

2. INTRODUCTION

The August 2002 census, estimated the Zimbabwe's population to be 11.6 million people (Central Statistical Office). Zimbabwe population has been declining in recent years. The growth rate for the last census in 1992 was 3.1% compared to 1.2% in the 2002 census. Population growth in rural areas is the least, estimated at 0.8 % compared to the urban growth rate of 2.1%. The household size has slightly decreased from 4.76 in 1992 to 4.4 in 2002. The general slow down in the growth rate of the Zimbabwe population could be attributed to increased deaths from HIV/AIDS (with prevalence estimated at 34%) , increased permanent and temporary migration of Zimbabweans as it was estimated that over 2 million people could be living outside the country, and, the success of family planning programs

Zimbabwe is 39,079,000 hectares in extent, of which 28.2 % of the land or 11,02,000 ha was commercial farming land before the 2000 land reform, and communal areas occupy 41.8 % of the land. Zimbabwe's economy is generally agro based. In an effort to reduce poverty, promote food security and correct the pre-colonial period inequitable distribution of land, the Government in 2000 embarked on an accelerated land redistribution program under the fast track resettlement program.

This assessment covered the rural areas (the communal, old resettlement, small scale commercial, newly resettlement A1 and farm workers) and was intended to review the national and sub-national cereal production levels, impact on food security for the 2002/03 marketing year as well as how people coped during this same period. The study also made estimations of the food supply situation for the 2003/04 using a combination of secondary data at national level and primary data gathered at household level adjusted for communities recent experience with food aid.

3. METHODOLOGY

3.1. Analytical Framework¹

In March 2003, the SADC Regional VAC adopted a "livelihoods-based vulnerability analysis" (LBVA) framework, based on household surveys and focus group discussions. A livelihood can be defined as the sum of ways in which people make a living. Vulnerability refers to the level of exposure of a household or community to particular shocks (external vulnerability) and their capacity to cope with that shock (internal vulnerability). A comprehensive analysis of livelihoods must cover a wide range of issues, including food, water, shelter, health (including HIV/AIDS), education, protection etc. The main characteristics of the approach are:

- Analysis disaggregated by livelihood zone (LZ) and by socio-economic or wealth group. Livelihood zones are the geographical units of analysis, while the use of wealth groups acknowledges that different people have differing levels of access to assets and income and that these do not necessarily balance each other out within any given area. For Zimbabwe, the livelihood zones used were those identified in a re-zoning exercise conducted in March 2003 by the ZimVAC, and described further in section 4 below. Further disaggregation is carried out where applicable by demographic characteristics, for example to examine the ability of households affected by HIV/AIDS to access food and income, compared to unaffected households.

¹ This section draws heavily on "A Comparison of Emergency and Baseline Vulnerability Assessments", Mark Lawrence, 2003.

- The focus is on how households access food, earn income and their expenditure patterns. The approach acknowledges that access to food is not exclusively related to food production or availability. By assessing access to income in addition to food, the approach also enables us to understand access to services such as healthcare and education.
- Quantitative analysis. This is necessary to cross-check information and ensure that the results that emerge from the data are internally consistent. It also enables us to assess the relative contributions of various sources to the total amount of food and income, and therefore to estimate the overall effects of various shocks.
- Analysis of baseline access as a means of assessing vulnerability. A benchmark is needed with which to compare the likely changes in access to food and income as a result of actual or predicted problems. Often, LBVA uses a “normal year” analysis. For Zimbabwe, it was decided to use the last marketing year (April 2002 – March 2003) as the baseline, while acknowledging that this was a far from a normal year. Subsequently, changes in each source of food and income in the next 12 months are estimated or actual figures are used (e.g. for the current harvest) where those are available. Further details of how these estimates were derived for each source of food and income are presented in Appendix C. The use of 2002/03 as a baseline year also enables us to gain a better understanding of how households actually coped over the last year, and how food insecurity was related to HIV/AIDS and access to healthcare and education.

3.2. Data Collection and Analysis

3.2.1. Data Collection Methodology

The sampling frame for the April 2003 survey was determined by the Central Statistical Office (CSO), using a random sampling technique based on “enumeration areas”² (EAs). The August 2002 population census data was used for drawing out a sample proportional to population size by province and by rural sector (i.e. communal, old and new resettlement, large-scale commercial farms and small-scale commercial farms). To ensure coverage of all Livelihood Zones, a minimum of 2 sites per zone were selected. A total of 150 sites were sampled. The distribution of sites by sector and by province is indicated in Table 1 and Figure 1 below.

