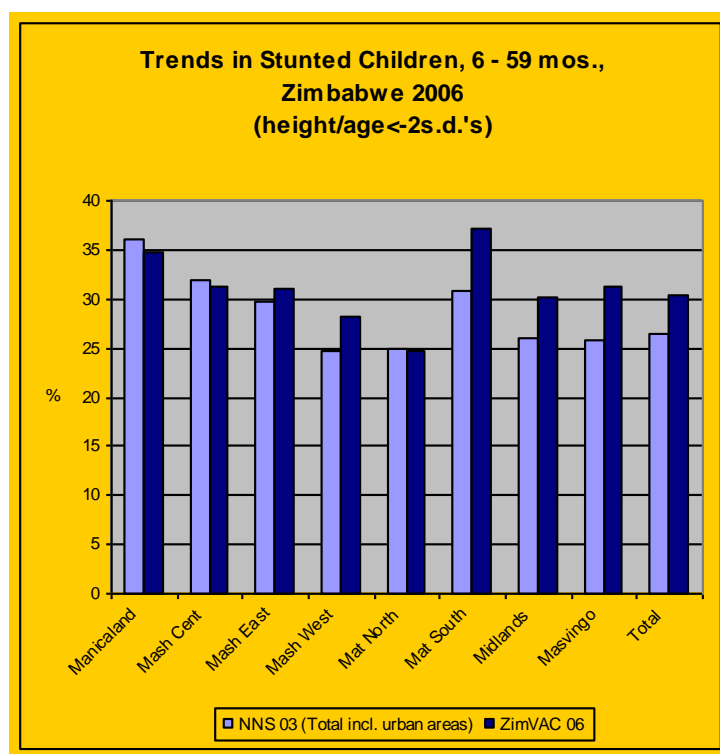
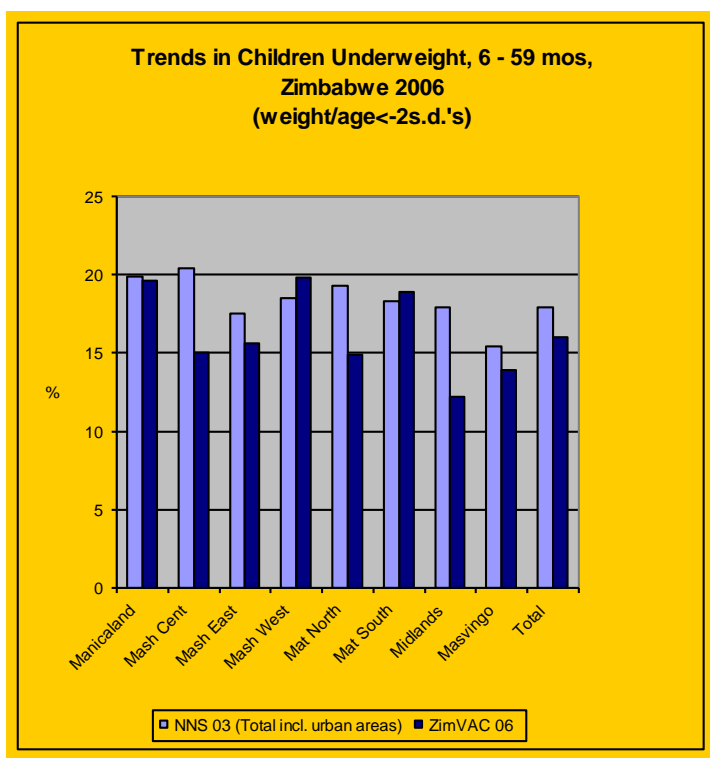
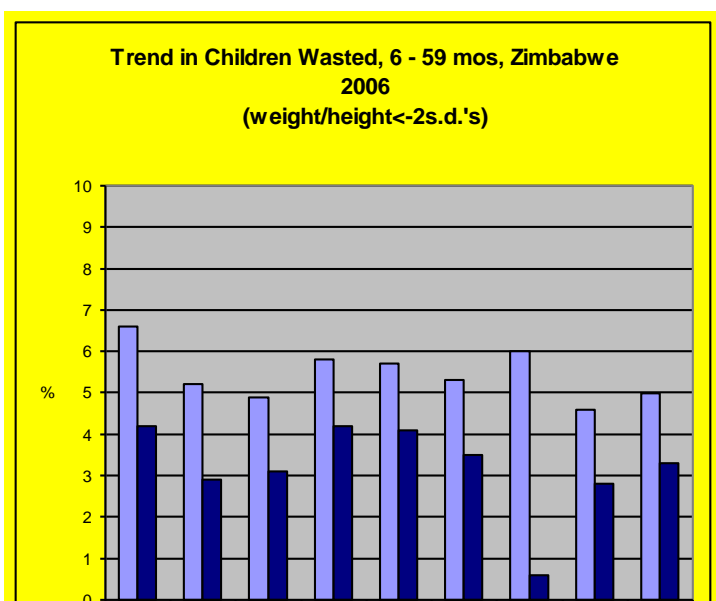


Fig 5.3 (a): Concentration of Underweight Children by Provinces

Fig 5.3(b): Concentration of Stunted Children by Province:

Fig5.3(c): Concentration of Wasting in Children by Province

Fig 5.3(d): Correlation Between Nutrition & Food Security



Food security status	Underweight	Wasting	Stunting
Food secure	15.3 (397)	3.5 (90)	29.5 (759)
Not Food secure	18.0 (102)	2.5 (14)	33.3 (188)
<i>Difference between (p value)</i>	2.7 (p=.113)	1.0 (p is ns)	3.8 (p=.078)
Very insecure (>50% deficit)	21.9 (51)	3.4 (8)	36.4 (89)
Somewhat insecure	16.8 (71)	1.7 (7)	31.7 (133)
	15.3 (397)	3.5 (90)	29.5 (759)
	* Underweight, wasting and stunting		

the country. The Figures 12a-d above reveal that there has been a modest decline in the total national ratio of underweight children, a modest increase in aggregate incidence of stunting children and significant reduction in incidence of wasting in the aggregate as well as across all provinces of Zimbabwe. Stunting has decreased or remained constant in the Manicaland, Mashonaland Central and Matebeleland North and increased in the rest of the provinces including Mashonaland West which is one of the most food secure provinces. Mashonaland West also has experienced a growth in underweight children between 2003 and 2006. These figures show that food availability is necessary but not sufficient determinant of nutritional health of children.

Simple correlation analysis to assess the relationship between food security status of household and the nutritional health of children under five shows that stunting in children is statistically significantly correlated with 2006 food security status of households at 7%. Incident of underweight children is only statistically significant at 11%. These results at best reflect a weak link between current food security and nutritional wellbeing which is not surprising as nutritional health of children under five years depends not only on food security situation in the current year but also in the past four years. Other factors such as mother to baby factors such as birth weight and post birth care among other environmental health factors such as access to clean water, sanitation and timely paediatric care including inoculations against seven deadly diseases infant health care are equally important. Much more sophisticated regression analysis would be required to test the linkages between nutritional health and food security controlling for all other factors.

(b) Nutritional Health of Women, Orphans and Vulnerable Children

Of the total number of women assessed from the all provinces, 4.6% were underweight and 4% were obese. Fig13 below shows the distribution of nutritional status of women by Province. Obesity is a risk factor for cardiovascular diseases and being underweight predisposes individuals to increased morbidity and mortality. The results show that nine out of ten women of child bearing age have normal body mass index which is precondition for good health.

As for children between the age of 8 and 18 years, the **prevalence of Orphans and Vulnerable Children (OVCs) in rural areas is 42% in 2006 up from 37% in ZimVAC 2005.** The combined OVC total is comprised of orphans making up 25% of the total and vulnerable children also accounting for 25% of the total. The 2006 ZIMVAC survey confirms 2005 finding that 25% of children are orphaned with 15% having lost their fathers while 7% are double orphans who have lost both father and mother. The greatest incidence of OVCs is in the Provinces of Matebeleland North and South, Mashonaland East and Masvingo which are tied with 45% of children falling in this category. The same provinces have the greatest concentration of prolonged food insecurity.

Orphaned and Vulnerable children run the risk of food insecurity due to poverty of their host households. But their greatest threat to livelihood is a combination of poor access to health care and education. While a number of safety net programs have been designed to target OVCs, many of these at risk children are falling between the cracks due to budgetary limitations. The third graph below show that only 21% of orphans presently receive any assistance with 14% accessing BEAM for their Schooling.