Province	Rural Population August 2002	Communal land	Commercial Farms & Fast Track Resettlement	Small Scale Commercial Area	Old Resettlement	Total No of Sites	No. of Livelihood Zones
Manicaland	1,325,046	21	2	0	3	26	8
Mash Central	904,760	12	3	0	1	17	4
Mash East	1,004,146	15	2	1	1	19	4
Mash West	902,190	11	6	1	3	20	6
Mat North	601,987	19	1	0	1	22	8
Mat South	586,733	10	1	0	1	12	4
Midlands	1,121,539	10	1	0	0	11	5
Masvingo	1,194,926	19	1	1	3	24	4
Zimbabwe	7.641.327	116	17	3	14	150	

Within each EA (Figure 1), one village was randomly selected for inclusion in the survey. Households within each village were randomly sampled using the transect walk technique³. It was

² An enumeration area is a geographical unit within a ward covering one or more villages, which are comprised of 80 to 120 households

³ See Appendix D for details of the sampling methodology.

intended to sample a minimum of 16 households from each of the 150 sites, giving a total sample size of 2,400 households. However, time constraints prevented some ZimVAC teams from completing the target number of interviews. In addition some large-scale, small-scale and A2 farmers were excluded from the analysis, as the sample for these groups was too small to draw conclusions. As a result, a total of 2,257 interviews were used for the final analysis.

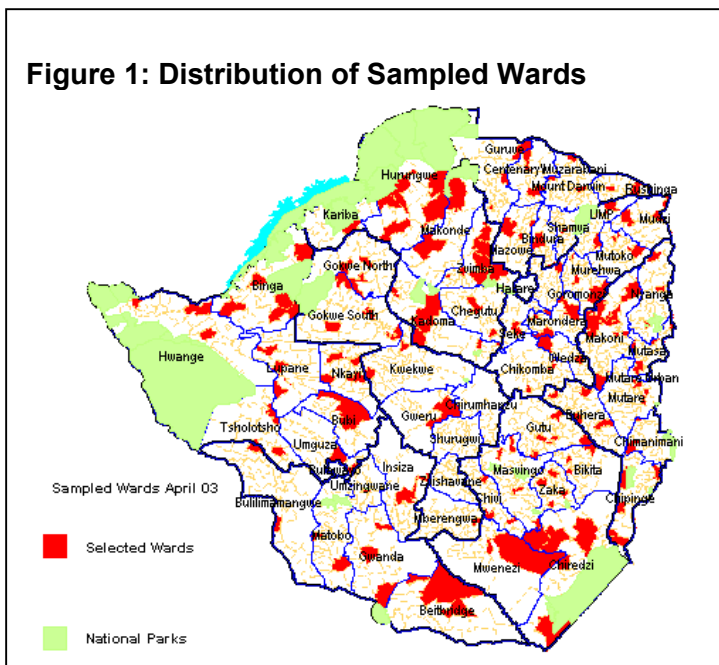
3.2.2. Survey Instruments and Logistics

The assessment's instruments⁴ consisted of (i) a household questionnaire covering household demographics, asset ownership, food availability and access for 2002/03 and 2003/04, agricultural inputs, consumption patterns, coping mechanisms, health and education; and (ii) a community questionnaire looking at food availability, market prices and coping strategies.

The questionnaires were administered by 15 teams of 4 researchers each representing Government, NGOs and the UN⁵ agencies. Each team used Personal Digital Assistants (PDAs) to record data from household interviews, which reduced the time required for data entry.

3.2.3. Data Analysis⁶

Data analysis was undertaken using SPSS software. To determine food security conditions for 2002/03 and 2003/04 consumption years, data was analyzed by province, agricultural sector and livelihood zone. Linkages between food security and health, education and HIV/AIDS were also explored, with technical support from UNAIDS, UNICEF, WHO and the SADC RVAC. Extrapolation of the results to district and national level was then done by linking Livelihood Zone data with CSO August 2002 ward-level census data. The community interviews were analyzed separately, and then linked to household data to provide a complete picture.



⁴ Copies of the Household- and Community-level survey instruments are reproduced in Appendix A and B.

⁵ See Appendix F for the list of participants.

⁶ See Appendix C for the details of how analysis was done.

4. LIVELIHOOD ZONE MAP AND DESCRIPTION

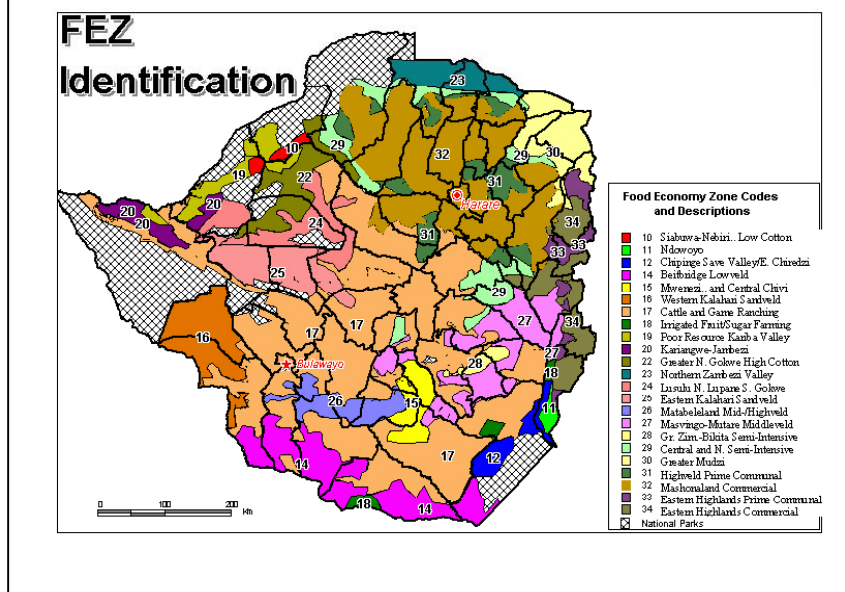
Zimbabwe's Livelihood Zones were first delineated and described by Save the Children as part of the "Risk Map" project in 1996. The 1995/96 report divided the country into 26 livelihood zones. The delineation of the zones was updated in March 2003 by the ZimVAC to take into account socio-economic changes, in particular the "Fast Track" land reform programme undertaken by the Government from 2000 to 2002. In the delineation, livelihood zones which were formerly grouped together as large-scale commercial farming areas are now much more complex, comprising varying sizes of commercial farms inter-mixed with small family subsistence farms. The commercial farm area affected by the fast-track resettlement programme was substantially large, i.e. roughly 11 million hectares (or 33% of the total agricultural land in Zimbabwe).

Broadly speaking, the zones are based on land classification (communal or subsistence farming, old commercial farming, newly resettled farms, i.e. A1 (communal resettlement) or A2 (self contained farms) Model, small-scale commercial farming, irrigated estates or old resettlement area). In commercial farming areas, livelihoods are based on farming employment. In communal and resettlement areas, livelihoods are more varied and based on different combinations of food and cash crop production, and livestock holdings. In the new resettlement areas, most of the A2 or self-contained farms have been rezoned as commercial farming areas where livelihoods are based on wages; the Fast Track resettlement model A1 has been generally classified with the neighbouring communal areas, as livelihoods are assumed to be similar. Agro-ecological zones are also factored in when determining the livelihood zones. Zimbabwe's agro-ecological zones are numbered from I to V, with zones I and II being prime arable land, zones IV and V having low rainfall and being more suited to extensive farming and livestock, and zone III being an intermediate area. Livestock holdings, however, are also related to wealth and therefore are not strongly correlated with agro-ecological conditions.

Combining these factors and considering livestock, cereal crops and cash crops sales, sources of income and others, Zimbabwe was re-delineated into 24 livelihood zones (Figure 2 below).

The poorest zones are found in peripheral parts of the country in the north-east (Greater Mudzi), extreme north and west (Zambezi/ Kariba Valley), and south of the country. Elsewhere, agricultural production and income are normally highest in the highveld parts of the Mashonaland Provinces, and parts of northern Manicaland. These areas are also home to the highest concentration of commercial farms and Fast Track resettlement communities. In the Matabeleland Provinces and in southern parts of Midlands and Masvingo provinces, levels of crop production decline, and livestock become more important.

Figure 2: Livelihood/ Food Economy Zone Map for Zimbabwe



5. REVIEW OF NATIONAL AND SUB-NATIONAL LIVELIHOOD PATTERNS AND FOOD SECURITY SITUATION FOR 2002/03

5.1. Review of 2002/03 Crop Production and Food Security

Cereal production in 2001/02 for the 2002/03 marketing year was comparable to some of the lowest production levels in the 1990s. A total of 711,000 MT of cereals was produced of which 498,540 MT was summer maize, 175,000 MT wheat, 37,300 MT sorghum and millet; and about 10,000 MT was early summer and winter maize. Considering low carryover stocks of 184,000 MT from an equally poor 2000/01 production season, the total gap for the 2002/03 marketing year to be covered by imports was about 1.4 million MT.