Figure 13a-d: Nutritional and Health Status of Women and Vulnerable Children

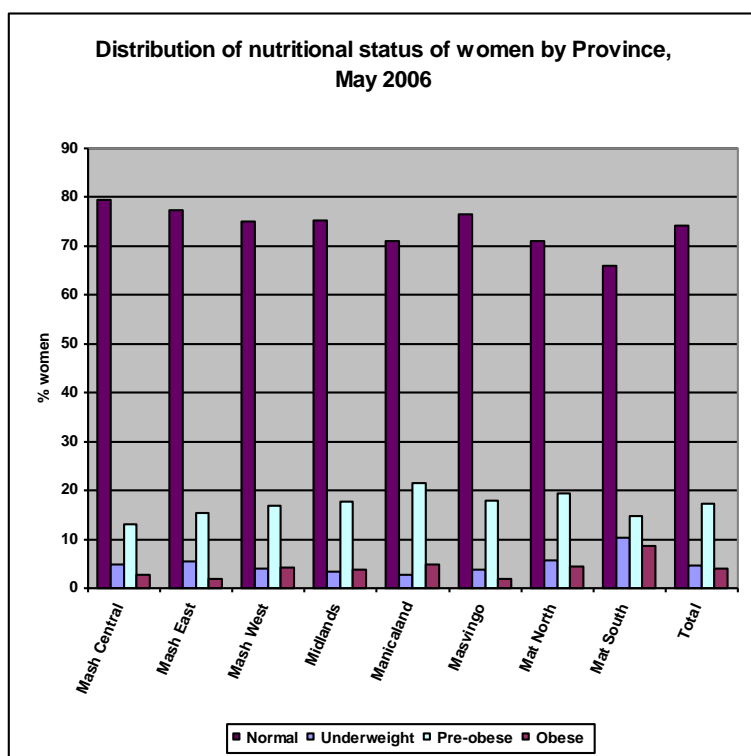


Fig5.3 (a)

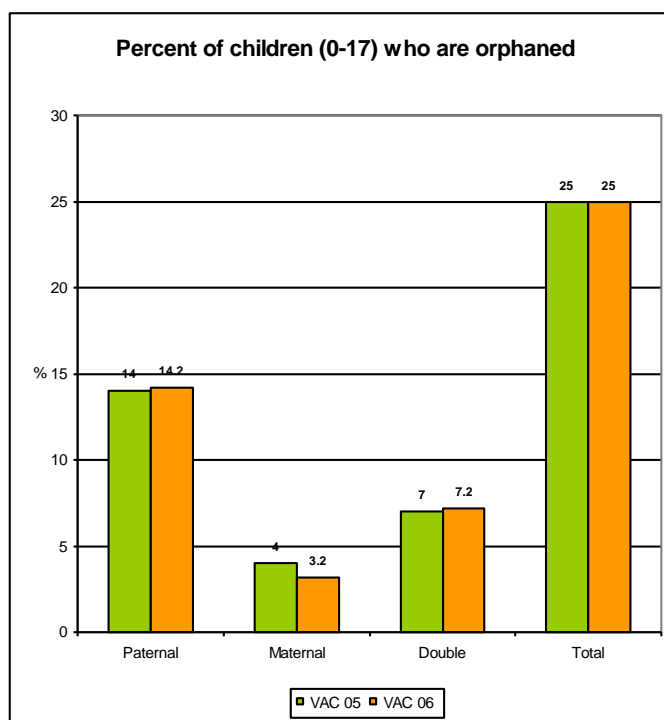


Fig 5.3(b)

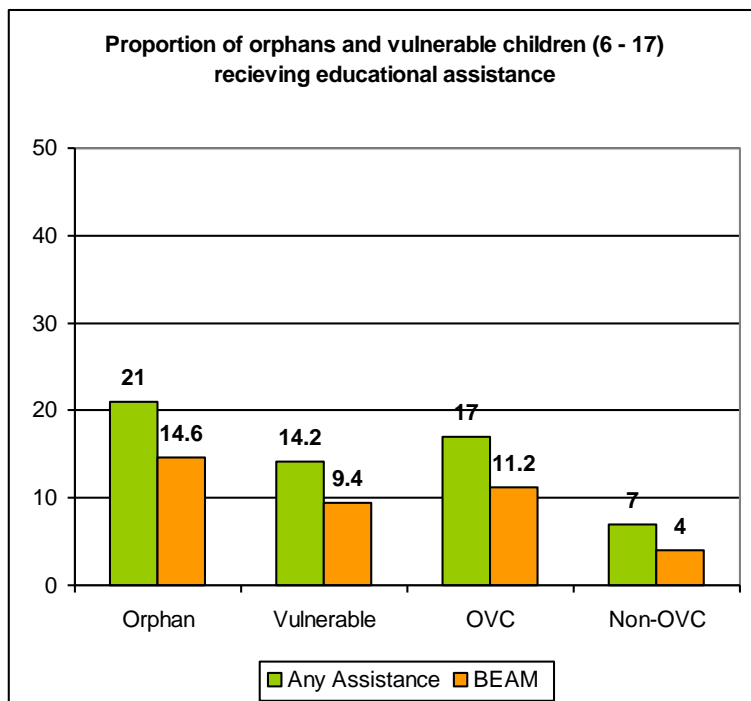


Fig 5.3(c)

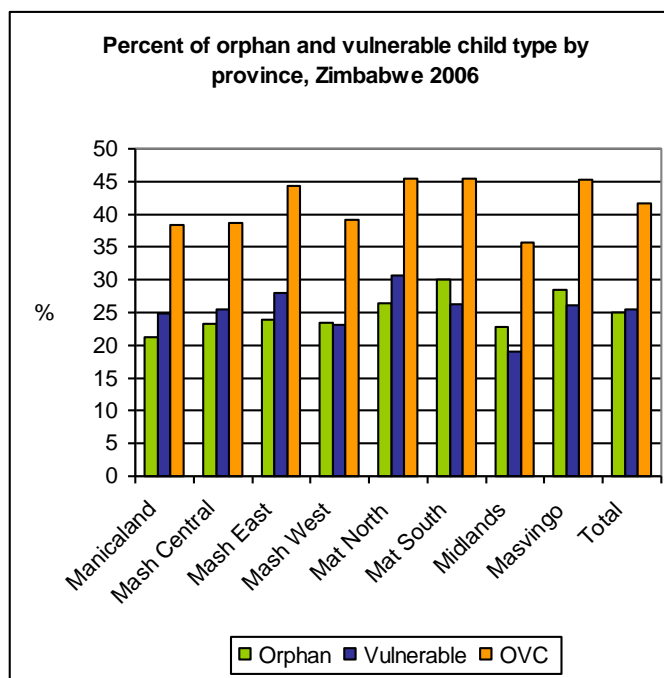


Fig 5.3(d)

5.2 Sanitation and Incidence of Diseases and Deaths

5.2.1 Access to Clean Water and Sanitation by Province

Clean water and good sanitation are key complements to good nutrition in achieving good health in children and adults alike. About 23% of the rural population lack access to safe clean water and is therefore vulnerable to waterborne diseases. Figure 14 (a) & (b). At 65% of rural households have access to clean and safe water, the Province of Mashonaland West has the highest proportion of its population drinking unsafe water followed by Matebeland North and South Provinces at 70% access to safe water. Manicaland has the highest access to safe clean water at 80%. As already noted, these provinces have the highest incidence of food insecurity and somewhat higher levels of nutritional security.