To fill that gap, at least 1.323 million MT of cereal was imported between 1 April 2002 and 31 March 2003. The Government moved in the bulk of the maize. Of these imports, 72 percent were brought in through the Grain Marketing Board (GMB), 25% by the World Food Programme (WFP); and the remainder was imported by NGOs and private sector parallel pipelines. This gave an end of year marketing surplus of 14,204 MT of cereals. However, not all of the imported grain was consumed by the end of the marketing year. As a result, the country ended up with estimated carry-over stocks of 127,940 MT. Of this amount, about 61,966 MT were GMB stocks and the remaining 62,000 MT was food aid (Table 2).

Table 2: Zimbabwe Cereal Balance as at the end of April 2003

	Maize	Millets	Wheat	Rice	All Grain
A. Potential Domestic Availability	515,581	38,300	342,232	7,566	903,679
B. Annual Requirements (human and livestock consumption)	1,753,600	174,000	336,400	13,697	2,277,697
C. Cross Substitution	(135,700)	135,700	0	0	0
D. Domestic Balance (DB) (A minus B)	(1,238,019)	(135,700)	5,832	(6,131)	(1,374,018)
E. Total Imports	1,323,494	0	49,728	0	1,373,222
F. Stocks available as at end of March 2003	91,775	200	28,400	7,566	127,941
G. Closing Balance after Imports (March 2003)	(50,225)	15,000	55,560	(6,131)	14,204
Assumptions					
Est. mid-year population	11,600,000	11,600,000	11,600,000	11,600,000	11,600,000
Est. Human Annual Consumption Requirement. (Kgs/Person)	121	15	29	1	166

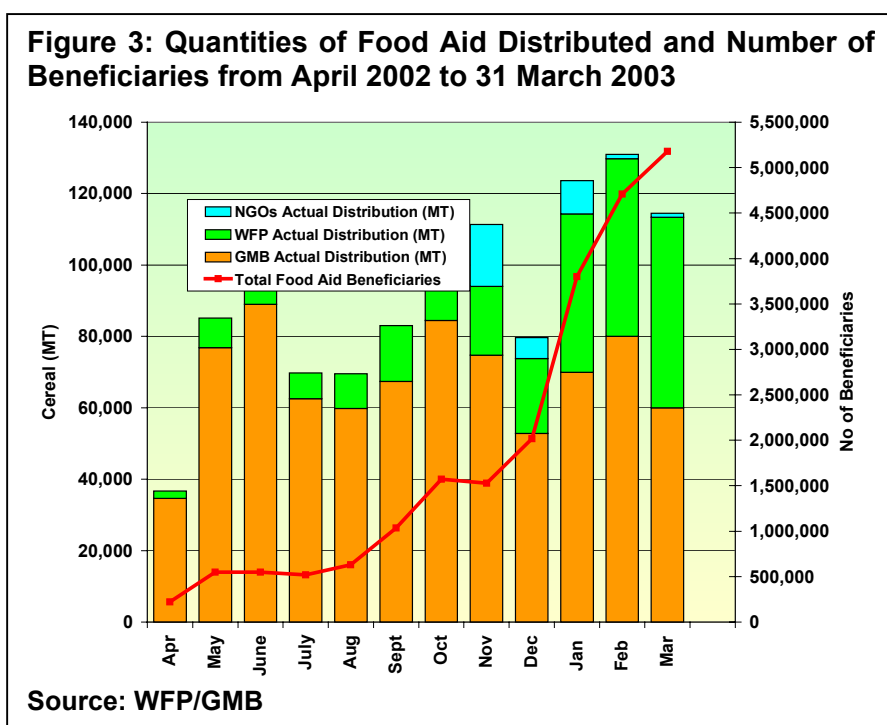
The total amount of maize reported to have been available during the marketing year was in excess of human consumption requirements. However, as indicated in the December 2002 ZimVAC assessment report, there is still a discrepancy between the reported availability of grain at the national level and reported and observed availability at community level. Possible explanations for this discrepancy could be that there was an error in the reported quantities imported, or that the surplus maize may have been used in the livestock and brewing industries, or that it may have been exported.