Figure 14: Access to Clean Water at (a) Province and Nationally (b)

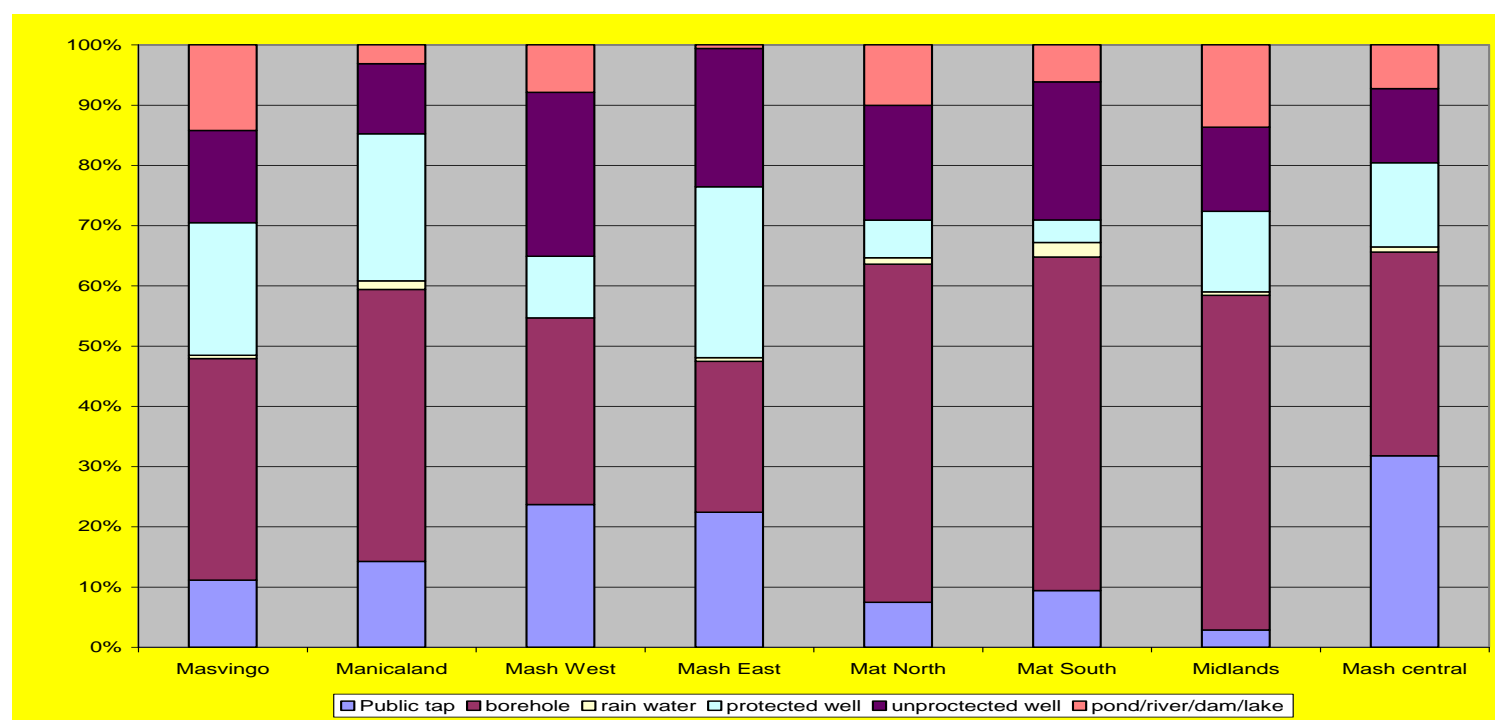
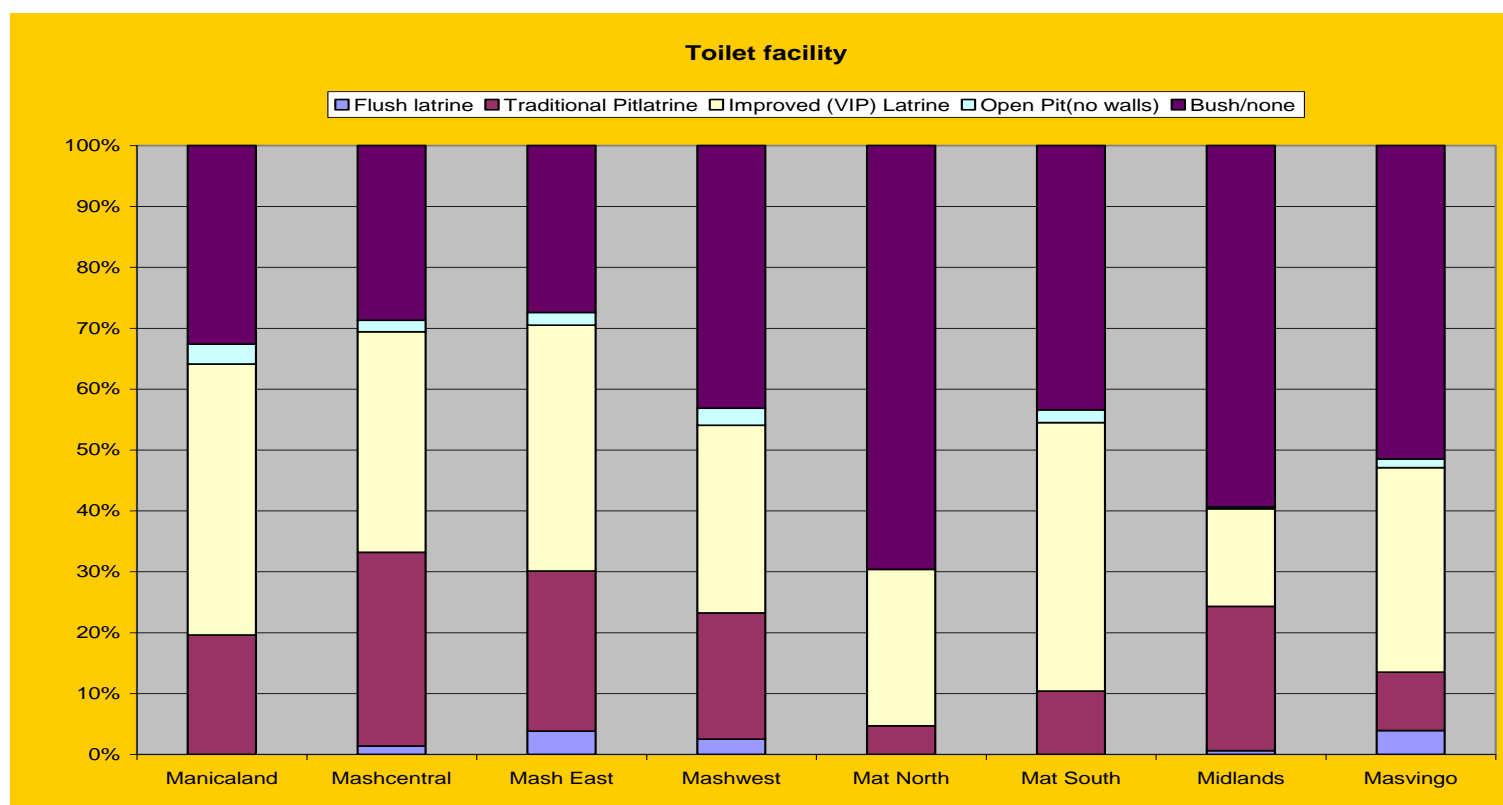


Fig14

Source of Data: ZIMVAC 2006

In terms of sanitation development and access, most rural population still lack recommended improved Blair toilets and rely on bush and traditional pit latrines less effective in controlling the spread of diseases. Poor sanitation is associated with incidence of lethal diseases such as cholera, dysentery responsible for increasing infant mortality and morbidity in children and adults. 64% of the rural population still use bush toilets and unimproved pit latrines with only 36% using improved Blair toilets. Matebeleland North has the worst record with 70% of the rural population using traditional sanitation. Midland and Masvingo also lag behind with less than 50% of rural households using modern recommended sanitation facilities. Figure 5. The provinces with greatest access to good sanitation is Mashonaland East and Mashonaland Central where

Figure 15: Utilization of Different Sanitations in Different Rural Areas



Source of Data: ZIMVAC 2006

5.2.2 Incidence of Chronic Illness and Mortalities by Food Security Situation

Households were asked whether they had had a chronically ill member in the family during the past twelve months. Chronic illness is defined as an illness, which renders a person unable to undertake normal activities for at least 3 months over the past 12 months. Of the respondent rural households, 23% indicated that they had had at least one chronically ill family member. While chronic illness is often used as a proxy for HIV and AIDS, only 4% of respondents declared that their chronically ill member suffers from HIV and AIDS. Most of the responses mentioned HIV and AIDS related diseases like tuberculosis (19%), meningitis (2%) pneumonia (6%) and diarrhea (6%) as the chronic illness. Another 15% mentioned such ailments as headaches (6.5%), and malaria (9%) not directly related to HIV and AIDS as the chronic illness.

In terms of age composition, most of the chronically ill members were between 18 – 59 years of age. (Fig 16a). This is the most economically active age group. Thus their ill health situation levies a double burden to rural households of reducing the size of family labor that could contribute to their income and food production activities while adding new expenditure demand on the households' limited labor and budgetary resources. The income and food security implications of a family member becoming chronically ill are sometimes significant but could be negligible. It is negligible when the ill member was never actively contributing labor nor income towards the rural family's farming and livelihood and in turn family members spending little or nothing on their ill members.

Figure 16: Access to Health Care and Incidence of Chronic Diseases and Mortality by Age and Province

Fig 5.6(a): Access to Medical Care

Reason for not seeking medical treatment	%
No money to pay for treatment	44.1
No transport and clinic too far to get there	16.7%
Religious or cultural reasons	30.4%
Poor quality of service at the hospital	2.2%
Other	6.9%
Total	100%

Fig 5.6 (b): Incidence of Chronic Illness in Rural Population

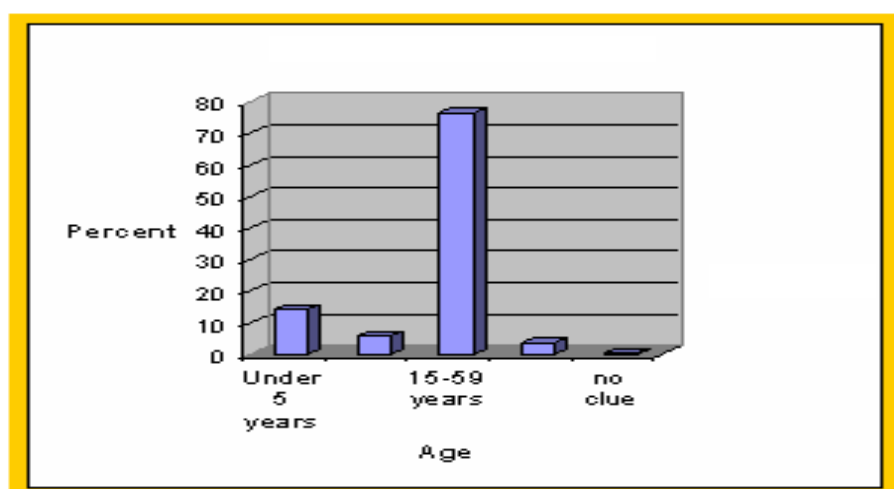
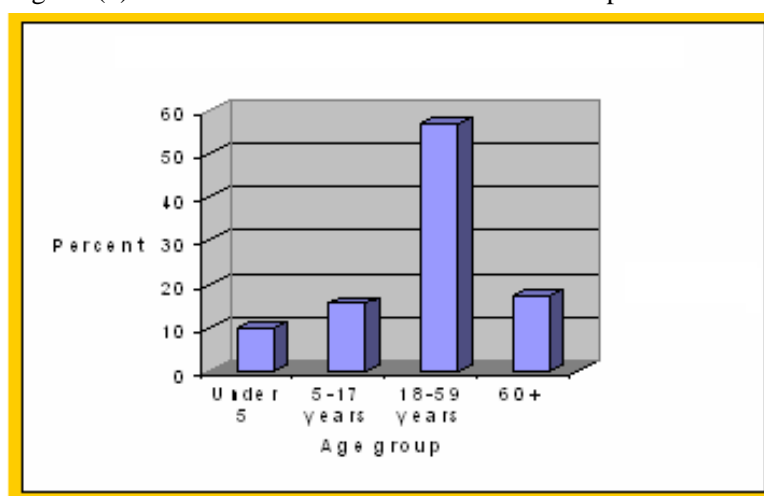


Fig 5.6(c): Rural Mortality by Age Groups

Source of Data: ZIMVAC 2006 Survey

Due to poverty, most households provide very little healthcare to their chronically ill. Most households provide only psycho-social support to their sick with minimal disruption of their agricultural and livelihood

family farm, some family members resort to spending most of the surplus labour time at the rural growth points from which they might have contracted the deadly virus.

6. Rural People’s Perspectives on Food Security Challenges and Strategies

6.1 Agricultural Challenges facing Food Secure and Food Insecure Rural Populations

Agriculture continues to be the main source of livelihood for the majority of households in the rural areas. A multiple response analysis of households’ main sources of income revealed that 65 percent of the households derived most of their income from dry land crop production while a further 27% relied on market gardening. Despite a good rainfall season, production was sub optimal due to a number of market and institutional challenges. Figure 6a and 6b summarizes the major crop production and livestock related challenges constraining rural population. These challenges are especially binding constraints on the rural poor who lack social capital to access critical resources when in short supply.

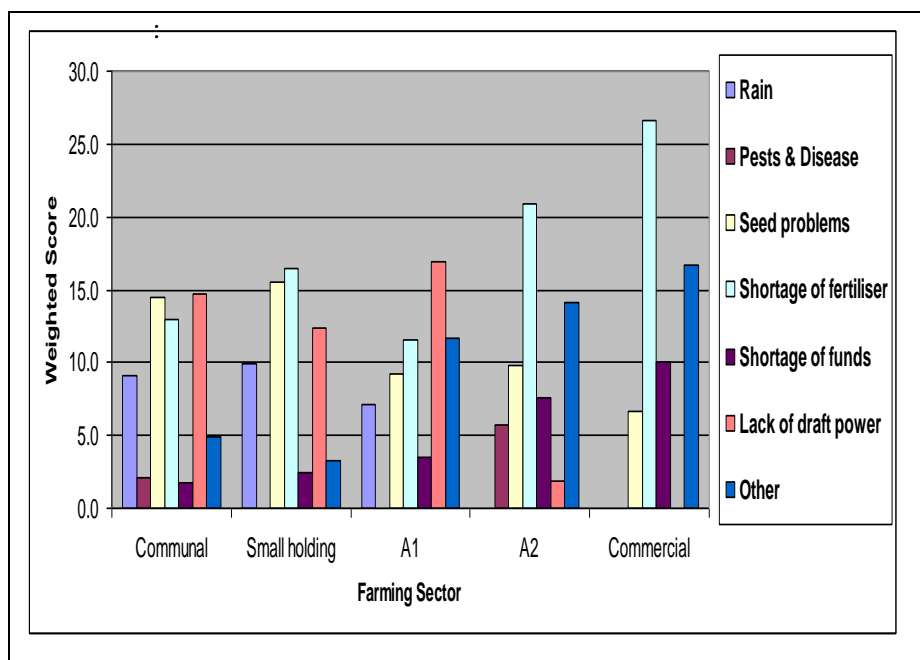
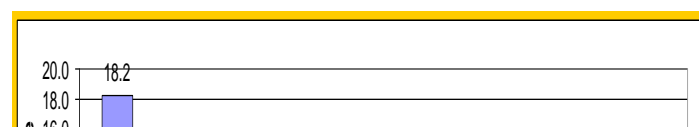


Figure 17: Crop Related Problems across Farming Sector

drought induced liquidation of livestock to acquire food and pay for basic essentials including children’s education and health care for the sick in face of almost five years of poor harvests. Beside the drought, poor herd recovery policies and lack of enabling service delivery institutional imperatives for promoting herd growth among the poor are driving the livestock crisis especially in communal areas.

Figure 18: Key Challenges Facing Livestock Production



Livestock problems highlighted as most severe is lack of veterinary and dipping services in the communal areas which has seen widespread disease outbreaks

Assessment of crop production challenges reveal that communal and smallholder resettled farmers faced a severe shortage of seeds, fertilizer and draft power. While draft power was the primary constraint felt by most of the communal farming populations, fertilizer shortages and other constraints especially fuel and prices were most acutely felt in the commercial farming sector.