5.2. Food Aid Distributions in 2002/03

Data provided by WFP indicates that, at the peak of food aid distributions, i.e. in March 2003, a total of about 5.2 million people – all in rural areas and almost all in communal areas - benefited from WFP and NGO food assistance (general rations). This accounts for about 88% of the 5.9 million rural people identified as being in need of food aid in the ZimVAC assessment conducted in August 2002. However, as indicated in Figure 3 below, the food aid caseload was far below the above-mentioned figure for most of the year, with 1 million beneficiaries being reached by September 2002, 2 million by December and 3.8 million by January 2003. Under general food rations programmes, a total of 290,412 MT of cereals was distributed between April 2002 and March 2003 - of which 261,049 MT was from the WFP pipeline, and the remainder from

complementary NGO pipelines. Distributions covered 18 districts in April 2002, and had expanded to all 57 districts by March 2003.

The number of people estimated to be in need of food aid as per the August and December ZimVAC assessments was based on a total population estimate of 13.6 million people – a figure which was commonly used prior to the August 2002 Census. The results of the 2002 Census, however, indicated an official population estimate of 11.7 million. Had the ZimVAC based its analysis on this population figure, the number of people in need of food aid - at the end of the marketing year - would have been 4.65 million in communal areas and 0.43 million in commercial farming areas. The number of potential beneficiaries would suggest that food aid was over-supplied to communal areas by the end of the marketing year. However, it should be highlighted that grain availability on the market was very limited. Thus, even households who had sufficient income to purchase their own food found themselves with no other means of accessing grain than through food aid programmes.



5.3. Commercial GMB Maize Distributions in 2002/03

The Government, through the GMB, distributed the bulk of the maize grain to meet the 2002/03 marketing year food deficits. The GMB distributed 75% of the 1.2 million total cereals in the country, while WFP and NGOs distributed about 25% of the grain. Most of the GMB grain was allocated to Harare (29%) and Matabeleland North Province, including Bulawayo (27% of total quantities allocated). The least allocations went to Matabeleland South (3%) as the province benefited most from food aid.

When all pipelines are considered (GMB, NGOs and WFP pipeline), most of the grain was allocated to Matabeleland North province, including Bulawayo (23% or 196 kgs/person) followed by Harare (22% or 134 kgs/person) and Masvingo province (i.e. 1.5% or 101 kgs per person). The smallest amount of maize was allocated to Mashonaland Central and West provinces, which coincidentally had better harvests in 2002 (Table 3 below).

Table 3: Cereal Distribution by Province by Source in 2002/03 Marketing Year

Province	Cereals Distribution in MT				% Distributed by Source			% Allocation by Province	Population Number	Allocation Kgs/Capita
	GMB	NGOs	WFP	Total	GMB	NGOs	WFP			
Harare	254,639	981		255,620	99.6	0.4	0.0	21.9	1,903,510	134.3
Manicaland	65,146	4,674	40,803	110,623	58.9	4.2	36.9	9.5	1,566,889	70.6
Mash Central	30,442	1,757	29,016	61,215	49.7	2.9	47.4	5.3	998,265	61.3
Mash East	58,792	893	31,770	91,455	64.3	1.0	34.7	7.9	1,125,355	81.3
Mash West	59,270	2,211	13,470	74,951	79.1	3.0	18.0	6.4	1,222,583	61.3
Masvingo	60,246	6,598	66,677	133,521	45.1	4.9	49.9	11.5	1,318,705	101.3
Mat North	239,773	6,390	24,570	270,733	88.6	2.4	9.1	23.2	1,378,146	196.4
Mat South	30,067	3,444	23,045	56,556	53.2	6.1	40.7	4.9	654,879	86.4
Midlands	75,932	2,415	31,698	110,045	69.0	2.2	28.8	9.4	1,466,331	75.0
Grand Total	874,307	29,363	261,049	1,164,719	75.1	2.5	22.4	100.0	11,634,663	100.1