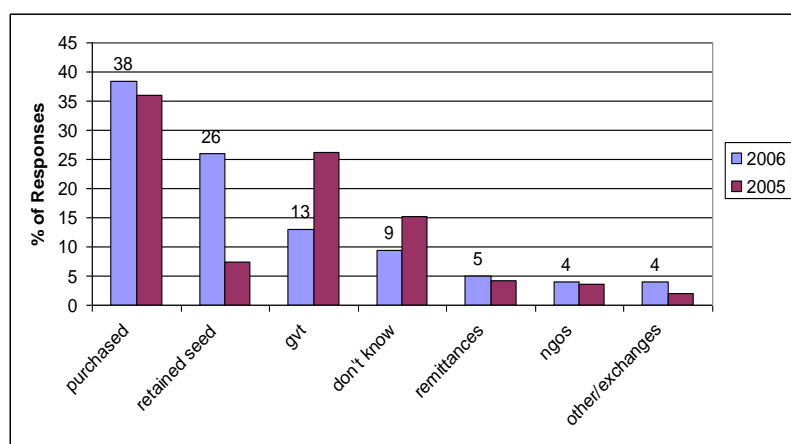
The rural agricultural sector is facing a severe livestock constraint to crop production the majority of the rural population now lack access to adequate cattle for draft power and let along for herd growth reducing intake of milk and animal proteins even further. Driving the cattle and livestock constraints is the

diseases from lack of regular dipping. These problems underscore the need for an efficient support system to communities in order to save their livestock. Communal farmers also mentioned the perennial problem of shortage of grazing and water resources for their cattle as a serious problem confirming once again that the 2002 fast tracked land reform program did not entirely decongest the communal farming and grazing area nor improve access to water for people and their livestock

Poor access to improved high yielding maize varieties appropriate for the rainfall gradient of the varied agro ecological regions and income gradient of the rural populations is mentioned as one of the major challenges driving poor agricultural performance in communal areas. Since the 1996, yields of major food crops especially maize have been declining precipitously in the communal farming areas. Maize seed market has been adversely affected by land reform program which reduced number of certified seed producers. Reduced productivity and increased unit production costs from those newly resettled irrigation farmers

entering the seed production sector has also further increased cost of seed on the market. From an institutional perspective, government control of seed prices and distribution system has created serious bottlenecks and inefficiencies that have sidelined the rural poor communal farmers as government agencies give priority to newly resettled commercial farmers. These uncertainties in seed and fertilizer market supply chain combined with poor producer policy prices for staple grains might have rendered hybrid seed inaccessible,

Figure 19 : Future Sources of Seeds 2006/07 compared 2005/06

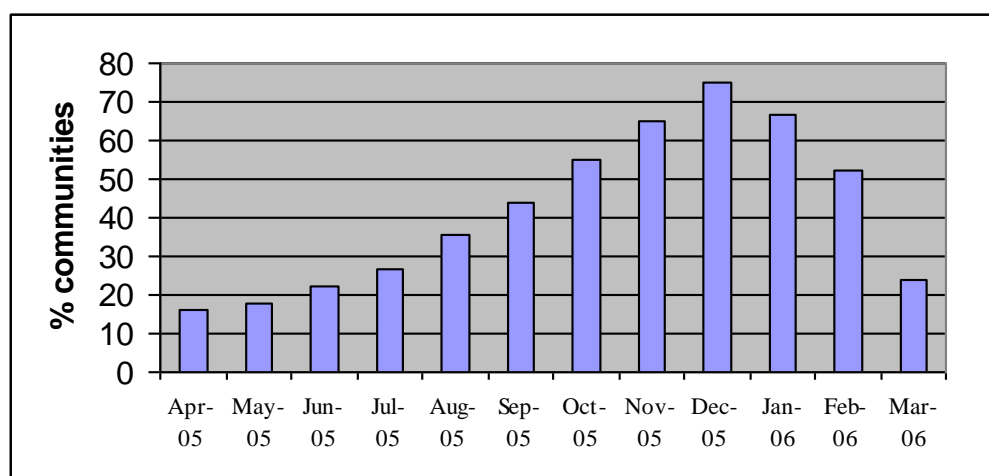


unaffordable and perhaps nonviable for the resource poor, food insecure communal farmers. Only 38 percent of the communal farmers plan to purchase hybrid maize seed for the 2006/07 cropping season, slightly up from 36 percent in 2005. The majority shall rely on retained seed which yield less than one ton per hectare - unless they receive donations of improved hybrid seed from either government or humanitarian sources. Only 13% expect to receive seed and fertilizers support from government down from 26% in 2005 and a further 4% expect to receive input support from NGOs. Despite these input access challenges, rural farmers are expecting to increase acreage under staple cereals in 2006/7 in a bid to improve their food security.

6.2 Challenges in Accessing Food Commodities from the Domestic Food Market

Rural populations reported that most staple food grains and pulses were not readily available from the local markets. Mbaize grain, maize meal and sugar were not readily available during the period January to April 2006. However commodities such as vegetables, salt, and cooking oils were reported to be readily available on the markets. The absence of staple food from the market demonstrate a failure of food aid programs to address in a balanced manner the real problems driving food insecurity in the rural areas – namely availability versus affordability. The assumption that almost all families that are at risk of famine require free food aid while those who do not qualify for free aid should be able to buy from the market is consistently contradicted by empirical evidence such as this one highlighting the critical role of food market

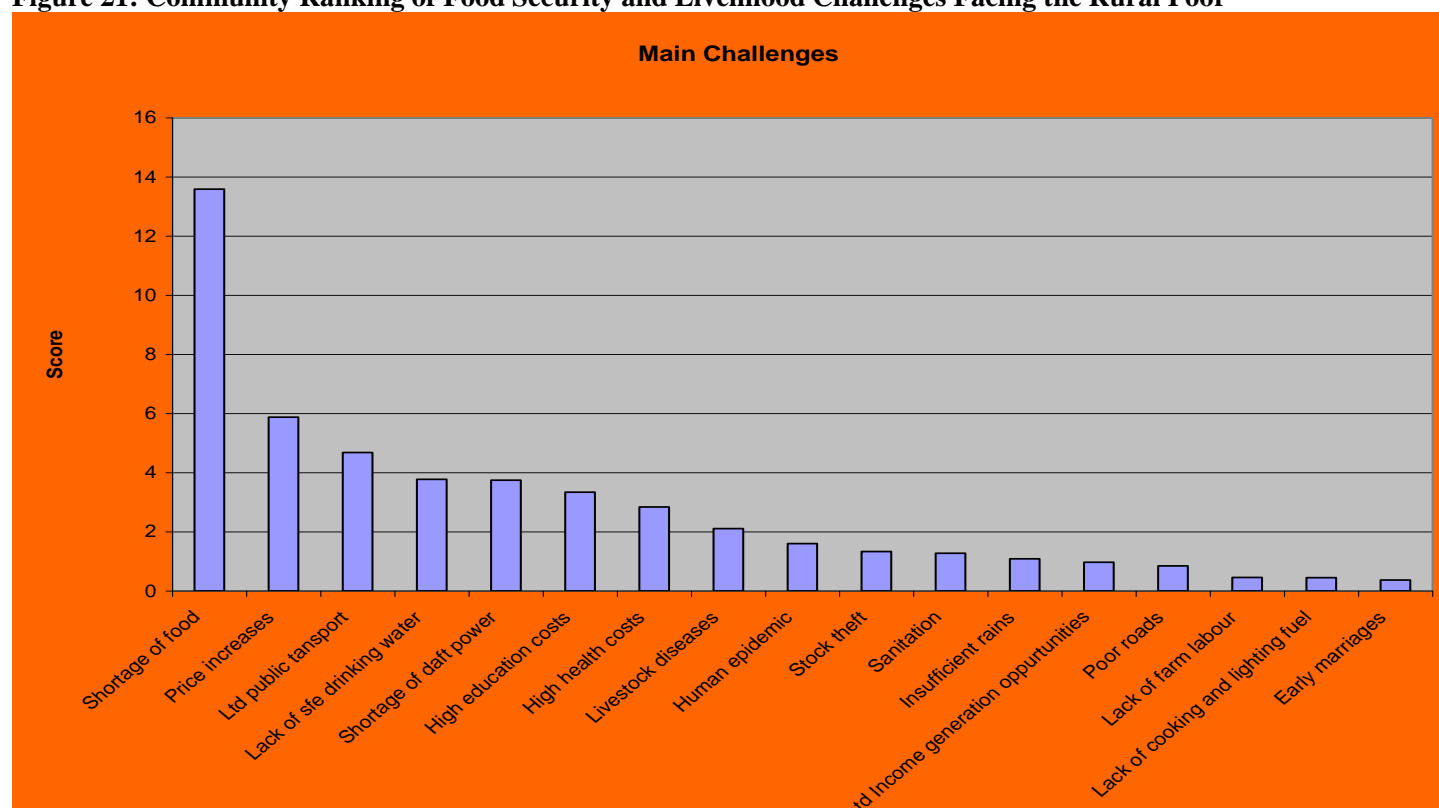
Figure 20: Percent of Communities reporting market shortage of maize



It also questions the efficacy of state controlled Grain Marketing Board in executing its expanded mandate of ensuring efficient and equitable distribution of food to all communities.

When examined in the global context of challenges facing poor rural agricultural communities, food shortages remain the most pressing according to results of the 2006 survey. Figure 6e below shows the relative weight of the problem of food shortages relative to other pressing challenges facing rural population.

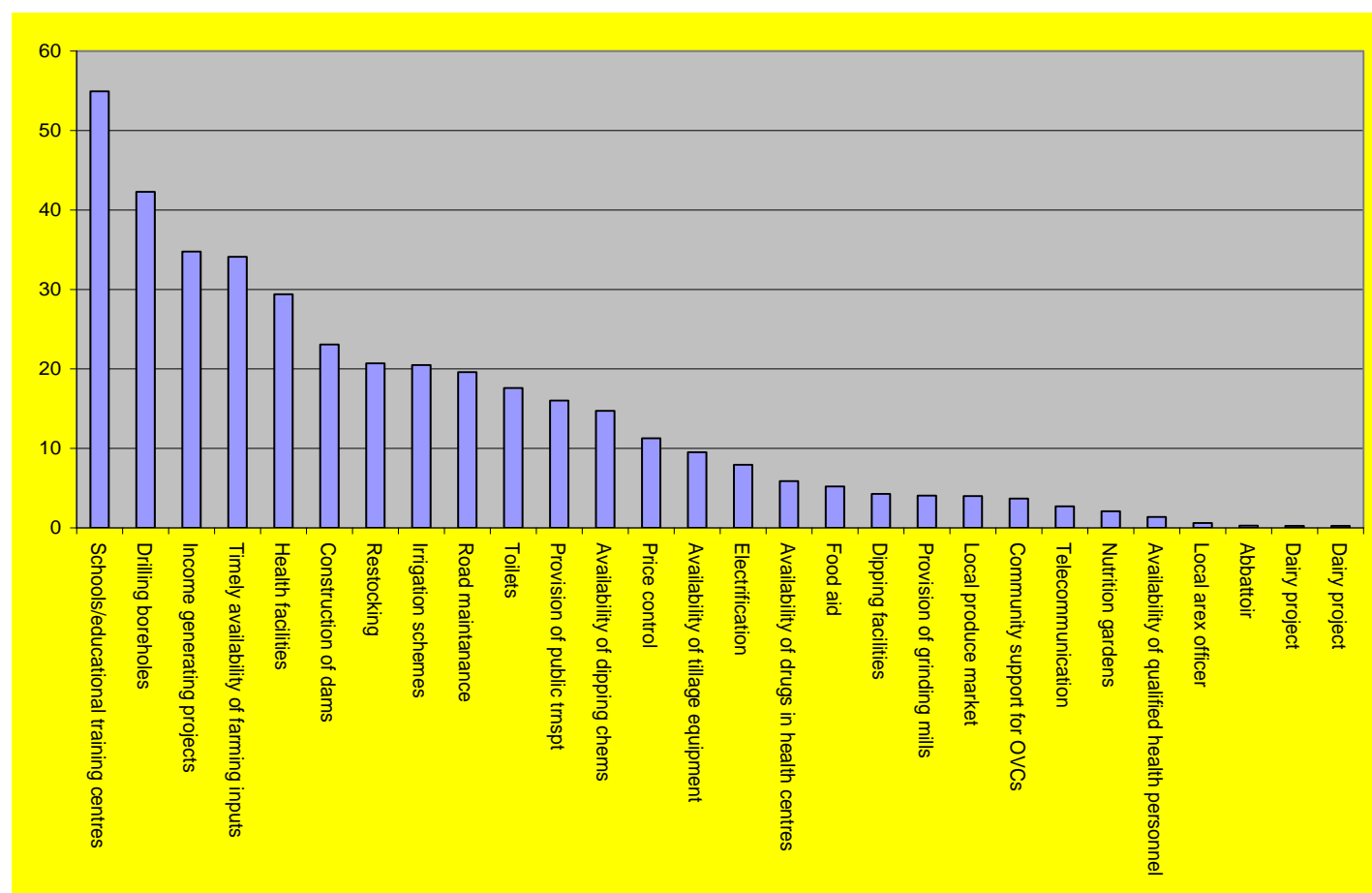
Figure 21: Community Ranking of Food Security and Livelihood Challenges Facing the Rural Poor



6.3 Development Priorities for Improving Food Security and Rural Livelihoods

When asked to identify development priorities for improving food security and rural livelihoods, rural communities surprising identified human capital development infrastructure - schooling and training facilities as their number one priorities followed by water security infrastructure – drilling of boreholes to ensure clean drinking water and expand market gardening through micro irrigation projects. Indeed the top ten development priorities for improving food security and rural livelihoods are all targeting infrastructure and institutional development. For a community ravaged with HIV and AIDS as well as five years of famine, social protection programs based on donations such as food aid, nutrition gardens and even support of HIV/AIDS orphans and vulnerable children surprising rank very lowly. These results indicate a surprising focus on long term food security and development by poor and food insecure communities somewhat contradicting populist assertions that the poor, food insecure rural population is myopically focused on food handouts and less interested in development. Despite prolonged food aid handouts over the past five years, the rural population does not seem to have shifted from their long term interest in ensuring self reliance as their primary long term food security and livelihood improvement strategy.

Figure 22: Community Priorities for Improving Food and Livelihood Security



resonates with the priority needs of the specific target groups among the rural poor and vulnerable communities.

7. Conclusions and Policy Recommendations

This section briefly summarizes the key findings from ZIMVAC Report of 2006 assessment study and distillates some policy insights for food security policy makers in government. Zimbabwe's food security situation has become increasingly complex due to overlay of social, political and economic policy factors. To remain relevant to policy makers and humanitarian planners and to remain an objective source of information on Zimbabwe's dynamic food security vulnerability situation, ZIMVAC 2006 study implemented a new comprehensive vulnerability assessment framework.

This report has broadened the scope of food security vulnerability assessment to include domestic food security implications of macroeconomic imbalance. It also represents a deepening of rural food security assessment by incorporating household nutritional health and livelihood promoting development priorities much more explicitly if not more comprehensively than in previous studies. While there is scope for further analytical improvements in future reports, ZIMVAC 2006 report's broader coverage of food security issues will appeal to traditional clientele in the humanitarian relief community as well as to food security monitors and policy makers in government, the relevant parliamentary portfolio committees and to international development assistance agencies.

7.1 Summary of Key Findings

7.1.1 Rural Food Insecurity Persists - Despite Good Rains Received in 2005/6 Farming Season

The rural vulnerability assessment study showed that, despite good rains received over the maize belt region of northern Zimbabwe, aggregate domestic food production levels fell short of national food self sufficiency needs and left many rural population vulnerable to food insecurity. In spite of concerted investments in agricultural and food security recovery programs Zimbabwe faces an annual shortfall of 600,000 tons of staple grains and up to 1.4million rural people face the risk of food insecurity and hunger unless government secures adequate supplies of food aid for famine relief through commercial imports and donations from the international donor community. Since the 2006 farming season was severely constrained by shortages of essential agricultural good inputs especially draft power, fuel, seed, and fertilizers, the domestic food security shortfall was widely anticipated and forecasted three months before harvest. As in 2005/6, continued shortfalls in domestic import supplies of food grains in 2006 is likely to further drive food prices up on the parallel markets while purchasing power of wage earnings and agricultural sales receipts is eroded by projected growth in inflation towards 2000% by April 2007.

7.1.2. Worsening macroeconomic situation aggravating rural vulnerability to food insecurity

Zimbabwe's continued macroeconomic deterioration is fast emerging as a critical policy determinant of domestic agricultural and economic performance as well as household food security recovery. Macroeconomic factors - hyperinflation, foreign currency squeeze, unemployment, falling real wages and

On the demand side, macroeconomic policy failures in Zimbabwe have reduced purchasing power of rural earnings. Macroeconomic instability created the hyperinflationary risks and uncertainties about employment and market prices and has worsened prospects for the food deficit rural populations affording a calorie adequate diet in 2006/7 planning year.