Source: GMB, WFP, NGOs

5.4. Macroeconomic Situation, 2002-03

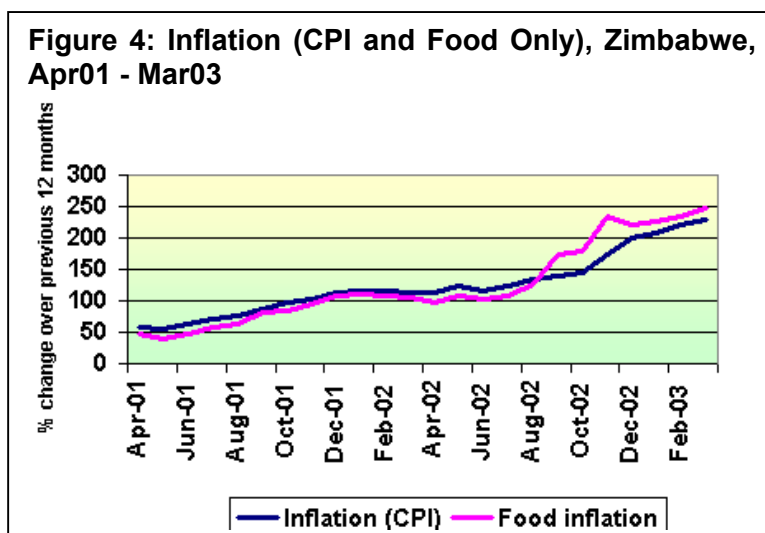
Over the last 12 months, the economic decline in Zimbabwe that began in 1997 continued and gathered pace. The cumulative decline in GDP over the last three years reached 24%⁶, and the level of human development in the country has fallen back to the level of the mid-1970s⁷. The macroeconomic situation has a bearing on livelihoods in four broad respects, influencing as it does:

- the levels of employment and formal income
- the prices of goods and services, and therefore real income
- the ability of the government to pay for essential imports such as grain, fuel and electricity
- the availability and quality of public service provision, especially healthcare, education and water.

5.4.1. Inflation and Unemployment

Inflation for the 12 months ending in March 2003 reached 228%, with inflation for food items alone reaching 247.9%⁸. These rates have increased substantially since the last VAC assessment (December 2002).

The inflation rate has the effect of substantially eroding households' purchasing power, particularly in sectors where wage rates are rigid and re-negotiated infrequently. As a result of the squeeze on income, particularly in a year when less food could be sourced from harvests, many households purchased a less diverse basket of food and non-food items, and accessed fewer services.



⁶ Sources: Economist Intelligence Unit, Zimbabwe Country Profile 2002; Minister of Finance, Budget. Presentation, November 2003.

⁷ Source: UNDP, Human Development Report 2002.

⁸ Source: Central Statistical Office.

The Government put in measures to control the impact of the inflation on consumers by instituting price controls on basic goods and services. However, some of these commodities were in short supply and were found on the parallel markets at much higher prices than they were before the price controls.

With nominal interest rates of around 60%, there was a negative real interest rate by the end of March of -168%. This has discouraged savings, and encouraged those with cash instead to invest in high value luxury goods, property, and the stock market, and to engage in speculative borrowing.

Formal sector employment levels continued to drop over the last year, with company closures and the resettlement of most large-scale commercial farms being responsible for most job losses.

5.4.2. Foreign Exchange and Food Imports

Until 1 st March 2003, the Government maintained the fixed exchange rate of Z\$55:US\$1 which had been in place since October 2000. However, declining foreign exchange revenues from key sectors such as tobacco and other commercial agriculture, mining, manufacturing and tourism, combined with sustained or increased demand for imports such as food, fuel, electricity and inputs for manufacturing and mining have resulted in shortages of foreign exchange. At its weakest point in November 2002, the parallel exchange rate dropped to over US\$1:Z\$2,000, but since rose to around US\$1:Z\$1,350 in April 2003. The government attempted to capture foreign exchange revenues by requiring exporters to hand over 50% of all foreign exchange revenues to the Reserve Bank of Zimbabwe at the official exchange rate. However the need for exporters to source the foreign currency for imported inputs at 20 to 35 times that cost on the parallel market created some serious viability problems.

As part of its National Economic Recovery Programme (NERP), the government effectively devalued the currency in March 2003 to a rate of US\$1:Z\$824. So far this does not appear to have significantly increased foreign exchange receipts. There are still shortages of essential imported goods such as food and fuel, and increasingly of electricity.

5.4.3. Government Finances and the Budget Deficit

The Government's budget deficit was equivalent to 14.1% of GDP in 2002,⁹ as additional spending on heavily subsidized cereal imports and agricultural inputs to support the land reform programme added to existing high levels of government expenditure. In addition to the shortages of cereals on the market, the government's difficulty in adequately funding the provision of basic services such as education and healthcare became increasingly apparent during the year. Problems with infrastructure, supplies (including essential drugs and outreach services), and staffing levels in the public sector have had knock-on effects on household livelihoods and quality of life.

Government has largely financed its spending through a combination of domestic borrowing and increased money supply. Domestic and foreign debt and arrears now stand at US\$5.9 billion, or 227% of GDP. The long-term cost of that borrowing is a shadow that will hang over the economy for a long time.