(b) Worsened Foreign Currency Shortages Diminish Prospects for Increased Commercial Food Imports: Inadequate commercial imports of staple food grains by government facing severe shortages of foreign currency coupled with poor international humanitarian response to Zimbabwe's request for famine relief - partly due to negative publicity of Government social policies - have combined to destabilize local food markets and escalate the risk of food insecurity in Zimbabwe's rural and urban populations. Erratic food supply into formal state controlled rural and urban food marketing channels is partly responsible for pushing food prices on the domestic parallel markets above expected import parity consumer prices. Thus macroeconomic instability experienced countrywide and unfavourable weather conditions in a few drought prone provinces account for greater than expected food deficit and larger than expected rural population that remains vulnerable to food insecurity.

7.1.3 Distribution of Food Insecure Rural Population

The distribution of the food insecure rural population over the past four seasons reveals consistent pattern across Geographic Districts and Social Clusters. The incidence of food insecurity measured in terms of cereal gap remains consistently high especially in the southern parts of the country. On examination of the trend in food insecurity over the past five seasons, the report reveals that there are some districts (and indeed some households) that have consistently remained food insecure and others, albeit in the minority that have remained food secure while many have vacillated from marginal food insecurity to marginal food security. The trend ZIMVAC reports over the past five season shows consistent food security vulnerability situation at household and district levels. This indicative of underlining systemic causes of food insecurity transcending year-on-year variability of seasonal climatic factors.

(a) Social Clusters and Districts of Chronic Food Insecurity: Among the rural populations repeatedly surveyed, there is some consistency in the typology of rural families that have been repeatedly food insecure. These families are widowed or headed by an elderly, have one adult disabled or chronically ill, are big in size relative to average family and are caring for more than the average number of orphans per rural family. In terms of livelihoods, the chronically food insecure families are acutely resource poor especially lacking in their holdings of arable land, livestock, education and social capital. Thus redressing their food insecurity shall require more concerted development-oriented assistance than unpredictable deliveries of food aid for social protection and temporary injection of farm inputs for agricultural recovery.

(b) Geographic Concentration of Food Secure versus Food Insecure Rural Populations: The agricultural province of Matebeleland South, Masvingo and Matebeleland North and Mashonaland East were ranked the most food deficit provinces in 2006/7. Of these provinces, the first three provinces have been consistently ranked most food insecure over the past four years. Mashonaland East is a surprising addition to this list as it is one high potential province with good infrastructure but could have suffered from severe shortage of draft power and inputs in 2007. The most consistently food secure province is Mashonaland West and Mashonaland Central which form the core of the maize and cereal food belt of

April/May/June 2006, the number of needy families is projected conservatively to grow to 1.4 million during the January/February March 2007 quarter. Like in 2005/6, failure to procure adequate famine relief for these families may not necessarily lead to mass starvation. It would however undoubtedly cause **increased risk of nutritional deficiencies** and their related poor health scores in children. These adversities will reduce the prospects for speedy agricultural and food security recovery for rural food insecure families.

(d) Food Security Positively but Not Significantly Related to Nutritional Health of Children: Despite five years of food insecurity in rural Zimbabwe, children under five have remained in relatively good nutritional health. The proportion of children under five who are clinically underweight is below critical threshold levels in all provinces and no wasting???. Clinically chronic stunting is most evident in children under five especially between 12 months and 23 months old. Most severe incidence of clinical chronic stunting is found in Matebeleland South followed by relatively food secure provinces of Manicaland and Mashonaland Central where the problem is more severe than in the relatively food insecure provinces of Mashonaland East, Masvingo and Midlands. Only Mashonaland West and Matebeleland North are free of chronic stunting. But the trend in incidence of severe underweight is worsening in Mashonaland West and Matebeleland South while stunting is worsening in food insecure areas.

(e) Concentration of OVCs in Food Insecure Provinces is a Cause of Concern

The greatest incidence of orphans and vulnerable children (OVC) is in food insecure provinces of Matebeleland North and South, Masvingo and Mashonaland East. The food secure provinces of Manicaland and Mashonaland East have the lowest concentration of orphans and vulnerable children.

The incidence of food insecurity vulnerability varies significantly across districts and across household typologies

7.2 Specific Recommendations for Protecting the Poor from Food Insecurity

(a) Comprehensive food Aid Procurement Policy to ensure adequate food aid Supplies is key to protecting the vulnerable rural poor from hunger: The food insecure population set to grow from 300,000 to 1.4 million households from June to January 2007 will require procurement of 600,000 tons in food aid over the twelve months period or 50,000 tons per month from April/May/June 2006. At present market prices, the landed cost of procuring this amount of grains is US\$180 million. Due to severe domestic shortages of foreign currency and the multiplicity of priority areas requiring the limited resource, a closer cooperation between Government and its development partners in mobilising the required financial and food resources is called for..

b) Consistent National Policy for Efficient and Effective Targeting of the Hungry with Food Aid and Government Food for Work Programs: Given the limited amounts of food aid supplies to Zimbabwe, there is need to ensure efficiency in targeting the actual food insecure with famine relief and recovery support programs. At present, improved collaboration rather than tacit coordination and information sharing between state and non state agencies is required to ensure complete coverage of needy households. At present relief agencies appear at a loss on how to feed the 1.4 million needy population given projected shortfall in government imports and donor pledges of support. However government has not yet capitalized on domestic potential of private business community to finance commercial imports of grains for the affluent segments

There is need for relief operations to complement food aid with predictable social protection programs and livelihood enhancing strategies to ensure long term food security.

(c) The evidence of nutritional challenges in otherwise food secure provinces shows the importance of nutrition education in improving food security in rural communities. While rural population has shown tremendous resilience in terms of nutritional health of children under five despite incidence of food shortages, there is evidence of stunted growth as well as underweight of clinical concern especially among 12 months to 23 months old children in almost all rural farming settlements in some food secure as well as food insecure provinces. These findings underline the poor state of nutritional education and in particular the lack of its integration into agricultural and food security development programs in agriculture planning. It is recommended that more concerted policy efforts to educate the rural population on nutritional facets of food security and strategies for improving nutritional wellbeing of under-aged children from period between weaning and end of pre-schooling.

7.3 Recommendations for Pro-Poor Development Investments to Improve Livelihoods

7.3.1 Getting a cue from the Poor on Pro-poor Agricultural Strategies for Increasing their Food Security

The report identified pressing agricultural and food security recovery challenges articulated by the poor rural households themselves. These pressing problems have so far not been sufficiently informed the on going recovery programs of government and most NGO communities. In light of this apparent chasm, insights from ZIMVAC 2006 report suggest an urgent need for both government and NGO development community to shift from the current apparent top-down processes of planning recovery interventions and engage seriously and honestly with vulnerable communities in designing food security recovery programs that address felt needs of the poor rather than impose their own perceived fashionable projects.

Specifically, government of Zimbabwe should:

(a) Mitigating the Draft Power Crisis: Shortage of draft power has transformed the rural landscape turning otherwise food secure high potential agricultural districts into food deficit districts while adding to the chronically food insecure rural households that normally are surplus food producers. In most communities 40 to 65% of the population lack access to draft power due to unplanned reduction in per capita cattle holdings associated with drought and high frequency of lumpy expenses associated with HIV/AIDS related funerals and medical expenses. In recent years government has shifted attention to tractor tillage with limited success. Increased state investment in tractor and fuel schemes to enhance capacity of District Development Fund (DDF)'s subsidized tractor service delivery and empower private service providers has failed to mitigate the tillage crisis hampering prospects for agricultural production and food security recovery in the rural areas. There is an urgent need for comprehensive review of the government's agricultural tillage provision strategy to revisit the central role of rebuilding the rural livestock herd to ensure access to affordable draft power by the rural poor.