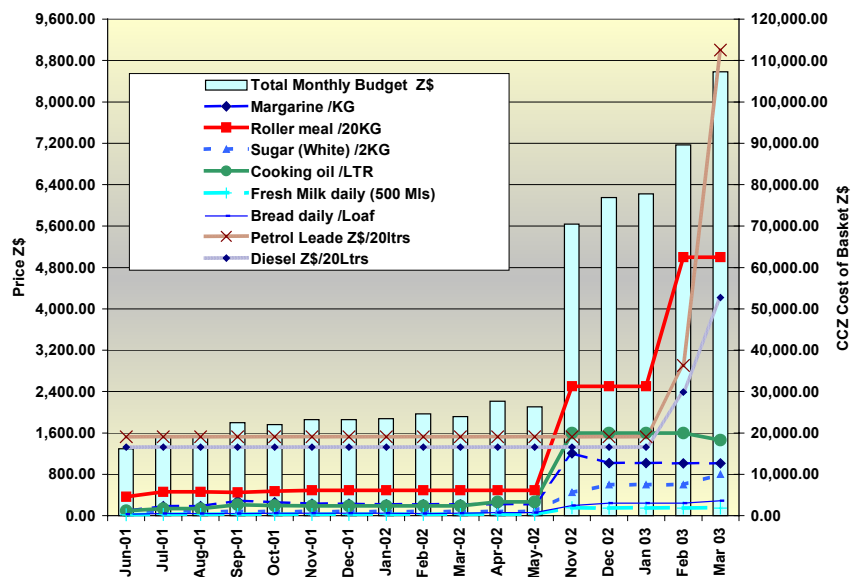
⁹ Source: Minister of Finance, Budget Presentation, November 2002.

5.5. Market Price Performance

In a bid to protect consumers in October 2001, the Government gazetted price controls for basic consumer goods such as cooking oil, sugar, bread and wheat flour, maize and maize meal, washing soap and toothpaste, as well as agricultural inputs such as maize seed and fertilizers. The Government froze wage increases in late 2002, but later in April 2003, gazetted a threefold increase in the minimum wage for agricultural workers and for commerce and industry following 90% and 350% increase in the price of fuel.

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Figure 5: Comparison of Retail Prices of Basic Commodities



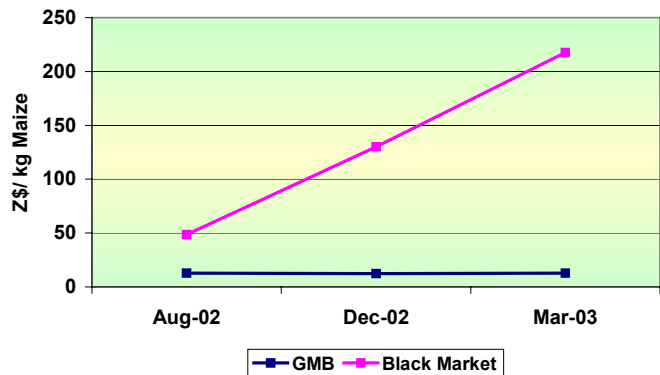
Source: Consumer Council of Zimbabwe

Price controls have led to a general shortage of commodities on the market and increased prices for most commodities (Figure 5).

There have been wide variations between the official controlled price and the parallel market price for the main staple food - maize. The parallel market maize price has risen from being 4 times higher than the controlled price in August, to 10 times higher in December, and 20 times higher in March (Figure 6 below).

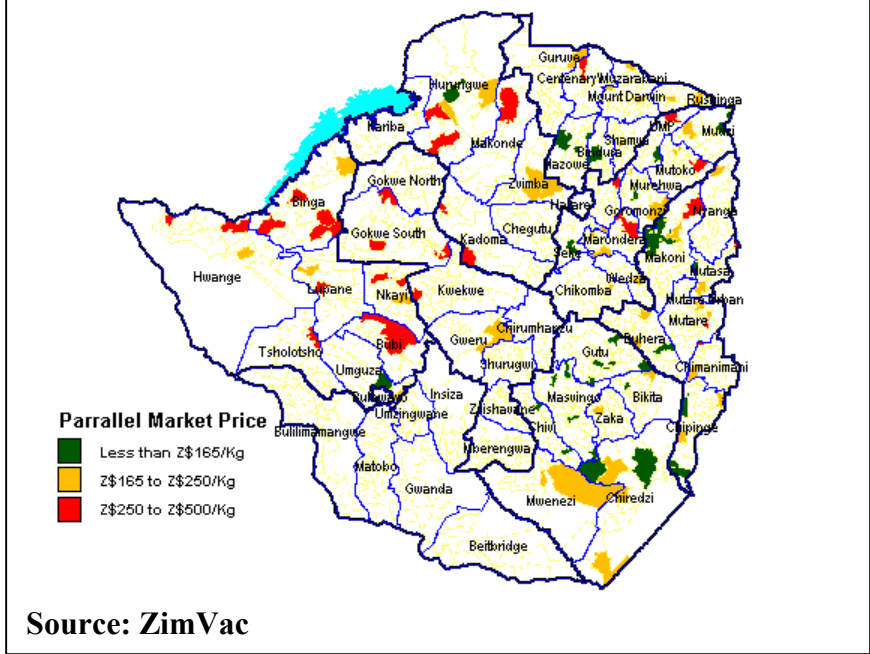
In the April 2003 ZimVAC survey, the average price for a 50kg bag of maize from the GMB was found to be Z\$634, or Z\$12.68 per kg. The price for maize from the parallel market was on average Z\$217.50/ kg. There were also wide variations among parallel market prices across the country, with the lowest price being Z\$148/kg and the highest being Z\$450/kg. Figure 7 below indicates differences in parallel market maize prices across the country as of April 2003.

Figure 6: National Average Price of Maize (Z\$/kg), August 2002 - March 2003 (source: ZimVAC)



Source: ZimVac

Figure 7: Parallel Market Maize Prices by Ward for April 2003



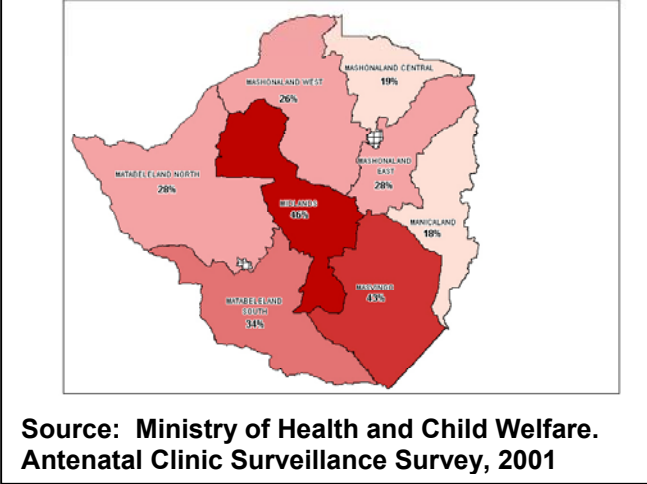
5.6. IMPACT OF HIV/AIDS ON FOOD SECURITY

Zimbabwe has the third highest HIV/AIDS rates in the whole world. According to UNAIDS (2001), Zimbabwe has roughly 2,000,000 adults living with AIDS. This accounts for almost 34% of the adult population. There are reported to be 780,000 orphaned children in the country as a result of AIDS. During 2001, almost 200,000 deaths were thought to have occurred due to AIDS (UNAIDS 2002). The bare statistics on HIV/AIDS do not reflect the wider impact it has on societies, i.e. the disastrous consequences for those left living, keeping in mind that there are many more affected than infected people.

IFAD has suggested that the HIV epidemic is disproportionately affecting agriculture compared to other sectors (2001). De Waal and Tumushabe argue that this is not only because HIV rates are higher among workers in the agricultural sector, but also because the structure of the agricultural sector, especially the smallholder sub-sector, is such that it is much less able to absorb the impacts of the human resource losses associated with the epidemic (2003).

De Waal and Tumushabe have also argued that, combined with drought and the food crisis, HIV/AIDS is creating a ‘new variant famine’ in southern Africa. The ‘new variant famine’ hypothesis posits that southern Africa is facing a new kind of acute food crisis in which there is no expectation of a return to either sustainable livelihoods or a demographic equilibrium.

Figure 8: HIV/AIDS Prevalence in Zimbabwe by Province



The results of the most recent antenatal surveillance survey conducted in Zimbabwe during 2001 indicate that 30% percent of all pregnant Zimbabwean women are HIV-positive. HIV infection levels among pregnant women attending antenatal clinics differ among provinces, ranging from an estimated 19 % in Mashonaland Central to 46 % in the Midlands province (Figure 8). In addition, prevalence levels differ according to sector of residence. Indeed, HIV prevalence rates were generally higher in farming and resettlement areas (approximately 40 %) compared to communal areas (31 %) (Ministry of Health, 2001).