(b) Improving Agricultural Input Market Access for the Poor is key to Productivity Growth in Food Production: Poor access to inputs remains the major constraint to agricultural growth and food security recovery. Since the reintroduction of intensive state interventions in agricultural input markets smallholder access to agricultural input markets has ironically worsened. Despite the good intentions, state pricing

(c) Provision of Affordable Food for the Vulnerable Populations require serious policy rethinking: So far government of Zimbabwe has implicitly relied on food aid as its key Social Protection mechanism to keep the food insecure from starvation and malnutrition. Yet the nation has not been able to secure adequate food aid from external humanitarian sources nor through its own commercial imports. Every year a significant proportion of the food insecure families and hungry children denied food aid due to shortages of supplies are exposed to the dehumanizing risk and uncertainty about access to their minimal daily intake of food for survival let alone for a health lifestyle. There is an urgent need for government to develop and implement a comprehensive social protection program that actually works to guarantee access to calorie adequate intake to the food insecure vulnerable rural populations in collaboration with humanitarian famine relief organizations.

7.3.2 Pro-Poor Development Policy Response to Livelihood Issues Facing the Rural Poor.

The basic minimal requirement for pro poor development is an efficient marketing system complemented by a supportive policy environment offering pro-poor redistribution and social protection schemes. To this effect Zimbabwe government needs to strike a health balance between the regulatory roles of the state and the efficiency and growth promoting roles of free agricultural commodity and food marketing system in getting the prices right for efficient food and agricultural production by the poor farmers who remain the primary producers of rain fed staple food grains like maize and sorghum.

Further more genuine pro-poor development strategies must take into account the development priorities of the poor in terms of constraints and areas for priority investments. ZIMVAC study shows that priorities of the poor are not fully integrated in the present list of priority investments coming from the state.

(a). Developing public service infrastructure such as schooling, roads, dipping facilities & irrigation is top priority for Pro-Poor Development:

Priority ranking by the poor themselves show strong demand for investment in public infrastructure and agricultural and public health service delivery systems. Yet recent emphasis by government and NGOs has shied away from these rural infrastructure projects focusing primarily on distribution of seeds and fertilizers as a cosmetic way of fast tracking recovery without addressing the underlying infrastructure and institutional challenges that are rendering a once vibrant and food secure rural population now increasingly and chronically food insecure.

(b) Helping the poor out of poverty and food insecurity by helping them implement their own choice of livelihood diversification strategies.

By seeking schooling and training, the poor are clamouring for a way out of dependence on the risky business of growing a poorly paying and highly risk food crop. By prioritizing health facilities, transport infrastructure and irrigation development, the poor are crying out for investments that reduce the risk of illness from debilitating killer diseases, crop failure from drought, yield loss from lack of draft power, and poor farm income prospects due to lack of market access. These are the apparent livelihood enhancing strategies that the rural poor are seeking partners to give them a helping hand to climb out of their poverty and food insecurity. Government and NGOs must take their eye from these efforts of the poor rather than

agricultural populations after a prolonged drought as part of a recovery programs is one serious omission which needs immediate policy attention.

(d) Participatory Policy and Planning key to aligning needs of the poor with efforts of government: Good policy intentions of government and food security recovery programs could benefit from periodic engagement with farmers to inform strategies intended for the rural poor to ensure that the rural vulnerable agricultural populations remain the primary beneficiaries of pro-poor public transfers and social investments.

7.3.3 Measures to enhance role of ZIMVAC in national food security planning require good working relationship between state and non state actors.

Given that government functionaries are one of the key recipients and by design the primary customer of ZIMVAC country studies, internal stakeholders must strive to continue improving the institutional mechanism for balancing the roles of state and non state actors in shaping the ZIMVAC research agenda and deliverables. There is need for national government to play an active role in providing specific guidance on areas of focus to inform domestic programming on sustainable food security protection and livelihood promotion strategies.

Active representation of strategic planning and policy divisions of the Ministry of Agriculture and Rural Development and Public Welfare Ministry is indeed instrumental in improving linkages between ZIMVAC project and agricultural policy making. Over the past few years, there has been a growing demand for ZIMVAC to deliver more strategic and practical-oriented food security protection and livelihood vulnerability mitigation policy research products. These demands are indeed encouraging and require more rigorous research and greater support.

END

8. APPENDICES

8.1 Changed in Number of Food Insecure Rural Households by Districts

District	Population Aug-06	Number of Food Insecurity People in the 2006/07 Marketing Year					% Insecure
		Apr - Jun	Jul - Sep	Oct - Dec	Jan - Mar'07		
Hwange	62,805	2,893	7,221	14,168	22,862	36	
Kariba	38,349	2,008	6,247	9,246	12,287	32	
Mudzi	138,601	14,463	18,078	26,515	42,183	30	
Binga	132,073	5,869	16,180	26,891	38,612	29	
Rushinga	67,134	6,307	7,978	11,864	18,904	28	
Chiredzi	229,952	14,274	22,946	36,047	61,759	27	
Umzingwane	58,813	1,662	4,197	9,319	14,558	25	
Insiza	95,661	2,806	6,826	14,963	23,429	24	
Tsholotsho	122,092	1,118	5,258	17,671	29,117	24	
Bulilimamangwe North	99,655	1,285	4,493	14,076	23,255	23	
Bubi	47,694	2,096	3,698	6,873	10,357	22	
Mberengwa	185,563	2,438	11,427	24,455	41,621	22	
Nkayi	111,118	5,677	10,299	18,636	24,341	22	
UMP	114,719	7,592	10,212	16,265	25,782	22	
Umguza	79,078	3,555	5,631	10,024	16,340	21	
Zvishavane	68,729	1,007	3,930	8,294	14,433	21	
Buhera	225,004	4,336	11,981	27,144	43,966	20	
Gutu	196,115	3,742	10,506	23,894	38,696	20	
Gweru	84,075	4,479	6,906	11,680	16,742	20	
Masvingo	209,339	5,766	12,274	25,046	41,318	20	
Chivi	155,442	951	8,054	15,648	29,854	19	
Gwanda	125,251	2,091	7,386	12,580	23,887	19	
Lupane	97,109	4,079	7,579	13,653	17,966	19	
Mutoko	116,505	6,703	9,020	13,750	21,790	19	
Zaka	184,814	3,306	9,592	21,641	35,424	19	
Bikita	156,894	3,445	8,174	17,315	28,553	18	
Bulilimamangwe South	72,282	726	3,446	6,742	13,363	18	
Chipinge	266,213	5,531	13,049	24,089	48,518	18	
Chirumanzu	67,284	1,956	3,773	7,486	12,300	18	
Guruve	213,412	9,560	14,778	25,676	37,385	18	
Murehwa	151,677	6,473	10,241	18,478	27,456	18	
Mwenezi	138,397	1,640	7,282	12,410	24,687	18	
Centenary	127,456	5,928	9,003	15,134	21,654	17	
Matobo	104,715	1,418	5,785	8,630	18,102	17	
Mt. Darwin	204,936	8,089	12,598	21,857	32,466	16	
Mutare	221,628	2,916	8,910	20,667	36,057	16	
Beitbridge	87,904	981	4,480	5,222	13,132	15	
Chegutu	137,576	5,777	8,545	13,914	21,024	15	
Goromonzi	162,105	6,289	9,723	16,110	23,821	15	
Makoni	247,831	9,664	14,299	24,429	38,178	15	
Marondera	102,869	4,034	6,253	10,470	15,491	15	
Seke	78,948	3,237	4,858	7,968	11,956	15	
Shamva	97,409	3,768	5,822	9,618	14,219	15	
Wedza	71,274	2,405	3,808	6,794	10,658	15	
Chikomba	110,281	3,488	5,235	9,213	15,225	14	
Kadoma	152,346	6,702	9,445	14,143	21,395	14	
Kwekwe	166,306	6,747	11,584	18,546	31,004	14	

8.2 International BMI Classification of adult underweight, overweight and obesity

Classification	BMI(kg/m ²)	
	Principal points	cut-off
Underweight	<18.50	<18.50
Severe thinness	<16.00	<16.00
Moderate thinness	16.00 - 16.99	16.00 - 16.99
Mild thinness	17.00 - 18.49	17.00 - 18.49
Normal range	18.50 - 24.99	18.50 - 22.99
		23.00 - 24.99
Overweight	≥25.00	≥25.00
Pre-obese	25.00 - 29.99	25.00 - 27.49
		27.50 - 29.99
Obese	≥30.00	≥30.00
Obese class I	30.00 - 34.99	30.00 - 32.49
		32.50 - 34.99
Obese class II	35.00 - 39.99	35.00 - 37.49
		37.50 - 39.99
Obese class III	≥40.00	≥40.00

Source: Adapted from WHO, 1995, WHO, 2000 and WHO 2004.

